

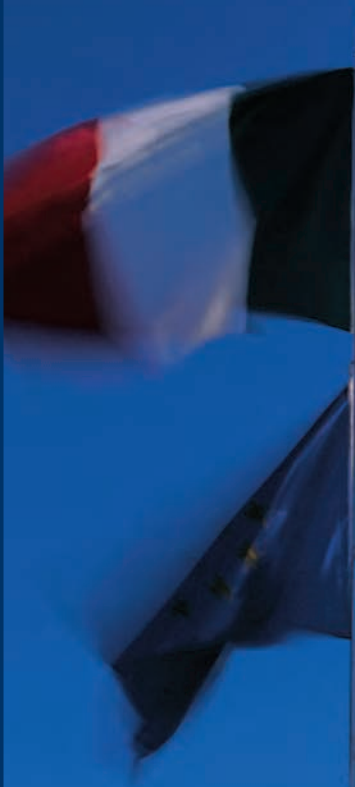


**Integrated
plumbing**

**and heating
solutions**

Catalogue 2023

Heating and plumbing | Edition EN01



FIV 

FIV 

company

FIV srl was founded in 1984, thanks to the manufacturing experience of its founders.

Their innovation within the field of manufacturing, paired with their continuous search for the most suitable solutions for customers, has allowed the range of products that they offer to grow during this period so much so that they create complete and exclusive system solutions.



To clearly highlight the proper value of a product made in Italy, FIV maintains the 100% Made in Italy certification awarded by the Institute for the Protection of Italian Producers.



certifications

The certifications of the innovative company management system according to ISO 9001 and 14001 provide a further guarantee for our customers. With the new 45001 certification, starting from 2018, FIV can officially certify their commitment to accident prevention and protection of health and safety at work.

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 71884-0210-AG-ITA-SINCERT Initial certification date: 13 February 2010 Valid: 24 February 2022 – 13 February 2025
 Expiry date of last certification cycle: 13 February 2022
 Date of last re-certification: 15 December 2021

This is to certify that the management system of
F.I.V. - FABBRICA ITALIANA VALVOLE S.r.l. - Sede
 Via Gavardina di sopra 86 - 25011 Ponte S. Marco di Calcinato (BS) - Italy
 and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Environmental Management System standard:
ISO 14001:2015

This certificate is valid for the following scope:
Design and manufacture (through turning, assembly and packing) of ball valves and ballcocks, press fittings, tightening fittings, check valves, hydro-thermal-sanitary and gas distribution systems. Sale of lock shields-valves and accessories, safety valves, foot valves, automatic air valves, pressure reducers, gate valves and flexible pipes (IAF 18, 29)
 Evaluated according to the requirements of Technical Regulations RT-09

Place and date:
 Vimercate (MB), 24 February 2022

For the issuing office:
 DNV - Business Assurance
 Via Energy Park, 14 - 20871 Vimercate (MB) - Italy

Claudia Barocci
 Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.
 ACCREDITED UNIT: DNV Business Assurance Italy S.r.l., Via Energy Park, 14 - 20871 Vimercate (MB) - Italy - TEL: +39 68 99 905 - www.dnv.it

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: CERT-01295-96-AQ-ML-SINCERT Initial certification date: 19 November 1996 Valid: 22 October 2021 – 21 October 2024

This is to certify that the management system of
F.I.V. - FABBRICA ITALIANA VALVOLE S.r.l. - Sede
 Via Gavardina di sopra trav. III, 86 - 25011 Ponte S. Marco di Calcinato (BS) - Italy
 and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Quality Management System standard:
ISO 9001:2015

This certificate is valid for the following scope:
Design and manufacturing of ball valves and ballcocks, fittings, check valves, hydro-thermal-sanitary and gas distribution systems. Sales of lockshields-valves and accessories, safety valves, foot valves, automatic air valves, pressure reducers, gate valves and flexible pipes (IAF 18)

Place and date:
 Vimercate (MB), 21 October 2021

For the issuing office:
 DNV - Business Assurance
 Via Energy Park, 14 - 20871 Vimercate (MB) - Italy

Zeno Bellani
 Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.
 ACCREDITED UNIT: DNV Business Assurance Italy S.r.l., Via Energy Park, 14 - 20871 Vimercate (MB) - Italy - TEL: +39 68 99 905 - www.dnv.it

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 1009047243-MSC-ACCREDIA-ITA Initial certification date: 28 February 2018 Valid: 25 February 2021 – 24 February 2024

This is to certify that the management system of
F.I.V. - FABBRICA ITALIANA VALVOLE S.r.l. - Sede
 Via Gavardina di sopra trav. III, 86 - 25011 Ponte S. Marco di Calcinato (BS) - Italy
 and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Occupational Health and Safety Management System standard:
ISO 45001:2018

This certificate is valid for the following scope:
Design and manufacture (through turning, assembly and packing) of ball valves and ballcocks, fittings, check valves, hydro-thermal-sanitary and gas distribution systems. Sale of lockshields-valves and accessories, safety valves, foot valves, automatic air valves, pressure reducers, gate valves and flexible pipes (IAF 18, 29)

Place and date:
 Vimercate (MB), 16 May 2021

For the issuing office:
 DNV - Business Assurance
 Via Energy Park, 14 - 20871 Vimercate (MB) - Italy

Zeno Bellani
 Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.
 ACCREDITED UNIT: DNV G. Business Assurance Italia S.r.l., Via Energy Park, 14 - 20871 Vimercate (MB) - Italy - TEL: +39 68 99 905 - www.dnv.it

products conformity certificates

Products are delivered after a Quality Control process which corresponds to the needs of a customer and the certification bodies of a product. The certificates issued by different institutes for certifying products guarantee compliance with the main technical standards in the plumbing sector.



Germany



Germany



Germany



Europe/Italy



France



France



Poland



PRODUKT Z ATESTEM

Poland



Ukraine

Integrated plumbing and heating solutions

1



page 8

**Multi-layer distribution
systems for water**

3



page 94

**Manifolds, cabinets
and mixing groups**

2



page 66

**Floor and wall
heating and cooling
systems**

4



page 176

**Regulation
and control**

5



page 190

**Connection and control
of heating units**

8



page 298

**Ball valves
for gas**

6



page 214

**Heating unit components,
fittings and flexible pipes**

9.5 bar
20 °C
44 Nm

page 326

**Technical
attachments**

7



page 250

**Ball valves, check valves,
bibcocks and under sinks
for water**

X PEXb/AL/PEXb 20x2 Tmax=95°C DWGW DW8501E

X2 (MARCATURA ALL'INTERNO)
mm L.10/91 DPR 412/93 #LR1#



04 - DW8501CS0372 **kiwa**

FIUPEX Ø15X2 (MARCATURA)
SPessore 6mm L.10



LBP
20x2
M-B-U-M-E
MOD.ITALY 2082

FIIV FIUPEX PEXb/AL

15/06/2020 15:22 3 m
Made in Italy



Xb 20x2 Tmax=95°C DWI

ITURR ALL'INTERNO)
31 DPR 412/93 #LR1#

Multi-layer distribution SYSTEMS FOR WATER 1



page 12

**FIVPex
multilayer pipe
PEX-AI-PEX**



page 45

**FIVPress
modular fittings
to tighten**



page 16

**FIVPert
multilayer pipe
PE-RT/AI/PE-RT**



pages 49 - 52

**Monoblocco and
Monoblocco 2.0
fittings for
copper pipe**



page 19

**FIVPress
press fittings**



page 53

**Monoblocco
fittings for plastic/
multilayer pipes**



page 29

**FIVPress
under-plaster
valve**



page 56

**Integrated
fittings to
tighten**



page 31

**FIVPress LBP
Leak Before Pressed
press fittings**



page 61

**Equipment
for Fivpress
system**



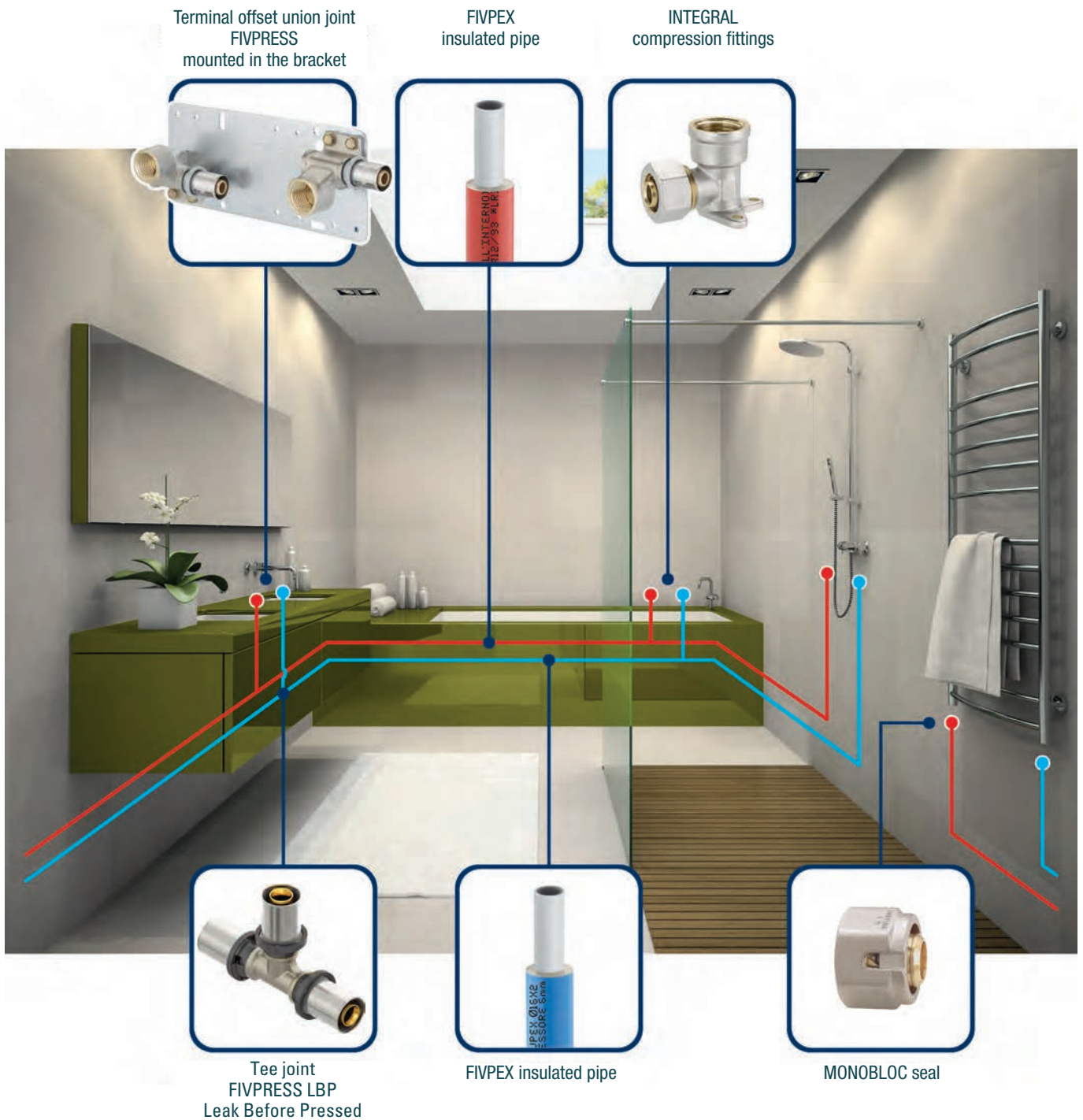
page 42

**FIVPress LBP
Leak Before Pressed
under-plaster
valve**



FIVPRESS

multilayer pipe and fittings
for plumbing systems



a complete system

APPLICATION SCOPE

FIVPRESS is a simple and innovative system, in multilayer pipes and special fittings, for:

- Heating systems
- Hydraulic-Plumbing systems
- Chilled water air conditioning systems
- Compressed air systems

FIVPEX PIPE

Crosslinked polyethylene and aluminium multilayer pipe (PEX/AL/PEX)

FIVPERT PIPE

Polyethylene with high resistance to high temperatures and aluminium multilayer pipe (PE-RT/AL/PE-RT)

FITTINGS

Available in two versions (press-fit and tightening), their wide range make system creation extremely practical.

system properties

RESISTANT TO TEMPERATURES UP TO 95 ° C AND WORKING PRESSURES UP TO 10 BAR

LIMITED LINEAR THERMAL EXPANSION AND LOW PRESSURE DROPS

DIELECTRIC INSULATION IN THE PIPE-FITTING JOINTS THANKS TO THE PLASTIC BUSH HOLDER RING NUT

OXYGEN BARRIER AND CHEMICAL RESISTANCE

The aluminum layer makes the pipes impermeable to oxygen. The FIVPEX and FIVPERT pipes resist to “acid” and “basic” environments in chased installations, but must be protected against any contact with bitumen, grease, solvents and oils. The fittings must be protected with appropriate coatings when used in environments exposed to the danger of corrosion, such as in spaces with permanent humidity or in the presence of aggressive gases, in underground laying in direct contact with cement, mortar or lime-based binders.

INSULATION WITH CLOSED-CELL EXPANDED POLYETHYLENE SHEATH

For the distribution of hot and chilled water (prior verification in compliance with UNI EN ISO 12241, for condensate risks).

FITNESS FOR USE WITH DRINKING WATER

Compliance with Italian Decree of the Ministry of Health No. 174 (06/04/2004) and the UNI EN ISO 21003 standard.

FIRE REACTION CLASS (EN 13501-1)

E₁ (multilayer pipes); B₁ - s2, d0 (insulating sheath).

UV PROTECTION

The FIVPEX and FIVPERT pipes must be protected from direct exposure to sunlight.

system certifications


SYSTEMS CONSISTING OF FIVPEX PIPE AND PRESS FITTINGS

 System certification (in compliance with UNI EN ISO 21003 standard) in combination with FIVPress fittings in sizes DN 16, 20, 26, 32, 75.
System certification (in compliance with UNI EN ISO 21003 standard) in combination with FIVPress LBP fittings in sizes DN 16, 20, 26, 32.



System certification in combination with FIVPress fittings in sizes DN 16, 20, 26, 32, 75.
System certification in combination with FIVPress LBP fittings in sizes DN 16, 20, 26, 32.

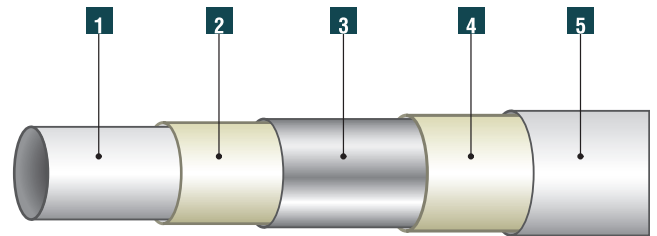
SYSTEMS CONSISTING OF FIVPERT PIPE AND PRESS FITTINGS

 System certification (in compliance with UNI EN ISO 21003 standard) in combination with FIVPress fittings in sizes DN 16, 20.
System certification (in compliance with UNI EN ISO 21003 standard) in combination with FIVPress LBP fittings in sizes DN 16, 20.



System certification in combination with FIVPress fittings in sizes DN 16, 20.
System certification in combination with FIVPress LBP fittings in sizes DN 16, 20, 26, 32.

All the above systems comply with Italian Ministerial Decree 174/2004 (Drinking Suitability, for the distribution of water intended for human consumption).



See FIVPress System introductory page (page 11) for details

Components

- | | |
|---|---|
| 1 | Inner pipe in PE-X crosslinked Polyethylene |
| 2 | Adhesive connection layer |
| 3 | Aluminium pipe (minimum thickness 0.2 mm) |
| 4 | Adhesive connection layer |
| 5 | Outer pipe in PE-X crosslinked Polyethylene |

CONSTRUCTION CHARACTERISTICS AND PERFORMANCE

The FIVPEX pipe is produced by constructing a layer of aluminum inside two layers of polyethylene and proceeding with the cross-linking process. This combines the advantages of metal (dimensional stability, high resistance to temperature and pressure) with those of plastic (easy working, good chemical inertia). The quality of materials used allow the FIVPEX pipe to achieve the highest performance levels among products in its sector.

COMPLIANCE WITH STANDARDS

The FIVPEX pipe is compliant with UNI EN ISO 21003 standard (class 2/10 bar, class 5/10 bar) and with D.M. 174/2004.

CONDITIONS FOR USE ACCORDING TO THE CLASSES OF APPLICATION IN COMPLIANCE WITH STANDARD UNI EN ISO 21003 (SEE THE TECHNICAL ATTACHMENTS).

EN TECHNICAL CHARACTERISTICS OF FIVPEX PIPE

Minimum aluminium thickness 0.2 mm
 Coefficient of linear expansion: 0.026 mm/m °C
 Thermal conductivity: 0.45 W/m °C
 Minimum curvature radius: 5 x Ø pipe
 Surface roughness of internal pipe: 7 µm
 Fire reaction class: E_L (EN 13501-1)

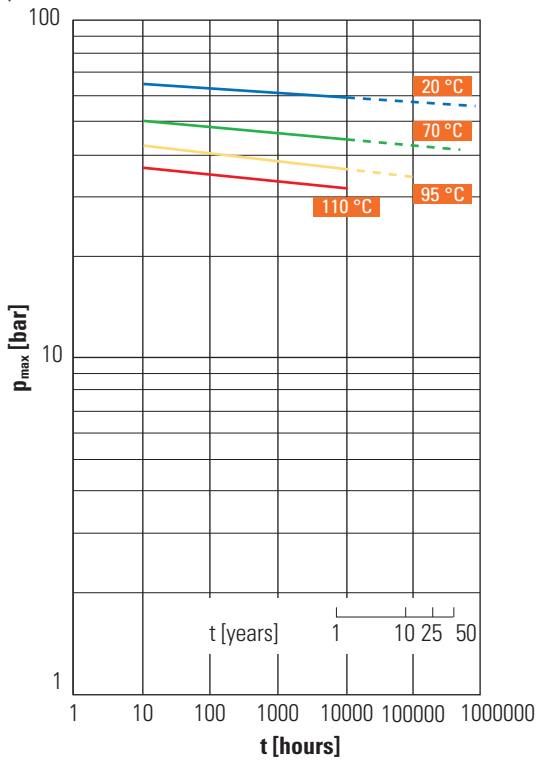
ISOLATING MEMBRANE TECHNICAL CHARACTERISTICS

Isolating Membrane Material: Closed-cell polyethylene foam, coated in PE-LD extruded film.
 Thermal conductivity (at 40°C): 0,040 W/mK (UNI EN ISO 8497)
 Water vapour diffusion resistance µ: 5000 (UNI EN 13469)
 Coating fire reactivity class: B_L - s2, d0 (EN 13501-1)

OPERATING CONDITIONS OF FIVPEX PIPE

Classes of Application (UNI ISO 21003 - see table "Classifications of conditions of use" in the "Technical attachments" section): 2/10 bar, 5/10 bar
 Max. operating temperature for 50 years:
 - Maximum temperature for shorts time: 95 °C
 - Design pressure p_D = 10 bar

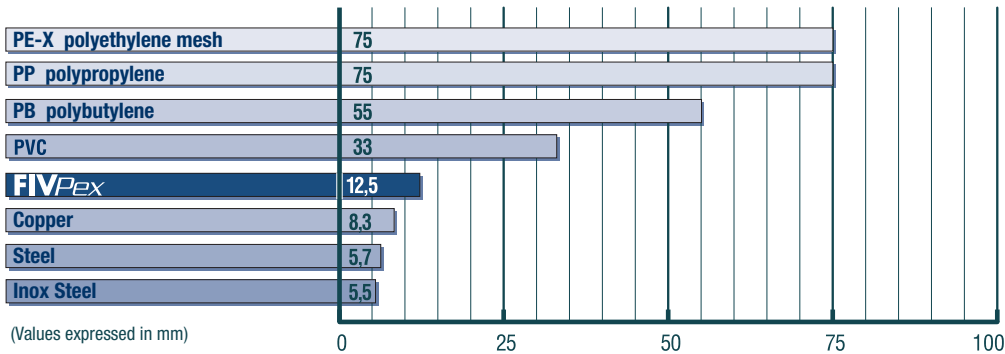
FIVPEX pipe regression curves (16x2)



Example of reading

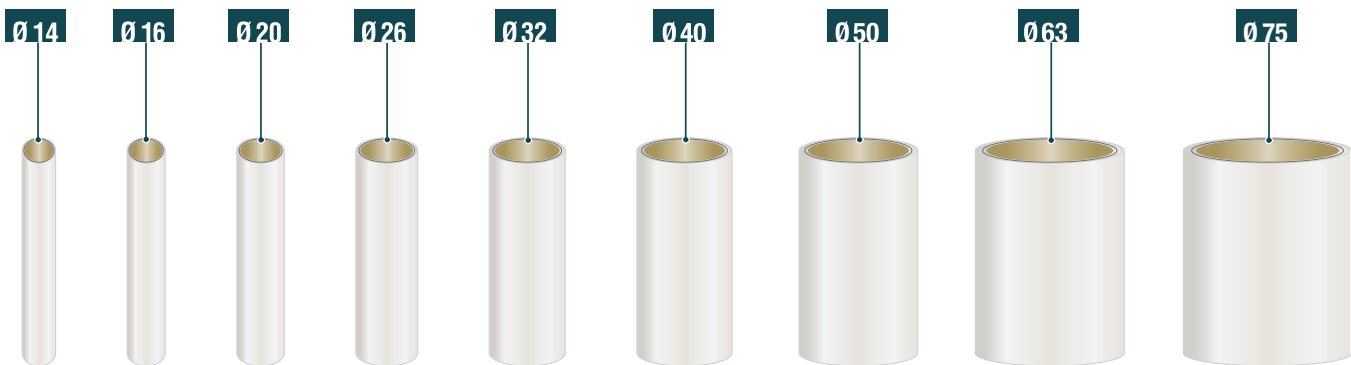
The maximum pressure (P_{max}) for a duration of 50 years at a given temperature is identified by intersecting the vertical line for 50 years with the coloured line for said temperature. Once the expected operating pressure is known (P_{es}), the safety coefficient will be equal to $k_s = P_{max}/P_{es}$.

Linear thermal expansion for 10 m pipes in different materials $\Delta T 50\text{ }^\circ\text{C}$



FIVPEX PIPE RANGE

Available in rolls with diameters DN 14 - 16 - 20 - 26 - 32 and in bars DN 16 - 20 - 26 - 32 - 40 - 50 - 63 - 75. The pipe in coils is also available pre-insulated with a closed-cell expanded polyethylene sheath, coated.



FIVPEX pipe dimensional characteristics

	mm	14	16	20	26	32	40	50	63	75
FIVPEX pipe external \varnothing	mm	14	16	20	26	32	40	50	63	75
FIVPEX pipe internal \varnothing	mm	10	12	16	20	26	33,2	41,8	53,6	64,5
Total thickness	mm	2	2	2	3	3	3,5	4	4,5	5
Weight (1)	kg/m	0,10	0,13	0,15	0,28 (0,30)	0,38 (0,41)	0,58	0,88	1,32	1,6
Water content	l/m	0,07	0,11	0,20	0,31	0,53	0,855	1,385	2,29	3,32
Insulation thickness	mm	6	6	6/9	6/9	9	—	—	—	—

(1) Bare pipe: in brackets the values for the pipe in bars

GP 2026
FIVPEX



FIVPEX BARE pipe in rolls.

CODE	Size	m Pallet	N° Rolls	Pack m
9416P917	16 x 2	2200	22	100
9416P969	16 x 2	2600	13	200
9416P971	16 x 2	2000	4	500
9416P931	20 x 2	1600	16	100
9416P987	26 x 3	600	12	50
9416P944	32 x 3	800	16	50

GP 2026
FIVPEX bare



FIVPEX BARE pipe in bars of 4 m.

CODE	Size	Pack m
9412P917	16 x 2	96
9412P931	20 x 2	96
9412P987	26 x 3	40
9412P944	32 x 3	28
9419P001	40 x 3,5	20
9419P002	50 x 4	20
9419P003	63 x 4,5	12
9419P953	75 x 5	12

GP 2026
FIVPEX



FIVPEX INSULATED pipe in rolls, insulating sheath in closed cell expanded polyethylene, coated.
Thermal conductivity of insulation at 40 °C: 0.040 W/m °C.

(*) Article available while stocks last.

CODE	Size	Insulation thickness mm	m Pallet	N° Rolls	Pack m
9414P910	14 x 2 (*)	6 (1)	1300	13	100
9417P916	16 x 2	6 (1)	700	14	50
9417P917	16 x 2	6 (1)	900	9	100
9417P931	20 x 2	6	600	12	50
9417P934	20 x 2	9 (1)	450	9	50
9411P986	26 x 3	6	700	14	50
9411P987	26 x 3	9 (1)	600	12	50
9411P944	32 x 3	9 (1)	350	14	25

GP 2026
FIVPEX



FIVPEX INSULATED pipe in rolls, insulating sheath in closed cell expanded polyethylene, coated.
Thermal conductivity of insulation at 40 °C: 0.040 W/m °C.

CODE	Size	Insulation thickness mm	m Pallet	N° Rolls	Pack m
9414P922	16 x 2	10	500	10	50
9414P937	20 x 2	13	350	7	50
9414P988	26 x 3	13	250	10	25
9414P945	32 x 3	13	350	14	25

20x2 (13 mm) - 26x3 (13 mm) - 32x3 (13 mm): Type C installation / 16x2 (10 mm): Type B installation

GP 2026
FIVPEX



FIVPEX INSULATED pipe in rolls, insulating sheath in closed cell expanded polyethylene, coated.
Thermal conductivity of insulation at 40 °C: 0.040 W/m °C.

CODE	Size	Insulation thickness mm	m Pallet	N° Rolls	Pack m
9417P920	16 x 2	6 (1)	700	14	50
9417P932	20 x 2	6	600	12	50
9417P988	26 x 3	9 (1)	600	12	50
9417P945	32 x 3	9 (1)	350	14	25

GP 2026
FIVPEX

FIVPEX INSULATED pipe in rolls, insulating sheath in closed cell expanded polyethylene, coated.
Thermal conductivity of insulation at 40 °C: 0.040 W/m °C.



CODE	Size	Insulation thickness mm	m Pallet	N° Rolls	Pack m
9417P921	16 x 2	6 (*)	700	14	50
9417P933	20 x 2	6	600	12	50
9417P989	26 x 3	9 (*)	600	12	50
9417P946	32 x 3	9 (*)	350	14	25

GP 2026
FIVPEX

FIVPEX CORRUGATED pipe in rolls, blue colour.



CODE	Size	Internal protective pipe diameter mm	External protective pipe diameter mm	m Pallet	N° Rolls	Pack m
9418P918	16 x 2	20,4	25	750	15	50
9418P932	20 x 2	24	28,8	650	13	50
9418P934	26 x 3	31	36	500	10	50

GP 2026
FIVPEX

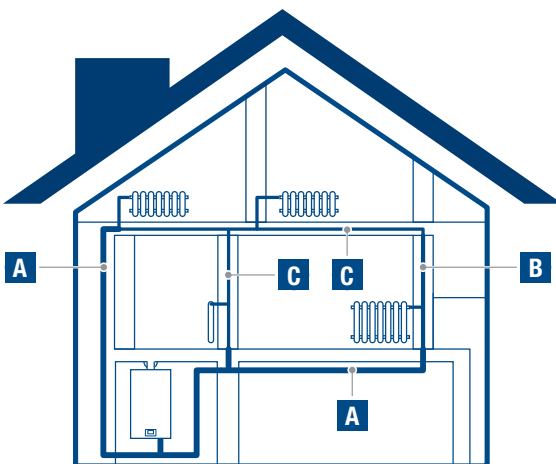
FIVPEX CORRUGATED pipe in rolls, red colour.



CODE	Size	Internal protective pipe diameter mm	External protective pipe diameter mm	m Pallet	N° Rolls	Pack m
9418P919	16 x 2	20,4	25	750	15	50
9418P933	20 x 2	24	28,8	650	13	50
9418P935	26 x 3	31	36	500	10	50

(1) Compliant with Italian Law: L. 10/91 and D.P.R. 412/93 Attachment B - TAB 1
(Pipes in structure which do not face outside or onto unheated areas).

INSULATION OF HEAT DISTRIBUTION NETWORKS IN HEATING SYSTEMS



Installation type A (symbol A)

The piping in the distribution networks for warm fluids, whether in liquid form or steam, of thermic power plants, must be insulated with a special insulating material, where the minimum required thickness determined by the following table, in relation to the diameter of the piping given in mm and the useful thermic conductivity of the insulating material shown in W/m °C at a temperature of 40 °C.

Installation type B (symbol B)

The vertical mounting of the piping is to be placed on the other side of the building's heat insulation, towards the inside of the building, and the relevant minimum required thicknesses for the insulation, as resulting from the table, must be multiplied by 0,5.

Installation type C (symbol C)

For pipes running inside structures which do not face either outside or unheated rooms, the thicknesses indicated in the table just be multiplied by 0,3.

External Ø of piping (mm)

(W/m °C)	<20	20-39	40-59	60-79	80-90	>100
0,030	13	19	26	33	37	40
0,032	14	21	29	36	40	44
0,034	15	23	31	39	44	48
0,036	17	25	34	43	47	52
0,038	18	28	37	46	51	56
0,040	20	30	40	50	55	60
0,042	22	32	43	54	59	64
0,044	24	35	46	58	63	69
0,046	26	38	50	62	68	74
0,048	28	41	54	66	72	79
0,050	30	44	58	71	77	84

Reference for the calculation example

Compliance with Italian regulation

The principal regulation on the subject is contained in Annex B of Presidential Decree 412/93. Note the useful thermal conductivity for each diameter of pipe can be derived from the minimum thickness of the insulation in relation to the pipe to be insulated with respect to the outside, multiplying the thickness indicated in the table in Appendix B below by 0,3, 0,5 or 1,0.

Example of calculation

Thermal conductivity of material = 0.040 W/m °C

External diameter of pipe / 22 mm

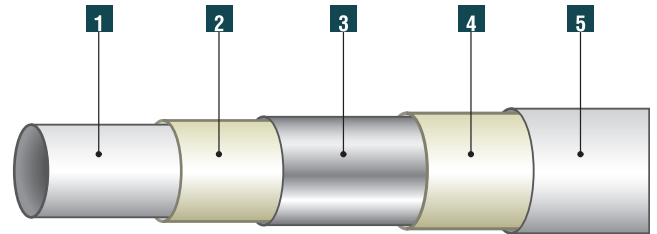
Position (see drawing) C

Calculation $30 \times 0,3 = 9$ mm

where 30 = thickness from table; 0,3 coefficient for category.

Emmett insulating pipes, in accordance with Statute 549 of 28/12/1993, do not contain CFCs and are composed of non-toxic materials.

Insulation of heat distribution networks within thermic plants



See FIVPress System introductory page (page 11) for details

Components

- | | |
|---|---|
| 1 | Inner pipe in PE-RT |
| 2 | Bonding layer connecting the inner pipe to the aluminium pipe |
| 3 | Horizontal-roller-position welding (see table on next page for thickness) |
| 4 | Bonding layer connecting the outer pipe to the aluminium pipe |
| 5 | Outer pipe in PE-RT |

STRUCTURAL FEATURES AND PERFORMANCE

The PE-RT/AL/PE-RT multilayer pipe for underfloor heating, heating and sanitary systems, belongs to the new generation of multilayer pipes for plumbing-sanitary systems. It consists of composite material, made even and more solid by a technologically advanced process, with which a PE-RT (not-crosslinked polyethylene with high resistance to high temperatures) pipe is implemented, reinforced by an aluminium core welded and covered externally by another layer of PE-RT.

REGULATORY COMPLIANCE

The FIVPert pipe complies with UNI EN ISO 21003 standard (class 2/10 bar, class 5/10 bar) and with the Ministerial Decree Italian 174/2004.

CONDITIONS OF USE ACCORDING TO THE APPLICATION CLASSES PURSUANT TO UNI ISO 21003 (SEE TECHNICAL ATTACHMENTS).

EN TECHNICAL CHARACTERISTICS

Coefficient of linear expansion: 0,026 mm/m °C
 Thermal conductivity: 0,45 W/m K
 Minimum radius of bending: 5 x \varnothing pipe
 Pipe roughness: 7 μ m
 Fire reaction class: E_L (EN 13501-1)

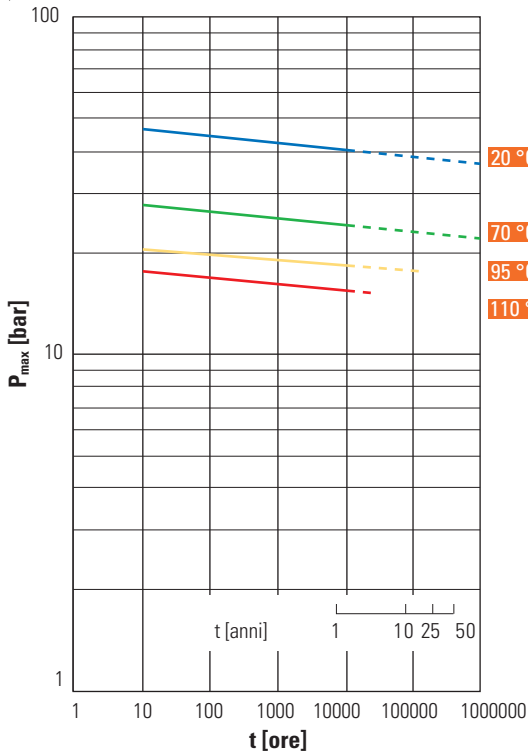
TECHNICAL DATA OF INSULATING SHEATH

Material: Closed-cell expanded polyethylene, covered with a film in extruded LD-PE.
 Thermal conductivity (at 40 °C): \leq 0,040 W/mK (UNI EN ISO 8497).
 Water vapour diffusion resistance μ : 5000 (UNI EN 13469)
 Fire reaction class: B_L - s2, d0 (EN 13501-1)

OPERATING CONDITIONS OF FIVPERT PIPE

Classes of application (UNI ISO 21003 - see table "Classifications of conditions of use" in the "Technical attachments" section): 2/10 bar, 5/10 bar
 Maximum operating conditions for 50 years:
 - Design temperature T_D = 70 °C;
 - Design pressure p_D = 10 bar

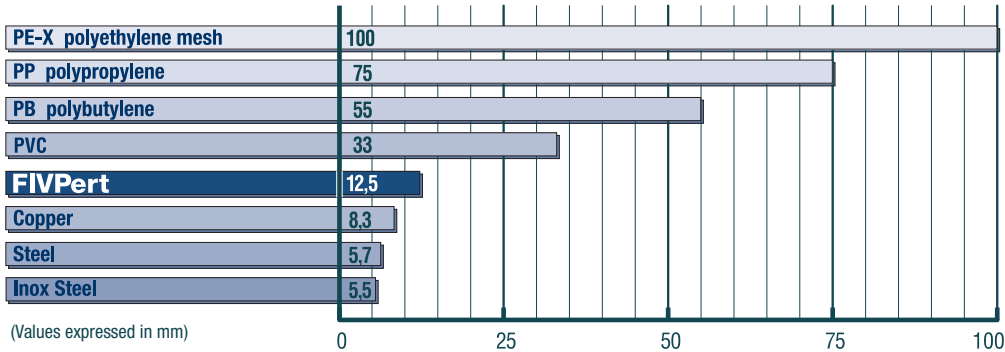
FIVPERT pipe regression curve (16x2)



Example of reading

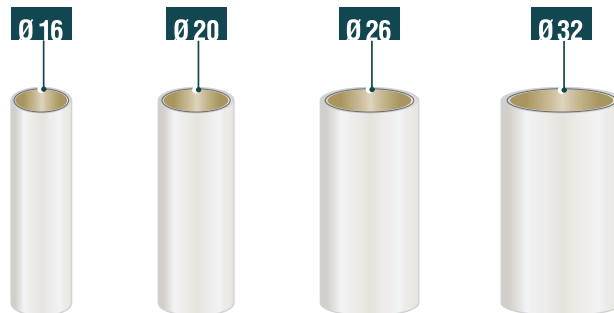
The maximum pressure (P_{max}) for a duration of 50 years at a given temperature is identified by intersecting the vertical line for 50 years with the coloured line for said temperature. Once the expected operating pressure is known (P_{es}), the safety coefficient will be equal to $k_s = P_{max} / P_{es}$.

Linear thermal expansion for 10 m pipes in different materials $\Delta T 50\text{ }^\circ\text{C}$



FIVPERT PIPE RANGE

Available in rolls with diameters DN 16 - 20 - 26 - 32 and in bars DN 26 and 32. The pipe in rolls is also available pre-insulated with a coated expanded polyethylene sheath.



FIVPERT pipe dimensional and characteristics

	mm	16	20	26	32
FIVpert pipe external \varnothing		16	20	26	32
FIVpert pipe internal \varnothing		12	16	20	26
Total thickness		2	2	3	3
Thickness of aluminum sheet		0,20	0,25	0,30	0,35
Weight (1)	Kg/m	0,10	0,13	0,26	0,33
Water content	l/m	0,11	0,20	0,31	0,53
Insulation thickness	mm	6	6/9	9	9

(1) Bare pipe

GP 2035
FIVPERT

FIVPert BARE pipe in rolls.

(*) Available only on request.



CODE	Size	m Pallet	N° Rolls	Pack m
9517P917	16 x 2	2200	22	100
9517P969	16 x 2	2600	13	200
9517P971	16 x 2	2000	4	500
9517P931	20 x 2	1600	16	100
9517P240	20 x 2	1920	8	240
NEW 9517P981	26 x 3 (*)	600	12	50
NEW 9517P982	32 x 3 (*)	800	16	50

GP 2035
FIVPERT

FIVPert PREINSULATED pipe in rolls.

(*) Available only on request.



CODE	Size	Insulation thickness mm	m Pallet	N° Rolls	Pack m
9512P916	16 x 2	6 (!)	700	14	50
9512P917	16 x 2	6 (!)	900	9	100
9512P931	20 x 2	6	600	12	50
9512P934	20 x 2	9 (!)	450	9	50
NEW 9512P938	26 x 3 (*)	9	600	12	50
NEW 9512P939	32 x 3 (*)	9	350	14	25

NEW

GP 2035
FIVPERT

FIVPert BARE pipe in bars of 4 m.

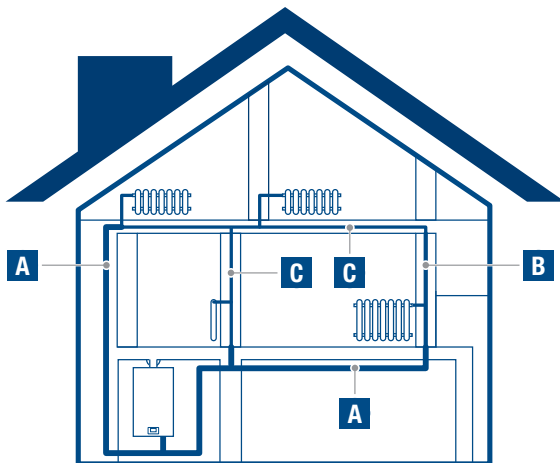
Available only on request.



CODE	Size	Pack m
9517P985	26 x 3	36
9517P986	32 x 3	28

(1) Compliant with Italian Law: L. 10/91 and D.P.R. 412/93 Attachment B - TAB 1
(Pipes in structure which do not face outside or onto unheated areas).

INSULATION OF HEAT DISTRIBUTION NETWORKS IN HEATING SYSTEMS



External Ø of piping (mm)

Thermic conductivity (W/m °C)	External Ø of piping (mm)					
	<20	20-39	40-59	60-79	80-90	>100
0,030	13	19	26	33	37	40
0,032	14	21	29	36	40	44
0,034	15	23	31	39	44	48
0,036	17	25	34	43	47	52
0,038	18	28	37	46	51	56
0,040	20	30	40	50	55	60
0,042	22	32	43	54	59	64
0,044	24	35	46	58	63	69
0,046	26	38	50	62	68	74
0,048	28	41	54	66	72	79
0,050	30	44	58	71	77	84

Reference for the calculation example

Installation type A (symbol A)

The piping in the distribution networks for warm fluids, whether in liquid form or steam, of thermic power plants, must be insulated with a special insulating material, where the minimum required thickness determined by the following table, in relation to the diameter of the piping given in mm and the useful thermic conductivity of the insulating material shown in W/m °C at a temperature of 40 °C.

Installation type B (symbol B)

The vertical mounting of the piping is to be placed on the other side of the building's heat insulation, towards the inside of the building, and the relevant minimum required thicknesses for the insulation, as resulting from the table, must be multiplied by 0,5.

Installation type C (symbol C)

For pipes running inside structures which do not face either outside or unheated rooms, the thicknesses indicated in the table just be multiplied by 0,3.

Compliance with Italian regulation

The principal regulation on the subject is contained in Annex B of Presidential Decree 412/93. Note the useful thermal conductivity for each diameter of pipe can be derived from the minimum thickness of the insulation in relation to the pipe to be insulated with respect to the outside, multiplying the thickness indicated in the table in Appendix B below by 0,3, 0,5 or 1,0.

Example of calculation

Thermal conductivity of material = 0,040 W/m °C

External diameter of pipe / 22 mm

Position (see drawing) C

Calculation $30 \times 0,3 = 9$ mm

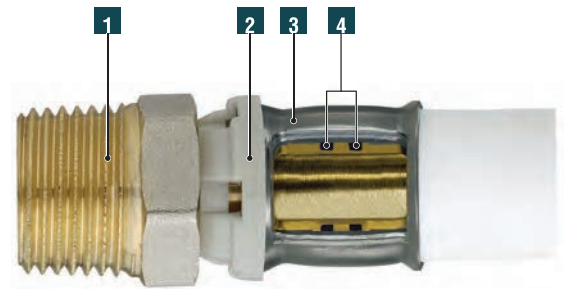
where 30 = thickness from table; 0,3 coefficient for category.

Emmeti insulating pipes, in accordance with Statute 549 of 28/12/1993, do not contain CFCs and are composed of non-toxic materials.

Insulation of heat distribution networks within thermic plants

FIVPRESS

PRESS FITTINGS



kiwa UNI



See FIVPress System introductory page (page 11) for details

Components

	Components	Pcs	Material
1	Brass body (nickel plated only on surfaces not in contact with carried fluids - DN 75 no nickel plating treatments on any surface) Female - Male connection Thread UNI EN 10226 (UNI EN ISO 7/1) (DIN 2999)	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
2	Bush holder ring nut	1	Polyamide
3	Bush	1	AISI 304 stainless steel
4	Double O-Ring	2	EPDM peroxide 70 SH

NOTE: Assembly instructions in the technical attachment.

EN CONSTRUCTIONAL AND TECHNICAL CHARACTERISTICS

The FIVPRESS press fittings allow quick, sure joining of the pipe and fitting by using a specific tool to press on the steel bush. The special profile of the fitting and the use of a double o-ring ensure perfect, long-lasting hydraulic and mechanical seal.

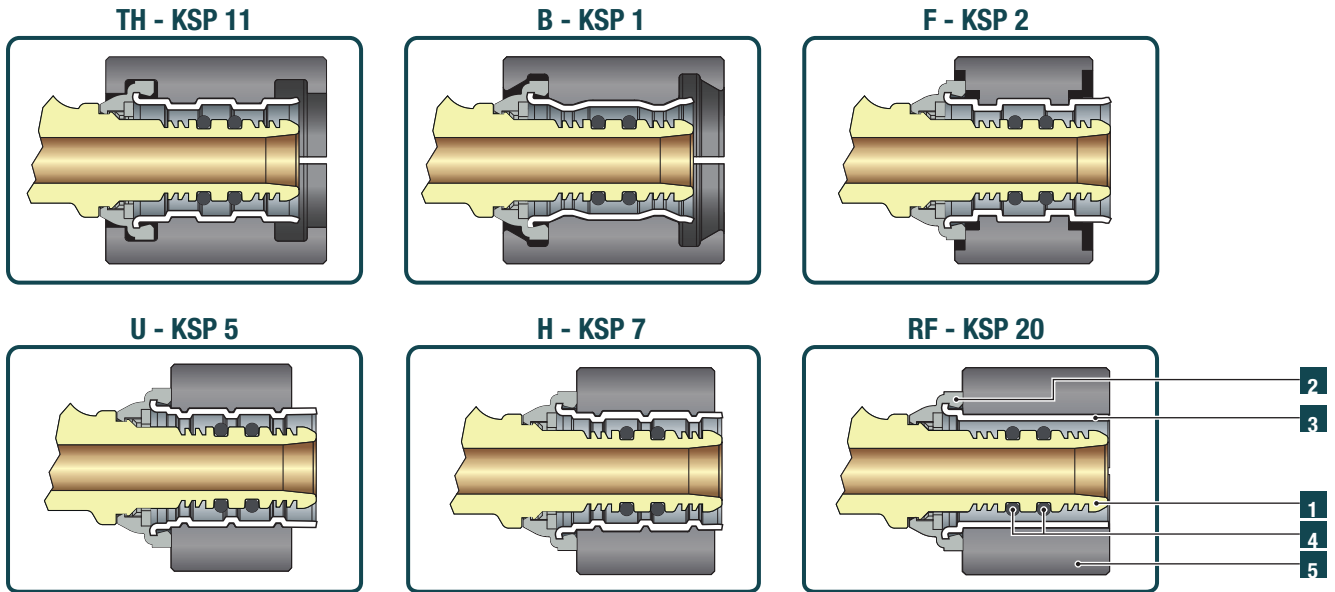
SUITABLE FOR POTABLE WATER

The press fittings of the FIVPRESS system are compliant with the Decree of the Italian Ministry of Health no. 174 dated 06/04/2004.

CONSTRUCTIONAL DETAILS

The stainless steel bush is mounted on the fitting by means of a polyamide ring nut with windows. This performs the following tasks:

- it allows you to check that the pipe is correctly positioned with the pipe (thanks to the windows)
- it guides the pincers correctly around the bush
- it insulates the pipe from the brass of the fitting, preventing corrosion due to differences in electrical potential.

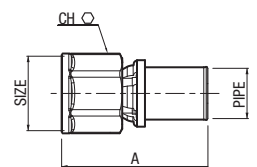


Profile and dimensions of the jaws that can be used with FIVPress Fittings

	16	20	26	32	40	50	63	75
TH	✓	✓	✓	✓	✓	✓	✓	✓
B	✓	✓	✓	✓	✗	✗	✗	✗
U	✓	✓	✗	✗	✗	✗	✗	✗
H	✓	✓	✗	✗	✗	✗	✗	✗
F	✓	✓	✗	✗	✗	✗	✗	✓
RF	✓	✓	✗	✗	✗	✗	✗	✗

GP 2600
FITTINGS

Straight female union joint, nickel-plated.

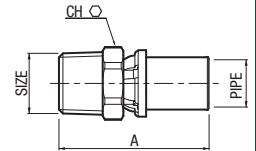


CODE	Size	Pipe	A mm	Ch mm	Pack pcs/box	Master pcs/box
9420R802	16 x 1/2"	16x2	49,5	24	10/100	400
9420R804	20 x 1/2"	20x2	49,5	24	10/90	360
9420R807	20 x 3/4"	20x2	52	30	10/60	240
9420R809	26 x 3/4"	26x3	52	30	5/40	160
9420R811	26 x 1"	26x3	56	38	5/30	120
9420R814	32 x 1"	32x3	57	38	5/25	100

Threads: Rp (UNI EN 10226-1).

GP 2600
FITTINGS

Straight male union joint, nickel-plated.

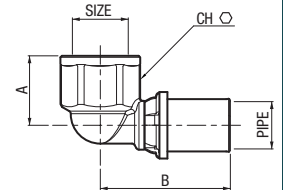


CODE	Size	Pipe	A mm	Ch mm	Pack pcs/box	Master pcs/box
9421R801	16 x 3/8"	16x2	48	22	10/100	400
9421R802	16 x 1/2"	16x2	50,8	22	10/100	400
9421R804	20 x 1/2"	20x2	50,8	22	10/100	400
9421R807	20 x 3/4"	20x2	54,5	27	10/70	280
9421R809	26 x 3/4"	26x3	54,5	27	5/50	200
9421R811	26 x 1"	26x3	59,5	34	5/30	120
9421R814	32 x 1"	32x3	60,5	34	5/30	120
9421R810	32 x 1"1/4	32x3	66,5	46	1/16	64
9421R808	40 x 1"	40x3,5	71,5	46	1/16	64
9421R813	40 x 1"1/4	40x3,5	74	46	1/16	64
9421R815	50 x 1"1/2	50x4	77	52	1/12	48
9421R816	63 x 2"	63x4,5	82,2	65	1/8	32
9421S900	75 x 2"1/2	75x5	95,7	78	1/4	16

Threads: R (UNI EN 10226-1).

GP 2600
FITTINGS

Female connecting elbow, nickel-plated.

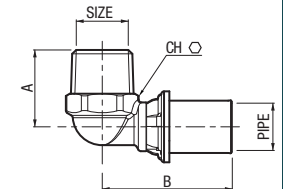


CODE	Size	Pipe	A mm	B mm	Ch mm	Pack pcs/box	Master pcs/box
9422R802	16 x 1/2"	16x2	23,5	44	24	10/80	320
9422R804	20 x 1/2"	20x2	23,5	44	24	10/60	240
9422R807	20 x 3/4"	20x2	28	48	30	10/50	200
9422R809	26 x 3/4"	26x3	28	48	30	5/35	140
9422R814	32 x 1"	32x3	33	53	38	5/25	100

Threads: Rp (UNI EN 10226-1).

GP 2600
FITTINGS

Male connecting elbow, nickel-plated.

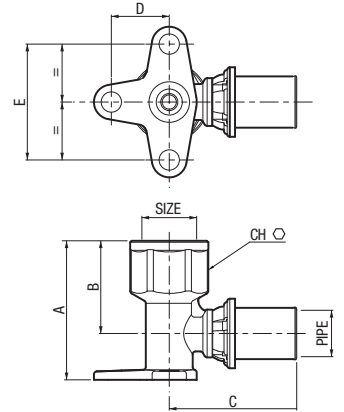


CODE	Size	Pipe	A mm	B mm	Ch mm	Pack pcs/box	Master pcs/box
9423R802	16 x 1/2"	16x2	26	44	22	10/80	320
9423R804	20 x 1/2"	20x2	26	44	22	10/70	280
9423R807	20 x 3/4"	20x2	31,5	48	27	10/40	160
9423R809	26 x 3/4"	26x3	31,5	48	27	5/40	160
9423R814	32 x 1"	32x3	38	53	34	5/25	100
9423R813	40 x 1"1/4	40x3,5	44	69,5	46	1/12	48
9423R815	50 x 1"1/2	50x4	49	75,5	52	1/8	32
9423R816	63 x 2"	63x4,5	61	81	65	1/6	24

Threads: R (UNI EN 10226-1).

GP 2600
FITTINGS

Female elbow with flange, nickel-plated.

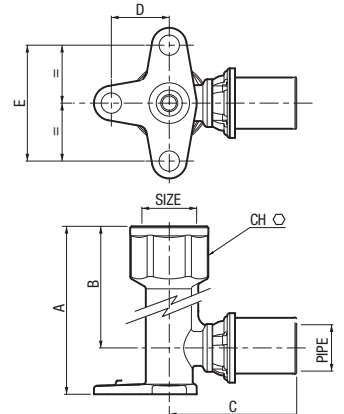


CODE	Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm	Pack pcs/box	Master pcs/box
9424R802	16 x 1/2"	16x2	48	32	44	20	40	24	5/40	160
9424R804	20 x 1/2"	20x2	48	32	44	20	40	24	5/40	160
9424R807	20 x 3/4"	20x2	56	37	48	20	40	30	5/20	80
9424R809	26 x 3/4"	26x3	56	37	48	20	40	30	5/20	80

Threads: Rp (UNI EN 10226-1).

GP 2600
FITTINGS

Female coupling elbow fitting with long neck and flange, nickel-plated.

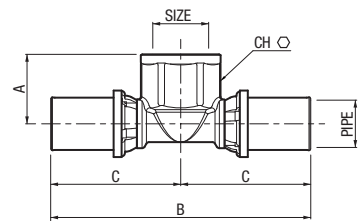


CODE	Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm	Pack pcs/box	Master pcs/box
9443R802	16 x 1/2"	16x2	68	52	44	20	40	24	5/30	120
9443R804	20 x 1/2"	20x2	68	52	44	20	40	24	5/30	120

Threads: Rp (UNI EN 10226-1).

GP 2600
FITTINGS

Intermediate tee joint with female branch, nickel-plated.

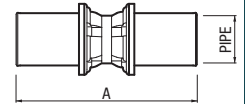


CODE	Size	Pipe	A mm	B mm	C mm	Ch mm	Pack pcs/box	Master pcs/box
9425R817	16 x 1/2" x 16	16x2	23,5	88	44	24	10/50	200
9425R820	16 x 3/4" x 16	16x2	28	96	48	30	5/30	160
9425R819	20 x 1/2" x 20	20x2	23,5	88	44	24	5/40	160
9425R822	20 x 3/4" x 20	20x2	28	96	48	30	5/30	120
9425R823	26 x 3/4" x 26	26x3	28	96	48	30	5/20	80
9425R824	32 x 3/4" x 32	32x3	33	106	53	38	5/15	60
9425R826	32 x 1" x 32	32x3	33	106	53	38	5/15	60
9425R825	40 x 3/4" x 40	40x3,5	35,5	130	65	38	1/10	40
9425R827	40 x 1" x 40	40x3,5	39	130	65	38	1/10	40
9425R839	40 x 1"1/4 x 40	40x3,5	48,5	140	71,5	47	1/6	24
9425R818	50 x 3/4" x 50	50x4	40	133	66,5	38	1/6	24
9425R828	50 x 1" x 50	50x4	41	133	66,5	38	1/6	24
9425R840	50 x 1"1/4 x 50	50x4	48,5	143	71,5	47	1/6	24
9425R821	63 x 1" x 63	63x4,5	46,5	143	71,5	47	1/4	16
9425R862	63 x 1"1/4 x 63	63x4,5	48,5	143	71,5	47	1/4	16
9425S900	75 x 1" x 75	75x5	56	201	100,5	-	1/2	8

Threads: Rp (UNI EN 10226-1).

GP 2600
FITTINGS

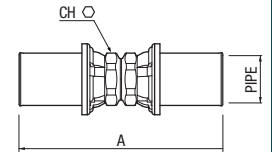
Straight intermediate union joint, nickel-plated.



CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
9426S829	16 x 16	16x2	61	10/100	400
9426S831	20 x 20	20x2	61	10/70	280
9426S833	26 x 26	26x3	61	5/35	140
9426S835	32 x 32	32x3	63	5/30	120

GP 2600
FITTINGS

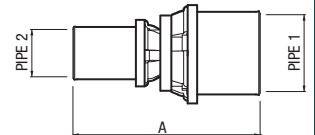
Straight intermediate union joint, nickel-plated.



CODE	Size	Pipe	A mm	Ch mm	Pack pcs/box	Master pcs/box
9426R836	40 x 40	40x3,5	95	40	1/14	56
9426R837	50 x 50	50x4	101	48	1/8	32
9426R838	63 x 63	63x4,5	103	60	1/6	24
9426S900	75 x 75	75x5	116	78	1/4	16

GP 2600
FITTINGS

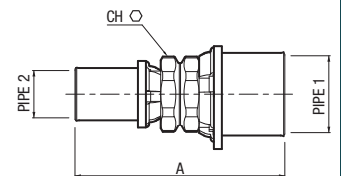
Straight intermediate reducing union joint, nickel-plated.



CODE	Size	Pipe 1	Pipe 2	A mm	Pack pcs/box	Master pcs/box
9427S841	20 x 16	20x2	16x2	61	10/70	280
9427S843	26 x 16	26x3	16x2	61	5/50	200
9427S845	26 x 20	26x3	20x2	61	5/40	160
9427S846	32 x 16	32x3	16x2	62	5/30	120
9427S848	32 x 20	32x3	20x2	62	5/30	120
9427S849	32 x 26	32x3	26x3	62	5/30	120

GP 2600
FITTINGS

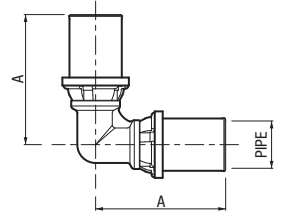
Straight intermediate reducing union joint, nickel-plated.



CODE	Size	Pipe 1	Pipe 2	A mm	Ch mm	Pack pcs/box	Master pcs/box
9427R844	40 x 26	40x3,5	26x3	86,5	40	1/16	64
9427R850	40 x 32	40x3,5	32x3	86	40	1/14	56
9427R847	50 x 32	50x4	32x3	91,5	48	1/12	48
9427R851	50 x 40	50x4	40x3,5	99	48	1/10	40
9427R834	63 x 40	63x4,5	40x3,5	101	60	1/6	24
9427R832	63 x 50	63x4,5	50x4	103	60	1/6	24
9427S900	75 x 40	75x5	40x3,5	105,5	58	1/4	16
9427S901	75 x 50	75x5	50x4	108	58	1/4	16
9427S903	75 x 63	75x5	63x4,5	107,8	58	1/4	16

GP 2600
FITTINGS

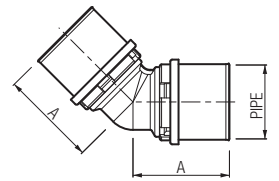
Intermediate elbow union joint, nickel-plated.



CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
9428S829	16 x 16	16x2	41,7	10/70	280
9428S831	20 x 20	20x2	43,7	10/60	240
9428S833	26 x 26	26x3	46,7	5/30	120
9428S835	32 x 32	32x3	50,7	5/20	80
9428R836	40 x 40	40x3,5	66	1/10	40
9428R837	50 x 50	50x4	74,5	1/6	24
9428R838	63 x 63	63x4,5	82	1/4	16
9428S900	75 x 75	75x5	100,5	1/2	8

GP 2600
FITTINGS

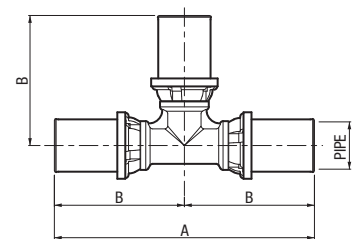
Intermediate 45° elbow union joint, nickel-plated.



CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
9444R836	40 x 40	40 x 3,5	54	1/10	40
9444R837	50 x 50	50 x 4	59,5	1/6	24
9444R838	63 x 63	63 x 4,5	63	1/4	16
9444S900	75 x 75	75x5	75,5	1/2	8

GP 2600
FITTINGS

Intermediate tee joint, nickel-plated.

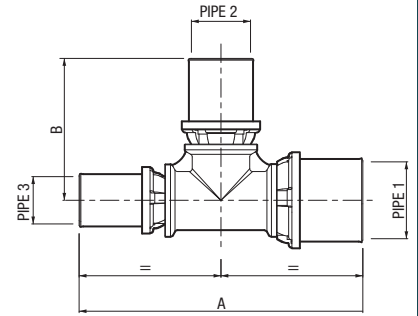


CODE	Size	Pipe	A mm	B mm	Pack pcs/box	Master pcs/box
9429S852	16 x 16 x 16	16x2	83,3	41,7	5/40	160
9429S854	20 x 20 x 20	20x2	87,3	43,7	5/30	120
9429S856	26 x 26 x 26	26x3	93,3	46,7	5/20	80
9429S857	32 x 32 x 32	32x3	101,3	50,7	5/15	60
9429R858	40 x 40 x 40	40x3,5	132	66	1/8	32
9429R859	50 x 50 x 50	50x4	149	74,5	1/4	16
9429R860	63 x 63 x 63	63x4,5	164	82	1/2	8
9429S900	75 x 75 x 75	75x5	201	100,5	1/1	4

GP 2600
FITTINGS



Intermediate reducing tee joint, nickel-plated.

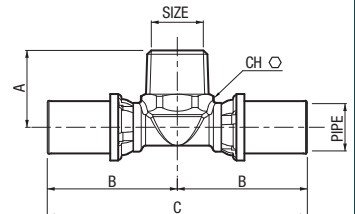


CODE	Size	Pipe 1	Pipe 2	Pipe 3	A mm	B mm	Pack pcs/box	Master pcs/box
9430S861	16 x 20 x 16	16x2	20x2	16x2	87,3	43,7	5/30	120
9430S870	20 x 16 x 16	20x2	16x2	16x2	87,3	43,7	5/30	160
9430S871	20 x 16 x 20	20x2	16x2	20x2	87,3	43,7	5/30	120
9430S874	20 x 20 x 16	20x2	20x2	16x2	87,3	43,7	5/30	120
9430S875	20 x 26 x 20	20x2	26x3	20x2	93,3	46,7	5/25	100
9430S876	20 x 32 x 20	20x2	32x3	20x2	101,3	50,7	5/20	80
9430S880	26 x 16 x 20	26x3	16x2	20x2	93,3	46,7	5/25	100
9430S881	26 x 16 x 26	26x3	16x2	26x3	93,3	46,7	5/25	100
9430S883	26 x 20 x 16	26x3	20x2	16x2	93,3	46,7	5/25	100
9430S884	26 x 20 x 20	26x3	20x2	20x2	93,3	46,7	5/25	100
9430S885	26 x 20 x 26	26x3	20x2	26x3	93,3	46,7	5/25	100
9430S878	26 x 26 x 16	26x3	26x3	16x2	93,3	46,7	5/25	100
9430S886	26 x 26 x 20	26x3	26x3	20x2	93,3	46,7	5/25	100
9430S887	26 x 32 x 26	26x3	32x3	26x3	101,3	50,7	5/15	60
9430S890	32 x 16 x 32	32x3	16x2	32x3	101,3	50,7	5/15	60
9430S892	32 x 20 x 20	32x3	20x2	20x2	101,3	50,7	5/20	80
9430S893	32 x 20 x 26	32x3	20x2	26x3	101,3	50,7	5/15	60
9430S894	32 x 20 x 32	32x3	20x3	32x3	101,3	50,7	5/15	60
9430S895	32 x 26 x 20	32x3	26x3	20x2	101,3	50,7	5/15	60
9430S896	32 x 26 x 26	32x3	26x3	26x3	101,3	50,7	5/15	60
9430S897	32 x 26 x 32	32x3	26x3	32x3	101,3	50,7	5/15	60
9430S889	32 x 32 x 16	32x3	32x3	16x2	101,3	50,7	5/15	60
9430S898	32 x 32 x 20	32x3	32x3	20x2	101,3	50,7	5/15	60
9430S899	32 x 32 x 26	32x3	32x3	26x3	101,3	50,7	5/15	60
9430R855	40 x 26 x 32	40x3,5	26x3	32x3	124,5	57,5	1/8	32
9430R865	40 x 26 x 40	40x3,5	26x3	40x3,5	132	57,5	1/8	32
9430R853	40 x 32 x 32	40x3,5	32x3	32x3	124,5	58,5	1/8	32
9430R864	40 x 32 x 40	40x3,5	32x3	40x3,5	132	66	1/8	32
9430R869	40 x 40 x 32	40x3,5	40x3,5	32x3	124,5	66	1/8	32
9430R877	50 x 26 x 50	50x4	26x3	50x4	149	64	1/6	24
9430R867	50 x 32 x 50	50x4	32x2	50x4	149	63,5	1/6	24
9430R879	50 x 40 x 40	50x4	40x3,5	40x3,5	149	74,5	1/6	24
9430R866	50 x 40 x 50	50x4	40x3,5	50x4	149	72,5	1/6	24
9430R882	50 x 50 x 32	50x4	50x4	32x3	139,5	74,5	1/6	24
9430R888	50 x 50 x 40	50x4	50x4	40x3,5	149	74	1/4	16
9430R872	63 x 50 x 63	63x4,5	50x4	63x4,5	164	82	1/2	8
9430S900	75 x 40 x 75	75x5	40x3,5	75x75	201	91	1/1	4
9430S901	75 x 50 x 75	75x5	50x4	75x75	201	91	1/1	4

GP 2600
FITTINGS



Intermediate male tee joint with male branch, nickel-plated.



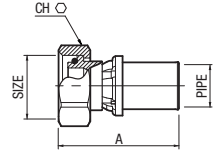
CODE	Size	Pipe	A mm	B mm	C mm	Ch mm	Pack pcs/box	Master pcs/box
9431R817	16 x 1/2" x 16	16x2	26	44	88	22	10/50	200
9431R819	20 x 1/2" x 20	20x2	26	44	88	22	10/40	160
9431R822	20 x 3/4" x 20	20x2	31,5	48	96	27	10/30	120
9431R823	26 x 3/4" x 26	26x3	31,5	48	96	27	5/20	80

Threads: R (UNI EN 10226-1).

GP 2600
FITTINGS



Straight joint with female swivel nut with O-Ring seal, nichel-plated.



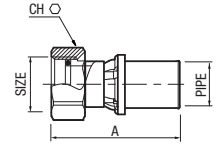
CODE	Connection	Takeoff	Pipe	A mm	Ch mm	Pack pcs/box	Master pcs/box
9432R314	16 - 24x19	24x19	16x2	45,5	27	10/100	400
9432R316	20 - 24x19	24x19	20x2	45,5	27	10/80	320
9432R318	16 - 3/4"	EUROCONO	16x2	45,5	30	10/80	320
9432R320	20 - 3/4"	EUROCONO	20x2	45,5	30	10/80	320

3/4" threads: G (UNI EN ISO 228-1).

GP 2600
FITTINGS



Straight joint with female swivel nut with flat seal, nichel-plated.



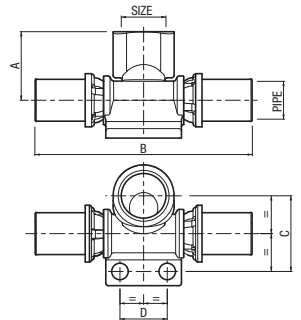
CODE	Size	Connection	Pipe	A mm	Ch mm	Pack pcs/box	Master pcs/box
9439R915	16 x 3/8"	3/8"	16x2	48,7	19	1/50	200
9439R917	16 x 1/2"	1/2"	16x2	49,5	25	1/50	200
9439R918	16 x 3/4"	3/4"	16x2	49,5	30	1/40	160
9439R919	20 x 1/2"	1/2"	20x2	49,5	25	1/50	200
9439R920	20 x 3/4"	3/4"	20x2	49,5	30	1/40	160
9439R922	26 x 3/4"	3/4"	26x3	49,5	30	1/35	140
9439R924	26 x 1"	1"	26x3	54,5	37	1/30	120
9439R926	32 x 1"	1"	32x3	54,5	37	1/25	100
9439R928	32 x 1 1/4"	1 1/4"	32x3	59,5	46	1/20	80
9439R930	40 x 1 1/2"	1 1/2"	40x3,5	70	52	1/12	48
9439R932	50 x 2"	2"	50x4	78	64	1/8	32
9439R934	63 x 2 1/2"	2 1/2"	63x4,5	91	80	1/6	24

Threads: G (UNI EN ISO 228-1).

GP 2600
FITTINGS



Female offset Tee joint, nichel-plated.



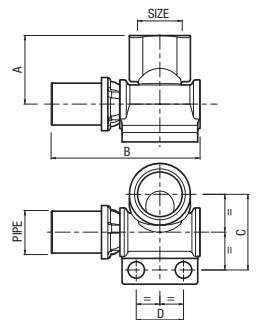
CODE	Size	Pipe	A mm	B mm	C mm	D mm	Pack pcs/box	Master pcs/box
9433R817	16 x 1/2" x 16	16x2	29	92	32	20	5/25	100
9433R819	20 x 1/2" x 20	20x2	29	92	32	20	5/25	100

Threads: Rp (UNI EN 10226-1).

GP 2600
FITTINGS



Right terminal offset union joint, nichel-plated.

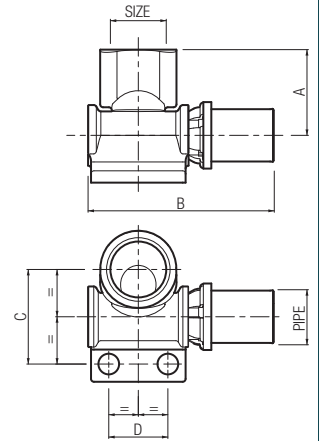


CODE	Size	Pipe	A mm	B mm	C mm	D mm	Pack pcs/box	Master pcs/box
9434R802	16 x 1/2"	16x2	29	63	32	20	5/30	120
9434R804	20 x 1/2"	20x2	29	63	32	20	5/30	120

Threads: Rp (UNI EN 10226-1).

GP 2600
FITTINGS

Left terminal offset union joint, nickel-plated.

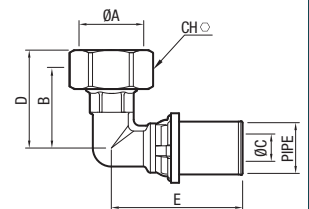


CODE	Size	Pipe	A mm	B mm	C mm	D mm	Pack pcs/box	Master pcs/box
9435R802	16 x 1/2"	16x2	29	63	32	20	5/30	120
9435R804	20 x 1/2"	20x2	29	63	32	20	5/30	120

Threads: Rp (UNI EN 10226-1).

GP 2600
FITTINGS

Elbow connector with rotating nut and flat seal, nickel-plated.

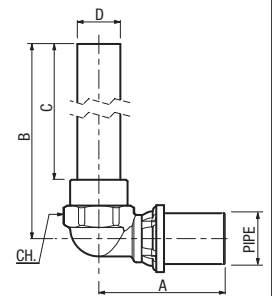


CODE	Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm	Pack pcs/box	Master pcs/box
9438R917	16 x 1/2"	16	1/2"	26	6,6	32,8	44	25	1/50	200
9438R920	20 x 3/4"	20	3/4"	28	10	34,5	47	30	1/40	160

Threads: G (UNI EN ISO 228-1).

GP 2600
FITTINGS

Elbow fitting with copper pipe, chromed.

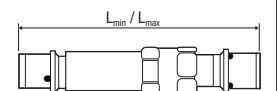


CODE	Size	Pipe	A mm	B mm	C mm	D mm	Ch mm	Pack pcs/box	Master pcs/box
9440R803	16 x Ø15	16	44	165	145	Ø15	22	1/20	80

Not suitable for plumbing systems.

GP 2600
FITTINGS

Telescopic press fitting, in CW617N brass and O-Ring in EPDM PEROX, for repairing damaged FIVPEX and FIVPERT multilayer pipes.



CODE	Size	Profilo	L _{min} mm	L _{max} mm	Pack pcs/box	Master pcs/box
9985R001	16 x 16	TH (KSP11)	150	203,5	15	120
9985R002	20 x 20	TH (KSP11)	159	219,5	10	80
9985R003	26 x 26	TH (KSP11)	182	245,5	10	40

GP 2630
BRACKET



Multiple centre distance: 80 - 100 - 153 mm.

Recessed galvanized bracket for flanged elbows, including 6 M4.8x13 screws.

CODE	Pack pcs/box
9543Z002	2

GP 2630
BRACKET



Centre distance: 153 mm.

Galvanized flat bracket for flanged elbows, including 2 M6x8 screws.

CODE	Pack pcs/box
9544Z001	1

GP 2630
BRACKET



Bracket for offset T-fitting.

CODE	Pack pcs/box
9545Z001	2

GP 2630
PLUG



Red plug for circuit test with O-ring.

CODE	Size	Pack pcs/box
9546P004	1/2"	50
9546P005	3/4"	50

GP 2630
PLUG



Blue plug for circuit test with O-ring.

CODE	Size	Pack pcs/box
9547P004	1/2"	50
9547P005	3/4"	50

GP 2630
PLUG



Plug for circuit test for multi-layer pipes.

CODE	Size	Pack pcs/box
28101846	16x2	1
28101848	20x2	1

Complete with 1/2" F connection for vent valve (supplied as standard).

FIVPRESS

UNDER-PLASTER VALVE



kiwa UNI



See FIVPress System introductory page (page 11) for details

Components

Material

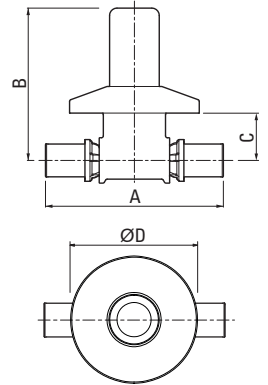
Body	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
Large screw group	UNI EN 12164 CW617N - DW
Rosette - Sleeve - Handwheel	Brushed and chromed
Seal gasket	EPDM
Maximum operating temperature	95 °C
Max. operating temperature at 95 °C	6 bar

GP 2600
FIVPRESS

NEW



Under-plaster valve complete with sleeve and rosette, chromed.



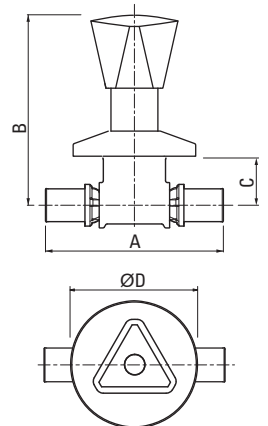
CODE	Size	A mm	B mm	C mm	ØD mm	Pack pcs	Master pcs/box
9441R829	16 x 16	96	min. 83,5 ÷ max. 100	min. 35 ÷ max. 70	70	1/5	20
9441R831	20 x 20	96	min. 83,5 ÷ max. 100	min. 35 ÷ max. 70	70	1/5	20
9441R833	26 x 26	96	min. 83,5 ÷ max. 100	min. 35 ÷ max. 70	70	1/5	20

Complete with large screw protection cap.

GP 2600
FIVPRESS



Under-plaster valve complete with handwheel and rosette, chromed.



CODE	Size	A mm	B mm	C mm	ØD mm	Pack pcs	Master pcs/box
9442R829	16 x 16	96	83,5	min. 35 ÷ max. 50	70	1/5	20
9442R831	20 x 20	96	108	min. 35 ÷ max. 50	70	1/5	20
9442R833	26 x 26	96	108	min. 35 ÷ max. 50	70	1/5	20

GP 2630
LARGE SCREW

Large screw of 3/4" extended (+20 mm) for large screw group.

(*) Article available while stocks last.



CODE	Size	Note	Pack pcs
90008170	3/4" (*)	(1)	10
NEW 90008172	3/4"	(1) (2)	10
90008180	3/4"	(3)	10

(1) For large screw group with blind sleeve.
(2) Complete with large screw protection cap.
(3) For large screw with handwheel and rosette.
Threads: G (UNI EN ISO 228-1).

GP 2630
GASKETS

Ball gaskets, of spare, for large screw stopper, in EPDM.



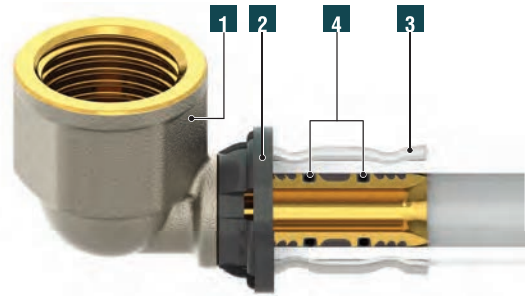
CODE	Pack pcs
90008011	10

FIVPRESS LBP

Leak Before Pressed

PLURI-PROFILE PRESS FITTINGS

pluri  profile



kiwa 



See FIVPress System introductory page (page 11) for details

Components

	Components	Pcs	Material
1	Brass body (nickel plated only on surfaces not in contact with carried fluids) Female - Male connection Thread UNI EN 10226 (UNI EN ISO 7/1) (DIN 2999)	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
2	Bush holder ring nut	1	Polyamide
3	Bush	1	AISI 304 stainless steel
4	Double O-Ring	2	EPDM peroxide 70 SH
5	Matrices (pincers)	1	Steel

NOTE: Assembly instructions in the technical attachment.

EN TECHNICAL AND CONSTRUCTION FEATURES

The FIVPress LBP fittings allow a quick and safe connection of the pipe - fitting, attainable by pressing the steel bushing, with the specific device.

The special shape of the fitting and the use of a double O-Ring guarantee a perfect and long-lasting hydraulic and mechanical seal.

The FIVPress LBP fittings have been developed to ensure a water leak in the absence of pressing and to be used indifferently with 5 different pressing profiles (TH, B, U, H, F).

The LBP function (Leak Before Pressed) enables the installer to identify any fittings not pressed during testing of the system seal, and therefore avoiding possible damage.

DRINKING WATER SUITABILITY

The fittings to be pressed in the FIVPress LBP system comply with the Decree of the Italian Ministry of Health n.174 of 06/04/2004.

CONSTRUCTIONAL DETAILS

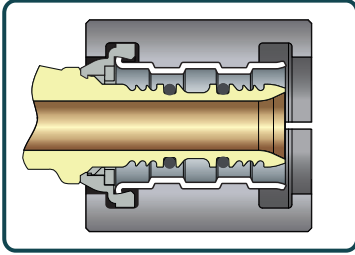
The stainless steel bush is mounted on the fitting by means of a polyamide ring nut with windows.

This performs the following tasks:

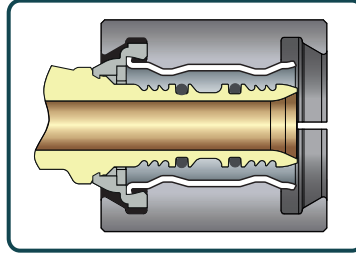
- it allows you to check that the pipe is correctly positioned with the pipe (thanks to the windows)
- it guides the pincers correctly around the bush
- it insulates the pipe from the brass of the fitting, preventing corrosion due to differences in electrical potential.

PRESSING PROFILE FIVPress LBP FITTINGS

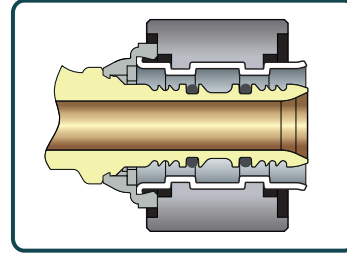
TH - KSP 11



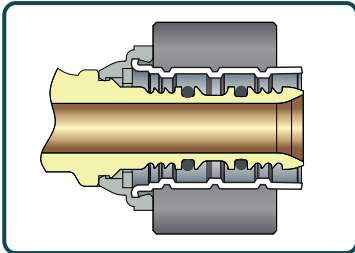
B - KSP 1



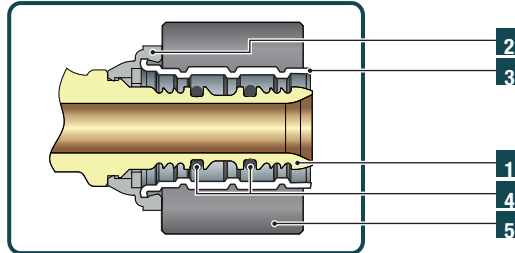
F - KSP 2



U - KSP 5



H - KSP 7



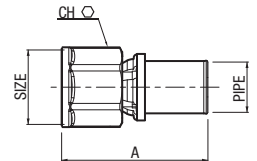
Profile and dimensions of the jaws that can be used with Pluri-Profile FIVPress LBP Fittings

	16	20	26	32
TH	✓	✓	✓	✓
B	✓	✓	✓	✓
F	✓	✓	✓	✓
U	✓	✓	✓	✓
H	✓	✓	✓	✓

GP 2601
LBP FITTINGS



Straight female union joint, nickel-plated.



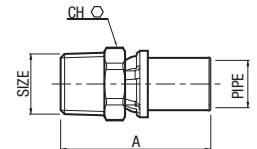
CODE	Size	Pipe	A mm	Ch mm	Pack pcs/box	Master pcs/box
7420R802	16 x 1/2"	16x2	49,5	24	10/100	400
7420R804	20 x 1/2"	20x2	49,5	24	10/90	360
7420R807	20 x 3/4"	20x2	52	30	10/60	240
7420R809	26 x 3/4"	26x3	56,5	30	5/40	160
7420R811	26 x 1"	26x3	60,5	38	5/30	120
7420R814	32 x 1"	32x3	60,5	38	5/25	100

Threads: Rp (UNI EN 10226-1).

GP 2601
LBP FITTINGS



Straight male union joint, nickel-plated.

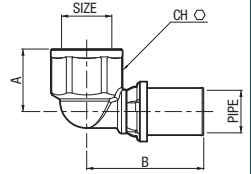


CODE	Size	Pipe	A mm	Ch mm	Pack pcs/box	Master pcs/box
7421R802	16 x 1/2"	16x2	50,8	22	10/100	400
7421R804	20 x 1/2"	20x2	50,8	22	10/100	400
7421R805	16 x 3/4"	16x2	54,5	27	10/70	280
7421R807	20 x 3/4"	20x2	54,5	27	10/70	280
7421R809	26 x 3/4"	26x3	59	27	5/50	200
7421R811	26 x 1"	26x3	64	34	5/30	120
7421R814	32 x 1"	32x3	64	34	5/30	120
7421R810	32 x 1"1/4	32x3	70	46	1/16	64

Threads: R (UNI EN 10226-1).

GP 2601
LBP FITTINGS

Female connecting elbow, nickel-plated.

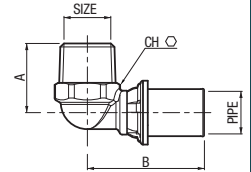


CODE	Size	Pipe	A mm	B mm	Ch mm	Pack pcs/box	Master pcs/box
7422R802	16 x 1/2"	16x2	23,5	44	24	10/80	320
7422R804	20 x 1/2"	20x2	23,5	44	24	10/60	240
7422R807	20 x 3/4"	20x2	28	48	30	10/50	200
7422R809	26 x 3/4"	26x3	28	52,5	30	5/35	140
7422R814	32 x 1"	32x3	33	56,5	38	5/25	100

Threads: Rp (UNI EN 10226-1).

GP 2601
LBP FITTINGS

Male connecting elbow, nickel-plated.

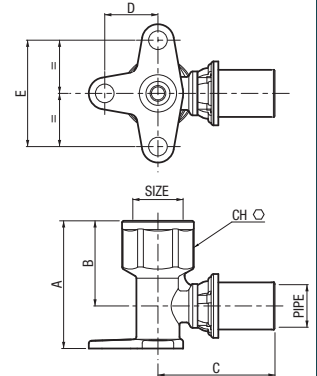


CODE	Size	Pipe	A mm	B mm	Ch mm	Pack pcs/box	Master pcs/box
7423R802	16 x 1/2"	16x2	26	44	22	10/80	320
7423R804	20 x 1/2"	20x2	26	44	22	10/70	280
7423R807	20 x 3/4"	20x2	31,5	48	27	10/40	160
7423R809	26 x 3/4"	26x3	31,5	52,5	27	5/40	160
7423R811	26 x 1"	26x3	38	56,5	34	5/25	100
7423R814	32 x 1"	32x3	38	56,5	34	5/25	100

Threads: R (UNI EN 10226-1).

GP 2601
LBP FITTINGS

Female connecting elbow fitting, with flanged, nickel-plated.

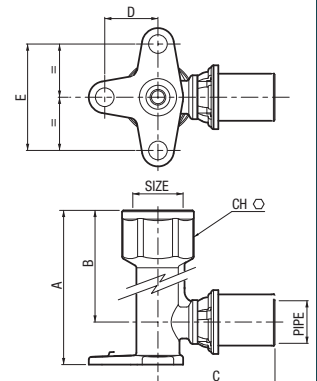


CODE	Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm	Pack pcs/box	Master pcs/box
7424R802	16 x 1/2"	16x2	48	32	44	20	40	24	5/40	160
7424R804	20 x 1/2"	20x2	48	32	44	20	40	24	5/40	160
7424R807	20 x 3/4"	20x2	56	37	48	20	40	30	5/20	80
7424R809	26 x 3/4"	26x3	56	37	52,5	20	40	30	5/20	80

Threads: Rp (UNI EN 10226-1).

GP 2601
LBP FITTINGS

Female coupling elbow fitting with long neck and flange, nickel-plated.



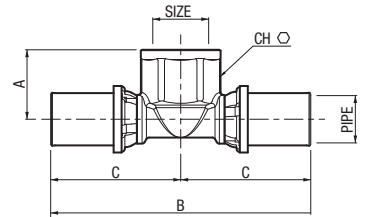
CODE	Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm	Pack pcs/box	Master pcs/box
7443R802	16 x 1/2"	16x2	68	52	44	20	40	24	5/30	120
7443R804	20 x 1/2"	20x2	68	52	44	20	40	24	5/30	120

Threads: Rp (UNI EN 10226-1).

GP 2601
LBP FITTINGS



Intermediate tee joint with female branch, nickel-plated.



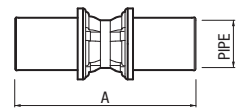
CODE	Size	Pipe	A mm	B mm	C mm	Ch mm	Pack pcs/box	Master pcs/box
7425R817	16 x 1/2" x 16	16x2	23,5	88	44	24	10/50	200
7425R820	16 x 3/4" x 16	16x2	23,5	96	44	24	5/30	120
7425R819	20 x 1/2" x 20	20x2	23,5	88	44	24	5/40	160
7425R822	20 x 3/4" x 20	20x2	28	96	48	30	5/30	120
7425R830	26 x 1/2" x 26	26x3	26,5	105	52,5	27	5/20	80
7425R823	26 x 3/4" x 26	26x3	28	113	56,5	34	5/20	80
NEW 7425R891	32 x 1/2" x 32	32x3	29,5	113	56,5	38	5/15	60
7425R824	32 x 3/4" x 32	32x3	31	113	56,5	34	5/15	60
7425R826	32 x 1" x 32	32x3	33	113	56,5	38	5/15	60

Threads: Rp (UNI EN 10226-1).

GP 2601
LBP FITTINGS



Straight intermediate union joint, nickel-plated.

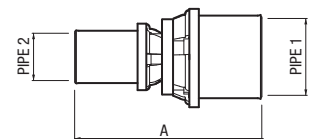


CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
7426S829	16 x 16	16x2	61	10/100	400
7426S831	20 x 20	20x2	61	10/70	280
7426S833	26 x 26	26x3	70	5/35	140
7426S835	32 x 32	32x3	70	5/30	120

GP 2601
LBP FITTINGS



Straight intermediate reducing union joint, nickel-plated.

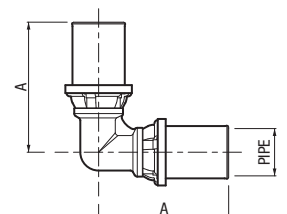


CODE	Size	Pipe 1	Pipe 2	A mm	Pack pcs/box	Master pcs/box
7427S841	20 x 16	20x2	16x2	61	10/70	280
7427S843	26 x 16	26x3	16x2	65,5	5/50	200
7427S845	26 x 20	26x3	20x2	65,5	5/40	160
7427S846	32 x 16	32x3	16x2	65,5	5/30	120
7427S848	32 x 20	32x3	20x2	65,5	5/30	120
7427S849	32 x 26	32x3	26x3	70	5/30	120

GP 2601
LBP FITTINGS



Intermediate elbow union joint, nickel-plated.

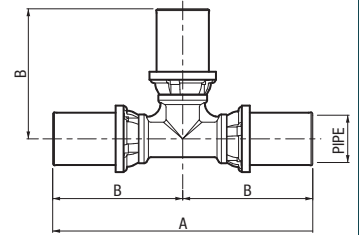


CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
7428S829	16 x 16	16x2	41,7	10/70	280
7428S831	20 x 20	20x2	43,7	10/60	240
7428S833	26 x 26	26x3	51,2	5/30	120
7428S835	32 x 32	32x3	54,2	5/20	80

GP 2601
LBP FITTINGS



Intermediate tee joint, nickel-plated.

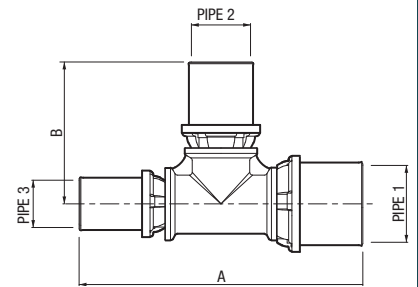


CODE	Size	Pipe	A mm	B mm	Pack pcs/box	Master pcs/box
7429S852	16 x 16 x 16	16x2	83,3	41,7	5/40	160
7429S854	20 x 20 x 20	20x2	87,3	43,7	5/30	120
7429S856	26 x 26 x 26	26x3	102,3	51,2	5/20	80
7429S857	32 x 32 x 32	32x3	108,3	54,2	5/15	60

GP 2601
LBP FITTINGS



Intermediate reducing tee joint, nickel-plated.

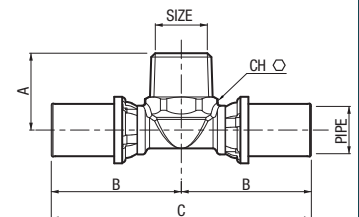


CODE	Size	Pipe 1	Pipe 2	Pipe 3	A mm	B mm	Pack pcs/box	Master pcs/box
7430S861	16 x 20 x 16	16x2	20x2	16x2	87,3	43,7	5/30	120
7430S870	20 x 16 x 16	20x2	16x2	16x2	87,3	43,7	5/30	160
7430S871	20 x 16 x 20	20x2	16x2	20x2	87,3	43,7	5/30	120
7430S874	20 x 20 x 16	20x2	20x2	16x2	87,3	43,7	5/30	120
7430S875	20 x 26 x 20	20x2	26x3	20x2	93,3	51,2	5/25	100
7430S876	20 x 32 x 20	20x2	32x3	20x2	101,3	54,2	5/20	80
7430S880	26 x 16 x 20	26x3	16x2	20x2	97,8	46,7	5/25	100
7430S881	26 x 16 x 26	26x3	16x2	26x3	102,3	46,7	5/25	100
7430S883	26 x 20 x 16	26x3	20x2	16x2	97,8	46,7	5/25	100
7430S884	26 x 20 x 20	26x3	20x2	20x2	97,8	46,7	5/25	100
7430S885	26 x 20 x 26	26x3	20x2	26x3	102,3	46,7	5/25	100
7430S878	26 x 26 x 16	26x3	26x3	16x2	97,8	51,2	5/25	100
7430S886	26 x 26 x 20	26x3	26x3	20x2	97,8	51,2	5/25	100
7430S887	26 x 32 x 26	26x3	32x3	26x3	108,3	54,2	5/15	60
7430S890	32 x 16 x 32	32x3	16x2	32x3	108,3	50,7	5/15	60
7430S892	32 x 20 x 20	32x3	20x2	20x2	103,8	49,7	5/20	80
7430S893	32 x 20 x 26	32x3	20x2	26x3	108,3	50,7	5/15	60
7430S894	32 x 20 x 32	32x3	20x3	32x3	108,3	50,7	5/15	60
7430S895	32 x 26 x 20	32x3	26x3	20x2	103,8	54,2	5/15	60
7430S896	32 x 26 x 26	32x3	26x3	26x3	108,3	54,2	5/15	60
7430S897	32 x 26 x 32	32x3	26x3	32x3	108,3	54,2	5/15	60
7430S889	32 x 32 x 16	32x3	32x3	16x2	104,8	54,2	5/15	60
7430S898	32 x 32 x 20	32x3	32x3	20x2	103,8	54,2	5/15	60
7430S899	32 x 32 x 26	32x3	32x3	26x3	108,3	54,2	5/15	60

GP 2601
LBP FITTINGS



Intermediate male tee joint, nickel-plated.



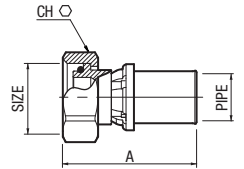
CODE	Size	Pipe	A mm	B mm	C mm	Ch mm	Pack pcs/box	Master pcs/box
7431R817	16 x 1/2" x 16	16x2	26	44	88	22	10/50	200
7431R819	20 x 1/2" x 20	20x2	26	44	88	22	10/40	160
7431R822	20 x 3/4" x 20	20x2	31,5	48	96	27	10/30	120
7431R823	26 x 3/4" x 26	26x3	31,5	52,5	105	27	5/20	80

Threads: R (UNI EN 10226-1).

GP 2601
LBP FITTINGS



Straight joint with female swivel nut with O-Ring seal, nichel-plated.



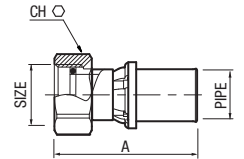
CODE	Connection	Takeoff	Pipe	A mm	Ch mm	Pack pcs/box	Master pcs/box
7432R314	16 - 24x19	24 x 19	16x2	45,5	27	10/100	400
7432R316	20 - 24x19	24 x 19	20x2	45,5	27	10/80	320
7432R318	16 - 3/4"	EUROCONO	16x2	46	30	10/80	320
7432R320	20 - 3/4"	EUROCONO	20x2	46	30	10/80	320

3/4" threads: G (UNI EN ISO 228-1).

GP 2601
LBP FITTINGS



Straight joint with female swivel nut with flat seal, nichel-plated.



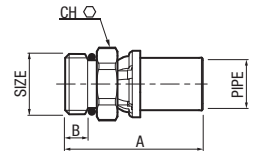
CODE	Size	Connection	Pipe	A mm	Ch mm	Pack pcs/box	Master pcs/box
7439R915	16 x 3/8"	3/8"	16x2	49,5	19	1/50	200
7439R917	16 x 1/2"	1/2"	16x2	49,5	25	1/50	200
7439R918	16 x 3/4"	3/4"	16x2	49,5	30	1/40	160
7439R919	20 x 1/2"	1/2"	20x2	49,5	25	1/50	200
7439R920	20 x 3/4"	3/4"	20x2	49,5	30	1/40	160
7439R922	26 x 3/4"	3/4"	26x3	49,5	30	1/35	140
7439R924	26 x 1"	1"	26x3	59	37	1/30	120
7439R926	32 x 1"	1"	32x3	59	37	1/25	100

Threads: G (UNI EN ISO 228-1).

GP 2601
LBP FITTINGS



Straight joint male with O-ring, nichel-plated.



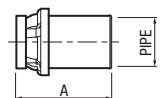
CODE	Size	Pipe	A mm	B mm	Ch mm	Pack pcs/box	Master pcs/box
7421R916	16 x 1/2"	16x2	43,5	6,5	24	1/100	400
7421R920	20 x 1/2"	20x2	43,5	6,5	28	1/100	400

Threads: G (UNI EN ISO 228-1).

GP 2601
LBP FITTINGS



Plug joint.

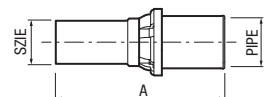


CODE	Pipe	A mm	Pack pcs/box	Master pcs/box
7445R916	16x2	31	1/100	400
7445R920	20x2	31	1/100	400
7445R926	26x3	36,5	5/50	200
7445R932	32x3	36,5	5/30	120

GP 2601
LBP FITTINGS



Straight intermediate joint, pressing copper/multilayer.

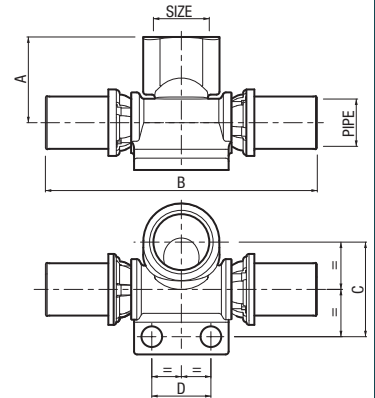


CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
7427R150	15	16x2	53	1/50	200
7427R180	18	20x2	54	1/50	200
7427R220	22	20x2	62	1/50	200
7427R222	22	26x3	66,5	1/30	120
7427R280	28	32x3	68,5	1/25	100

GP 2601
LBP FITTINGS



Female offset Tee joint, nickel-plated.



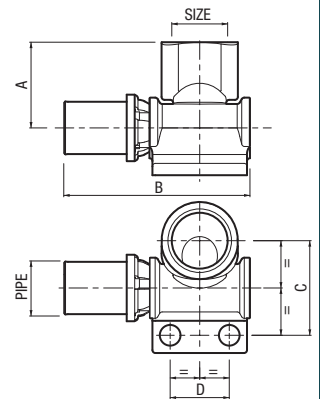
CODE	Size	Pipe	A mm	B mm	C mm	D mm	Pack pcs/box	Master pcs/box
7433R817	16 x 1/2" x 16	16x2	29	94	32	20	5/25	100
7433R819	20 x 1/2" x 20	20x2	29	94	32	20	5/25	100

Threads: Rp (UNI EN 10226-1).

GP 2601
LBP FITTINGS



Right terminal offset union joint, nickel-plated.



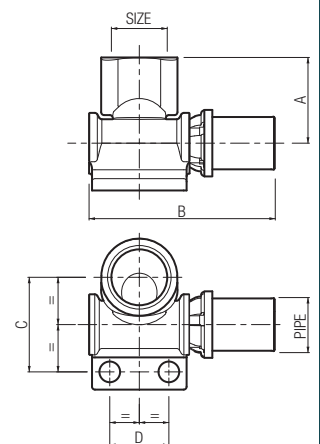
CODE	Size	Pipe	A mm	B mm	C mm	D mm	Pack pcs/box	Master pcs/box
7434R802	16 x 1/2"	16x2	29	65	32	20	5/30	120
7434R804	20 x 1/2"	20x2	29	65	32	20	5/30	120

Threads: Rp (UNI EN 10226-1).

GP 2601
LBP FITTINGS



Left terminal offset union joint, nickel-plated.



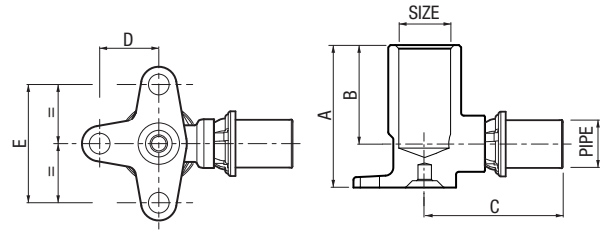
CODE	Size	Pipe	A mm	B mm	C mm	D mm	Pack pcs/box	Master pcs/box
7435R802	16 x 1/2"	16x2	29	65	32	20	5/30	120
7435R804	20 x 1/2"	20x2	29	65	32	20	5/30	120

Threads: Rp (UNI EN 10226-1).

GP 2601
LBP FITTINGS



Female connecting H52 mm elbow fitting, with flanged, nickel-plated.



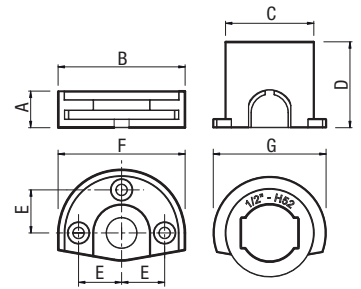
CODE	Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm	Pack pcs/box	Master pcs/box
7424R806	16 x 1/2"	16x2	52	36	51	20	40	24	5/30	120
7424R808	20 x 1/2"	20x2	52	36	51	20	40	24	5/30	120

Threads: G (UNI EN ISO 228-1).

GP 2601
LBP FITTINGS



Soundproofing shell for elbow, H52 mm female connection with flange, screw kit included.

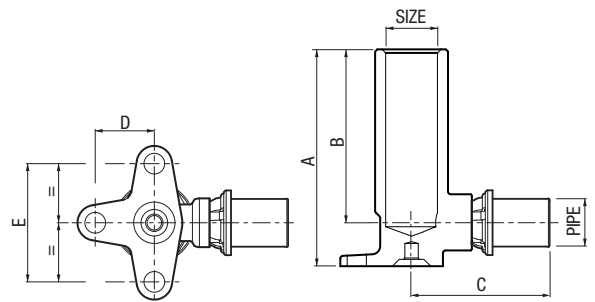


CODE	Size	Version Versión	A mm	B mm	∅C mm	D mm	E mm	F mm	∅G mm	Pack pcs/box	Master pcs/box
7446R052	-	SINGLE	17	59	41	42	20	59	52,4	1/4	32

GP 2601
LBP FITTINGS



Female connecting H78 mm elbow fitting, with flanged, nickel-plated.



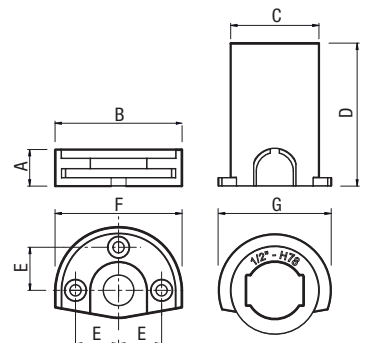
CODE	Size	Pipe	A mm	B mm	C mm	D mm	E mm	Pack pcs/box	Master pcs/box
7424R906	16 x 1/2"	16x2	78	62	51	20	40	5/20	80
7424R908	20 x 1/2"	20x2	78	62	51	20	40	5/20	80

Threads: G (UNI EN ISO 228-1).

GP 2601
LBP FITTINGS



Soundproofing shell for elbow, H78 mm female connection with flange, screw kit included.

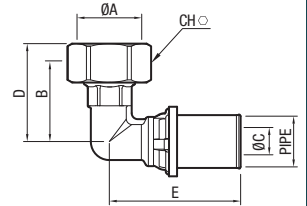


CODE	Size	Version Versión	A mm	B mm	∅C mm	D mm	E mm	F mm	∅G mm	Pack pcs/box	Master pcs/box
7446R078	-	SINGLE	17	59	41	68	20	59	52,4	1/4	32

GP 2601
LBP FITTINGS



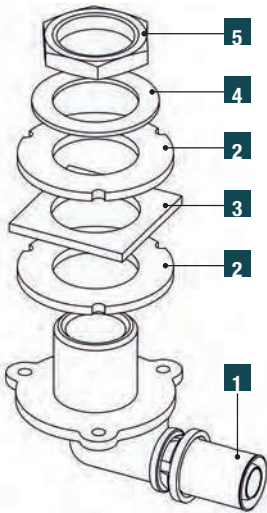
Elbow connector with rotating nut and flat seal, nickel-plated.



CODE	Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm	Pack pcs/box	Master pcs/box
7438R917	16 x 1/2"	16	1/2"	26	7	32,8	44	25	1/50	200
7438R920	20 x 3/4"	20	3/4"	30	10,5	34,5	47	30	1/40	160

Threads: G (UNI EN ISO 228-1).

GP 2601
LBP FITTINGS



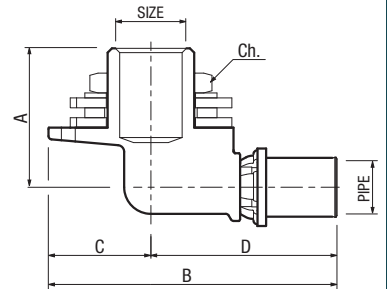
Elbow fitting for built-in WC flushing cistern.

Technical data

Operating temperature: 0 °C ÷ +95 °C
Operating pressure: 10 Bar

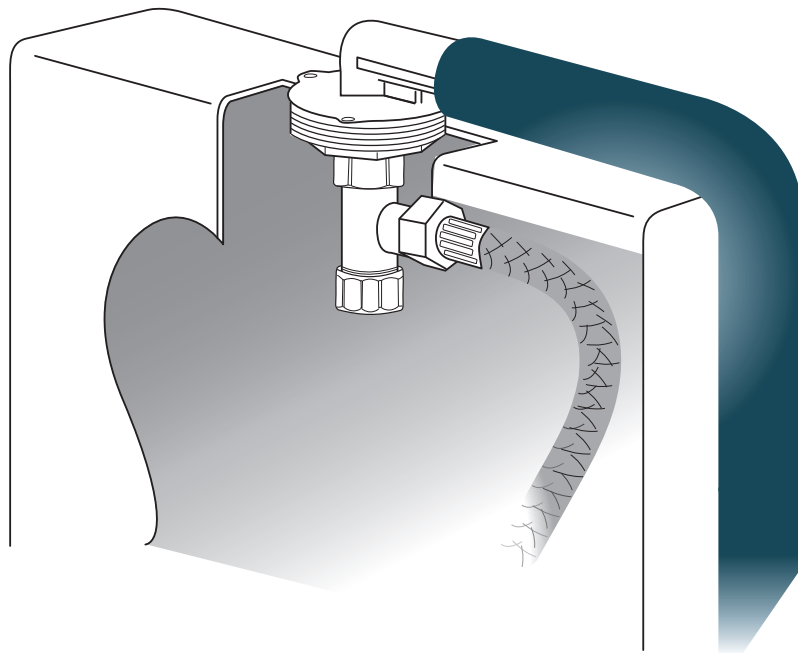
Consisting of:

- 1 Male angular fitting
- 2 NBR gasket
- 3 Square polypropylene plate (PP)
- 4 Galvanised steel washer (Fe P13 EU111)
- 5 Hexagon locknut Wrench size 32 Brass (EN 12164 CW617N)



CODE	Size	Pipe	A mm	B mm	C mm	D mm	Ch mm	Pack pcs/box	Master pcs/box
7447R906	1/2"	16x2	42	87	31	56	22	1/15	60

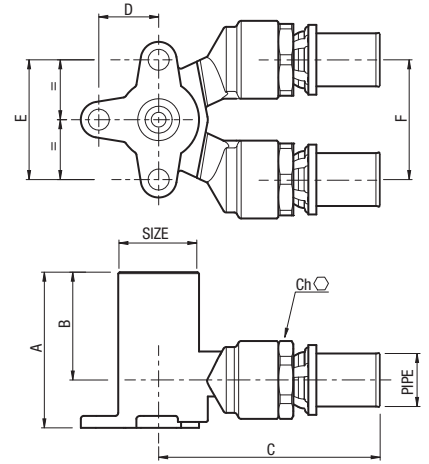
Threads: G (UNI EN ISO 228-1).



GP 2601
LBP FITTINGS



Double female thread elbow connector, with flange, nickel-plated.



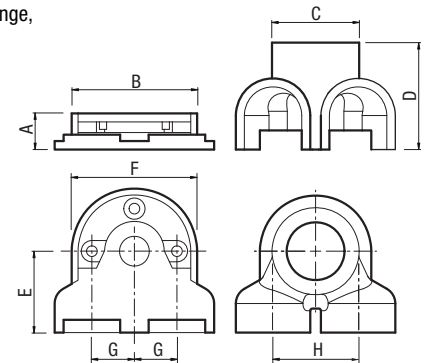
CODE	Size	Pipe	A mm	B mm	C mm	D mm	E mm	F mm	Ch mm	Pack pcs/box	Master pcs/box
7436R802	16 x 1/2"	16x2	52	36	74	20	40	40	24	1/10	40
7436R804	20 x 1/2"	20x2	52	36	74	20	40	40	28	1/10	40

Threads: G (UNI EN ISO 228-1).

GP 2601
LBP FITTINGS



Soundproofing shell for elbow, double, H52 mm female connection with flange, screw kit included.

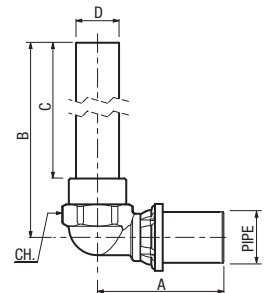


CODE	Size	Version	A mm	B mm	∅C mm	D mm	E mm	F mm	G mm	H mm	Pack pcs/box	Master pcs/box
7446R252	-	DOUBLE	17	75	41	51	39	59	20	40	1/4	32

GP 2601
LBP FITTINGS



Elbow fitting with copper pipe, nickel-plated.



CODE	Size	Pipe	A mm	B mm	C mm	D mm	Ch mm	Pack pcs/box	Master pcs/box
7447R803	16 x ∅15	16	44	165	144,5	∅15	22	1/20	80

Not suitable for plumbing systems.

GP 2630
BRACKET

Recessed galvanized bracket for flanged elbows, including 6 M4.8x13 screws.



Multiple centre distance: 80 - 100 - 153 mm.

CODE	Pack pcs/box
9543Z002	2

GP 2630
BRACKET

Galvanized flat bracket for flanged elbows, including 2 M6x8 screws.



Centre distance: 153 mm.

CODE	Pack pcs/box
9544Z001	1

GP 2630
PLUG

Red plug for circuit test with O-ring.



CODE	Size	Pack pcs/box
9546P004	1/2"	50
9546P005	3/4"	50

GP 2630
PLUG

Blue plug for circuit test with O-ring.



CODE	Size	Pack pcs/box
9547P004	1/2"	50
9547P005	3/4"	50

GP 2630
PLUG

Plug for circuit test for multi-layer pipes.



CODE	Size	Pack pcs/box
28101846	16x2	1
28101848	20x2	1

Complete with 1/2" F connection for vent valve (supplied as standard).



FIVPRESS LBP

Leak Before Pressed

UNDER-PLASTER VALVE PLURI-PROFILE



See FIVPress System introductory page (page 11) for details

Components

Material

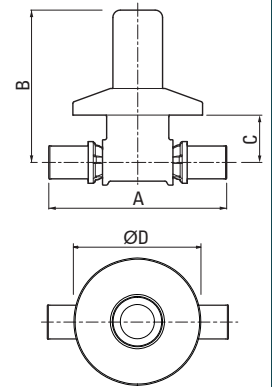
Body	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
Large screw group	UNI EN 12164 CW617N - DW
Rosette - Sleeve - Handwheel	Brushed and chromed
Seal gasket	EPDM
Maximum operating temperature	95 °C
Max. operating temperature at 95 °C	6 bar

GP 2601
UNDER-PLASTER LBP VALVE

NEW



Under-plaster valve complete with sleeve and rosette, chromed.



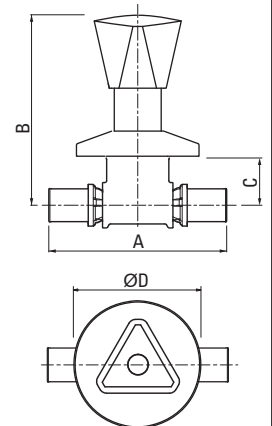
CODE	Size	A mm	B mm	C mm	ØD mm	Pack pcs	Master pcs/box
7441R829	16 x 16	96	min. 83,5 ÷ max. 100	min. 35 ÷ max. 70	70	1/5	20
7441R831	20 x 20	96	min. 83,5 ÷ max. 100	min. 35 ÷ max. 70	70	1/5	20
7441R833	26 x 26	96	min. 83,5 ÷ max. 100	min. 35 ÷ max. 70	70	1/5	20

Complete with large screw protection cap.

GP 2601
UNDER-PLASTER LBP VALVE



Under-plaster valve complete with handwheel and rosette, chromed.



CODE	Size	A mm	B mm	C mm	Pack pcs	Master pcs/box
7442R829	16 x 16	96	83,5	min. 35 ÷ max. 50	1/5	20
7442R831	20 x 20	96	108	min. 35 ÷ max. 50	1/5	20
7442R833	26 x 26	96	108	min. 35 ÷ max. 50	1/5	20

GP 2630
LARGE SCREW

Large screw of 3/4" extended (+20 mm) for large screw group.

(*) Article available while stocks last.



CODE	Size	Note	Pack pcs
90008170	3/4" (*)	(1)	10
NEW 90008172	3/4"	(1) (2)	10
90008180	3/4"	(3)	10

(1) For large screw group with blind sleeve.
(2) Complete with large screw protection cap.
(3) For large screw with handwheel and rosette.
Threads: G (UNI EN ISO 228-1).

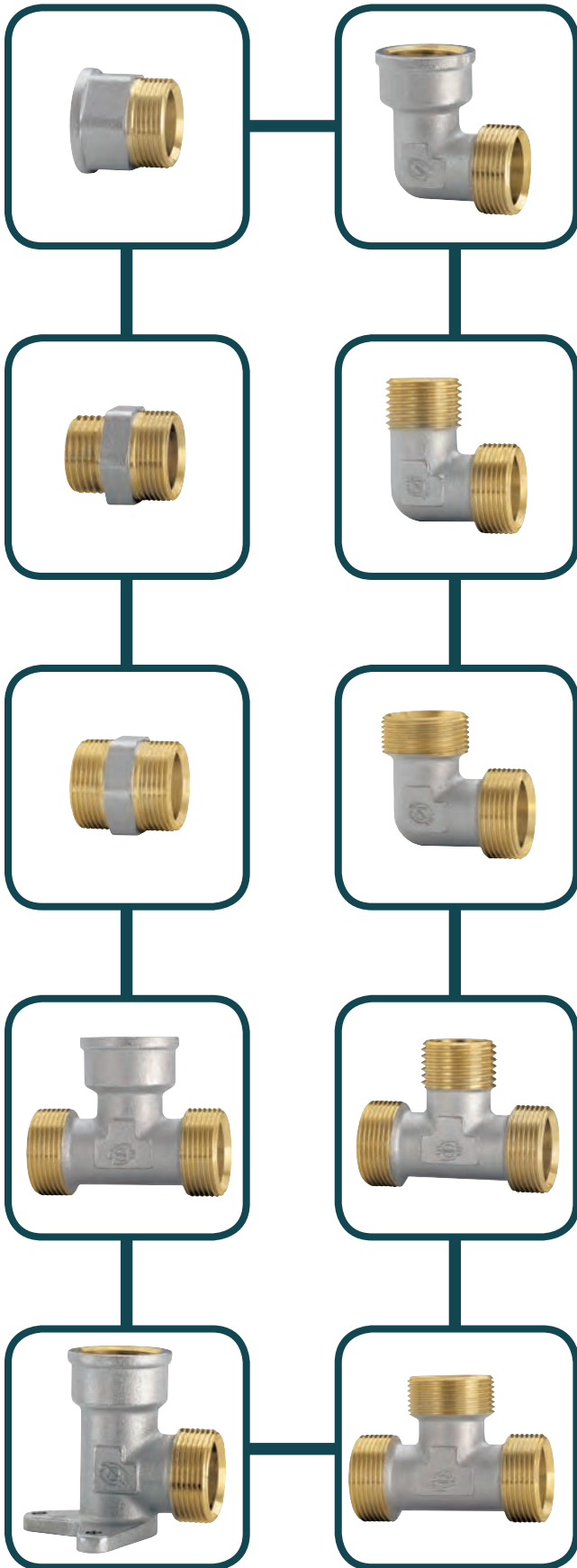
GP 2630
GASKETS

Ball gaskets, of spare, for large screw stopper, in EPDM.



CODE	Pack pcs
90008011	10

Modular fittings to tighten for Copper, Multilayer, PE-X, PP, PB pipes

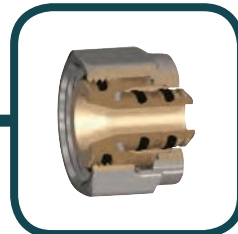


MONOBLOC seal for copper pipe



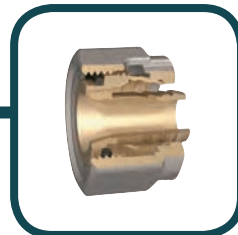
24x19 connection

MONOBLOC seal for multilayer pipe



24x19 / 32p.1,5 connection

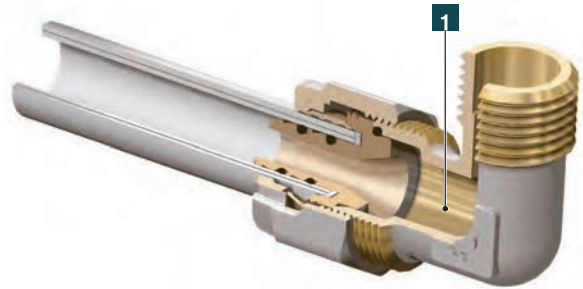
Monobloc seal for PE-X, PP, PB pipe



24x19 connection

MODULAR FITTINGS

MODULAR FITTINGS TO TIGHTEN



Components

Pcs Material

1	Body	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
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Female and Male connection GAS threads ISO 228/1 (DIN 259)

REMARKS

- ** All types of 24x19 seals for Multi-layer, PE-X, PP and PB pipes size 12 to 20 can be fitted.
- *** All types of 32p1.5 seals for Multi-layer pipes size 26 can be fitted.

CONSTRUCTIONAL AND TECHNICAL CHARACTERISTICS

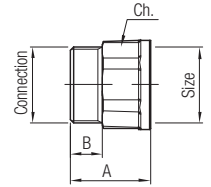
The use of tightened fittings makes installation of the pipe easy, quick, and above all with the use of very few tools. The threading of the fittings, 24x19 (or 32x1.5), allows the use of a single type of fitting that can be coupled with various seals of different sizes, thus rationalizing stocks. Nickel-plated only on surface non in contact with fluids.

THE RANGE

- Fittings of 1/2" and 3/4" with attachment 24x19
- Fittings of 3/4" and 1" with attachment 32p1.5
- Double jointed and triple jointed fittings, attachment 24x19 and 32p1.5

GP 2610
FITTINGS

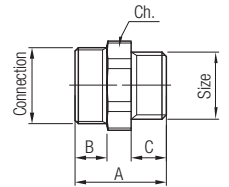
Straight Female joint, nickel-plated.



CODE	Size	Connection	A mm	B mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
1330K804	1/2" **	24x19	25	10	25	49	16	50	800
1330K807	3/4" **	24x19	27	10	31	75	16	30	480
1330K809	3/4" ***	32p1,5	27	10	34	78	16	25	400
1330K811	1" ***	32p1,5	28,5	10	38	95	16	20	320

GP 2610
FITTINGS

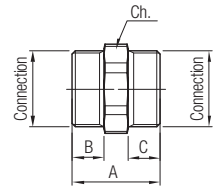
Straight Male joint, nickel-plated.



CODE	Size	Connection	A mm	B mm	C mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
1331K804	1/2" **	24x19	28,5	10	11	25	50	16	50	800
1331K807	3/4" **	24x19	29,5	10	12	31	73	16	30	480
1331K809	3/4" ***	32p1,5	30	10	12	34	85	16	25	400
1331K811	1" ***	32p1,5	31,5	10	13,5	34	88	16	20	320

GP 2610
FITTINGS

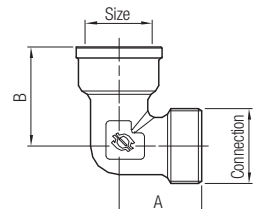
Straight joint - Double-jointed, nickel-plated.



CODE	Size	Connection	A mm	B mm	C mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
1332K831	20x20 **	24x19	27,5	10	10	25	50	16	50	800
1332K833	26x26 ***	32p1,5	28	10	10	34	84	16	25	400

GP 2610
FITTINGS

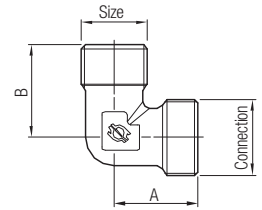
Female elbow joint, nickel-plated.



CODE	Size	Connection	A mm	B mm	gr	PN	Pack pcs/box	Master pcs/box
1333K804	1/2" **	24x19	26	31	71	16	25	400
1333K807	3/4" **	24x19	29	33,5	99	16	20	320
1333K809	3/4" ***	32p1,5	31	35	118	16	12	192
1333K811	1" ***	32p1,5	33	38,5	143	16	10	160

GP 2610
FITTINGS

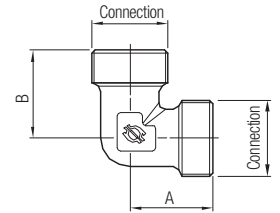
Male elbow joint, nickel-plated.



CODE	Size	Connection	A mm	B mm	gr	PN	Pack pcs/box	Master pcs/box
1334K804	1/2" **	24x19	26	29	60	16	30	480
1334K807	3/4" **	24x19	29	31	73	16	25	400
1334K809	3/4" ***	32p1,5	31	32	90	16	15	240
1334K811	1" ***	32p1,5	33	35	114	16	12	192

GP 2610
FITTINGS

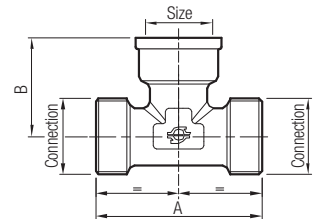
Double-jointed elbow, nickel-plated.



CODE	Size	Connection	A mm	B mm	gr	PN	Pack pcs/box	Master pcs/box
1335K831	20x20 **	24x19	26	27,5	59	16	30	480
1335K833	26x26 ***	32p1,5	31	31,5	95	16	15	240

GP 2610
FITTINGS

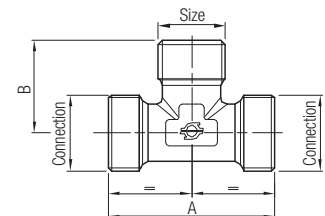
T-joint - Female, nickel-plated.



CODE	Size	Connection	A mm	B mm	gr	PN	Pack pcs/box	Master pcs/box
1336K804	1/2" **	24x19	52	31	92	16	16	256
1336K807	3/4" **	24x19	58	33,5	118	16	12	192
1336K809	3/4" ***	32p1,5	62	35	152	16	8	128
1336K811	1" ***	32p1,5	66	38,5	182	16	6	96

GP 2610
FITTINGS

T-joint - Male, nickel-plated.

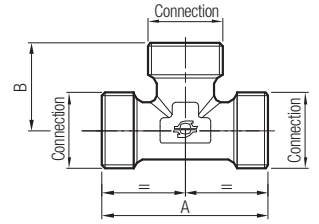


CODE	Size	Connection	A mm	B mm	gr	PN	Pack pcs/box	Master pcs/box
1337K804	1/2" **	24x19	52	29	82	16	20	320
1337K807	3/4" **	24x19	58	31	98	16	15	240
1337K809	3/4" ***	32p1,5	62	32	128	16	8	128
1337K811	1" ***	32p1,5	66	35	154	16	6	96

GP 2610
FITTINGS



T-joint - Three-piece, nickel-plated.

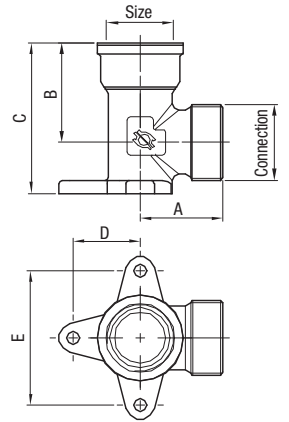


CODE	Size	Connection	A mm	B mm	gr	PN	Pack pcs/box	Master pcs/box
1338K854	20x20x20 **	24x19	52	27,5	81	16	20	320
1338K856	26x26x26 ***	32p1,5	62	32	134	16	8	128

GP 2610
FITTINGS



Elbow joint Female with flange, nickel-plated.

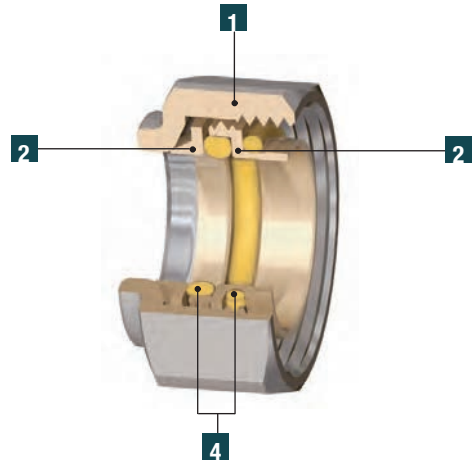
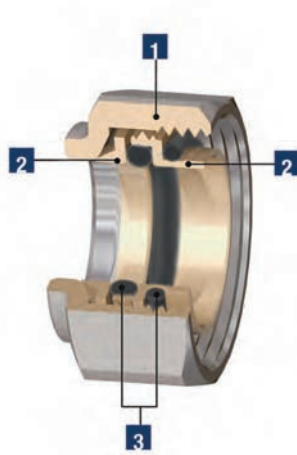


CODE	Size	Connection	A mm	B mm	C mm	D mm	E mm	gr	PN	Pack pcs/box	Master pcs/box
1339K804	1/2" **	24x19	26	31	47	21	42	105	16	12	192
1339K807	3/4" **	24x19	29	33,5	49,5	21	42	134	16	10	160

For ball valves with 24x19 fitting see Compression series.

MONOBLOCCO FITTING

MONOBLOCCO FITTING FOR COPPER PIPES FOR WATER AND FOR GAS



Components

Components	Pcs	Material
1 Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
2 Internal seal ring nuts	1	UNI EN 12164 CW617N - DW
3 O-Ring seals	1	EDPM peroxidized 70 Sh.
4 O-Ring seals	1	HBNR 70 yellow

GP 2615

MONOBLOCCO FITTING



Monoblocco fitting for copper pipe, nickel-plated, for WATER.

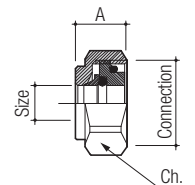
OPERATING CONDITIONS (UNI EN 1254-2)

Maximum operating pressures as a function of temperatures:

- P_{max} for operating T up to 30 °C: 25 bar (for diameters from 10 to 15 mm), 16 bar (for 16 mm diameter)
- P_{max} for operating T from 31 °C to 65 °C: 25 bar (for diameters from 10 to 15 mm), 13 bar (for 16 mm diameter)
- P_{max} for operating T from 66 °C to 95 °C: 16 bar (for diameters from 10 to 15 mm), 10 bar (for 16 mm diameter)

These seals matched with the Modular Fittings.

(*) Article available while stocks last.



CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	Pack pcs/box	Master pcs/box
9500R510	∅ 10 (*)	24x19	30 ÷ 35	14,5	27	42	50	800
9500R512	∅ 12 (*)	24x19	35 ÷ 40	14,5	27	38	50	800
9500R514	∅ 14 (*)	24x19	40 ÷ 45	14,5	27	34	50	800
9500R515	∅ 15 (*)	24x19	40 ÷ 45	14,5	27	32	50	800
9500R516	∅ 16 (*)	24x19	45 ÷ 50	14,5	27	30	50	800
NEW 6047R001	(**)	24x19	30 ÷ 35	14,5	27	30	20	320

(**) Blind monobloc fitting (plug).

GP 2615
STANDARD FITTING



Brass fitting for copper pipe, with nickel-plated nut, for WATER.

These seals matched with the Modular Fittings.

CODE	Size	Connection	Maximum torque (Nm)	PN	t max °C	Pack pcs/box
9711R518	∅ 18	24x19	50 ÷ 55	10	100	40

GP 2615
GAS MONOBLOCCO FITTING

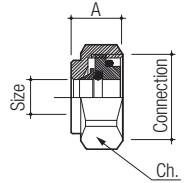


Monoblocco fitting for copper pipe, nickel-plated, for GAS.

OPERATING CONDITIONS (UNI EN 1254-2)

Maximum operating pressures as a function of temperatures:

- Operating temperature: -20÷70 °C
- Operating pressure: MOP 5



(*) Article available while stocks last.

CODE	Size	Connection	A mm	Ch mm	gr	Pack pcs/box	Master pcs/box
9502R510	∅ 10 (*)	24 x 19	14,5	27	42	20	640
9502R512	∅ 12 (*)	24 x 19	14,5	27	38	20	640
9502R514	∅ 14 (*)	24 x 19	14,5	27	34	20	640
9502R515	∅ 15 (*)	24 x 19	14,5	27	32	20	640
9502R516	∅ 16 (*)	24 x 19	14,5	27	30	20	640
6047R524	(**)	24 x 19	14,5	27	33	20	320

(**) Plug

REMARKS

Monoblocco fittings must only be used with screw fittings or gas-use manifolds manufactured by Fiv, with 24x19 thread, verifying applicability in compliance with national regulations.

GP 2799
SPANNER



Spanner for tightening joints CH 27 in nickel-plated brass.

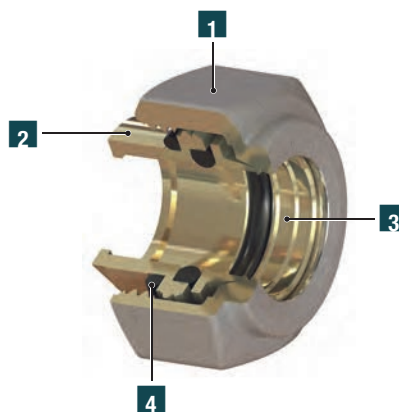


CODE	Size	Pack pcs/box
01306054	CH 27	1

NEW

MONOBLOCCO 2.0 FITTING FOR WATER

MONOBLOCCO 2.0 FITTING FOR COPPER PIPE, FOR WATER

**Components**

	Components	Pcs	Material
1	Nut	1	UNI EN 12165 CW617N
2	Adapter with limit switch	1	UNI EN 12164 CW617N - DW
3	Brass hose clamp ring	1	UNI EN 12164 CW617N
4	O-Ring seals	1	NBR Sh 70 EN 681

EN OPERATING CONDITIONS (UNI EN 1254-2)

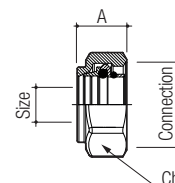
Maximum operating pressures as a function of temperatures:

- p_{max} for operating T up to 30 °C: 25 bar (for diameters from 10 to 15 mm), 16 bar (for diameter 16)
- p_{max} for operating T from 31 °C to 65 °C: 25 bar (for diameters from 10 to 15 mm), 13 bar (for diameter 16)
- p_{max} for operating T from 66 °C to 95 °C: 16 bar (for diameters from 10 to 15 mm), 10 bar (for diameter 16)

NEW

GP 2615
MONOBLOCCO 2.0 FITTING

Monoblocco 2.0 fitting for copper pipe, nickel-plated, for WATER.

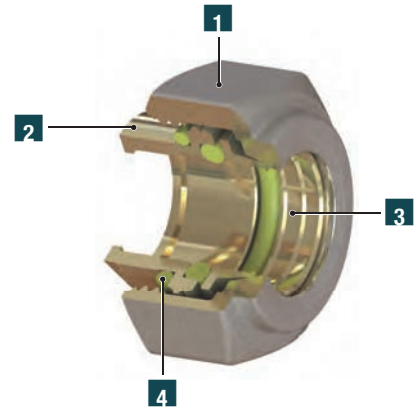


CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	Pack pcs/box	Master pcs/box
9500R110	Ø 10	24x19	30 ÷ 35	14,5	27	46	50	800
9500R112	Ø 12	24x19	35 ÷ 40	14,5	27	42	50	800
9500R114	Ø 14	24x19	40 ÷ 45	14,5	27	39	50	800
9500R115	Ø 15	24x19	40 ÷ 45	14,5	27	36	50	800
9500R116	Ø 16	24x19	45 ÷ 50	14,5	27	31	50	800

NEW

MONOBLOCCO 2.0 FITTING FOR GAS

MONOBLOCCO 2.0 FITTING FOR COPPER PIPE, FOR GAS



Components

	Components	Pcs	Material
1	Nut	1	UNI EN 12165 CW617N
2	Adapter with limit switch	1	UNI EN 12164 CW617N - DW
3	Brass hose clamp ring	1	UNI EN 12164 CW617N
4	O-Ring seals	1	HNBR yellow Sh 70 EN 682 - EN 549

REMARKS

Monoblocco fittings must only be used with screw fittings or gas-use manifolds manufactured by Fiv, with 24x19 thread, verifying applicability in compliance with national regulations.

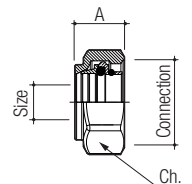
EN OPERATING CONDITIONS (UNI EN 1254-2)

Operating temperature: -20 ÷ 70 °C
Operating pressure: GT 5 / MOP 5

NEW

GP 2615
MONOBLOCCO 2.0 FITTING

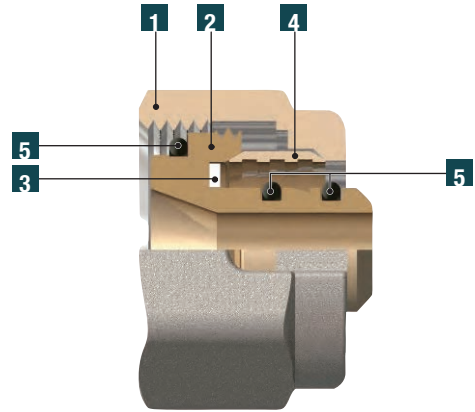
Monoblocco 2.0 fitting for copper pipe, nickel-plated, for GAS.



CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	Pack pcs/box	Master pcs/box
9502R110	Ø 10	24x19	30 ÷ 35	14,5	27	46	20	640
9502R112	Ø 12	24x19	35 ÷ 40	14,5	27	42	20	640
9502R114	Ø 14	24x19	40 ÷ 45	14,5	27	39	20	640
9502R115	Ø 15	24x19	40 ÷ 45	14,5	27	36	20	640
9502R116	Ø 16	24x19	45 ÷ 50	14,5	27	31	20	640

MONOBLOCCO FITTING

MONOBLOCCO FITTING FOR PLASTIC AND MULTILAYER PIPES FOR WATER



Components

	Components	Pcs	Material
1	Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
2	Adapter	1	UNI EN 12164 CW617N - DW
3	(*) Washer	1	P.T.F.E., dielectric
4	Serrated hose-clamp, cutted	1	UNI EN 12164 CW617N - DW
5	(*) O-Ring seals	1	EDPM peroxidized 70 Sh.

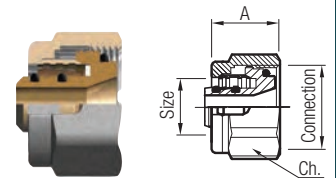
(*) Featured only on: Seals for multilayer pipe, 3-piece seals and 3/4" EK seals.

GP 2615
MONOBLOCCO FITTING



MONOBLOCCO nickel-plated fitting, for multi-layer pipes.

For the conditions of use of the seal (pressure and temperature), refer to the application classes of the pipe combined with it (ref. UNI EN ISO 21003-1).



These seals matched with the Modular Fittings.

CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
9505R910	14x2	24x19	30÷35	20,5	27	68	16	50	400
6238R917	16x2	24x19	30÷35	20,5	27	65	16	50	400
6238R918	16x2,25	24x19	30÷35	20,5	27	65	16	50	400
9505R927	18x2	24x19	30÷35	20,5	27	61	16	50	400
9505R931	20x2	24x19	30÷35	20,5	27	57	16	50	400
6243R932	20x2,5	24x19	30÷35	22	27	52	16	40	640
9505R938	25x2,5	32p1,5	55÷60	20,5	37	119	16	20	320
9505R940	26x3	32p1,5	55÷60	20,5	37	117	16	20	320
6171R817	16x2 (*)	1/2"	30÷35	15,4	24	38	16	10	150

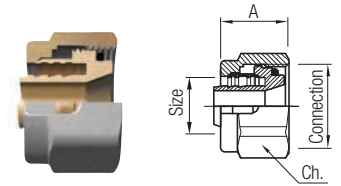
(*) Seal not preassembled.

GP 2615
MONOBLOCCO FITTING



MONOBLOCCO nickel-plated fitting, for PE-X/PP pipes.

For the conditions of use of the seal (pressure and temperature), refer to the application classes of the pipe combined with it (ref. UNI EN ISO 21003-1 for pipe type PE-Xc PENTA; UNI EN ISO 15875-1 for pipe type PE-Xa).



These seals matched with the Modular Fittings.

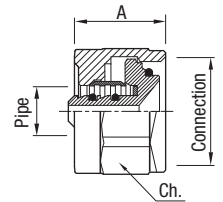
CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
6239R902	12x1	24x19	30÷35	20,5	27	68	16	40	640
6239R906	12x2	24x19	30÷35	20,5	27	67	16	40	640
6239R915	16x1,5	24x19	30÷35	20,5	27	61	16	40	640
6239R916	16x1,8	24x19	30÷35	20,5	27	62	16	40	640
6239R917	16x2	24x19	30÷35	20,5	27	62	16	40	640
6239R924	17x2	24x19	30÷35	20,5	27	60	16	40	640
6239R931	20x2	24x19	30÷35	20,5	27	56	16	40	640

GP 2615
MONOBLOCCO FITTING



MONOBLOCCO nickel-plated 3/4" Eurocone fitting, for multilayer pipes and plastic pipes.

For the conditions of use of the seal (pressure and temperature), refer to the application classes of the pipe combined with it (ref. UNI EN ISO 21003-1 for pipes type Multilayer and PE-Xc PENTA; UNI EN ISO 15875-1 for pipe type PE-Xa).



Available only on request.

(*) Article available while stocks last.

CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
6245R912	12x2	EUROCONO	30÷35	22,5	27	65	16	10	400
6245R917	16x2 (*)	EUROCONO	30÷35	22,5	27	65	16	10	400
6245R924	17x2 (*)	EUROCONO	30÷35	22,5	27	64	16	10	400
6245R931	20x2	EUROCONO	40÷45	22,5	27	60	16	10	400

Supplied with O-rings.

NEW

GP 2615
MONOBLOCCO 2.0 FITTING

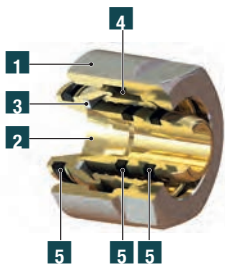
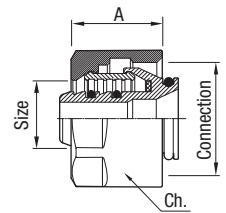


MONOBLOCCO 2.0, nickel-plated 3/4" Eurocone fitting, for multilayer, plastic, PE-X and PE-RT pipes.

Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Adapter in brass UNI EN 12164 CW617N
- 3 Washer in PTFE, dielectric
- 4 Serrated hose-clamp in brass UNI EN 12164 CW614N
- 5 O-ring seals EPDM

For the conditions of use of the seal (pressure and temperature), refer to the application classes of the pipe combined with it (ref. UNI EN ISO 21003-1 for pipes type Multilayer and PE-Xc PENTA; UNI EN ISO 15875-1 for pipe type PE-Xa).



CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	Pack pcs/box	Master pcs/box
9510R100	16x2	EUROCONO	30÷35	20	27	69	10	320
9510R101	17x2	EUROCONO	30÷35	20	27	67	10	320

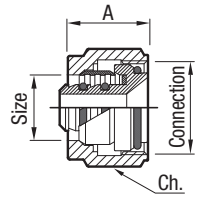
Supplied with O-rings.

GP 2615
3-PIECES FITTING



Brass three-pieces fitting, nickel-plated, for PE-X/PP.

For the conditions of use of the seal (pressure and temperature), refer to the application classes of the pipe combined with it (ref. UNI EN ISO 21003-1 for pipe type PE-Xc PENTA; UNI EN ISO 15875-1 for pipe type PE-Xa).



CODE	Size	Connection	A mm	Ch mm	gr	PN	Pack pcs/box
9993R017	17x2	24x19	20,5	27	60	10	20

GP 2799
SPANNER



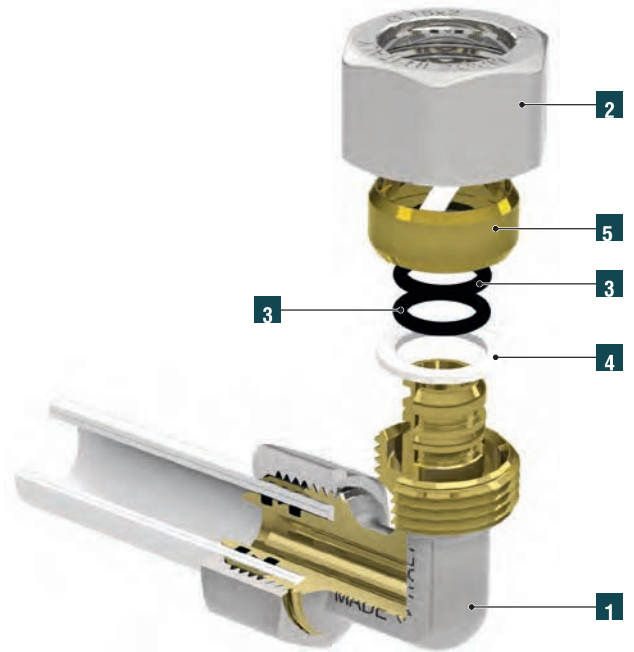
Spanner for tightening joints CH 27 in nickel-plated brass.



CODE	Size	Pack pcs/box
01306054	CH 27	1

INTEGRAL

INTEGRATED FITTINGS TO TIGHTEN



Components

	Components	Pcs	Material
1	Brass body (nickel-plating on surfaces not in contact with transported fluids)	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
2	Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
3	Double O-Ring	2	EPDM peroxide 70 SH
4	Washer	1	Polyethylene
5	Ogive	1	UNI EN 12164 CW617N - DW

EN TECHNICAL AND CONSTRUCTIONAL CHARACTERISTICS

INTEGRAL fittings allow quick, safe installation with less equipment. The items are equipped with two o-rings in EPDM that ensure the seal along with the sawtooth profile on the hose connection itself, plus a ring in PTFE to eliminate any stray currents.

SUITABILITY FOR POTABLE WATER

INTEGRAL screw compression fittings comply with Italian Ministry of Health Decree no. 174 dated 06/04/2004.

TIGHTENING TORQUES

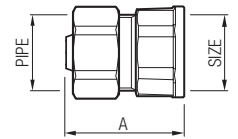
Pipe size 16x2 - Maximum torque 18-20 Nm

Pipe size 20x2 - Maximum torque 22-25 Nm

Pipe size 26x3 - Maximum torque 25-30 Nm

GP 2605
INTEGRAL

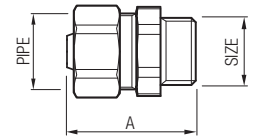
Female straight fitting, nickel-plated.



CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
9220R802	16 x 1/2"	16x2	35	10/150	600
9220R804	20 x 1/2"	20x2	33	10/100	400
9220R807	20 x 3/4"	20x2	38	10/60	240
9220R809	26 x 3/4"	26x3	39	5/50	200
9220R811	26 x 1"	26x3	42	5/50	200

GP 2605
INTEGRAL

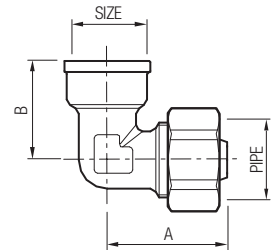
Male straight fitting, nickel-plated.



CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
9221R802	16 x 1/2"	16x2	35	10/150	600
9221R804	20 x 1/2"	20x2	36	10/100	400
9221R807	20 x 3/4"	20x2	36	10/100	400
9221R809	26 x 3/4"	26x3	39	5/50	200
9221R811	26 x 1"	26x3	43	5/50	200

GP 2605
INTEGRAL

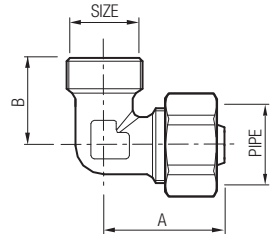
Female elbow fitting, nickel-plated.



CODE	Size	Pipe	A mm	B mm	Pack pcs/box	Master pcs/box
9222R802	16 x 1/2"	16x2	27	33	10/100	400
9222R804	20 x 1/2"	20x2	30	36	10/60	240
9222R807	20 x 3/4"	20x2	32	36	10/60	240
9222R809	26 x 3/4"	26x3	42	38	5/30	120

GP 2605
INTEGRAL

Male elbow fitting, nickel-plated.

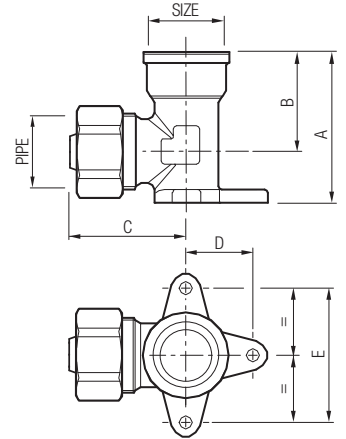


CODE	Size	Pipe	A mm	A mm	Pack pcs/box	Master pcs/box
9223R802	16 x 1/2"	16x2	25	33	10/100	400
9223R804	20 x 1/2"	20x2	29	36	10/60	240
9223R807	20 x 3/4"	20x2	31	36	10/60	240
9223R809	26 x 3/4"	26x3	39	38	5/30	120

GP 2605
INTEGRAL



Female elbow fitting with flange, nickel-plated.

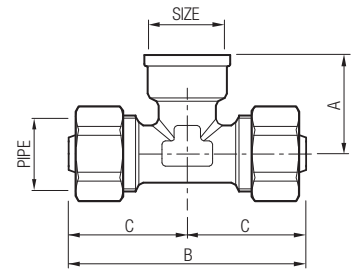


CODE	Size	Pipe	A mm	B mm	C mm	D mm	E mm	Pack pcs/box	Master pcs/box
9224R802	16 x 1/2"	16x2	40	27	34	17	34	10/50	200
9224R804	20 x 1/2"	20x2	40	27	35	17	34	5/30	120

GP 2605
INTEGRAL



Intermediate T-fitting with female threaded central branch, nickel-plated.

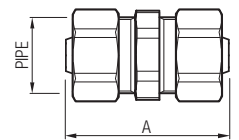


CODE	Size	Pipe	A mm	B mm	C mm	Pack pcs/box	Master pcs/box
9225R817	16 x 1/2" x 16	16x2	27	66	33	10/50	200
9225R819	20 x 1/2" x 20	20x2	30	72	36	5/30	120
9225R822	20 x 3/4" x 20	20x2	32	72	36	5/30	120
9225R823	26 x 3/4" x 26	26x3	42	76	38	5/20	80

GP 2605
INTEGRAL



Intermediate straight fitting, nickel-plated.

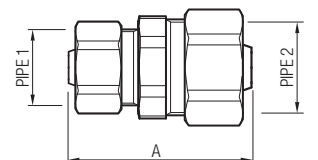


CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
9226R829	16 x 16	16x2	43	10/100	400
9226R831	20 x 20	20x2	44	10/50	200
9226R833	26 x 26	26 x 3	50	5/30	120

GP 2605
INTEGRAL



Intermediate reduced straight fitting, nickel-plated.

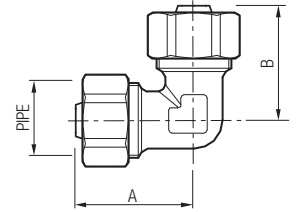


CODE	Size	Pipe 1	Pipe 2	A mm	Pack pcs/box	Master pcs/box
9227R841	16 x 20	16x2	20x2	43	10/70	280
9227R845	20 x 26	20x2	26x3	48	5/50	200

GP 2605
INTEGRAL



Intermediate elbow fitting, nickel-plated.

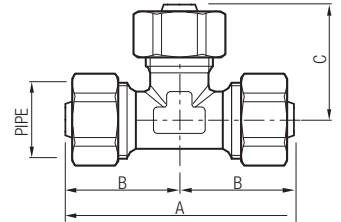


CODE	Size	Pipe	A mm	B mm	Pack pcs/box	Master pcs/box
9228R829	16 x 16	16x2	34	34	10/100	400
9228R831	20 x 20	20x2	36	36	10/60	240
9228R833	26 x 26	26x3	38	48	5/30	120

GP 2605
INTEGRAL



Intermediate T-fitting, nickel-plated.

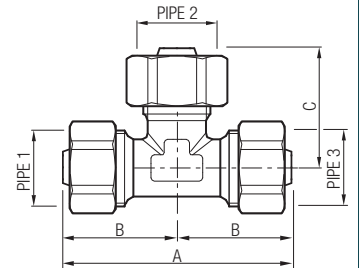


CODE	Size	Pipe	A mm	B mm	C mm	Pack pcs/box	Master pcs/box
9229R852	16 x 16 x 16	16x2	72	36	36	10/50	200
9229R854	20 x 20 x 20	20x2	72	36	36	5/30	120
9229R856	26 x 26 x 26	26x3	76	38	48	5/15	60

GP 2605
INTEGRAL



Intermediate reduced T-fitting nickel-plated.

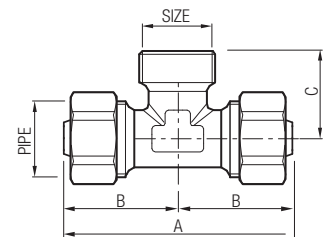


CODE	Size	Pipe 1	Pipe 2	Pipe 3	A mm	B mm	C mm	Pack pcs/box	Master pcs/box
9230R861	16 x 20 x 16	16x2	20x2	16x2	72	36	36	5/30	120
9230R874	16 x 20 x 20	16x2	20x2	20x2	72	36	36	5/30	120
9230R885	26 x 20 x 26	26x3	20x2	26x3	76	38	43	5/15	60

GP 2605
INTEGRAL



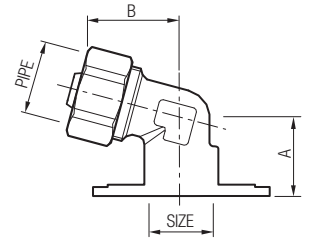
Intermediate T-fitting with male threaded central branch, nickel-plated.



CODE	Size	Pipe	A mm	B mm	C mm	Pack pcs/box	Master pcs/box
9231R817	16 x 1/2" x 16	16x2	68	34	24	10/50	200
9231R819	20 x 1/2" x 20	20x2	72	36	29	5/30	120
9231R822	20 x 3/4" x 20	20x2	72	36	30	5/30	120

GP 2605
INTEGRAL

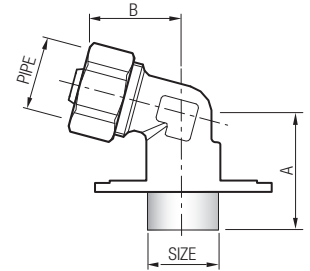
105° female fitting, nickel-plated.



CODE	Size	Pipe	A mm	B mm	Pack pcs/box	Master pcs/box
9232R802	16 x 1/2"	16x2	21	30	5/50	200

GP 2605
INTEGRAL

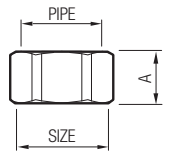
105° long female fitting, nickel-plated.



CODE	Size	Pipe	A mm	B mm	Pack pcs/box	Master pcs/box
9232R902	16 x 1/2"	16x2	38	30	5/50	200

GP 2605
INTEGRAL

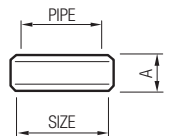
1/2" attachment nut, nickel-plated.



CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
4800R016	16	16x2	13	20/240	960
4800R020	20	20x2	14	10/200	800
4800R026	26	26x3	18	5/100	400

GP 2605
INTEGRAL

Ogive.



CODE	Size	Pipe	A mm	Pack pcs/box	Master pcs/box
5787L016	16	16x2	8	20/240	960
5787L020	20	20x2	8	10/200	800
5787L026	26	26x3	11	5/100	400



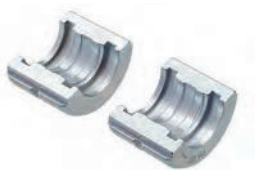
GP 2620
FIVPRESS



MP22 manual pressing machine from DN14 to DN32.
360° rotating head - Telescopic arms, extendable by 200 mm
Weight of the tool: approximately 3 Kg. Length of the tool: 560 - 760 mm
Thrust force: 32 kN - Pressable fittings: between DN14 and DN32.

CODE	Pack pcs/box
9550X002	1

GP 2620
FIVPRESS



Matrixes for manual pressing machine (Profile TH - KSP11) and insert holder gripper for SPM19.

CODE	Size	Pack pcs/box
28100640	16 x 2	1
28100642	20 x 2	1
28100644	26 x 3	1
28100646	32 x 3	1

GP 2620
FIVPRESS



Electro-hydraulic pressing machine SPM32, with 230 V adapter, for FIVPress grippers from DN 14 to DN 75.

LxHxS dimensions: 390x310x95 - Thrust force: min. 32KN - Power supply: 230 V, 50 Hz
Max consumption: 30 A - Adapter output voltage: 14.4 V
Tightening time: from 4 to 7 s depending on the diameter
Operating temperature: -20°C to 40°C - Rotating head 360° - Automatic return of the piston
USB port for remote diagnosis - LED to indicate malfunctions and operating status
Complete with metal case, 230 V adapter, USB cable, analysis software.

Article available while stocks last.

CODE	Pack pcs/box
9553X002	1



GP 2620
FIVPRESS

14.4V battery for SPM32 pressing machine.
Li-ion Battery - Weight: 500 g.



CODE	Size	Pack pcs/box
9553X011	2,6 Ah	1

It is used to power the SPM 32 pressing machine with the battery by replacing the 230V adapter.



GP 2620
FIVPRESS

14.4 V battery charger for SPM32 pressing machine.



CODE

Pack
pcs/box

9553X021

1

GP 2620
FIVPRESS

230 V adapter for SPM32 pressing machine.



CODE

Pack
pcs/box

9553X031

1

NEW

GP 2620
FIVPRESS

18 V battery powered electro-hydraulic pressing machine UAP332 for FIVPress grippers from DN 14 to DN 75.



Weight including accumulator: 4,2Kg - Dimensions LxHxS: 359 x325x76
Feed force: 32kN - Power supply: 18 V - Battery charger: 230 V, 50 Hz
Battery capacity: 4,0 Ah - Charging time: 36 min approx.
Pressing performance: approx. 400 (DN20)
Operation temperature range: -10 °C ÷ 40 °C - 350° rotating head
Automatic piston retraction
LED optical malfunction report and working state indicator
Complete with plastic case, Lithium Ion battery (Li-Ion) 18 V and battery charger.

CODE

Pack
pcs/box

28122050

1

NEW

GP 2620
FIVPRESS

Spare Battery 18 V for UAP332 pressing machine.
Battery Lithium-Ion (Li-ion) - Weight: 400 g - Battery capacity: 4,0 Ah.



CODE

Size

Pack
pcs/box

28122052

4,0 Ah

1

NEW

GP 2620
FIVPRESS

Battery charger 18V for UAP332 pressing machine.



CODE

Pack
pcs/box

28122054

1

GP 2620
FIVPRESS

Metal case, grippers holder.



CODE

Pack
pcs/box

9557X000

1

Suitable for grippers up to size 40.

GP 2620
FIVPRESS

Gripper for SPM32 pressing machine (profile TH - KSP 11).



CODE

Size

Pack
pcs/box

28100630

16 x 2

1

28100632

20 x 2

1

28100634

26 x 3

1

28100636

32 x 3

1

GP 2620
FIVPRESS

Gripper for SPM32 pressing machine (profile TH - KSP 11).



CODE

Size

Pack
pcs/box

28100650

40 x 3,5

1

28100652

50 x 4

1

GP 2620
FIVPRESS

Gripper for SPM32 pressing machine (profile TH - KSP 11).



CODE

Size

Pack
pcs/box

28100654

63 x 4,5

1

28100656

75 x 5

1

GP 2620
FIVPRESS

Battery pressing machine SPM19 18V for FIVPress gripper with inserts from DN 16 to DN 32.



Weight (including battery): 2.3 Kg - LxHxS dimensions: 371x100x74 mm

Thrust force: min 19 kN - Power supply: 18 V DC - Battery charger: 230 V, 50 Hz

Battery capacity: 2.0 Ah - Charging time: Approx. 30 min

Tightening time: from 3 to 4 s (depending on the diameter) - Operating temperature: -10 °C to 40 °C

Sound level: 75 dB(A) at a distance of 1 m - Vibrations: <2.5 m/s² (actual weighted value of acceleration)

Head can be rotated by 360° - Automatic return of the piston

USB port for remote diagnosis - LED to indicate malfunctions and operating status

Complete with metal case, 18 V lithium-ion battery (Li-Ion), battery charger, USB cable and analysis software.

CODE

Pack
pcs/box

9559X002

1

GP 2620
FIVPRESS

18V battery for SPM19 pressing machine.
Li-ion Battery - Weight: 430 g.



CODE	Size	Pack pcs/box
9559X012	2 Ah	1



GP 2620
FIVPRESS

18 V battery charger for SPM19 pressing machine.



CODE	Pack pcs/box
9559X021	1

GP 2620
FIVPRESS

230V adapter for SPM19 pressing machine.

It is used to power the SPM19 pressing machine, directly at 230 V, replacing it with the 18 V battery.



CODE	Pack pcs/box
9559X031	1

GP 2620
FIVPRESS

FIVPRESS system pincers with inserts for SPM19 pressing machine.



CODE	Pack pcs/box
28101828	1

GP 2620
FIVPRESS

Matrixes for grippers with inserts (Profile TH - KSP11) and insert-holder gripper for SPM19.



CODE	Size	Pack pcs/box
28100640	16 x 2	1
28100642	20 x 2	1
28100644	26 x 3	1
28100646	32 x 3	1

GP 2620
FIVPRESS

Single flaring tool calibrator.



CODE	Size	Pack pcs/box
9563X514	∅ 14	1
9563X516	∅ 16	1
9563X520	∅ 20	1
9563X526	∅ 26	1
9563X532	∅ 32	1
9563X540	∅ 40	1
9563X550	∅ 50	1
9563X563	∅ 63	1
9563X575	∅ 75	1

GP 2620
FIVPRESS

Multiple flaring tool calibrator.



CODE	Size	Pack pcs/box
9564X001	∅ 16 - 20 - 26	1

GP 2620
FIVPRESS

Shears for FIVPRESS system multi-layer pipes.



CODE	Size	Pack pcs/box
28100602	∅ 14 ÷ 32	1
28100943	SPARE BLADE FOR SHEARS	1

GP 2620
FIVPRESS

Shears for FIVPRESS system multi-layer pipes, with pipe guide.



CODE	Size	Pack pcs/box
9567X520	∅ 14 ÷ 20	1
9568X000	SPARE BLADE FOR SHEARS	1

GP 2620
FIVPRESS

Pipe cutter.



CODE	Size	Pack pcs/box
28100944	∅ 14 ÷ 32	1
28100948	SPARE WHEEL	1
28024081	∅ 6 ÷ 75	1

GP 2620
FIVPRESS

Internal pipe bending spring.



CODE	Size	Pack pcs/box
28100616	∅ 16 L=500 mm	1
28100620	∅ 20 L=500 mm	1
28100626	∅ 26 L=1000 mm	1

GP 2620
FIVPRESS

External pipe bending spring.



CODE	Size	Pack pcs/box
28100716	∅ 16 L=500 mm	1
28100720	∅ 20 L=500 mm	1



Floor and Wall

HEATING AND COOLING SYSTEMS 2



page 70

**Low-Thick
insulating panel
with graphite
interval 100 mm**



pages 78 - 79

**PE-Xa
PE-Xa 5 layers
oxygen
barrier pipe**



page 71

**Basic
covered panel
interval 50 mm**



page 80

**FIVPert
multi-layer pipe**



page 72

**Special
insulation panel
interval 50 mm**



page 81

**FIVPex
multi-layer pipe**



page 74

**Phono-Term
sound-absorbent
panel
interval 50 mm**



page 82

**Accessories
per FIVPav**



page 75

**Roll-Plan
smooth coupled
insulation panel**



page 86

**Klettjet system
tear-off
fastening**



pages 76 - 77

**PE-Xc
PE-Xc PENTA
oxygen
barrier pipe**



page 93

**FIVPar
system**

FIVPaV

floor heating system

PE-Xc PENTA pipe



PE-Xa pipe



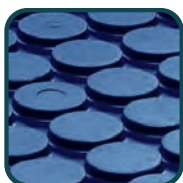
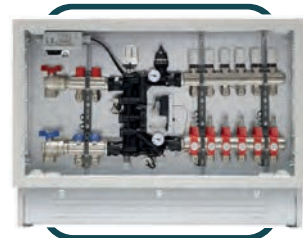
PIVPERT pipe
FIVPEX pipe



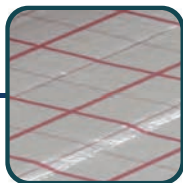
PEXPENTA KLETT
pipe



FLOOR MIXING CONTROLLER



LOW-THICK
panel



ROLL-PLAN
panel



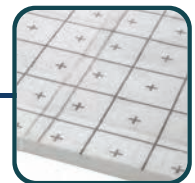
PHONO-TERM
panel



BASIC
panel



SPECIAL
panel



KLETTJET
panel

advantages of the system

FIVPAV

The floor heating system has become the ideal winter heating solution also in Italy. Standards aimed at reducing emissions of pollutants, advanced electronic control systems, skilled specialised designers and clear and consistent information contribute to spreading this type of solution.

Today, the high technological level reached by the electronic control systems allow us to exploit in full safety the typical advantages of floor heating even for summer home cooling, thereby offering a climate control system that can be used 365 days a year.

COMFORT AND SAFETY

The FIVPAV system is the safest and most comfortable solution for using the floor as a radiator during winter and as a cooling element during summer.

The thermal energy (hot or cold) is always well distributed among the rooms, without any annoying cold drafts, noise, dust movement and all in an invisible system.

During winter, the best temperature trend with respect to the height of the room is provided by a floor heating system, thereby obtaining ideal conditions in every point of the home.

Zero visual impact, environmental health and energy saving make this system the best winter heating solution.

ENABLES A COMPLETE SYSTEM

The complete range of FIVPAV system components, used for heating only, is pre-set for broadening the system by adding the components for cooling.

energy savings thanks to the system

FIVPAV

Building energy consumption reduction is a primary goal for protecting our planet.

This can be achieved by improving the efficiency of the casing-system combination, using terminals to be supplied with low energy fluids, which can operate at low temperatures during winter and high temperatures during summer.

This is the only way to exploit the sun's free heat with thermal solar panels and to use electric heat pumps with photovoltaic panels as an alternative to fossil-fuel based heat generators.

Thanks to the FIVPAV system, during winter, the low temperature system supply water enhances the performance of condensing boilers, thereby allowing for a drastic reduction of fuel consumption.



LOW-THICK

INSULATING PANEL WITH GRAPHITE
INTERVAL 100 MM



Physical characteristics	Acronym	Standard	Value
Type		UNI EN 13163	EPS 250
Thermal conductivity	λ_D (λ_{ins})	EN 12667 (UNI EN 1264-3)	0,031 W/mK
Density		UNI EN 1602	40 kg/m ³
Compressive strength at 10% crushing		UNI EN 826	≥ 250 kPa
Fire reaction class		EN 13501-1	Euroclasse E
Water absorption		UNI EN 12087	< 5%
Water vapour diffusion resistance factor		UNI EN 12086	40 ÷ 100
Film coating thickness			0,16 mm

Technical data	Acronym	Standard	Value
Thermal resistance	$R\lambda_{ins}$ (S_{ins} / λ_{ins})	UNI EN 1264-3:2021	0,15 m ² K/W
Total length			1215 mm
Total width			615 mm
Total thickness			19 mm
Sheet thickness S_{ins}		UNI EN 1264-3	5 mm
Pipe spacing			100 mm
Installable pipes external \varnothing			12 mm
Useful surface			0,72 m ²

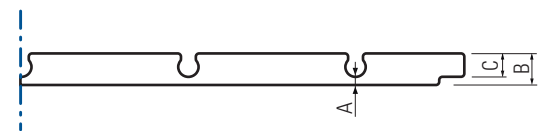
GP 2015
LOW-THICK



H = 5 mm

Expanded polystyrene (EPS) printed panel, reinforced with graphite, for thermal insulation, with profiled surface (pipe spacing 100 mm, for DN 12x2 pipe), male-female joints, self-adhesive base and rigid upper polystyrene film.

Perfect for renovations, owing to reduced space requirement, combined with state-of-the-art fluid screeds, allows the implementation of systems with minimum thickness of 40 mm (coating excluded), without giving up the heat insulation guaranteed by the EPS layer.



CODE	Size	Useful thickness	A mm	B mm	C mm	Pack m ²	Pallet m ²
9942P505	1.200 x 600 x 19	(H) 5 mm	5	19	14	12,96	181,44

For dimensions, panel sections and minimum overall dimensions of the system for civil buildings, see Technical Annexes Section.



BASIC

INSULATING COVERED PANEL
INTERVAL 50 MM

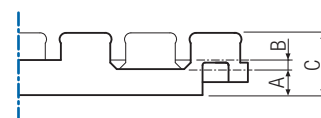


Physical characteristics: properties	Acronym	Standard	Value
Type mod. H=20 mm		UNI EN 13163	EPS 200
Type mod. H=10 mm		UNI EN 13163	EPS 250
Thermal conductivity mod. H=20 mm	λ_D (λ_{ins})	EN 12939 (UNI EN 1264-3)	0,033 W/mK
Thermal conductivity mod. H=10 mm	λ_D (λ_{ins})	EN 12939 (UNI EN 1264-3)	0,032 W/mK
Density nominal mod. H=20 mm		UNI EN 1602	30 kg/m ³
Density nominal mod. H=10 mm		UNI EN 1602	40 kg/m ³
Compressive strength at 10% crushing mod. H=20 mm		UNI EN 826	≥ 200 kPa
Compressive strength at 10% crushing mod. H=10 mm		UNI EN 826	≥ 250 kPa
Fire reaction class		UNI EN ISO 11925	Euroclasse E
Water absorption		UNI EN 12087	< 5%
Water vapour diffusion resistance factor	μ	UNI EN 12086	40÷100
Film coating thickness			0,16 mm

Technical data	Acronym	Standard	mod. H 10 mm	mod. H 20 mm
Thermal resistance	$R\lambda_{ins}$ (S_{ins} / λ_{ins})	UNI EN 1264-3:2021	0,30 m ² K/W	0,60 m ² K/W
Total length			1,135 mm	1,135 mm
Total width			635 mm	635 mm
Total thickness			32 mm	48 mm
Sheet thickness S_{ins}		UNI EN 1264-3	10 mm	20 mm
Useful surface			0,66 m ²	0,66 m ²
Pipe spacing			50 mm	50 mm
External \varnothing of installable pipes (mm)			16 - 17	16 - 17

GP 2015
BASIC

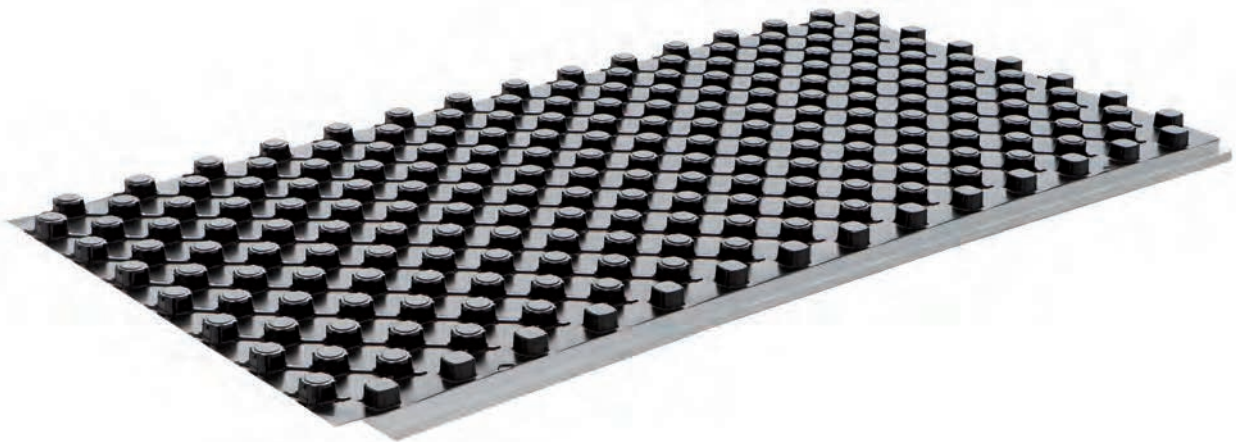
Panel in pressed expanded polystyrene (EPS), with surface bosses and tongue-and-groove edges, clad in a film of rigid polystyrene. Pipe spacing 5 cm.



CODE	Size	Useful thickness	Density	A mm	B mm	C mm	Pack m ²	Pallet m ²
9910P563	1.100 x 600 x 32	(H) 10 mm	40 kg/m ³	10	2	32	14,52	72,6
9910P569	1.100 x 600 x 48	(H) 20 mm	30 kg/m ³	20	7	48	9,24	92,4

For dimensions, panel sections and minimum overall dimensions of the system for civil buildings, see Technical Annexes Section.





Physical characteristics: properties	Acronym and Standard	Mod. H 10 mm	Mod. H 20/30/40/50/60 mm
Type	UNI EN 13163	EPS200	EPS150
Thermal conductivity	λ_D (λ_{ins}) (EN 12939)	0,033 W/mK	0,033 W/mK
Density	UNI EN 1602	30 kg/m ³	25 kg/m ³
Resistance to compression at 10% of crushing	UNI EN 826	≥ 200 kPa	≥ 150 kPa
Class of reaction to fire	UNI EN 13501-1	Euroclass E	Euroclass E
Water absorption	UNI EN 12087	< 4%	< 4%
Thickness of covering sheet		0,6 mm	0,6 mm
Thermal conductivity of covered	EN 12939		0,14 W/mK

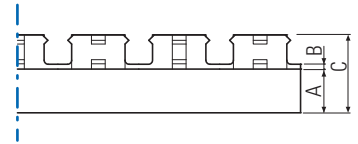
Technical data	Acronym and Standard	mod. H 10 mm	mod. H 20 mm	mod. H 30 mm
Thermal resistance	$R\lambda_{ins}$ (S_{ins} / λ_{ins}) (UNI EN 1264-3):2021	0,30 m ² K/W	0,60 m ² K/W	0,90 m ² K/W
Overall length		1450 mm	1450 mm	1450 mm
Overall width		760 mm	760 mm	760 mm
Overall thickness		32 mm	42 mm	52 mm
Sheet thickness S_{ins}	UNI EN 1264-3	10 mm	20 mm	30 mm
Pipe spacing		50 mm	50 mm	50 mm
Installable pipes external \varnothing		16 - 17 mm	16 - 17 mm	16 - 17 mm
Useful surface		0,95 m ²	0,95 m ²	0,95 m ²
Rebate		NO	YES	YES

Technical data	Acronym and Standard	mod. H 40 mm	mod. H 50 mm	mod. H 60 mm
Thermal resistance	$R\lambda_{ins}$ (S_{ins} / λ_{ins}) (UNI EN 1264-3):2021	1,20 m ² K/W	1,50 m ² K/W	1,80 m ² K/W
Overall length		1450 mm	1450 mm	1450 mm
Overall width		760 mm	760 mm	760 mm
Overall thickness		62 mm	72 mm	82 mm
Sheet thickness S_{ins}	UNI EN 1264-3	40 mm	50 mm	60 mm
Pipe spacing		50 mm	50 mm	50 mm
Installable pipes external \varnothing		16-17 mm	16-17 mm	16-17 mm
Useful surface		0,95 m ²	0,95 m ²	0,95 m ²
Rebate		YES	YES	YES

GP 2015
SPECIAL



Moulded expanded polystyrene (EPS) panel for thermal, with surface bosses and cylindrical interlocking joints, coated with a rigid polystyrene thermoformed film.
Pipe spacing 5 cm.



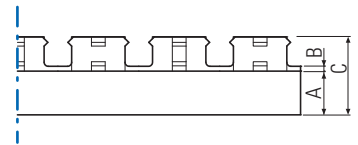
CODE	Size	Useful thickness	Density	A mm	B mm	C mm	Pack m ²	Pallet m ²
9914P510	1380 x 690 x 32	(H) 10 mm	30 kg/m ³	10	3	32	20,9	104,5
9914P520	1380 x 690 x 42	(H) 20 mm	25 kg/m ³	20	3	42	15,2	76
9914P530	1380 x 690 x 52	(H) 30 mm	25 kg/m ³	30	3	52	11,4	57

For dimensions, panel sections and minimum overall dimensions of the system for civil buildings, see Technical Annexes Section.

GP 2015
SPECIAL



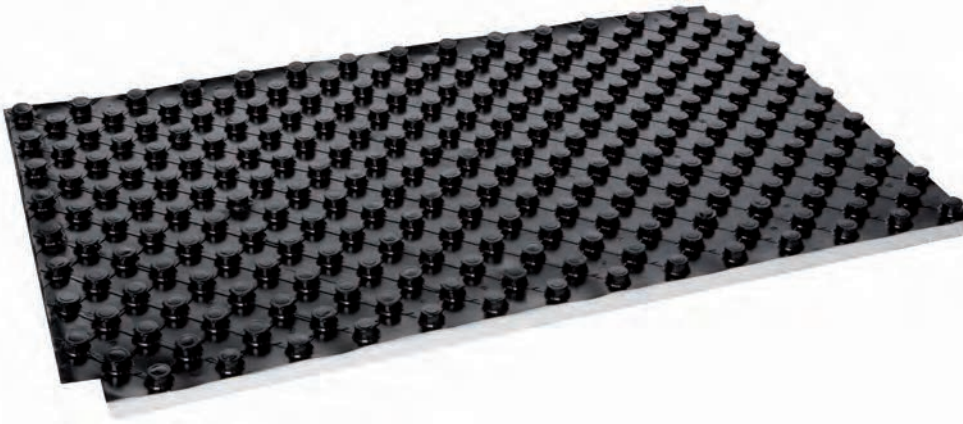
Moulded expanded polystyrene (EPS) panel for thermal, with surface bosses and cylindrical interlocking joints, coated with a rigid polystyrene thermoformed film.
Pipe spacing 5 cm.



(*) Available only on request.

CODE	Size	Useful thickness	Density	A mm	B mm	C mm	Pack m ²	Pallet m ²
9914P540	1380 x 690 x 62	(H) 40 mm (*)	25 kg/m ³	40	3	62	9,5	47,5
9914P550	1380 x 690 x 72	(H) 50 mm	25 kg/m ³	50	3	72	7,6	38
9914P560	1380 x 690 x 82	(H) 60 mm (*)	25 kg/m ³	60	3	82	6,65	33,25

For dimensions, panel sections and minimum overall dimensions of the system for civil buildings, see Technical Annexes Section.



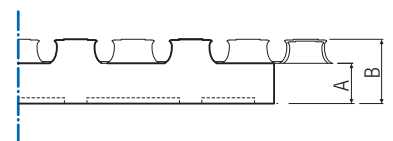
Physical characteristics: properties	Acronym	Standard	Value
Type		UNI EN 13163	EPS-T
Thermal conductivity	$\lambda_D (\lambda_{ins})$	EN 12939	0,040 W/mK
Dynamic rigidity		EN 29052-1 / UNI EN 13163	< 20 MN/m ³ /SD 20
Compressibility		EN 12431 / UNI EN 13163	≤ 2 mm/CP2
Resistance to compression at 10% of crushing		UNI EN 826	>100 KPa
Class of reaction to fire		UNI EN ISO 11925	Classe E
Water absorption		UNI EN 12087	< 5%
Thickness of covering sheet			0,6 mm

Technical data	Acronym	Standard	Value
Thermal resistance	$R\lambda_{ins} (S_{ins} / \lambda_{ins})$	UNI EN 1264-3:2021	0,75 m ² K/W
DeltaLW (*) (index of evaluation of the attenuation of the level of walkway sound pressure)		UNI EN 12354-2	28 dB
Total length			1450 mm
Total width			850 mm
Total thickness			51 mm
Sheet thickness Sins		UNI EN 1264-3	30 - 2 mm
Pipe spacing			50 mm
Installable pipes external Ø			16 - 17 mm
Useful surface			1,12 m ²

(*) predictive calculation for "slab + resilient layer" systems (floating floors), valid with floors in concrete and cement blocks, in accordance with the simplified model set forth in standard EN 12354-2, table C1.
Conditions: mass per unit of area of the slab:100 kg/m²; dynamic rigidity of the resilient state: 20 MN/m³.

GP 2015
PHONO-TERM

Panel in pressed elasticized expanded polystyrene (EPS-T) for thermal and acoustic insulation (from walkway noise), with ashlar surface and perimeter insertions, covered with a rigid polystyrene film.
Pipe spacing 5 cm.



H = 30 mm

CODE	Size	Useful thickness	A mm	B mm	Pack m ²	Pallet m ²
9916P530	1.400 x 800 x 51	(H) 30 mm	30	51	6,72	33,6

For dimensions, panel sections and minimum overall dimensions of the system for civil buildings, see Technical Annexes Section.

ROLL-PLAN

SMOOTH COUPLED INSULATION PANEL

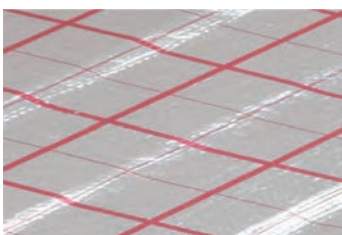


Physical characteristics: properties	Acronym	Standard	Value
Type		UNI EN 13163	EPS 150
Thermal conductivity	λ_D (λ_{ins})	EN 12939 (UNI EN 1264-3)	0,033 W/mK
Density nominal		UNI EN 1602	25 kg/m ³
Compressive strength at 10% crushing		UNI EN 826	≥ 150 kPa
Fire reaction class		UNI EN ISO 11925	Classe E
Water absorption		UNI EN 12087	< 5%
Dimensional stability		UNI EN 1604	± 1%
Water vapour diffusion resistance factor	μ	UNI EN 12086	30÷70
Film coating thickness			0,16 mm

Technical data	Acronym	Standard	Value
Thermal resistance	$R\lambda_{ins}$ (S_{ins} / λ_{ins})	UNI EN 1264-3:2021	0,90 m ² K/W
Overall length			10000 mm (10 m)
Overall width			1000 mm (1 m)
Overall thickness			30 mm
Sheet thickness S_{ins}		UNI EN 1264-3	30 mm
Useful surface			10 m ²
Distance between pipes			segnato 50 mm

GP 2015
ROLL-PLAN

Closed-cell expanded polystyrene (EPS) panel in rolls combined with a reflective film and provided with a cross graphic marking. Laying interval 50 mm with overlapping interlocking of the film on one side.



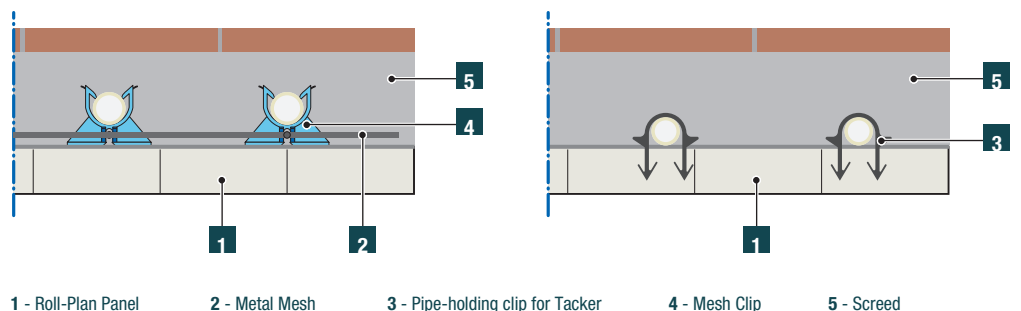
H = 30 mm

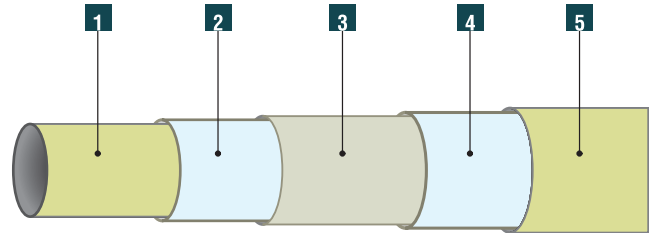


CODE	Size	Useful thickness	Density	Pack Pallet	Pack Pallet m ²	Pack m ²
9915P530	1.000 x 10.000 x 30	(H) 30 mm	25 kg/m ³	n° 6	60	10

For dimensions, panel sections and minimum overall dimensions of the system for civil buildings, see Technical Annexes Section.

INSTALLATION EXAMPLES





SKZ
Das Kunststoff-Zentrum



Components

- 1 Inner pipe in PE-Xc (cross-linked high density polyethylene)
- 2 Layer of adhesive connecting the inner pipe to the EVOH-oxygen barrier pipe
- 3 EVOH-oxygen barrier pipe
- 4 Layer of adhesive connecting the outer pipe to the EVOH-oxygen barrier pipe
- 5 Outer pipe in PE-Xc (cross-linked high density polyethylene)

CONSTRUCTION FEATURES AND PERFORMANCE

The PE-Xc polyethylene pipe is crosslinked via an electronic method, and owing to the arrangement of the 5 layers, the EVOH oxygen barrier is protected from mechanical damage and, at the same time, the thickness of the inner PEX layer is always equal to that of a 3-layer pipe, having the same size. The several inspections and quality controls ensure maximum safety over time, as proven by the SKZ certification, accredited and certified institution in Europe for quality assurance monitoring for plastic material industrial sector.

REGULATORY COMPLIANCE

The PE-Xc pipe with EVOH oxygen barrier complies with DIN 16892, DIN 16893, UNI EN ISO 15875-2 standards and SKZ certificate.

CONDITIONS OF USE ACCORDING TO THE APPLICATION CLASSES PURSUANT TO UNI EN ISO 15875-1 STANDARD (SEE TECHNICAL ATTACHMENTS).

EN GENERAL CHARACTERISTICS

Application classes / Operating pressure (bar):
size 17x2: Cl. 4/8 bar - Cl. 5/8 bar
Oxygen permeability (DIN 4726):
<0.1 mg/(m²d) at 40 °C; <0.34 mg/(m²d) at 80 °C
Density: 940 kg/m³
Degree of cross-linking: ≥60%
Thermal conductivity: 0,41 W/mK

Elastic modulus: 600-800 MPa
Elongation at break: 400-600%
Average coefficient of linear expansion: 0,15 mm/m °C
Internal roughness: 7 μm
Water content: size 17x2: 0,133 l/m

Application: heating systems (not suitable for sanitary systems).

Pipe regression curves, Pressure drop and Linear thermal expansion: see Technical attachments section.

GP 2034
PE-Xc PIPE

Pipe in PE-Xc polyethylene, cross-linked with electronic system, equipped with EVOH oxygen barrier, complies with these requirements, satisfying the international standards DIN 16892, DIN 16893 and UNI EN ISO 15875-2 and SKZ certificate.

(*) Article available while stocks last.



CODE	Size	Pallet m	N° Rolls	Pack m
9518P977	17 x 2 mm (*)	2400	12	200

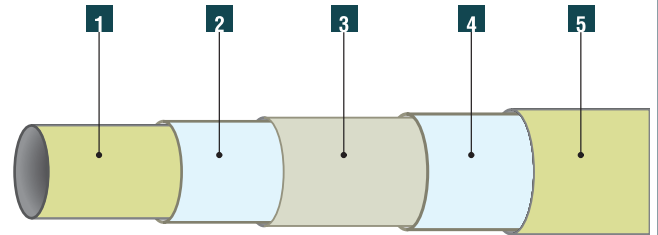




NEW

PE-Xc PENTA

EVOH OXYGEN BARRIER 5 LAYERS PIPE



SKZ
Das Kunststoff-Zentrum



Components

- 1** Inner pipe in PE-Xc (cross-linked high density polyethylene)
- 2** Layer of adhesive connecting the inner pipe to the EVOH-oxygen barrier pipe
- 3** EVOH-oxygen barrier pipe
- 4** Layer of adhesive connecting the outer pipe to the EVOH-oxygen barrier pipe
- 5** Outer pipe in PE-Xc (cross-linked high density polyethylene)

CONSTRUCTION FEATURES AND PERFORMANCE

The PE-Xc polyethylene pipe is crosslinked via an electronic method, and owing to the arrangement of the 5 layers, the EVOH oxygen barrier is protected from mechanical damage and, at the same time, the thickness of the inner PEX layer is always equal to that of a 3-layer pipe, having the same size.

The several inspections and quality controls ensure maximum safety over time, as proven by the SKZ certification, accredited and certified institution in Europe for quality assurance monitoring for plastic material industrial sector.

REGULATORY COMPLIANCE

The PE-Xc PENTA EVOH 5-layers oxygen barrier pipe complies with the UNI EN ISO 21003-2 standard and is SKZ certified.

CONDITIONS OF USE ACCORDING TO THE APPLICATION CLASSES PURSUANT TO UNI EN ISO 21003-1 STANDARD (SEE TECHNICAL ATTACHMENTS).

EN GENERAL CHARACTERISTICS

Application classes / Operating pressure (bar):

size 12x2: Cl. 4/10 bar - Cl. 5/10 bar

size 16x2: Cl. 4/10 bar - Cl. 5/8 bar

size 17x2: Cl. 4/8 bar - Cl. 5/8 bar

size 20x2: Cl. 4/8 bar - Cl. 5/6 bar

Oxygen permeability (DIN 4726):

<0.1 mg/(m²d) at 40 °C; <0.34 mg/(m²d) at 80 °C

Density: 940 kg/m³

Degree of cross-linking: ≥60%

Thermal conductivity: 0,41 W/mK

Average coefficient of linear expansion: 0,15 mm/m °C

Internal roughness: 7 μm

Water content: size 12x2: 0,05 l/m - size 16x2: 0,11 l/m

size 17x2: 0,133 l/m - size 20x2: 0,20 l/m

Application: heating systems (not suitable for sanitary systems).

Pipe regression curves, Pressure drop and Linear thermal expansion: see Technical attachments section.

NEW

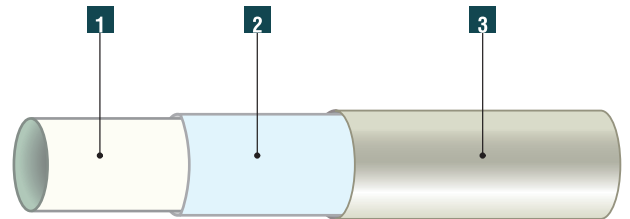
GP 2034

PE-Xc PENTA PIPE



PE-Xc PENTA EVOH 5 layers crosslinked polyethylene pipe via electronic method equipped with EVOH oxygen barrier, complies with the UNI EN ISO 21003-2 standard and is SKZ certified.

CODE	Size	m Pallet	N. Rolls	Pack m
9518P001	12 x 2 mm	4320	18	240
9518P002	16 x 2 mm	2800	14	200
9518P003	16 x 2 mm	2880	12	240
9518P004	16 x 2 mm	2400	4	600
9518P005	17 x 2 mm	1920	8	240
9518P006	17 x 2 mm	2400	4	600
9518P007	20 x 2 mm	2000	4	500



Components

- 1** Inner pipe in PE-Xa
- 2** Layer of adhesive connecting the inner pipe to the EVOH-oxygen barrier pipe
- 3** EVOH-oxygen barrier pipe

STRUCTURAL FEATURES AND PERFORMANCE

The quality of a heating/cooling floor-mounted system essentially depends on the quality of the pipe used, especially for its flexibility and durability features over time. FIV PE-Xa crosslinked polyethylene pipes perfectly meet these requirements, while satisfying the international pertaining standards. The several inspections and quality controls ensure maximum safety over time, as witnessed by DIN CERTCO certification.

REGULATORY COMPLIANCE

FIV PE-Xa with oxygen barrier is certified by the DIN-CERTCO certification body, in conformity to the European product standard UNI EN ISO 15875-2.

CONDITIONS OF USE ACCORDING TO THE APPLICATION CLASSES ACCORDING TO UNI EN ISO 15875-1 STANDARD (SEE TECHNICAL ATTACHMENTS).

EN TECHNICAL FEATURES

Application classes / Operating pressure (bar):
 size 17x2: Cl.4/6 bar - Cl.5/6 bar
 Oxygen permeability (DIN 4726):
 <0.1 mg/(m²d) at 40 °C; <0.34 mg/(m²d) at 80 °C
 Density: 950 kg/m³
 Degree of cross-linking: ≥70%
 Softening Temperature: 135 °C
 Thermal conductivity: 0,41 W/mK
 Tensile strength: 18 MPa

Elongation at break: >600%
 Average coefficient of linear expansion: 0,14 mm/m °C
 Internal roughness: 7 μm
 Water content size 17x2: 0,133 l/m

Application: heating systems (not suitable for sanitary systems).

Pipe regression curves, Pressure drop: see Technical attachments section.

GP 2044
PE-Xa PIPE

Pipe in high-density polyethylene, cross-linked with peroxides, certified according to UNI EN ISO 15875-2 standard and provided with an oxygen barrier in compliance with DIN 4726 standard.

Articles available while stocks last.



CODE	Size	Pallet m	N° Rolls	Pack m
9519P975	17 x 2 mm	2160	9	240
9519P976	17 x 2 mm	1800	3	600

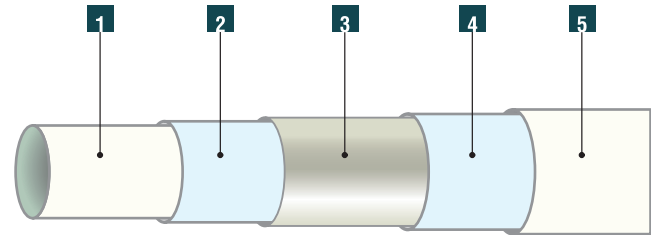




NEW

PE-Xa 5 LAYERS

EVOH OXYGEN BARRIER 5 LAYERS PIPE



SKZ

Das Kunststoff-Zentrum



Components

- | | |
|---|---|
| 1 | Inner pipe in PE-Xa |
| 2 | Layer of adhesive connecting the inner pipe to the EVOH-oxygen barrier pipe |
| 3 | EVOH-oxygen barrier pipe |
| 4 | Layer of adhesive connecting the outer pipe to the EVOH-oxygen barrier pipe |
| 5 | Outer pipe in PE-Xa |

STRUCTURAL FEATURES AND PERFORMANCE

The quality of a heating/cooling floor-mounted system essentially depends on the quality of the pipe used, especially for its flexibility and durability features over time. FIV PE-Xa crosslinked polyethylene pipes perfectly meet these requirements, while satisfying the international pertaining standards. The several inspections and quality controls ensure maximum safety over time, as witnessed by SKZ certification.

REGULATORY COMPLIANCE

FIV PE-Xa pipe with 5 layers EVOH oxygen barrier is certified by the SKZ certification body, in conformity to the European product standard UNI EN ISO 15875-2.

CONDITIONS OF USE ACCORDING TO THE APPLICATION CLASSES ACCORDING TO UNI EN ISO 15875-1 STANDARD (SEE TECHNICAL ATTACHMENTS).

EN TECHNICAL FEATURES

Application classes / Operating pressure (bar):
 size 17x2: Cl. 4/10 bar - Cl. 5/8 bar
 Oxygen permeability (DIN 4726):
 <0.1 mg/(m²d) at 40 °C; <0.34 mg/(m²d) at 80 °C
 Density: 950 kg/m³
 Degree of cross-linking: ≥70%
 Thermal conductivity: 0,41 W/mK

Average linear expansion coefficient: 0.14 mm/m °C
 Minimum bending radius: 5 x D tube
 Internal roughness: 7 μm
 Water content: 0.133 l/m

Application: heating systems (not suitable for sanitary systems).

Pipe regression curves: see Technical attachments section.

NEW

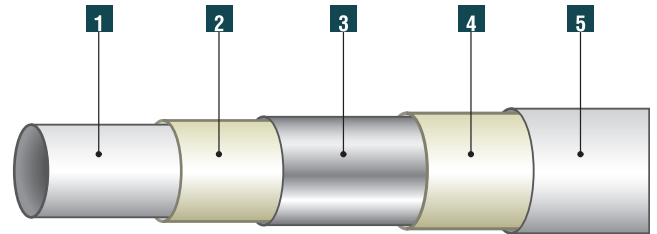
GP 2044
PE-Xa PIPE

5-layer pipe in high density polyethylene, cross-linked with peroxides, certified according to UNI EN ISO 15875-2 standard and provided with an oxygen barrier in compliance with DIN 4726 standard and SKZ HR 3.2 certified.



CODE	Size	Pallet m	N° Rolls	Pack m
9519P977	17 x 2 mm	1920	8	240
9519P978	17 x 2 mm	2400	4	600





Components

- 1 Inner pipe in PE-RT
- 2 Bonding layer connecting the inner pipe to the aluminium pipe
- 3 Horizontal-roller-position welding (0.2 mm thickness for $\varnothing 16 \times 2$ size, 0.25 mm thickness for $\varnothing 20 \times 2$ size)
- 4 Bonding layer connecting the outer pipe to the aluminium pipe
- 5 Outer pipe in PE-RT

STRUCTURAL FEATURES AND PERFORMANCE

The PE-RT/AL/PE-RT multilayer pipe for underfloor heating, heating and sanitary systems, belongs to the new generation of multilayer pipes for plumbing-sanitary systems. It consists of composite material, made even and more solid by a technologically advanced process, with which a PE-RT (crosslinked polyethylene with high resistance to high temperatures) pipe is implemented, reinforced by an aluminium core welded and covered externally by another layer of PE-RT.

REGULATORY COMPLIANCE

The FIVPert pipe complies with UNI EN ISO 21003 standard (class 2/10 bar, class 5/10 bar) and with the Ministerial Decree Italian 174/2004. In addition, the FIVPert 16x2 pipe has achieved the DVGW (Technical Rules W542 and W534) and KIWA (Technical Document Ki-0410) quality certificates.

CONDITIONS OF USE ACCORDING TO THE APPLICATION CLASSES PURSUANT TO UNI ISO 21003 (SEE TECHNICAL ATTACHMENTS).

- EN** GENERAL CHARACTERISTICS
- Average coefficient of linear expansion: 0,026 mm/m °C
 - Thermal conductivity: 0,45 W/m K
 - Minimum bending radius: 5 x \varnothing pipe
 - Surface roughness of the inner tube: 7 μ m
 - Fire reaction class: E_L (EN 13501-1)

Maximum operating conditions for 50 years:

- Design temperature T_D = 70 °C
- Design pressure p_D = 10 bar

Regression curves, Pressure drops and Linear expansion: see Technical attachments section.

Application: underfloor heating, heating and sanitary systems.

GP 2035
FIVPERT PIPE

Multi-layer pipe for heating and plumbing system, made from composite material using a technologically advanced processing during which PE-RT (non-crosslinked polyethylene with high resistance to high temperatures) pipe is coupled with a aluminium core, soldered at the head and externally coated with another layer of PE-RT.

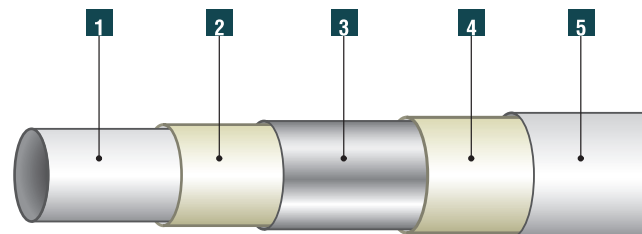


CODE	Size	Pallet m	N° Rolls	Pack m
9517P917	16 x 2 mm	2200	22	100
9517P969	16 x 2 mm	2600	13	200
9517P971	16 x 2 mm	2000	4	500
9517P931	20 x 2 mm	1600	16	100
9517P240	20 x 2 mm	1920	8	240



FIVPEX

MULTILAYER PIPE PE-X - AL - PE-X



kiwa



Components

- 1 Inner pipe in PE-X crosslinked Polyethylene
- 2 Adhesive connection layer
- 3 Aluminium pipe (minimum thickness 0.2 mm)
- 4 Adhesive connection layer
- 5 Outer pipe in PE-X crosslinked Polyethylene

CONSTRUCTION CHARACTERISTICS AND PERFORMANCE

The FIVPEX pipe is produced by constructing a layer of aluminum inside two layers of polyethylene and proceeding with the cross-linking process. This combines the advantages of metal (dimensional stability, high resistance to temperature and pressure) with those of plastic (easy working, good chemical inertia). The quality of materials used allow the FIVPEX pipe to achieve the highest performance levels among products in its sector.

COMPLIANCE WITH STANDARDS

The FIVPEX pipe is compliant with UNI EN ISO 21003 standard (class 2/10 bar, class 5/10 bar) and with D.M. 174/2004.

CONDITIONS FOR USE ACCORDING TO THE CLASSES OF APPLICATION IN COMPLIANCE WITH STANDARD UNI EN ISO 21003 (SEE THE TECHNICAL ATTACHMENTS).

EN TECHNICAL CHARACTERISTICS OF FIVPEX PIPE

Minimum aluminium thickness 0.2 mm
 Coefficient of linear expansion: 0.026 mm/m °C
 Thermal conductivity: 0.45 W/m °C
 Minimum curvature radius: 5 x Ø pipe
 Surface roughness of internal pipe: 7 µm
 Fire reaction class: E_L (EN 13501-1)

OPERATING CONDITIONS OF FIVPEX PIPE

Classes of Application (UNI ISO 21003 - see table "Classifications of conditions of use" in the "Technical attachments" section): 2/10 bar, 5/10 bar

Max. operating temperature for 50 years:
 - Maximum temperature for shorts time: 95 °C
 - Design pressure p_D = 10 bar

GP 2026
 FIVPEX PIPE

FIVPEX BARE pipe in rolls.



CODE	Size	m Pallet	N° Rolls	Pack m
9416P917	16 x 2	2200	22	100
9416P969	16 x 2	2600	13	200
9416P971	16 x 2	2000	4	500
9416P931	20 x 2	1600	16	100



kiwa



GP 2630
ACCESSORIES



Insulating perimeter strip, in closed-cell expanded polyethylene (density 23 kg/m³), with adhesive surface for fixing to a wall and moveable polyethylene strip on the panel side. Suitable for separating floors from vertical structures of buildings.

CODE	Height	Thickness	Pack m
9920P561	150 mm	7 mm	60

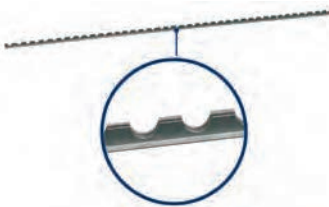
GP 2630
ACCESSORIES



Insulating perimeter strip, in closed-cell expanded polyethylene (density 23 kg/m³), with adhesive surface for fixing to a wall, without moveable polyethylene strip. Suitable for separating floors from vertical structures of buildings.

CODE	Height	Thickness	Pack m
9920P562	100 mm	5 mm	50

GP 2630
ACCESSORIES



Plastic expansion joint profile with adhesive base and seat for 7-8 mm thick insulating strip.

CODE	Size	Pack m
NEW 9925P010	LxHxH 2000x35x20 mm	10
28130032	LxHxH 2000x35x20 mm	50

GP 2630
ACCESSORIES



Super-fluidifying additive for screeds. Reduces the mixing water considerably, significantly increasing the mechanical strength of the concrete and increasing its thermal conductivity. Conforms to the UNI 10765 standard. Dosage: 0.7 ÷ 1.2 litres per 100 kg of concrete.

CODE	l/Pack
9918X511	10

NOTE: NOT compatible with the additive code 9915X510.



GP 2630
ACCESSORIES



Protective for heating high or low temperature systems/air conditioning systems
Anti-corrosive protective for all metals (steel-copper-aluminium), antiscaling and biocide for heating systems high or low temperature and/or air conditioning systems, with antiscaling protectors (max 25 °F)

TECHNICAL DATA

Appearance: light yellow liquid - straw-coloured - pH: 7±0,5 - Density (20 °C): 1.025±0.01 kg/l
Dispensing 5% (5 kg every 100 liter of water)

CODE **Kg/Pack**

02706396 5

GP 2630
ACCESSORIES



Polymer fibers for screeds.

Macro synthetic fibres obtained by extrusion of polypropylene-based synthetic polymers, with a "wavy" profile, optimised to increase adhesion to the concrete matrix of the conglomerate.

They reinforce "moist soil" type concrete, increasing its ductility and toughness, and counter its shrinkage.

Suitable for making heated screeds. Suggested dose: 1kg/m³.

CODE **Pack** **Pack pcs/box**

9925P150 1,5 kg BAG 2

Price relating to no. 1 bag of 1.5 kg.

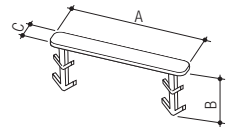
Minimum order quantity: n. 2 pcs (total 3 kg).



GP 2630
ACCESSORIES



Straddle clip in plastic material. It is applied on the panel ashlars to hold the pipes in the critical points.
Not suitable for panels with hard thermoformed film.



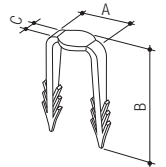
CODE **A mm** **B mm** **C mm** **Pack pcs/box**

28134452 88 28 14 100

GP 2630
ACCESSORIES



Manual pipe-holder clip, made of plastic, to further secure the pipes at critical points.



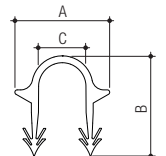
CODE **A mm** **B mm** **C mm** **Pack pcs/box**

28134456 25 49 5 100

GP 2630
ACCESSORIES



Pipe holding clip for Tacker made with plastic material to secure Ø 16-20 mm pipes, suitable for the Roll-Plan smooth panel.



CODE **Size** **A mm** **B mm** **C mm** **Pack pcs/box**

28134454 Ø 16 ±20 mm 39 42 20 300

GP 2630
ACCESSORIES



Clip holding Tacker, allows to easily secure pipes to the Roll-Plan smooth panel sitting upright.

CODE

Pack
pcs/box

9926X001

1

GP 2630
ACCESSORIES



Support curves for pipes with diameter from 16 to 17 mm. In PA66, reinforced with fibreglass. They support the pipes at the base of the manifolds.

CODE

Size

Pack
pcs/box

28134450

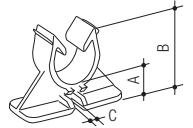
∅ 16 ÷ 17 mm

10

GP 2630
ACCESSORIES



Pipe-holding clip for metal mesh, for ∅ 16-17 mm pipes, to be used with metal mesh, ∅ 3 mm wire.



Article available while stocks last.

CODE

A
mm

B
mm

C
mm

Pack
pcs/box

9929P000

13

36

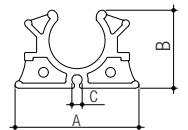
4,2

200

GP 2630
ACCESSORIES



Pipe-holding clip for metal mesh, for ∅ 16-17 mm pipes, to be used with metal mesh, ∅ 3 mm wire.



It will be supplied when stocks run out of the code 9929P000.

CODE

Size

A
mm

B
mm

C
mm

Pack
pcs/box

28134458

∅ 16 ÷ 17 mm

35

22

∅ 3

1000

Medium consumption: 35 pcs/m²

GP 2630
ACCESSORIES



Mesh clip-holding tool, to be used with clips code 28134458.

CODE

**Pack
pcs/box**

28134462

1

GP 2630
ACCESSORIES



Non-woven felt for FIVPAV system.
Made of polypropylene staple. Thickness 4 mm. Density: 500 g/m².

CODE

Size

**Pack
m²**

6320R002

2 x 25 m

50

GP 2630
ACCESSORIES



Polyethylene single-fold sheet, width 2 x 1 m, 50 m roll.

Article available while stocks last.

CODE

Size

Thickness

**Pack
m²**

9928P000

2 x 50 m

0,2 mm

100

NEW

GP 2630
ACCESSORIES



Roofing sheet in regenerated polyethylene with grid (in roll).

CODE

Size

Thickness

**Pack
m²**

28141020

2 x 50 m

0,2 mm

100

Single-fold sheet 2 x 1 m wide, 50 m roll, in regenerated amber colored polyethylene with 100 mm pitch grid, sheet thickness 0.2 mm.
Made with 100% recycled polyethylene. S_d (vapor transmission): ≥ 100 m.

GP 2630
ACCESSORIES



Completely disassembled roll dispenser, for rolls from 38 cm to max 100 cm, max height 60 cm (maximum roll weight: 80 Kg).

CODE

**Pack
pcs/box**

9919X001

1

advantages of the system Klettjet

This is the new FIV product for underfloor heating and cooling systems realization, which adopts the quick strap fastening system to make the installer's work easier and faster.

With the simple pressure of a foot, the special spiral wrapped tape around the PE-Xc cross-linked polyethylene pipes, catches firmly onto the Klettjet panels film, keeping the pipes firmly in place and setting a new standard for floor-drowned radiant systems with flat panels.

Traditional pipe fastening systems such as clips, plastic bars and the use of special tools are no longer required. The system allows the installer to operate autonomously, to easily modify the installation of the circuits, as the pipe can be detached and reattached several times from the panel, as for all the strap fastening systems we use daily within the clothing field.

Klettjet system is suitable for any type of building, especially where rooms have irregular shapes where it is possible to lay the circuits without restrictions, respecting the executive design, following the black traces of the grid printed on panels surface.

SYSTEM ELEMENTS

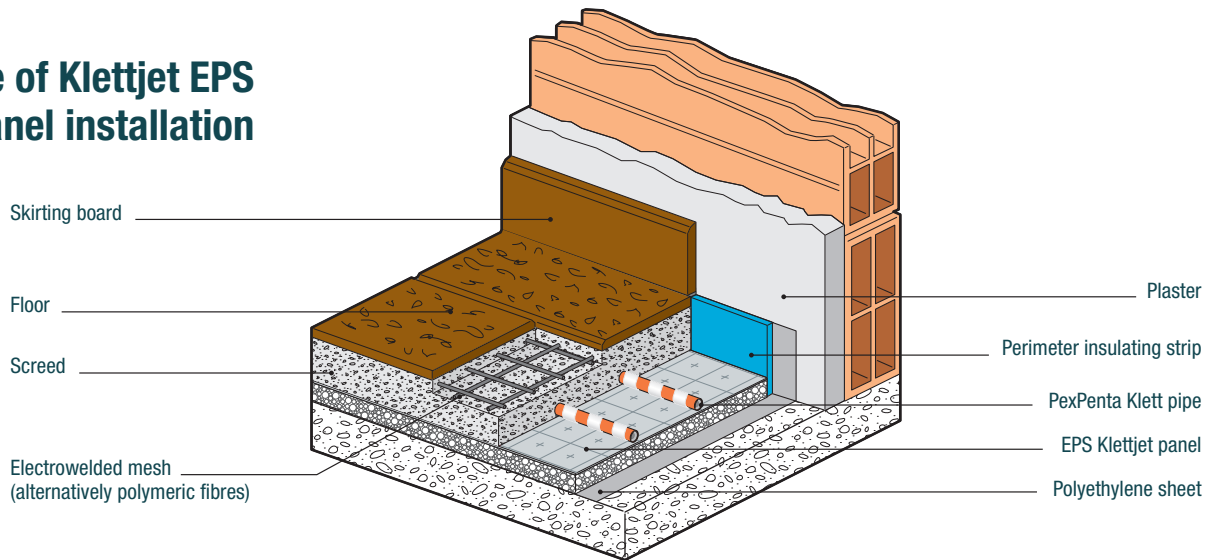
Klettjet panels are supplied on a roll and can be easily cut with a large blade cutter. They are available with 20 or 30 mm thick EPS thermic insulation or with only 6 mm thick thermic-acoustic insulation, with full self-adhesive base, ideal for building renovations, which can be laid directly on existing floors or other insulating layers.

PexPenta Klett PE-Xc 16x2 mm, 5-layers high density polyethylene pipe, cross-linked with an electronic system, highly flexible and equipped with an oxygen barrier positioned in the middle layer, is wrapped externally in a spiral shape by a special tape for rapid fastening of strap type on the Klettjet panels.

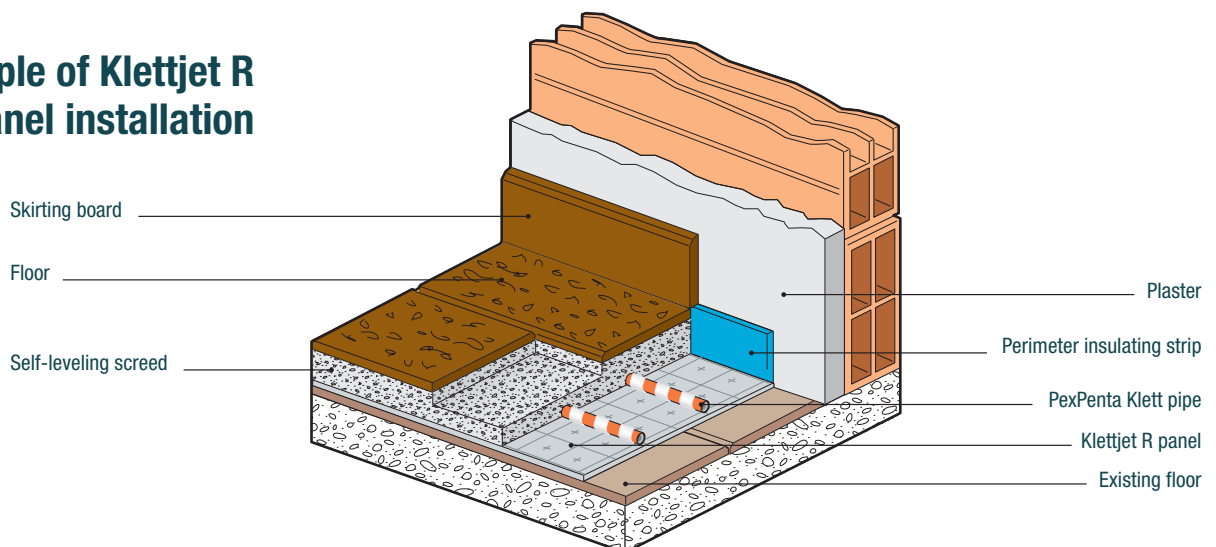
It complies with DIN 4726 and UNI EN ISO 21003-2, Certificate DIN CERTCO 3V365 MVR (P).

This system is integrated by Eurocono Monoblocco certified tightening fittings for the connection of the pipe to the distribution manifold, by a special roll tape to join the panels with relevant unrolling tool and by a tool to keep the pipes raised from the floor.

example of Klettjet EPS panel installation



example of Klettjet R panel installation



laying of insulating panels

LAYING THE SMOOTH COUPLED INSULATION KLETTJET PANEL

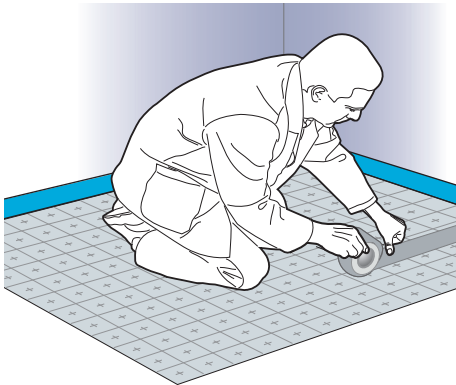
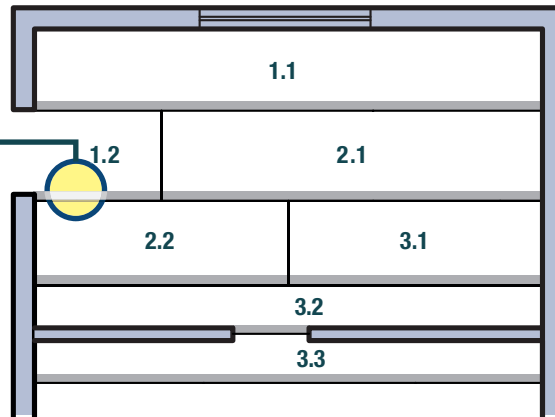
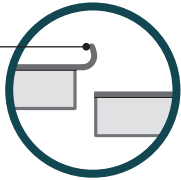
Before the system installation, make sure that the support on which the panel is to be laid is as flat, smooth and clean as possible. It is recommended to start laying the roll, both for the Klettjet EPS panel and the Klettjet R PE panel, starting from a room corner in the direction of the longest wall of it, so that the edge lays next to the perimeter strip.

Exceeding cut parts should be reused in the next row, respecting if possible the alignment of the printed grid on the superficial film, in order to minimize material waste.

Example of laying and recovering the cut part of the Klettjet panel

KLETTJET panel

Adhesive edge



Seal the rolls along the short side with its adhesive tape.

In the case of EPS panels (20 or 30 mm thick) join the panels using the appropriate 50 mm adhesive tape. In the case of PE panels (6 mm thick), remove the film on the back of the panel before laying it, in order to reveal the adhesive surface.

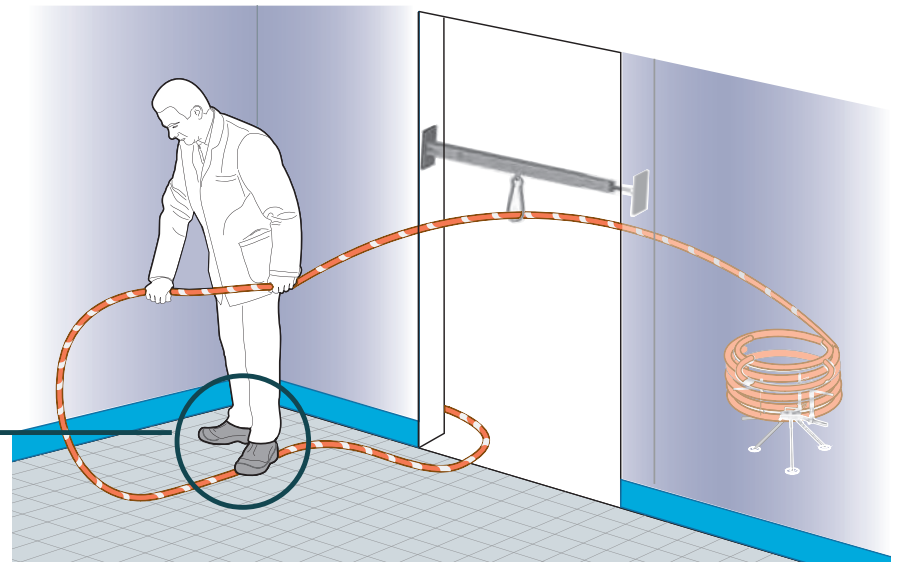
If the support is raw, it is advisable to check that the surface guarantees perfect fixing of the panels. If necessary, check the application of specific primers.

LAYING THE PIPE PEXPENTA KLETT

When installing the PexPenta Klett pipe, it is advisable to use the appropriate gloves and use the pipe support positioned between the door jambs to pass the PexPenta Klett pipe through the carabiner and lay it over the panels installed according to the design scheme and following the grid drawn on the panels with a simple foot pressure.

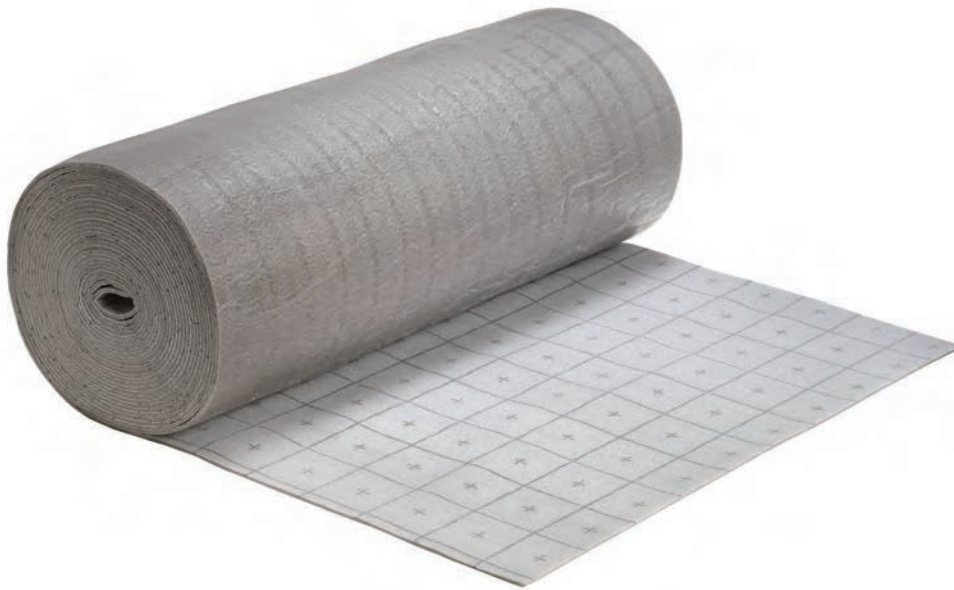
The tube will be fixed to the tissue film of the panel by means of the quick fastening tape.

In the event of installation changes, the pipe can be easily removed and fastened again.



KLETTJET R

REDUCED PE INSULATING PANEL
INTERVAL 50 MM



Physical characteristics	Standard	Model H6
Type	UNI EN 14313	Extruded PE
Dynamic rigidity	EN 29052-1	< 210 MN/m ³
Compressibility	EN 12431	≤ 2 mm
ΔLw** (evaluation index of the attenuation of the impact sound pressure level)	UNI EN 12354-2	13dB
Thermal conductivity λ _D (λ _{ins})	EN 12939 (UNI EN 1264)	0,045 W/mK
Thermal resistance R _{λ-ins} (S _{ins} / λ _{ins})	UNI EN 1264-3:2021	0,10 m ² K/W
Reaction to fire	EN 13501-1	Euroclass E
Maximum load	/	5,0 kPa
Slab thickness S _{ins}	UNI EN 1264-3	6 mm
Total length		20.000 mm
Total width		1.000 mm
Total thickness		6 mm
Pipe spacing		50 mm

See the technical data table:

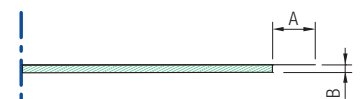
** calculation method for systems 'screed + resilient layer" (floating floors), valid with floors made of concrete or concrete and masonry, according to the simplified model provided for by EN 12354-2, table C1.
Conditions: mass per unit of area of the screed: 100 kg/m², dynamic rigidity of the resilient status: 210 MN/m³

GP 2015
KLETTJET R



H = 6 mm

Smooth panel in 6 mm thick roll, made of extruded closed cell polyethylene with self-adhesive base, for thermal and acoustic insulation (from impact noise), coupled with a film suitable for fastening PexPenta Klett pipes with tear-off system. The film features a 5 cm pitch black markings and a self-adhesive edge along the 20 metre side.



CODE	Size	Useful thickness	A mm	B mm	Pack m ²	Pallet m ²
28134286	20000 x 1000 x 6	(H) 6 mm	40	6	20	120

For dimensions, panel sections and minimum overall dimensions of the system for civil buildings, see Technical Annexes Section.



KLETTJET EPS

EPS INSULATING PANEL
INTERVAL 50 MM



Technical data	Standard	Model H 20 mm	Model H 30 mm
Type	UNI EN 13163	EPS 150	EPS 150
Density	UNI EN 1602	25 kg/m ³	25 kg/m ³
Compressive strength at 10% deformation	UNI EN 826	≥ 150 kPa	≥ 150 kPa
Thermal conductivity λ_D (λ_{ins})	UNI EN 12667	0,033 W/mK	0,033 W/mK
Thermal resistance $R\lambda_{ins}$ (S_{ins} / λ_{ins})	UNI EN 1264-3:2021	0,60 m ² K/W	0,90 m ² K/W
Reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%
Water vapour diffusion resistance factor μ	UNI EN 12086	40 ÷ 100	40 ÷ 100
Slab thickness S_{ins}	UNI EN 1264-3	20 mm	30 mm
Total length		10.000 mm	10.000 mm
Total width		1.000 mm	1.000 mm
Total thickness		20 mm	30 mm
Pipe spacing		50 mm	50 mm
Pack		10 m ²	10 m ²

GP 2015
KLETTJET EPS



Smooth panel in roll, consisting of slats (dimensions: 100 x 1000 mm) made of expanded Polystyrene (EPS) moulded for thermal insulation, coupled with a film suitable for fastening PexPenta Klett pipes with tear-off system.

The film features a 5 cm pitch black markings and a self-adhesive edge along the 10 metre side.



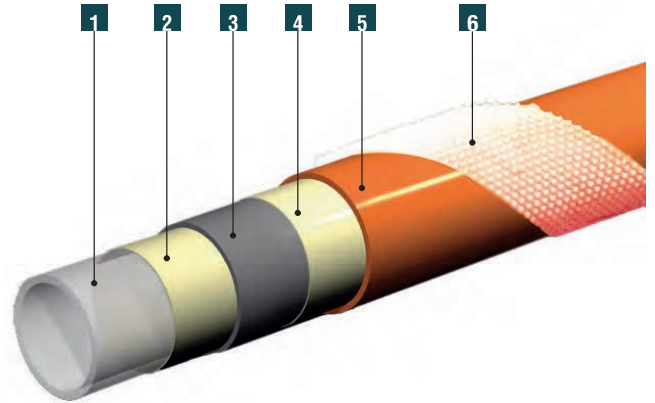
CODE	Size	Useful thickness	Density	A mm	B mm	Pack m ²	Pallet m ²
9915P001	10000 x 1000 x 20	(H) 20 mm	25	40	20	10	90
9915P002	10000 x 1000 x 30	(H) 30 mm	25	40	30	10	70

For dimensions, panel sections and minimum overall dimensions of the system for civil buildings, see Technical Annexes Section.



PEXPENTA KLETT

5-LAYER PE-XC / EVOH / PE-XC PIPE



Components

- | | |
|---|-----------------------------|
| 1 | PE-Xc |
| 2 | Adhesive |
| 3 | EVOH-oxygen barrier |
| 4 | Adhesive |
| 5 | PE-Xc |
| 6 | Tape for tear-off fastening |

CONDITIONS OF USE ACCORDING TO THE APPLICATION CLASSES PURSUANT TO UNI ISO 21003 (SEE TECHNICAL ATTACHMENTS).

EN GENERAL CHARACTERISTICS

Application classes / Operating pressure (bar):
Cl. 4 / 6 bar - 5 / 6 bar
Oxygen permeability: (DIN 4726):
< 0,1 mg/(m²d) a 40 °C; < 0,32 mg/ (m²d) a 80 °C
Density: 940 kg/m³
Thermal conductivity: 0,41 W/(mK)
Degree of cross-linking: ≥ 60%
Elastic modulus: 600-800 MPa

Elongation at break: 400-600%
Average coefficient of linear expansion: $1,5 \times 10^{-4} \text{ K}^{-1}$
Minimum bending radius: 5 x Ø outer diameter
Internal roughness: 6 µm - Water content: 0.11 l/m

APPLICATION: HEATING SYSTEMS.

GP 2034
PEXPENTA KLETT PE-Xc PIPE

5-layer pipe made of high density polyethylene, cross-linked with electronic system, in accordance with UNI EN ISO 21003-2, equipped with oxygen barrier in accordance with standard DIN 4726 in the intermediate layer, externally wrapped with special tape for fast tear-off fastening on KLETTJET panels. DIN CERTCO 3V365 MVR (P) certified.

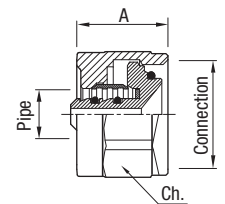


CODE	Size	m Pallet	N° Rolls	Pack m
28141830	16 x 2 mm	1920	8	240
28141832	16 x 2 mm	2400	4	600

GP 2615
MONOBLOCCO FITTING



MONOBLOCCO nickel-plated fitting, for PexPenta Klett pipe.



(*) Article available while stocks last.

CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
28300006	16x2 (*)	EUROCONO	30÷35	22,5	27	65	16	10	400
6245R917	16x2	EUROCONO	30÷35	22,5	27	65	16	10	400

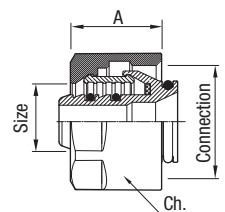
Supplied with O-rings.

NEW

GP 2615
MONOBLOCCO 2.0 FITTING

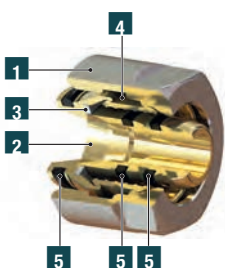


MONOBLOCCO 2.0, nickel-plated 3/4" Eurocone fitting, for PexPenta Klett pipe.



Construction

- 1 Nut in nickel-plated brass UNI EN 12165 CW617N
- 2 Adapter in brass UNI EN 12164 CW617N
- 3 Washer in PTFE, dielectric
- 4 Serrated hose-clamp in brass UNI EN 12164 CW614N
- 5 O-ring seals EPDM



CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	Pack pcs/box	Master pcs/box
9510R100	16x2	EUROCONO	30÷35	20	27	69	10	320

Supplied with O-rings.

GP 2630
ACCESSORIES



50 mm adhesive tape for joining Klettjet panels.

CODE	Height	Roll per Pack	Pack m
28134290	50 mm	1	100

GP 2630
ACCESSORIES



Reel for 50 mm tape for Klettjet panels.

CODE

**Pack
pcs/box**

28134294

1

GP 2630
ACCESSORIES



Support for PexPenta Klett pipe.

CODE

**Pack
pcs/box**

28134296

1

GP 2630
ACCESSORIES



Gloves for PexPenta Klett pipe.

CODE

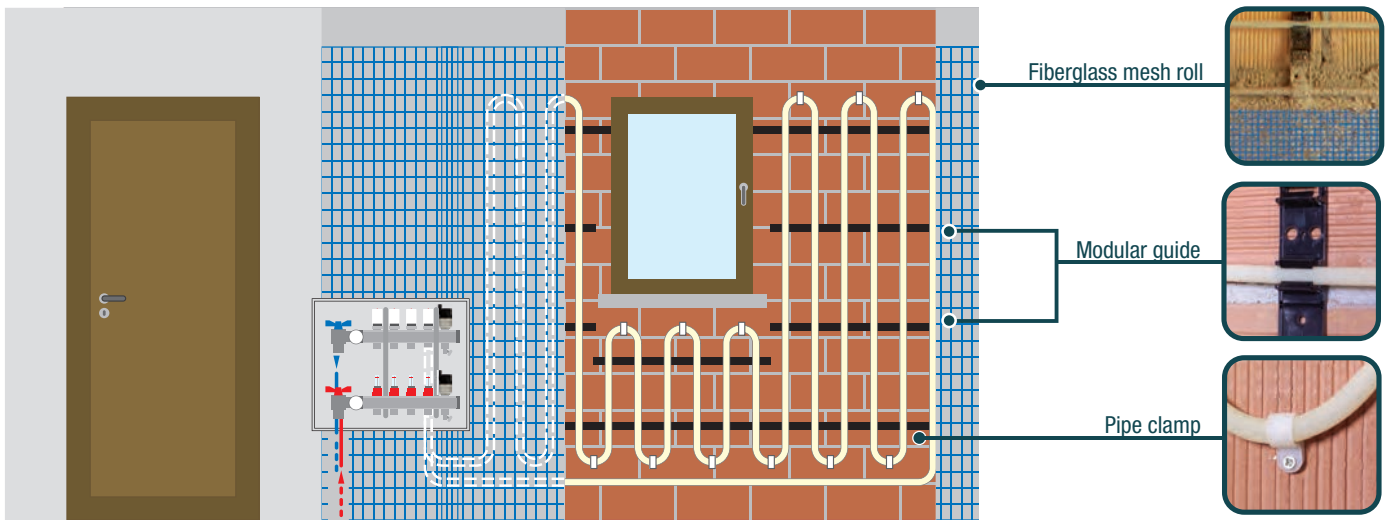
**Pack
pcs/box**

28134299

1 PAIR

FIVPar SYSTEM

ACCESSORIES FOR WALL SYSTEM



GP 2630
ACCESSORIES



Modular guide for pipe anchoring \varnothing 12 mm, with minimum interval 60 mm.

CODE	Size	Pack pcs/box
9943P012	(LxHxW) 900x20x35 mm	30

GP 2630
ACCESSORIES



Pipe clamp for \varnothing 12 mm pipe.

CODE	Size	Pack pcs/box
9944P012	Pipe \varnothing 12 mm	50

GP 2630
ACCESSORIES



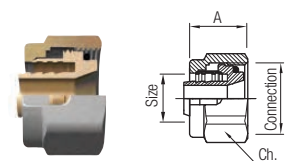
Fibreglass mesh roll for plaster.

CODE	Size	Pack m ²
9945X050	50 x 1 m	50

GP 2615
MONOBLOCCO FITTING



MONOBLOCCO nickel-plated compression fitting, for PEX/PP pipes.

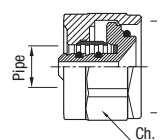


CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
6239R906	12x2	24x19	30+35	20,5	27	67	16	40	640

GP 2615
MONOBLOCCO FITTING



MONOBLOCCO nickel-plated compression fitting, for multilayer pipes and plastic pipes.



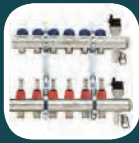
CODE	Size	Connection	Maximum torque (Nm)	A mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
6245R912	12x2	EUROCONO	30+35	22,5	27	65	16	10	400

Supplied with O-rings.



Manifolds, 3

CABINETS AND MIXING GROUPS



page 98

**Controller
brass manifold**



page 142 - 144

**Istant and
Thermoday
simple manifolds**



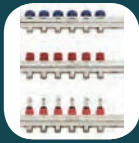
pages 100 - 102

**Controller
compact and easy
brass manifolds
with plastic brackets**



page 146

**Intersept
steel complanar
manifold**



pages 106 - 109

**Controller
single brass
manifolds**



page 148

**Plastibox
plastic box
for manifolds**



page 112

**Controller F
brass manifold**



page 150

**Motorval
motor driven
ball valve**



page 126

**Controller S
steel manifold**



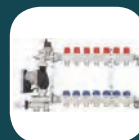
page 153

**Floor mixing
controller
pre-assembled
regulation group**



page 136

**Box system plus
cabinet for
manifolds**



page 163

**UFH mixing
controller
pre-assembled
regulation group**



page 140

**Electrothermic
head and
electronic system**



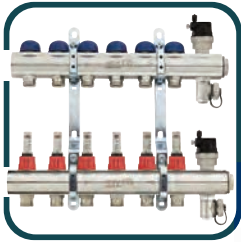
page 168

**Modular
mixing group
distribution
modules**

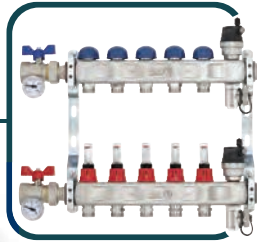
CONTROLLER - CONTROLLER S

pre-assembled distribution manifolds

CONTROLLER



CONTROLLER S



BOX SYSTEM PLUS



FIV TOUCH EVO



a versatile and complete system

The CONTROLLER and CONTROLLER S pre-assembled distribution manifolds, they with its multiplicity of components, represent the ideal answer to the needs of the modern heating plumber, offering a significant number of equipment solutions, from the simplest to the most complex.

The demanding installer has the opportunity to offer a complete system which adds value to the entire plant, however it is simple.

In addition it is possible in any time to modify or add to the distribution system without any difficulty. Even a simple apartment can thus be equipped with a cutting-edge system.

The CONTROLLER and CONTROLLER S pre-assembled distribution manifolds can be fitted with all the essential components and more: from the adjustable discharge cock to the air bleed valve; from the electrothermic head valve to the flow meter; all in a nickel-plated finish.

FINALLY EVEN A SMALL HOUSE CAN HAVE A LARGE SYSTEM.

SPEED, EASE AND SAFETY OF EXECUTION

FIV offers to the installer a system consisting of components which combine with each other in a simple way, favouring speed and safety of installation.

The CONTROLLER System has been devised to facilitate the work of the installer, who is enabled to carry out complex installations in a confined space with a significant saving of time, and improve the service offered to the client.

quality and reliability

The high standard of quality of the materials used, the robustness of the components and their level of finish, ensure the CONTROLLER System's long-term reliability and functionality, prolonging equipment life and reducing maintenance.

The qualitative guarantee is the consequence of a highly automated production process, ensuring consistency of the constructional and hydrodynamic characteristics of an entire production batch. All components are subjected to severe checks, and further quality control tests are carried out on the hydraulic test-bench to verify performance in critical conditions of use (1).

(1) Pre-assembled manifolds are 100% tested before packing.

customised comfort

With the CONTROLLER System, it is possible to divide the building into the desired zones (2), without limit as to number, simply by fitting electrothermic heads to control the valves. The heating engineer will be able to achieve intelligent temperature regulation in individual rooms, without obstacles imposed by the layout of the building and without requiring other modifications, because only the distribution box is involved.

The CONTROLLER AND CONTROLLER S manifolds thus becomes the true control centre for the entire heating system.

(2) Italian Presidential Decree n.412/93 makes division into zones compulsory "where there are definable parts of the building under separate occupancy ...", with the aim of splitting up the delivery of heat on the basis of the pattern of occupancy of the premises (art. 5 comma 12).

investment targeted on saving

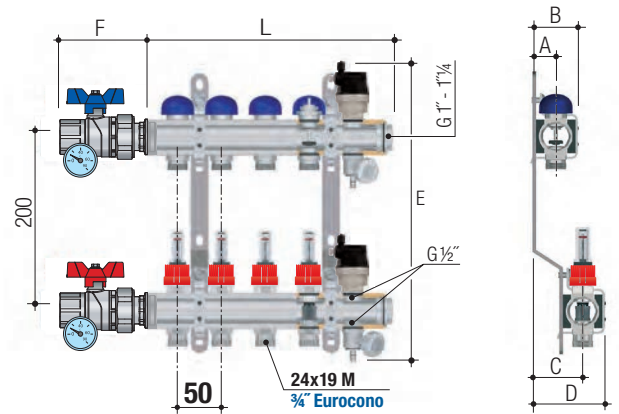
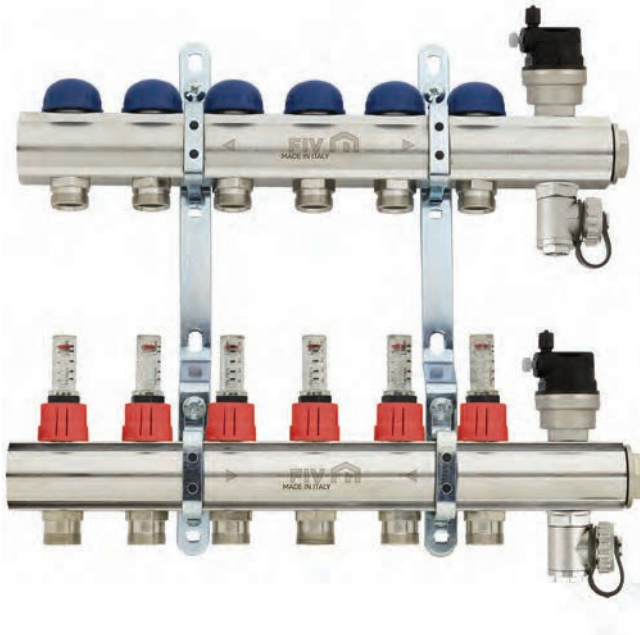
The greater initial investment for the purchase of materials is compensated by the significant reduction in installation and running costs.

Temperature control for each room is independent and personalised, without wastage, and this favours energy saving which continues little by little throughout the life of the system: heat in the right place at the right time.

WITH FIV THE SAVING TAKES PLACE WITHIN THE FOUR WALLS OF THE HOUSE.

CONTROLLER

PRE-ASSEMBLED DISTRIBUTION BRASS MANIFOLD WITH STEEL BRACKETS



The dimensions given are valid for all the models listed below; the value **L** will vary depending on the number of ways fitted to the manifold (see corresponding table).



Components

- 1 Manifold
- 2 Seals
- 3 Fixing brackets

All manifold distribution Controller and accessories are nickel plated.

Material

UNI EN 12168 CW614N
 EPDM
 UNI Fe 320 UNI 10440

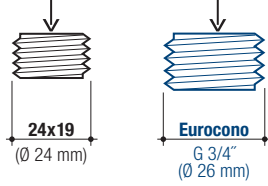
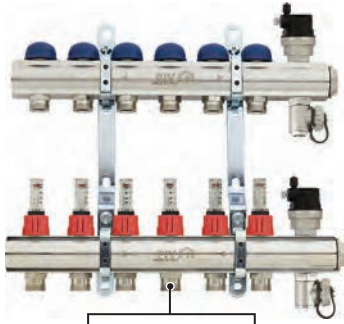
EN GENERAL CHARACTERISTICS

Main connection 1", 1"1/4
 Connection for seals 24x19 or 3/4" Eurocone,
 centre distance 50 mm.

OPERATING CONDITIONS

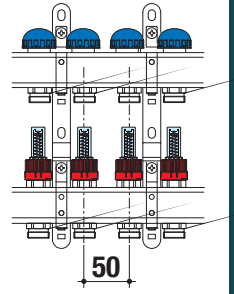
Maximum working temperature: +90 °C
 Maximum working pressure: 6 bar
 Instructions and diagrams in the Technical Attachments.

GP 2750
CONTROLLER



Takeoffs at 50 mm centres (flow and return).

1" and 1 1/4" pre-assembled distribution manifold nickel-plated, 24x19 or 3/4" Eurocono takeoffs, consisting of: manual valves with valve-caps, set up to take electrothermic heads, Flow meter 0-4 l/min, brackets and additional unions with 2 bleed valves and 2 drain valves.

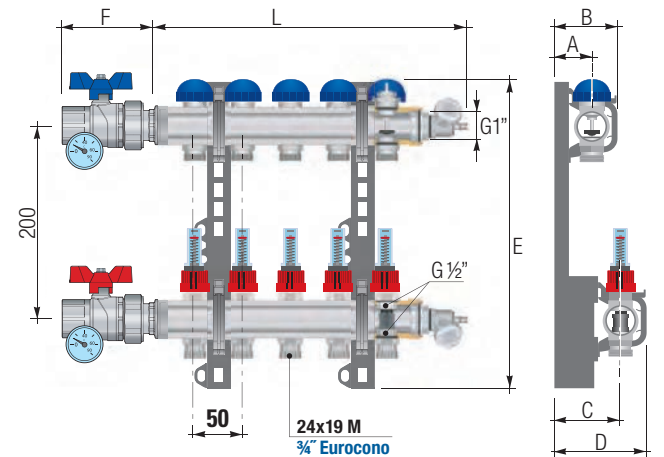
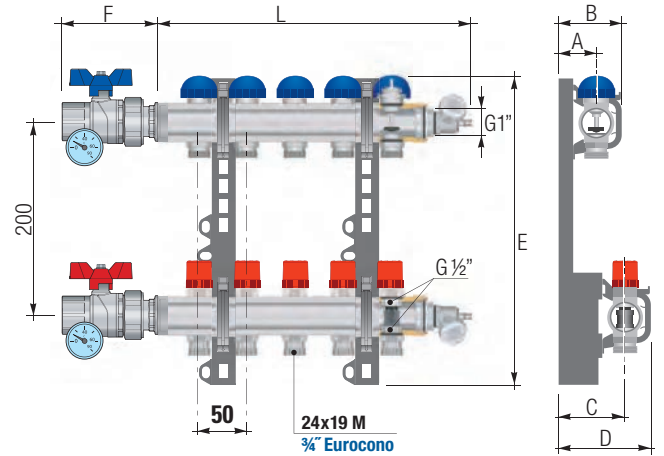
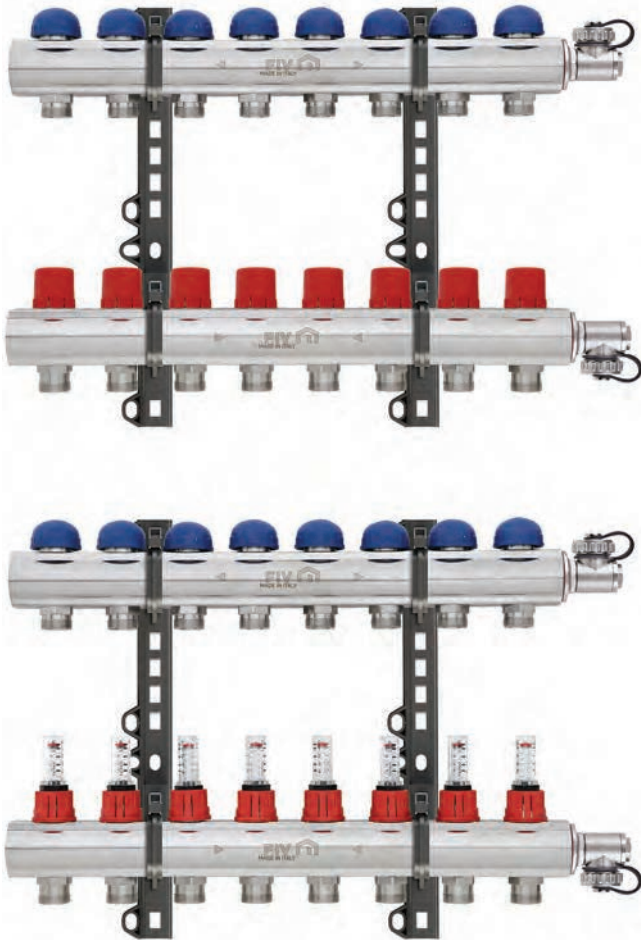


(*) Available only on request.

CODE	Model	L mm	A mm	B mm	C mm	D mm	E mm	F mm	Takeoff	Pack pcs/box
6246R002	2 WAYS - 1"	172	26,5	51	56,5	81	361,5	97	24x19	1
6246R003	3 WAYS - 1"	222	26,5	51	56,5	81	361,5	97	24x19	1
6246R004	4 WAYS - 1"	272	26,5	51	56,5	81	361,5	97	24x19	1
6246R005	5 WAYS - 1"	322	26,5	51	56,5	81	361,5	97	24x19	1
6246R006	6 WAYS - 1"	372	26,5	51	56,5	81	361,5	97	24x19	1
6246R007	7 WAYS - 1"	422	26,5	51	56,5	81	361,5	97	24x19	1
6246R008	8 WAYS - 1"	472	26,5	51	56,5	81	361,5	97	24x19	1
6246R009	9 WAYS - 1"	522	26,5	51	56,5	81	361,5	97	24x19	1
6246R010	10 WAYS - 1"	572	26,5	51	56,5	81	361,5	97	24x19	1
6246R011	11 WAYS - 1"	622	26,5	51	56,5	81	361,5	97	24x19	1
6246R012	12 WAYS - 1"	672	26,5	51	56,5	81	361,5	97	24x19	1
6247R002	2 WAYS - 1" (*)	172	26,5	51	56,5	81	361,5	97	Eurocono	1
6247R003	3 WAYS - 1" (*)	222	26,5	51	56,5	81	361,5	97	Eurocono	1
6247R004	4 WAYS - 1" (*)	272	26,5	51	56,5	81	361,5	97	Eurocono	1
6247R005	5 WAYS - 1" (*)	322	26,5	51	56,5	81	361,5	97	Eurocono	1
6247R006	6 WAYS - 1" (*)	372	26,5	51	56,5	81	361,5	97	Eurocono	1
6247R007	7 WAYS - 1" (*)	422	26,5	51	56,5	81	361,5	97	Eurocono	1
6247R008	8 WAYS - 1" (*)	472	26,5	51	56,5	81	361,5	97	Eurocono	1
6247R009	9 WAYS - 1" (*)	522	26,5	51	56,5	81	361,5	97	Eurocono	1
6247R010	10 WAYS - 1" (*)	572	26,5	51	56,5	81	361,5	97	Eurocono	1
6247R011	11 WAYS - 1" (*)	622	26,5	51	56,5	81	361,5	97	Eurocono	1
6247R012	12 WAYS - 1" (*)	672	26,5	51	56,5	81	361,5	97	Eurocono	1
9879R006	6 WAYS - 1 1/4"	382	30,5	58,5	60,5	89,5	371,5	135	24x19	1
9879R007	7 WAYS - 1 1/4"	432	30,5	58,5	60,5	89,5	371,5	135	24x19	1
9879R008	8 WAYS - 1 1/4"	482	30,5	58,5	60,5	89,5	371,5	135	24x19	1
9879R009	9 WAYS - 1 1/4"	532	30,5	58,5	60,5	89,5	371,5	135	24x19	1
9879R010	10 WAYS - 1 1/4"	582	30,5	58,5	60,5	89,5	371,5	135	24x19	1
9879R011	11 WAYS - 1 1/4"	634	30,5	58,5	60,5	89,5	371,5	135	24x19	1
9879R012	12 WAYS - 1 1/4"	682	30,5	58,5	60,5	89,5	371,5	135	24x19	1
9880R006	6 WAYS - 1 1/4" (*)	382	30,5	58,5	60,5	89,5	371,5	135	Eurocono	1
9880R007	7 WAYS - 1 1/4" (*)	432	30,5	58,5	60,5	89,5	371,5	135	Eurocono	1
9880R008	8 WAYS - 1 1/4" (*)	482	30,5	58,5	60,5	89,5	371,5	135	Eurocono	1
9880R009	9 WAYS - 1 1/4" (*)	532	30,5	58,5	60,5	89,5	371,5	135	Eurocono	1
9880R010	10 WAYS - 1 1/4" (*)	582	30,5	58,5	60,5	89,5	371,5	135	Eurocono	1
9880R011	11 WAYS - 1 1/4" (*)	634	30,5	58,5	60,5	89,5	371,5	135	Eurocono	1
9880R012	12 WAYS - 1 1/4" (*)	682	30,5	58,5	60,5	89,5	371,5	135	Eurocono	1

CONTROLLER COMPACT

KIT DISTRIBUTION BRASS MANIFOLD WITH PLASTIC BRACKETS



The dimensions given are valid for all the models listed below; the value **L** will vary depending on the number of ways fitted to the manifold (see corresponding table).



Components

- 1 Manifold
- 2 Seals
- 3 Fixing brackets

All manifold distribution Controller and accessories are nickel plated.

Material

UNI EN 12168 CW614N
EPDM
PA 6 30% GF black

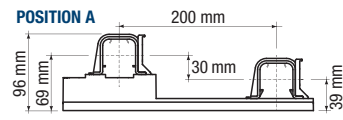
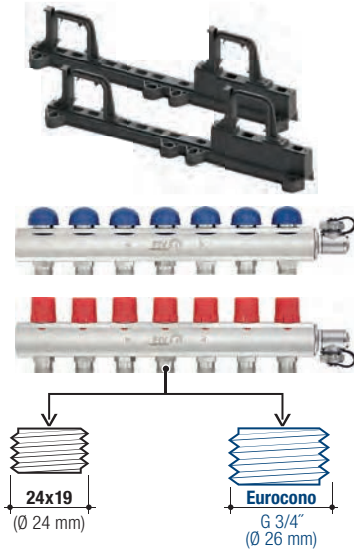
EN GENERAL CHARACTERISTICS

Main connection 1"
Connection for seals 24x19 or 3/4" Eurocono
Centre distance 50 mm

OPERATING CONDITIONS

Maximum working temperature: +110 °C (+90 °C with flow meters)
Maximum working pressure: 10 bar (6 bar with flow meters)
Instructions and diagrams in the Technical Attachments.

GP 2750
CONTROLLER COMPACT



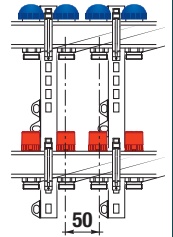
Dimensions refer to manifolds in position A.

Takeoffs at **50 mm** centres (flow and return).
It is also possible to insert the flow meter cartridge into the lockshield.

1" KIT distribution manifold nickel-plated - 24x19 or 3/4" Eurocone takeoffs, consisting of: manual valves with valve-caps, set up to take electrothermic heads, with double-adjustable lockshields, adjustable-brackets and with 2 drain valves.

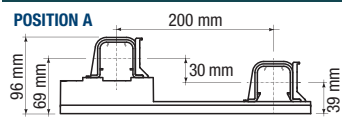
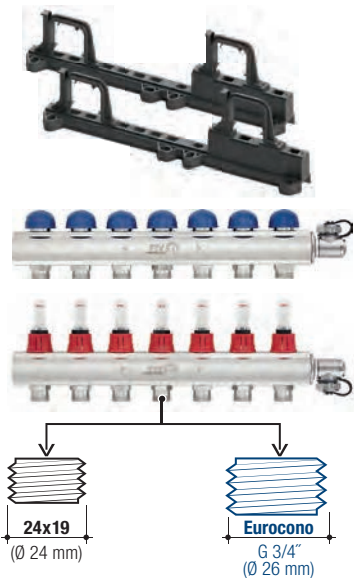
The article is supplied disassembled from the fixing brackets.

Available only on request.



CODE	Model	L mm	A mm	B mm	C mm	D mm	E mm	F mm	Takeoff	Pack pcs/box
6128R502	2 WAYS - 1"	165,5	39	66	69	96	320	97	24x19	1
6128R503	3 WAYS - 1"	215,5	39	66	69	96	320	97	24x19	1
6128R504	4 WAYS - 1"	265,5	39	66	69	96	320	97	24x19	1
6128R505	5 WAYS - 1"	315,5	39	66	69	96	320	97	24x19	1
6128R506	6 WAYS - 1"	365,5	39	66	69	96	320	97	24x19	1
6128R507	7 WAYS - 1"	415,5	39	66	69	96	320	97	24x19	1
6128R508	8 WAYS - 1"	465,5	39	66	69	96	320	97	24x19	1
6128R509	9 WAYS - 1"	515,5	39	66	69	96	320	97	24x19	1
6128R510	10 WAYS - 1"	565,5	39	66	69	96	320	97	24x19	1
6128R511	11 WAYS - 1"	615,5	39	66	69	96	320	97	24x19	1
6128R512	12 WAYS - 1"	665,5	39	66	69	96	320	97	24x19	1
6112R502	2 WAYS - 1"	165,5	39	66	69	96	320	97	Eurocono	1
6112R503	3 WAYS - 1"	215,5	39	66	69	96	320	97	Eurocono	1
6112R504	4 WAYS - 1"	265,5	39	66	69	96	320	97	Eurocono	1
6112R505	5 WAYS - 1"	315,5	39	66	69	96	320	97	Eurocono	1
6112R506	6 WAYS - 1"	365,5	39	66	69	96	320	97	Eurocono	1
6112R507	7 WAYS - 1"	415,5	39	66	69	96	320	97	Eurocono	1
6112R508	8 WAYS - 1"	465,5	39	66	69	96	320	97	Eurocono	1
6112R509	9 WAYS - 1"	515,5	39	66	69	96	320	97	Eurocono	1
6112R510	10 WAYS - 1"	565,5	39	66	69	96	320	97	Eurocono	1
6112R511	11 WAYS - 1"	615,5	39	66	69	96	320	97	Eurocono	1
6112R512	12 WAYS - 1"	665,5	39	66	69	96	320	97	Eurocono	1

GP 2750
CONTROLLER COMPACT



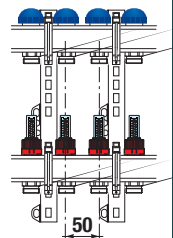
Dimensions refer to manifolds in position A.

Takeoffs at **50 mm** centres (flow and return).

1" KIT distribution manifold nickel-plated - 24x19 or 3/4" Eurocone takeoffs, consisting of: manual valves with valve-caps, set up to take electrothermic heads, Flow meter 0-4 l/min, adjustable-brackets and with 2 drain valves.

The article is supplied disassembled from the fixing brackets.

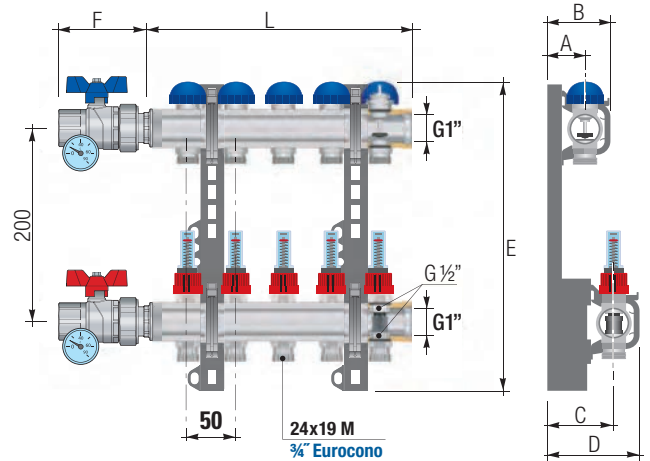
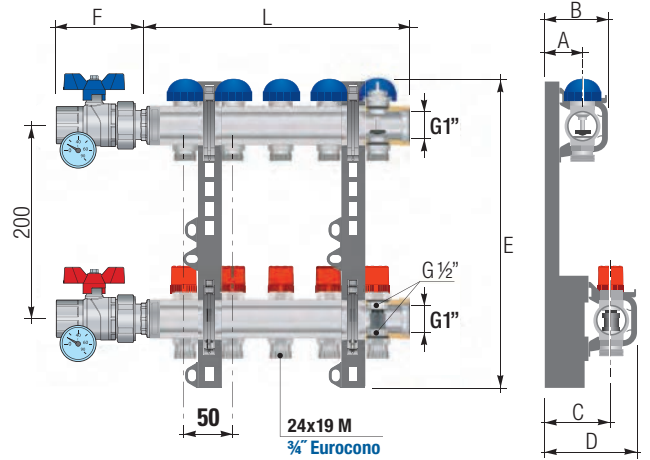
Available only on request.



CODE	Model	L mm	A mm	B mm	C mm	D mm	E mm	F mm	Takeoff	Pack pcs/box
6128R002	2 WAYS - 1"	165,5	39	66	69	96	320	97	24x19	1
6128R003	3 WAYS - 1"	215,5	39	66	69	96	320	97	24x19	1
6128R004	4 WAYS - 1"	265,5	39	66	69	96	320	97	24x19	1
6128R005	5 WAYS - 1"	315,5	39	66	69	96	320	97	24x19	1
6128R006	6 WAYS - 1"	365,5	39	66	69	96	320	97	24x19	1
6128R007	7 WAYS - 1"	415,5	39	66	69	96	320	97	24x19	1
6128R008	8 WAYS - 1"	465,5	39	66	69	96	320	97	24x19	1
6128R009	9 WAYS - 1"	515,5	39	66	69	96	320	97	24x19	1
6128R010	10 WAYS - 1"	565,5	39	66	69	96	320	97	24x19	1
6128R011	11 WAYS - 1"	615,5	39	66	69	96	320	97	24x19	1
6128R012	12 WAYS - 1"	665,5	39	66	69	96	320	97	24x19	1
6112R002	2 WAYS - 1"	165,5	39	66	69	96	320	97	Eurocono	1
6112R003	3 WAYS - 1"	215,5	39	66	69	96	320	97	Eurocono	1
6112R004	4 WAYS - 1"	265,5	39	66	69	96	320	97	Eurocono	1
6112R005	5 WAYS - 1"	315,5	39	66	69	96	320	97	Eurocono	1
6112R006	6 WAYS - 1"	365,5	39	66	69	96	320	97	Eurocono	1
6112R007	7 WAYS - 1"	415,5	39	66	69	96	320	97	Eurocono	1
6112R008	8 WAYS - 1"	465,5	39	66	69	96	320	97	Eurocono	1
6112R009	9 WAYS - 1"	515,5	39	66	69	96	320	97	Eurocono	1
6112R010	10 WAYS - 1"	565,5	39	66	69	96	320	97	Eurocono	1
6112R011	11 WAYS - 1"	615,5	39	66	69	96	320	97	Eurocono	1
6112R012	12 WAYS - 1"	665,5	39	66	69	96	320	97	Eurocono	1

CONTROLLER EASY

KIT DISTRIBUTION BRASS MANIFOLD WITH PLASTIC BRACKETS



The dimensions given are valid for all the models listed below; the value **L** will vary depending on the number of ways fitted to the manifold (see corresponding table).

Components

- 1 Manifold
- 2 Seals
- 3 Fixing brackets

All manifold distribution Controller and accessories are nickel plated.

Material

UNI EN 12168 CW614N
EPDM
PA 6 30% GF black

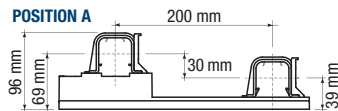
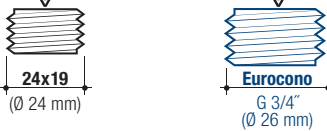
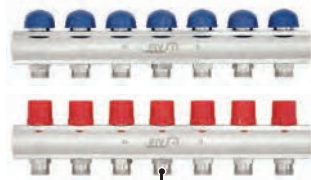
EN GENERAL CHARACTERISTICS

Main connection 1"
Connection for seals 24x19 or 3/4" Eurocone
Centre distance 50 mm

OPERATING CONDITIONS

Maximum working temperature: +110 °C (+90 °C with flow meters)
Maximum working pressure: 10 bar (6 bar with flow meters)
Instructions and diagrams in the Technical Attachments.

GP 2750
CONTROLLER EASY



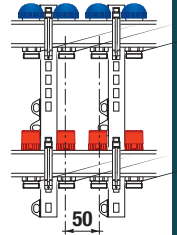
Dimensions refer to manifolds in position A.

Takeoffs at **50 mm** centres (flow and return).
It is also possible to insert the flow meter cartridge into the lockshield.

1" KIT distribution manifold nickel-plated - 24x19 or 3/4" Eurocono take-offs, consisting of: manual valves with cap configured for electrothermic heads, double-adjustable lockshields, adjustable brackets.

Item packed with manifolds detached from brackets.

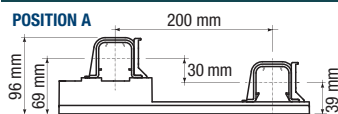
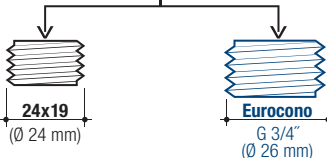
Available only on request.



CODE	Model	L mm	A mm	B mm	C mm	D mm	E mm	F mm	Takeoff	Pack pcs/box
6129R502	2 WAYS - 1"	114	28	55	58	85	310	120	24x19	1
6129R503	3 WAYS - 1"	164	28	55	58	85	310	120	24x19	1
6129R504	4 WAYS - 1"	214	28	55	58	85	310	120	24x19	1
6129R505	5 WAYS - 1"	264	28	55	58	85	310	120	24x19	1
6129R506	6 WAYS - 1"	314	28	55	58	85	310	120	24x19	1
6129R507	7 WAYS - 1"	364	28	55	58	85	310	120	24x19	1
6129R508	8 WAYS - 1"	414	28	55	58	85	310	120	24x19	1
6129R509	9 WAYS - 1"	464	28	55	58	85	310	120	24x19	1
6129R510	10 WAYS - 1"	514	28	55	58	85	310	120	24x19	1
6129R511	11 WAYS - 1"	564	28	55	58	85	310	120	24x19	1
6129R512	12 WAYS - 1"	614	28	55	58	85	310	120	24x19	1

6187R502	2 WAYS - 1"	114	28	55	58	85	310	120	Eurocono	1
6187R503	3 WAYS - 1"	164	28	55	58	85	310	120	Eurocono	1
6187R504	4 WAYS - 1"	214	28	55	58	85	310	120	Eurocono	1
6187R505	5 WAYS - 1"	264	28	55	58	85	310	120	Eurocono	1
6187R506	6 WAYS - 1"	314	28	55	58	85	310	120	Eurocono	1
6187R507	7 WAYS - 1"	364	28	55	58	85	310	120	Eurocono	1
6187R508	8 WAYS - 1"	414	28	55	58	85	310	120	Eurocono	1
6187R509	9 WAYS - 1"	464	28	55	58	85	310	120	Eurocono	1
6187R510	10 WAYS - 1"	514	28	55	58	85	310	120	Eurocono	1
6187R511	11 WAYS - 1"	564	28	55	58	85	310	120	Eurocono	1
6187R512	12 WAYS - 1"	614	28	55	58	85	310	120	Eurocono	1

GP 2750
CONTROLLER EASY



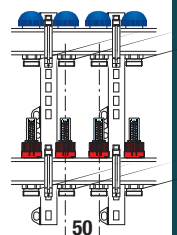
Dimensions refer to manifolds in position A.

Takeoffs at **50 mm** centres (flow and return).

1" KIT distribution manifold nickel-plated - 24x19 or 3/4" Eurocono take-offs, consisting of: manual valves with cap configured for electrothermic heads, 0-4 l/min flow meters, adjustable brackets.

Item packed with manifolds detached from brackets.

Available only on request.



CODE	Model	L mm	A mm	B mm	C mm	D mm	E mm	F mm	Takeoff	Pack pcs/box
6129R002	2 WAYS - 1"	114	28	55	58	85	310	120	24x19	1
6129R003	3 WAYS - 1"	164	28	55	58	85	310	120	24x19	1
6129R004	4 WAYS - 1"	214	28	55	58	85	310	120	24x19	1
6129R005	5 WAYS - 1"	264	28	55	58	85	310	120	24x19	1
6129R006	6 WAYS - 1"	314	28	55	58	85	310	120	24x19	1
6129R007	7 WAYS - 1"	364	28	55	58	85	310	120	24x19	1
6129R008	8 WAYS - 1"	414	28	55	58	85	310	120	24x19	1
6129R009	9 WAYS - 1"	464	28	55	58	85	310	120	24x19	1
6129R010	10 WAYS - 1"	514	28	55	58	85	310	120	24x19	1
6129R011	11 WAYS - 1"	564	28	55	58	85	310	120	24x19	1
6129R012	12 WAYS - 1"	614	28	55	58	85	310	120	24x19	1

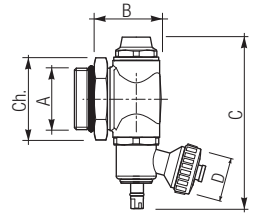
6187R002	2 WAYS - 1"	114	28	55	58	85	310	120	Eurocono	1
6187R003	3 WAYS - 1"	164	28	55	58	85	310	120	Eurocono	1
6187R004	4 WAYS - 1"	214	28	55	58	85	310	120	Eurocono	1
6187R005	5 WAYS - 1"	264	28	55	58	85	310	120	Eurocono	1
6187R006	6 WAYS - 1"	314	28	55	58	85	310	120	Eurocono	1
6187R007	7 WAYS - 1"	364	28	55	58	85	310	120	Eurocono	1
6187R008	8 WAYS - 1"	414	28	55	58	85	310	120	Eurocono	1
6187R009	9 WAYS - 1"	464	28	55	58	85	310	120	Eurocono	1
6187R010	10 WAYS - 1"	514	28	55	58	85	310	120	Eurocono	1
6187R011	11 WAYS - 1"	564	28	55	58	85	310	120	Eurocono	1
6187R012	12 WAYS - 1"	614	28	55	58	85	310	120	Eurocono	1

EASY CONTROLLER ACCESSORIES

GP 2799
ACCESSORIES



Couple of terminal with manual vent valve and adjustable bibcock.
Supplied with 1/2" manual vent valve and 1/2" water bibcock for water charge/drain with adjustable 3/4" connection.
Usable with Controller brass manifolds (with appropriate black O-ring in the package).

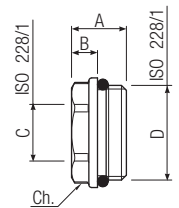


CODE	Size	A	B mm	C mm	D	Ch. mm	PN	Pack pcs/box
01306158	1"	1"	36	92	3/4"	38	10	2

GP 2799
ACCESSORIES



Male/female reducer, nickel-plated, with O-Ring seal.

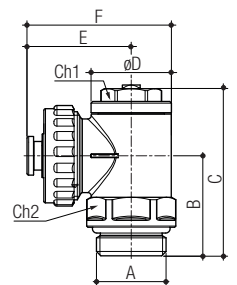


CODE	Size		A mm	B mm	∅C	∅D	Ch. mm	PN	Pack pcs/box
9685R027	1" M x 1/2" F	with O-Ring EP 851	18,5	10	1/2"	1"	27	10	20

GP 2799
ACCESSORIES



Adjustable discharge cock of 1/2" with pipe-fitting M 3/4", nickel-plated.



CODE	Size	A	B mm	C mm	∅D mm	E mm	F mm	Ch1 mm	Ch2 mm	Pack pcs/box
6322R004	1/2"	1/2"	29,8	49,7	23,9	31	43	16	24	36

GP 2799
ACCESSORIES

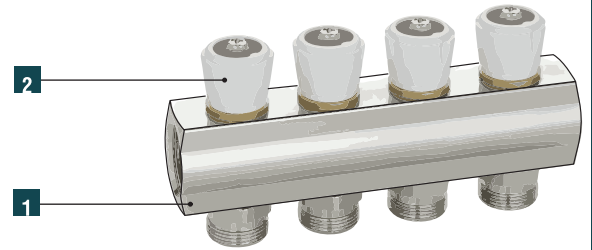


Blind plug M, nickel-plated, with O-Ring EP 851.

CODE	Size	Pack pcs/box
9683R006	1" M	20

CONTROLLER M

DISTRIBUTION MANIFOLD WITH SHUT-OFF VALVES



Components

- 1** Manifold
- 2** Knob
- Seals

Material

TN UNI EN 12168 CW614N
 ABS white
 NBR

EN GENERAL CHARACTERISTICS

Female - Female head thread UNI EN ISO 228-1 (G 3/4)
 Lateral Gas threads 24x19, 24 mm diameter and 19 threads per inch
 Centre distance 50 mm
 Supplied with: coloured adhesive plates for immediate identification of each circuit.

OPERATING CONDITIONS

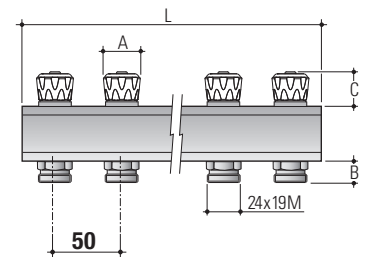
Maximum working pressure: 10 bar
 Maximum working temperature: 110 °C
 Note: seals on head thread ONLY with o-ring.
 DO NOT USE tapered threads
 Note: not suitable for the way regulating, ONLY open or closed.

Pressure drops: See diagram on Technical Attachments.

GP 2753
 CONTROLLER M

Distribution manifold, nickel-plated, with shut-off valves.
 To be used in closed circuit heating systems for the distribution of radiators, convectors, fan coils, adopting FIV sealing systems with 24x19 thread, inserted in the special Plastibox for manifolds.

Available only on request.

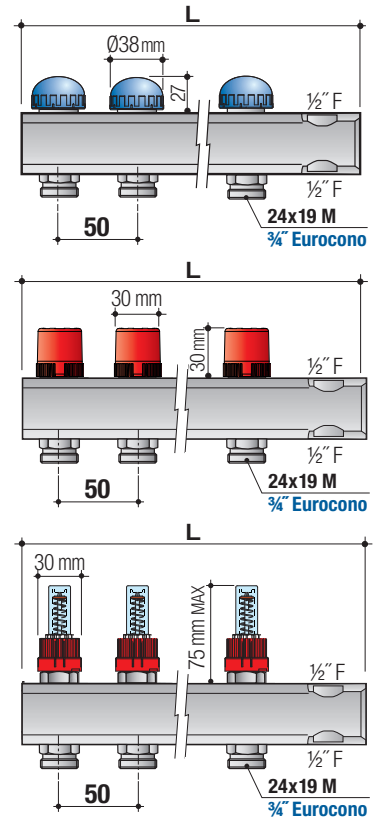


Takeoffs at **50 mm** centres
 (flow and return).

CODE	Model	A mm	B mm	C mm	L mm	PN	Pack pcs/box
6280R102	1" - 2 WAYS	∅27	16,5	25,5	114	10	1
6280R103	1" - 3 WAYS	∅27	16,5	25,5	164	10	1
6280R104	1" - 4 WAYS	∅27	16,5	25,5	214	10	1
6280R105	1" - 5 WAYS	∅27	16,5	25,5	264	10	1
6280R106	1" - 6 WAYS	∅27	16,5	25,5	314	10	1
6280R107	1" - 7 WAYS	∅27	16,5	25,5	364	10	1
6280R108	1" - 8 WAYS	∅27	16,5	25,5	414	10	1
6280R109	1" - 9 WAYS	∅27	16,5	25,5	464	10	1
6280R110	1" - 10 WAYS	∅27	16,5	25,5	514	10	1
6280R111	1" - 11 WAYS	∅27	16,5	25,5	564	10	1
6280R112	1" - 12 WAYS	∅27	16,5	25,5	614	10	1

CONTROLLER

SINGLE BAR DISTRIBUTION BRASS MANIFOLD



The dimensions given are valid for all the models listed below; the value **L** will vary depending on the number of ways fitted to the manifold (see corresponding table).



Components

- 1 Manifold
- 2 Seals

All manifold distribution Controller and accessories are nickel plated.

Material

UNI EN 12168 CW614N
EPDM

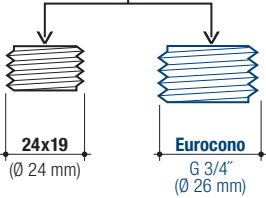
EN GENERAL CHARACTERISTICS

Main connection 1"
Connection for seals 24x19 or 3/4" Eurocone
Centre distance 50 mm

OPERATING CONDITIONS

Maximum working temperature: +110 °C (+90 °C with flow meters)
Maximum working pressure: 10 bar (6 bar with flow meters)
Instructions and diagrams in the Technical Attachments.

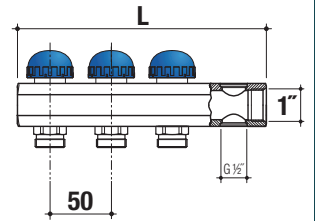
GP 2750
CONTROLLER



Takeoffs at **50 mm** centres with valves (return).

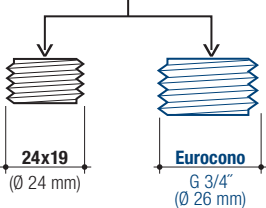
1" return manifold nickel-plated, 24x19 or 3/4" Eurocono takeoffs, complete with manual valves with valve-caps, set up to take electrothermic heads, and with additional connections for bleed valve and drain cock.

(*) Available only on request.



CODE	Model	L mm	Takeoff	Pack pcs/box
9779R002	2 WAYS - 1"	164	24x19	2
9779R003	3 WAYS - 1"	214	24x19	2
9779R004	4 WAYS - 1"	264	24x19	2
9779R005	5 WAYS - 1"	314	24x19	2
9779R006	6 WAYS - 1"	364	24x19	2
9779R007	7 WAYS - 1"	414	24x19	2
9779R008	8 WAYS - 1"	464	24x19	2
9779R009	9 WAYS - 1"	514	24x19	2
9779R010	10 WAYS - 1"	564	24x19	2
9779R011	11 WAYS - 1"	614	24x19	2
9779R012	12 WAYS - 1"	664	24x19	2
9780R002	2 WAYS - 1" (*)	164	Eurocono	2
9780R003	3 WAYS - 1" (*)	214	Eurocono	2
9780R004	4 WAYS - 1" (*)	264	Eurocono	2
9780R005	5 WAYS - 1" (*)	314	Eurocono	2
9780R006	6 WAYS - 1" (*)	364	Eurocono	2
9780R007	7 WAYS - 1" (*)	414	Eurocono	2
9780R008	8 WAYS - 1" (*)	464	Eurocono	2
9780R009	9 WAYS - 1" (*)	514	Eurocono	2
9780R010	10 WAYS - 1" (*)	564	Eurocono	2
9780R011	11 WAYS - 1" (*)	614	Eurocono	2
9780R012	12 WAYS - 1" (*)	664	Eurocono	2

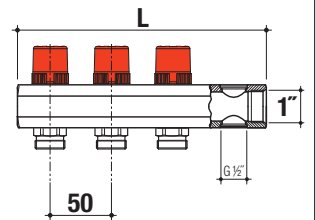
GP 2750
CONTROLLER



Takeoffs at **50 mm** centres (flow).

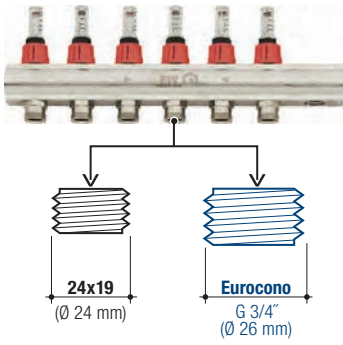
1" flow manifold nickel-plated, 24x19 or 3/4" Eurocono takeoffs, complete with double-adjustable lockshields and with additional connections for bleed valve and drain cock.

(*) Available only on request.



CODE	Model	L mm	Takeoff	Pack pcs/box
9867R502	2 WAYS - 1"	164	24x19	2
9867R503	3 WAYS - 1"	214	24x19	2
9867R504	4 WAYS - 1"	264	24x19	2
9867R505	5 WAYS - 1"	314	24x19	2
9867R506	6 WAYS - 1"	364	24x19	2
9867R507	7 WAYS - 1"	414	24x19	2
9867R508	8 WAYS - 1"	464	24x19	2
9867R509	9 WAYS - 1"	514	24x19	2
9867R510	10 WAYS - 1"	564	24x19	2
9867R511	11 WAYS - 1"	614	24x19	2
9867R512	12 WAYS - 1"	664	24x19	2
9868R502	2 WAYS - 1" (*)	164	Eurocono	2
9868R503	3 WAYS - 1" (*)	214	Eurocono	2
9868R504	4 WAYS - 1" (*)	264	Eurocono	2
9868R505	5 WAYS - 1" (*)	314	Eurocono	2
9868R506	6 WAYS - 1" (*)	364	Eurocono	2
9868R507	7 WAYS - 1" (*)	414	Eurocono	2
9868R508	8 WAYS - 1" (*)	464	Eurocono	2
9868R509	9 WAYS - 1" (*)	514	Eurocono	2
9868R510	10 WAYS - 1" (*)	564	Eurocono	2
9868R511	11 WAYS - 1" (*)	614	Eurocono	2
9868R512	12 WAYS - 1" (*)	664	Eurocono	2

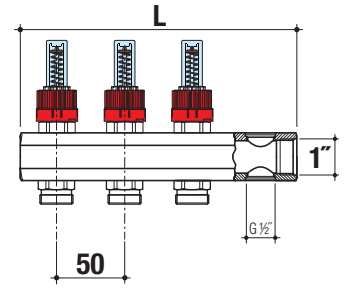
GP 2750
CONTROLLER



Takeoffs at **50 mm** with lockshields incorporating flow meters (flow).

1" Nickel-plated delivery manifold - takeoffs 24x19 or 3/4" Eurocono, including lockshields with incorporated flow meters 0-4 l/min. and extra attachments for the bleed valve and drain cock.

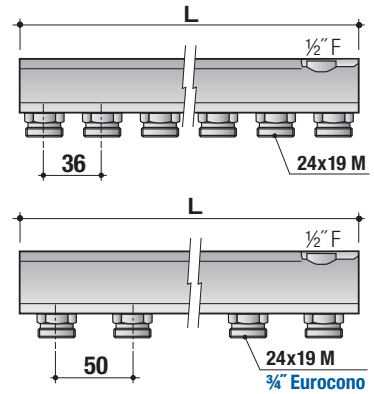
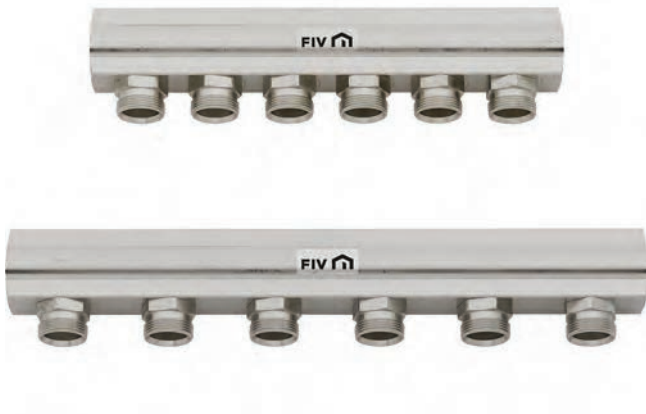
(*) Available only on request.



CODE	Model	L mm	Takeoff	Pack pcs/box
9867R002	2 WAYS - 1"	164	24x19	2
9867R003	3 WAYS - 1"	214	24x19	2
9867R004	4 WAYS - 1"	264	24x19	2
9867R005	5 WAYS - 1"	314	24x19	2
9867R006	6 WAYS - 1"	364	24x19	2
9867R007	7 WAYS - 1"	414	24x19	2
9867R008	8 WAYS - 1"	464	24x19	2
9867R009	9 WAYS - 1"	514	24x19	2
9867R010	10 WAYS - 1"	564	24x19	2
9867R011	11 WAYS - 1"	614	24x19	2
9867R012	12 WAYS - 1"	664	24x19	2
9868R002	2 WAYS - 1" (*)	164	Eurocono	2
9868R003	3 WAYS - 1" (*)	214	Eurocono	2
9868R004	4 WAYS - 1" (*)	264	Eurocono	2
9868R005	5 WAYS - 1" (*)	314	Eurocono	2
9868R006	6 WAYS - 1" (*)	364	Eurocono	2
9868R007	7 WAYS - 1" (*)	414	Eurocono	2
9868R008	8 WAYS - 1" (*)	464	Eurocono	2
9868R009	9 WAYS - 1" (*)	514	Eurocono	2
9868R010	10 WAYS - 1" (*)	564	Eurocono	2
9868R011	11 WAYS - 1" (*)	614	Eurocono	2
9868R012	12 WAYS - 1" (*)	664	Eurocono	2

CONTROLLER

SINGLE BAR DISTRIBUTION BRASS MANIFOLD



Components

- 1 Manifold
- 2 Seals

Material

UNI EN 12168 CW614N

EPDM

All manifold distribution Controller and accessories are nickel plated.

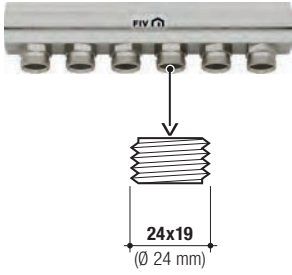
EN GENERAL FEATURES

- Main connection 3/4", 1" and 1 1/4"
- Connection for seals 24x19, 3/4" Eurocono
- Takeoffs at 36 mm or 50 mm centres
- Upper union connection G 1/2" F

OPERATING CONDITIONS

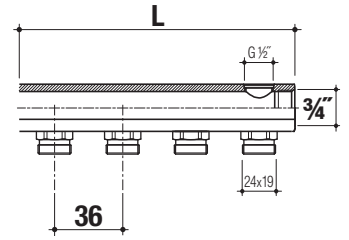
- Maximum working temperature: +110 °C
- Maximum working pressure: 10 bar
- Instructions and diagrams in the Technical Attachments.

GP 2750
CONTROLLER



Takeoffs at 36 mm centres.

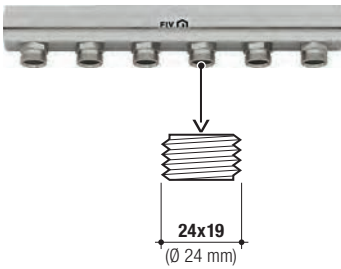
3/4" distribution manifold nickel-plated, complete with 24x19 takeoff connections, with hole on upper side for bleed valve. Takeoffs at 36 mm centres.



Available only on request.

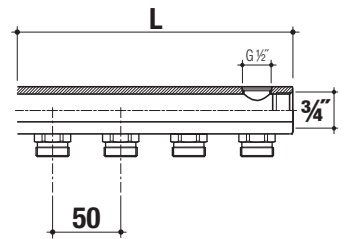
CODE	Model	L mm	Takeoff	Pack pcs/box
9758R002	2 WAYS - 3/4"	85	24x19	4
9758R003	3 WAYS - 3/4"	121	24x19	4
9758R004	4 WAYS - 3/4"	157	24x19	4
9758R005	5 WAYS - 3/4"	193	24x19	4
9758R006	6 WAYS - 3/4"	229	24x19	4
9758R007	7 WAYS - 3/4"	265	24x19	4
9758R008	8 WAYS - 3/4"	301	24x19	4
9758R009	9 WAYS - 3/4"	337	24x19	4
9758R010	10 WAYS - 3/4"	373	24x19	4
9758R011	11 WAYS - 3/4"	409	24x19	4
9758R012	12 WAYS - 3/4"	445	24x19	4

GP 2750
CONTROLLER



Takeoffs at 50 mm centres.

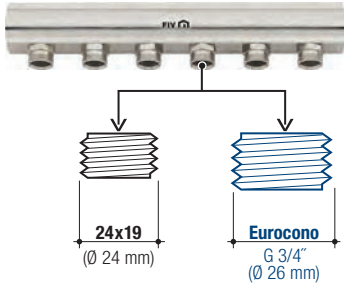
3/4" distribution manifold nickel-plated, complete with 24x19 takeoff connections, with hole on upper side for bleed valve. Takeoffs at 50 mm centres.



Available only on request.

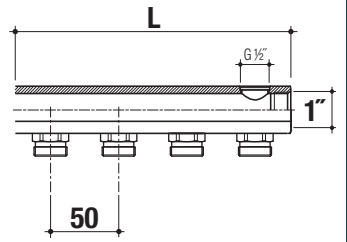
CODE	Model	L mm	Takeoff	Pack pcs/box
9759R002	2 WAYS - 3/4"	103	24x19	4
9759R003	3 WAYS - 3/4"	153	24x19	4
9759R004	4 WAYS - 3/4"	203	24x19	4
9759R005	5 WAYS - 3/4"	253	24x19	4
9759R006	6 WAYS - 3/4"	303	24x19	4
9759R007	7 WAYS - 3/4"	353	24x19	4
9759R008	8 WAYS - 3/4"	403	24x19	4
9759R009	9 WAYS - 3/4"	453	24x19	4
9759R010	10 WAYS - 3/4"	503	24x19	4
9759R011	11 WAYS - 3/4"	553	24x19	4
9759R012	12 WAYS - 3/4"	603	24x19	4

GP 2750
CONTROLLER



Take offs at **50 mm** centres.

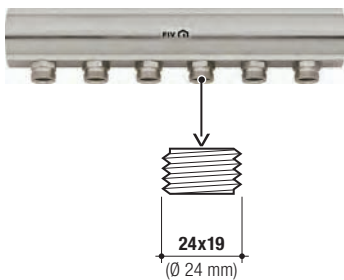
1" distribution manifold nickel-plated, complete with 24x19 or 3/4" Eurocono takeoff connections, with hole on upper side for bleed valve. Takeoffs at 50 mm centres.



Available only on request.

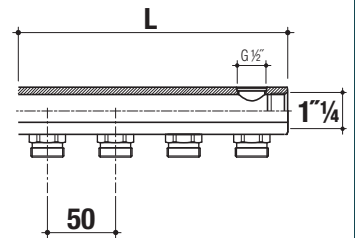
CODE	Model	L mm	Takeoff	Pack pcs/box
9761R002	2 WAYS - 1"	114	24x19	4
9761R003	3 WAYS - 1"	164	24x19	4
9761R004	4 WAYS - 1"	214	24x19	4
9761R005	5 WAYS - 1"	264	24x19	4
9761R006	6 WAYS - 1"	314	24x19	4
9761R007	7 WAYS - 1"	364	24x19	4
9761R008	8 WAYS - 1"	414	24x19	4
9761R009	9 WAYS - 1"	464	24x19	4
9761R010	10 WAYS - 1"	514	24x19	4
9761R011	11 WAYS - 1"	564	24x19	4
9761R012	12 WAYS - 1"	614	24x19	4
9762R002	2 WAYS - 1"	114	Eurocono	4
9762R003	3 WAYS - 1"	164	Eurocono	4
9762R004	4 WAYS - 1"	214	Eurocono	4
9762R005	5 WAYS - 1"	264	Eurocono	4
9762R006	6 WAYS - 1"	314	Eurocono	4
9762R007	7 WAYS - 1"	364	Eurocono	4
9762R008	8 WAYS - 1"	414	Eurocono	4
9762R009	9 WAYS - 1"	464	Eurocono	4
9762R010	10 WAYS - 1"	514	Eurocono	4
9762R011	11 WAYS - 1"	564	Eurocono	4
9762R012	12 WAYS - 1"	614	Eurocono	4

GP 2750
CONTROLLER



Takeoffs at **50 mm** centres.

1 1/4" distribution manifold nickel-plated, complete with 24x19 takeoff connections, with hole on upper side for bleed valve. Takeoffs at 50 mm centres.

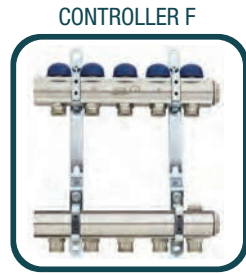


Available only on request.

CODE	Model	L mm	Takeoff	Pack pcs/box
9763R004	4 WAYS - 1 1/4"	220	24x19	2
9763R005	5 WAYS - 1 1/4"	270	24x19	2
9763R006	6 WAYS - 1 1/4"	320	24x19	2
9763R007	7 WAYS - 1 1/4"	370	24x19	2
9763R008	8 WAYS - 1 1/4"	420	24x19	2
9763R009	9 WAYS - 1 1/4"	470	24x19	2
9763R010	10 WAYS - 1 1/4"	520	24x19	2
9763R011	11 WAYS - 1 1/4"	570	24x19	2
9763R012	12 WAYS - 1 1/4"	620	24x19	2

CONTROLLER F

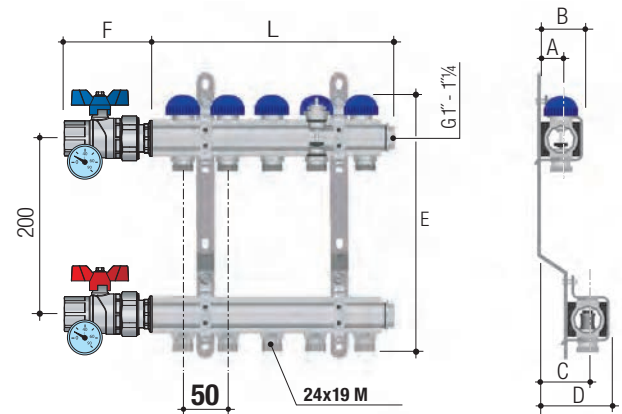
pre-assembled distribution manifold





CONTROLLER F

PRE-ASSEMBLED DISTRIBUTION BRASS MANIFOLD
WITH STEEL BRACKETS



The dimensions given are valid for all the models listed below; the value **L** will vary depending on the number of ways fitted to the manifold (see corresponding table).

Components

Material

1	Manifold	UNI EN 12168 CW614N
2	Seals	EPDM
3	Fixing brackets	UNI Fe 320 UNI 10440

All manifold distribution Controller and accessories are nickel plated.

EN GENERAL CHARACTERISTICS

Main connection 1", 1"1/4

Connection for seals 24x19, centre distance 50 mm

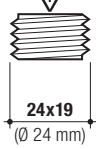
OPERATING CONDITIONS

Maximum working temperature: +110 °C

Maximum working pressure: 10 bar

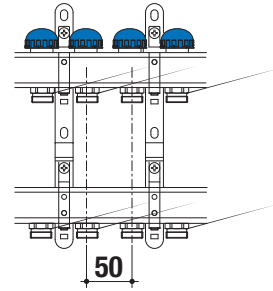
Instructions and diagrams in the Technical Attachments.

GP 2750
CONTROLLER F



Takeoffs at 50 mm centres (flow and return).

1" and 1 1/4" pre-assembled distribution manifold nickel-plated, 24x19 takeoffs (flow and return), indicated for hydronic distribution of radiators and fan coils.
Supplied with: manual adjustment valves set up to take thermo-electric heads, nr. 2 blind plugs with o-ring and nr. 2 double metal supports.



(*) Available only on request.

CODE	Model	L mm	A mm	B mm	C mm	D mm	E mm	F mm	Takeoff	Pack pcs/box
6246R102	2 WAYS - 1"	124	26,5	51	56,5	81	323	97	24x19	1
6246R103	3 WAYS - 1"	174	26,5	51	56,5	81	323	97	24x19	1
6246R104	2 WAYS - 1"	224	26,5	51	56,5	81	323	97	24x19	1
6246R105	5 WAYS - 1"	274	26,5	51	56,5	81	323	97	24x19	1
6246R106	6 WAYS - 1"	324	26,5	51	56,5	81	323	97	24x19	1
6246R107	7 WAYS - 1"	374	26,5	51	56,5	81	323	97	24x19	1
6246R108	8 WAYS - 1"	424	26,5	51	56,5	81	323	97	24x19	1
6246R109	9 WAYS - 1"	474	26,5	51	56,5	81	323	97	24x19	1
6246R110	10 WAYS - 1"	524	26,5	51	56,5	81	323	97	24x19	1
6246R111	11 WAYS - 1"	574	26,5	51	56,5	81	323	97	24x19	1
6246R112	12 WAYS - 1"	624	26,5	51	56,5	81	323	97	24x19	1
9879R104	4 WAYS - 1 1/4"	232	30,5	58,5	60,5	89,5	364	135	24x19	1
9879R105	5 WAYS - 1 1/4"	282	30,5	58,5	60,5	89,5	364	135	24x19	1
9879R106	6 WAYS - 1 1/4"	332	30,5	58,5	60,5	89,5	364	135	24x19	1
9879R107	7 WAYS - 1 1/4"	382	30,5	58,5	60,5	89,5	364	135	24x19	1
9879R108	8 WAYS - 1 1/4"	432	30,5	58,5	60,5	89,5	364	135	24x19	1
9879R109	9 WAYS - 1 1/4" (*)	482	30,5	58,5	60,5	89,5	364	135	24x19	1
9879R110	10 WAYS - 1 1/4" (*)	532	30,5	58,5	60,5	89,5	364	135	24x19	1
9879R111	11 WAYS - 1 1/4" (*)	582	30,5	58,5	60,5	89,5	364	135	24x19	1
9879R112	12 WAYS - 1 1/4" (*)	632	30,5	58,5	60,5	89,5	364	135	24x19	1

CONTROLLER

BALL VALVES KIT FOR CONTROLLER BRASS MANIFOLD



EN TECHNICAL DATA

Valve body thread with Female fitting: UNI EN 10226-1 (ISO 7-1: 1994)
 End sleeve thread with Male fitting: UNI EN ISO 228-1
 Tang and nut thread: UNI EN ISO 228-1
 TOTAL BORE

Flow direction: Both ways.
 Minimum and maximum operating temperature: -20 °C / +120 °C **
 Maximum pressure (T = 120 °C): 10 Bar
 Nominal pressure (T = 20 °C): See tables

** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.
 Valves must be used in fully open or fully closed position.

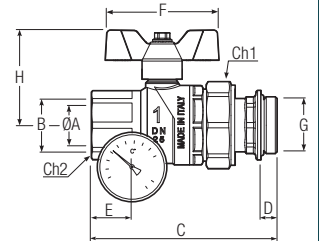
O-RING SEAL:

Stem upper seal O-Ring: VITON 70 Sh A (ASTM D2240)
 Stem lower seal O-Ring: EPDM Peroxidic 70 Sh A (ASTM D2240)
 O-ring tang seal: EPDM Peroxidic 70 Sh A (ASTM D2240)

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution straight valves with Blue/Red butterfly handles, with pipe union with o-ring seal and 2 thermometers.
 Valve with total bore and ISO 7/1 thread.

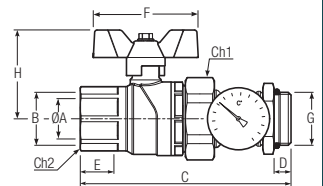


CODE	Size	DN	∅A mm	B	C mm	D mm	E mm	F mm	G	H mm	Ch.1 mm	Ch.2 mm	gr	Pack pcs/ box
6061R006	1"	25	25	1"	106,4	9,2	22	65	1"	54,5	47	38	1390	1

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution straight valves with Blue/Red butterfly handles, with pipe union thermometer holder with o-ring seal and 2 thermometers.
 Valve with total bore and ISO 7/1 thread.

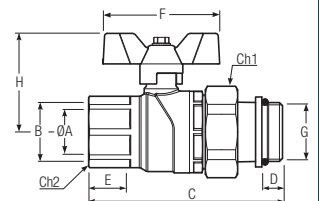


CODE	Size	DN	∅A mm	B	C mm	D mm	E mm	F mm	G	H mm	Ch.1 mm	Ch.2 mm	gr	Pack pcs/ box
9722R007	1"1/4	32	32	1"1/4	144	10,5	24	65	1"1/4	62	52	47	2135	1

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution straight valves with Blue/Red butterfly handles, with pipe union with o-ring seal.
 Valve with total bore and ISO 7/1 thread.

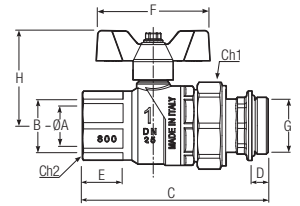


CODE	Size	DN	∅A mm	B	C mm	D mm	E mm	F mm	G	H mm	Ch.1 mm	Ch.2 mm	gr	Pack pcs/ box
9723R005	3/4"	20	20	3/4"	95	10	18,3	60	3/4"	49	37	31	818	1
9723R007	1"1/4	32	32	1"1/4	126,5	11,5	24	65	1"1/4	62	52	47	1850	1

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution straight valves with Blue/Red butterfly handles, with pipe union with o-ring seal. Valve with total bore and ISO 7/1 thread.

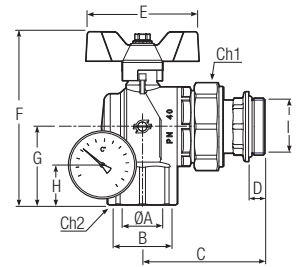


CODE	Size	DN	ØA mm	B	C mm	D mm	E mm	F mm	G	H mm	Ch.1 mm	Ch.2 mm	gr	Pack pcs/ box
6062R006	1"	25	25	1"	106,4	9,2	22	65	1"	54,5	47	38	1286	1

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution angle valves with Blue/Red butterfly handles, with pipe union with O-Ring seal and 2 thermometers. Valve with total bore and ISO 7/1 thread.

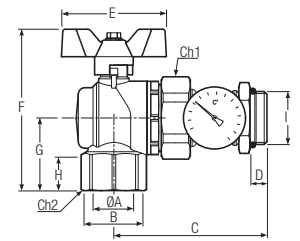


CODE	Size	DN	ØA mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I	Ch.1/2 mm	gr	Pack pcs/box
6063R006	1"	25	25	1"	70,3	9,2	65	99,3	45	22	1"	47/38	1534	1

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution angle valves with Blue/Red butterfly handles, with pipe union thermometer holder with O-Ring seal and 2 thermometers. Valve with total bore and ISO 7/1 thread.

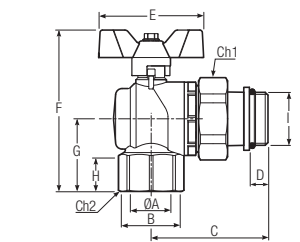


CODE	Size	DN	ØA mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I	Ch.1/2 mm	gr	Pack pcs/box
9744R007	1"1/4	32	32	1"1/4	95	10,5	65	113	53	24	1"1/4	52/47	2400	1

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution angle valves with Blue/Red butterfly handles, with pipe union with o-ring seal. Valve with total bore and ISO 7/1 thread.

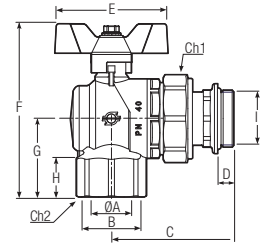


CODE	Size	DN	ØA mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I	Ch.1/2 mm	gr	Pack pcs/box
9745R005	3/4"	20	20	3/4"	63,5	10	60	80,6	38	18,3	3/4"	37/31	865	1
9745R007	1"1/4	32	32	1"1/4	83,5	11,5	65	113	53	24	1"1/4	52/47	2125	1

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution angle valves with Blue/Red butterfly handles, with pipe union with o-ring seal. Valve with total bore and ISO 7/1 thread.



CODE	Size	DN	ØA mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I	Ch.1/2 mm	gr	Pack pcs/box
6064R006	1"	25	25	1"	70,3	9,2	65	99,3	45	22	1"	47/38	1424	1

GP 2778
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution angle valves with Blue/Red butterfly handles and pipe unions with o-ring seal and by-pass valve, which can be calibrated from 0.2 to 0.5 bar.

CODE	Size	Pack pcs/box
9732R006	1"	1

Note: Invert the flow and return arrangement for pre-assembled ones.



GP 2258
ACCESSORIES



Thermometer tang kit complete with nut, thermometer and O-ring.

CODE	Size	Pack pcs/box
9729R006	1"	10
9729R007	1"1/4	8

GP 2000
ACCESSORIES



Tang kit complete with seal, complete with nut and O-ring.

CODE	Size	Pack pcs/box
9731R006	1"	12
9731R007	1"1/4	8

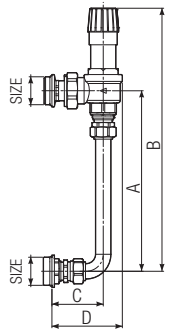
NEW

GP 2778
ACCESSORIES



TERMINAL kit, nickel plated, for Controller and Controller S manifolds, with By-pass valve and O-Ring seals.

Maximum operating temperature: 110 °C.
Maximum operating pressure: 6 bar.
Thread: UNI EN ISO 228-1



CODE	Size	A mm	B mm	C mm	D mm	Pack pcs/box
01307010	1" (*)	210 max.	309	60	83	1
01307012	1"1/4	210 max.	309	72	95	1

(*) Code 01307010 is equipped with a red O-ring on the upper union, for coupling with Controller S steel manifolds; to use the item in combination with the Controller brass manifolds, replace the red O-ring with the black one supplied in the package.

NEW

GP 2000
ACCESSORIES



Overpressure valve.

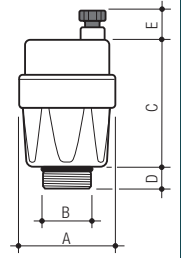
Maximum pressure: 6 bars
Maximum temperature: 110°C
Calibration range: 0.03÷0.50 bar

CODE	Size	Pack pcs/box
90000064	3/4"	1

GP 2070
ACCESSORIES



Wind, air vent valve nickel-plated.

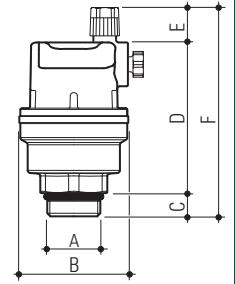


CODE	Size	∅A mm	B	C mm	D mm	E mm	PN	Pack pcs/box	Master pcs/box
00400676	1/2"	40	1/2"	50	10	12	10	12	96

GP 2070
ACCESSORIES



Wind Plus. air bleed valve with plastic cover.

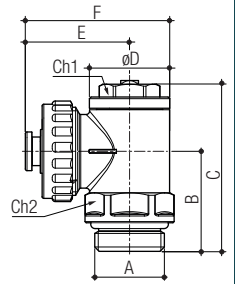


CODE	Size	A	B mm	C mm	D mm	E mm	F mm	PN	Pack pcs/box	Master pcs/box
9461R004	1/2"	G 1/2"	42	9	58,5	13,5	81	10	12	96

GP 2799
ACCESSORIES



Adjustable discharge cock of 1/2" with pipe-fitting M 3/4", nickel-plated.

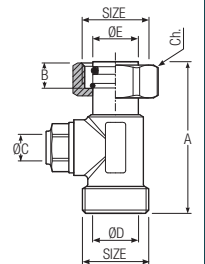


CODE	Size	A	B mm	C mm	∅D mm	E mm	F mm	Ch1 mm	Ch2 mm	Pack pcs/box
6322R004	1/2"	1/2"	29,8	49,7	23,9	31	43	16	24	36

GP 2799
ACCESSORIES



Tee union with pipe union for thermometer, nickel-plated.

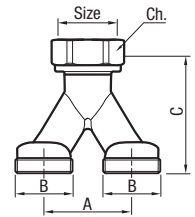


CODE	Size	A mm	B mm	∅C mm	∅D mm	∅E mm	Ch. mm	PN	gr	Pack pcs/box
9737R524	M-F 24x19	59	10	10,5	18,2	18	30	10	155	30

GP 2799
ACCESSORIES

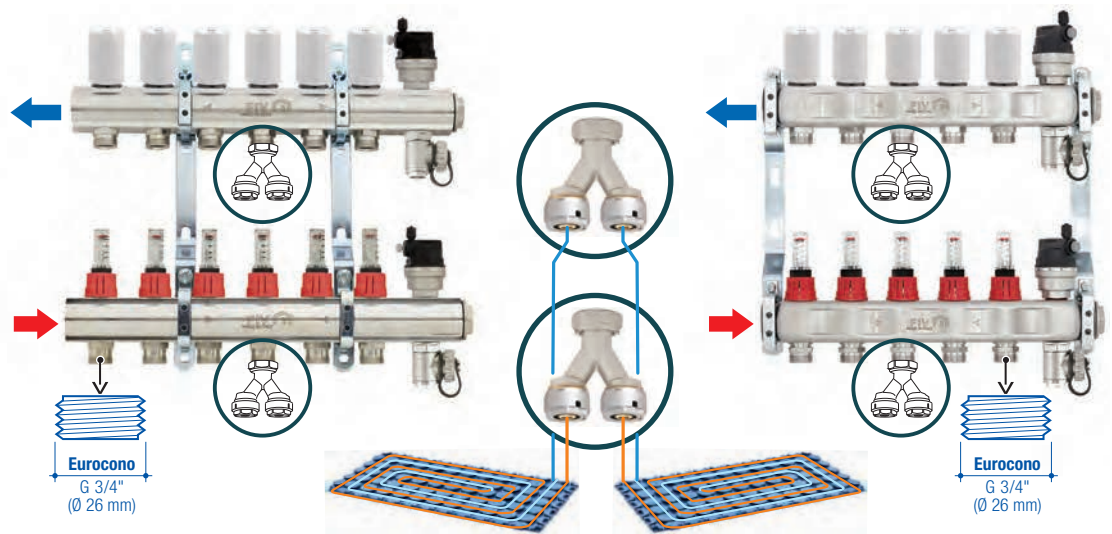


Splitter fitting with 24x19 or 3/4" Eurocone takeoffs, for CONTROLLER brass manifolds and CONTROLLER S steel manifolds, with takeoffs with 50 mm centre distance. UNI EN ISO 228-1 thread.



CODE	Size	A mm	B	C mm	Ch mm	gr	Pack pcs/box	Master pcs/box
01300000	24x19	36	24x19	58	27	130	2	80
6320R001	3/4"	36	3/4"	49,5	27	122	2	90

Example of application of the splitter fitting cod. 6320R001 + 12x2, 24x19 or 3/4" EK Monobloc seal to Controller and Controller S manifolds



GP 2799
ACCESSORIES



Fitting Female 24x19 - Male M32x1,5.

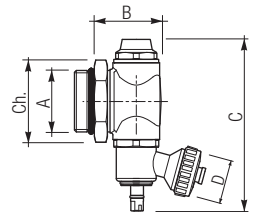
CODE	Size	Pack pcs/box
01306252	24x19 - M32x1,5	10

Complete with O-Ring and adapter female side.

GP 2799
ACCESSORIES



Couple of terminal with manual vent valve and adjustable bibcock. Supplied with 1/2" manual vent valve and 1/2" water bibcock for water charge/drain with adjustable 3/4" connection. Also usable with Controller S steel manifolds, replacing the black O-Ring with the red ones supplied in the package.



CODE	Size	A	B mm	C mm	D	Ch. mm	PN	Pack pcs/box
01306158	1"	1"	36	92	3/4"	38	10	2

GP 2799
ACCESSORIES



Thermometer \varnothing 40.

Article available while stocks last.

CODE	Temperature	Pack pcs/box
5836X560	0 ÷ 80 °C	1

NEW

GP 2799
ACCESSORI



Thermometer \varnothing 40.

CODE	Temperature	Pack pcs/box
90006866	0 ÷ 80 °C	1

GP 2799
ACCESSORIES



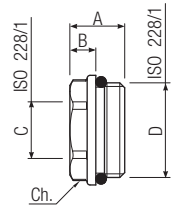
Hand wheel.

CODE	Pack pcs/box
9681P500	6

GP 2799
ACCESSORIES



Male/female reducer, nickel-plated, with O-Ring seal.



CODE	Size		A mm	B mm	C	D	Ch. mm	PN	Pack pcs/box
9685R024	3/4" M x 3/8" F	with O-Ring EP 851	16,5	10	3/8"	3/4"	30	10	30
9685R026	3/4" M x 1/2" F	with O-Ring EP 851	16,5	10	1/2"	3/4"	30	10	25
9685R092	1" M x 3/8" F	with O-Ring EP 851	18,5	10	3/8"	1"	27	10	15
9685R027	1" M x 1/2" F	with O-Ring EP 851	18,5	10	1/2"	1"	27	10	20
9685R030	1" M x 3/4" F	with O-Ring EP 851	19,5	10	3/4"	1"	30	10	15
9685R028	1"1/4 M x 1/2" F	with O-Ring EP 851	23,5	12,5	1/2"	1"1/4	38	10	8
9685R034	1"1/4 M x 1" F	with O-Ring EP 851	23,5	12,5	1"	1"1/4	38	10	10

GP 2799
ACCESSORIES



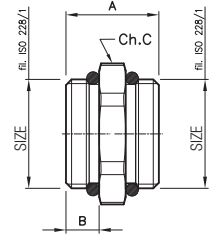
Wrench for nipples CH 37 - 48.

CODE	Pack pcs/box
01306044	1

GP 2799
ACCESSORIES



Male/Male nipple, nickel-plated, with O-Ring seal.



CODE	Size	A mm	B mm	Ch. C mm	PN	Pack pcs/box
9686R033	1" M x 1" M	27	10	37	10	2/30

GP 2799
ACCESSORIES



M-M swivel threaded fitting for Controller manifolds, with O-ring, nickel-plated.

CODE	Size	Pack pcs/box
9682R029	3/4" M x 3/4" M	2/30
9682R033	1" M x 1" M	2/30
9682R034	1"1/4 M x 1" M	2/30
9682R036	1"1/4 M x 1"1/4 M	2/30
9682R027	1" M x 1/2" M	2/30
9682R030	1" M x 3/4" M	2/30

GP 2799
ACCESSORIES



Blind plug M, nickel-plated, with O-Ring EP 851.

CODE	Size	Pack pcs/box
9683R004	1/2" M	50
9683R005	3/4" M	25
9683R006	1" M	20
9683R007	1"1/4 M	10

GP 2799
ACCESSORIES



Solid plug F, nickel-plated, for flat seal with gasket.

CODE	Size	Pack pcs/box
5833R005	3/4" F	50
5833R006	1" F	50

NEW

GP 2615
ACCESSORIES



Blind monobloc seal (plug).

CODE	Size	Pack pcs/box
6047R001	24 x 19 F	20

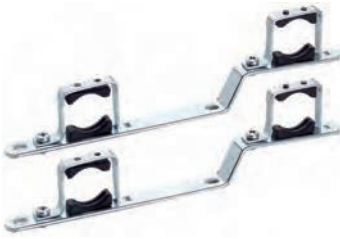
GP 2799
ACCESSORIES



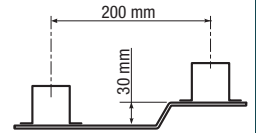
Pair of single metal brackets for manifolds, zinc-plated.

CODE	Size	Pack pcs/box
9687Z006	1"	1

GP 2799
ACCESSORIES



Pair of double metal brackets for manifolds, zinc-plated.



CODE	Size	Takeoff	Pack pcs/box
9688Z005	3/4"	200 mm	1
9688Z006	1"	200 mm	1
9688Z007	1"1/4	200 mm	1

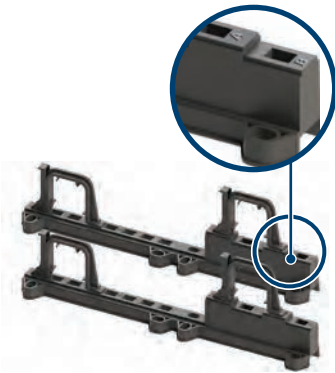
GP 2799
ACCESSORIES



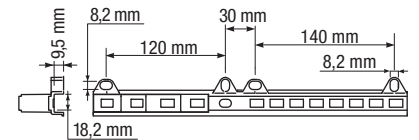
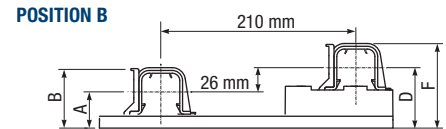
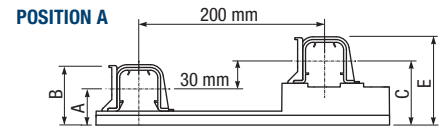
Pair of single plastic brackets for manifolds.

CODE	Size	Pack pcs/box
6203R105	3/4"	1
6203R106	1"	1
6203R107	1"1/4	1

GP 2799
ACCESSORIES



Pair of double plastic brackets for manifolds.



CODE	Size	Takeoff	A mm	B mm	C mm	D mm	E mm	F mm	Pack pcs/box
6203R005	3/4"	200 / 210 mm	39	62	69	65	92	88	1
6203R006	1"	200 / 210 mm	9,5	66	69	65	96	92	1
6203R007	1"1/4	200 / 210 mm	39	76	74	70	106	102	1

GP 2799
ACCESSORIES



Insulating shell for Controller manifold.

CODE	Size	Pack pcs/box
5480P006	1"	1
5480P007	1"1/4	1

No. of branch holes: 12, centre distance 50 mm. To be cut to size according to the number of ways of the collector to be insulated.

GUIDE TO SELECTING THE COMPONENTS

A — **COD. 01306302** Range 0÷4 l/min

D —

- COD. 01306312** For manifolds 1" - 24x19
- COD. 01306314** For manifolds 1" - ¾" eurocono
- COD. 01306316** For manifolds 1"¼ - 24x19
- COD. 01306318** For manifolds 1"¼ - ¾" eurocono

B — **COD. 01306300** Kit lockshields

D —

- COD. 01306312** For manifolds 1" - 24x19
- COD. 01306314** For manifolds 1" - ¾" eurocono
- COD. 01306316** For manifolds 1"¼ - 24x19
- COD. 01306318** For manifolds 1"¼ - ¾" eurocono

C —

- COD. 01306828** Range 0÷2,5 l/min
- COD. 01306830** Range 0÷4 l/min
- COD. 01306832** Range 0÷6 l/min

GP 2798
COMPONENTS



Kit lockshield with incorporated flow meter 0÷4 l/min.

CODE	Range	Pack pcs/box
01306302	0÷4 l/min	4

A

GP 2799
COMPONENTS



Kit lockshield.

CODE	Pack pcs/box
01306300	4

B

GP 2798
COMPONENTS



Kit Flow meter.

CODE	Range	Pack pcs/box
01306828	0÷2,5 l/min	4
01306830	0÷4 l/min	4
01306832	0÷6 l/min	4

For manifolds produced from week 31 of 2017.

C

GP 2798
COMPONENTS



Lockshield / Flow meter seat.

CODE	Size	Pack pcs/box
01306312	For manifolds 1" - 24x19	4
01306314	For manifolds 1" - 3/4" Eurocono	4
01306316	For manifolds 1"1/4 - 24x19	4
01306318	For manifolds 1"1/4 - 3/4" Eurocono	4

Ⓓ

GP 2799
ACCESSORIES



Kit thermostatic shutter valve.

CODE	Size	Pack pcs/box
01306114	1" - 24x19	4
01306118	1"1/4 - 24x19	4
01306290	1" - 3/4" Eurocono	4
01306292	1"1/4 - 3/4" Eurocono	4

GP 2799
ACCESSORIES



Nipple with O-Ring.

CODE	Size	Pack pcs/box
9741R004	1/2" - 24x19	30
9741R005	1/2" - 3/4" Eurocono	30

GP 2798
ACCESSORIES



Sealing collar (tamper-proof).

CODE	Size	Pack pcs/box
01306320	For manifolds 1" - 1"1/4	12

GP 2799
ACCESSORIES



Blue ABS knob for manifold thermostatic shutter.

CODE	Pack pcs/box
90006590	1

GP 2799
ACCESSORIES

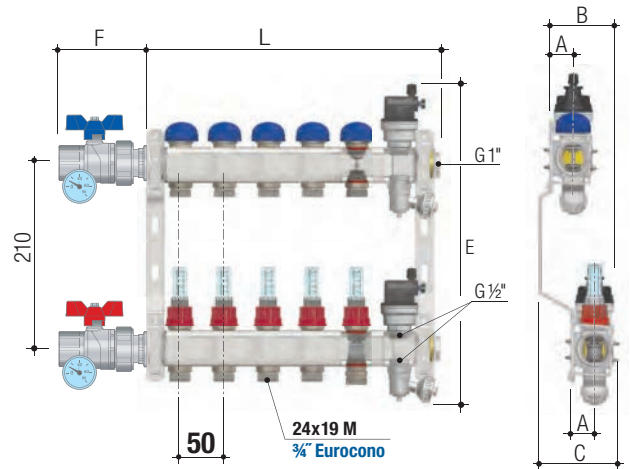


Red ABS lockshield valve cover cap.

CODE	Pack pcs/box
90023360	1

CONTROLLER S

DISTRIBUTION STEEL MANIFOLD WITH STEEL BRACKETS



The dimensions given are valid for all the models listed below; the value **L** will vary depending on the number of ways fitted to the manifold (see corresponding table).

Components

- 1 Manifold
- 2 Seals
- 3 Fixing brackets

Material

AISI 304 stainless steel
EPDM
UNI Fe 320 UNI 10440

EN GENERAL CHARACTERISTICS

Main connection 1"
Connection for seals 24x19 or 3/4" Eurocone
Centre distance 50 mm

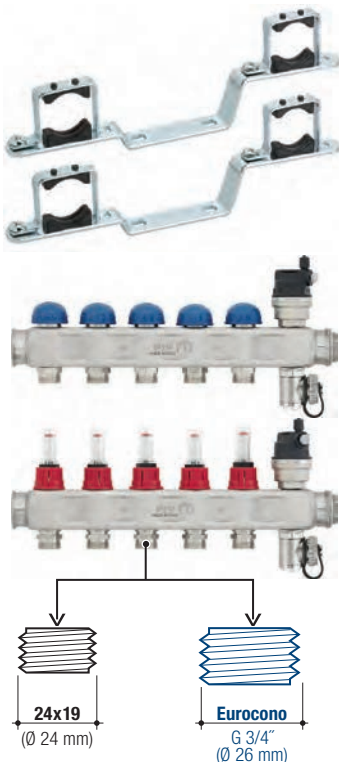
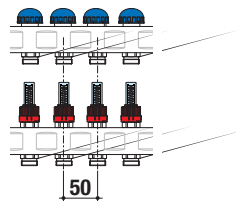
OPERATING CONDITIONS

Maximum working temperature: +90 °C
Maximum working pressure: 6 bar
Instructions and diagrams in the Technical Attachments.

GP 2755
CONTROLLER S

AISI 304 stainless steel distribution manifold with brushed finish, 1" - 24x19 or 3/4" Eurocone derivations, consisting of: manual valves with cap designed for electrothermic heads, flow meters 0÷4 l/min, brackets and additional connections with 2 vent valves and 2 drain cocks.

The article is supplied with the fixing brackets dismantled.

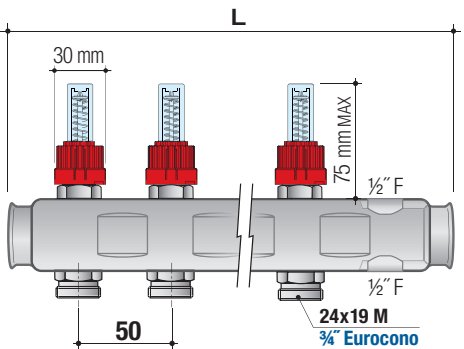
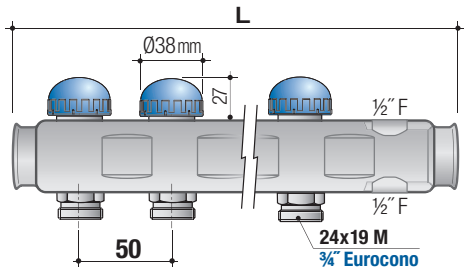


Takeoffs at **50 mm** centres (flow and return).

CODE	Model	L mm	A mm	B mm	C mm	Takeoff	Pack pcs/box
6281Z002	2 WAYS - 1"	185	25,5	69,5	85,5	24x19	1
6281Z003	3 WAYS - 1"	235	25,5	69,5	85,5	24x19	1
6281Z004	4 WAYS - 1"	285	25,5	69,5	85,5	24x19	1
6281Z005	5 WAYS - 1"	355	25,5	69,5	85,5	24x19	1
6281Z006	6 WAYS - 1"	385	25,5	69,5	85,5	24x19	1
6281Z007	7 WAYS - 1"	435	25,5	69,5	85,5	24x19	1
6281Z008	8 WAYS - 1"	485	25,5	69,5	85,5	24x19	1
6281Z009	9 WAYS - 1"	535	25,5	69,5	85,5	24x19	1
6281Z010	10 WAYS - 1"	585	25,5	69,5	85,5	24x19	1
6281Z011	11 WAYS - 1"	635	25,5	69,5	85,5	24x19	1
6281Z012	12 WAYS - 1"	685	25,5	69,5	85,5	24x19	1
6282Z002	2 WAYS - 1"	185	25,5	69,5	85,5	Eurocono	1
6282Z003	3 WAYS - 1"	235	25,5	69,5	85,5	Eurocono	1
6282Z004	4 WAYS - 1"	285	25,5	69,5	85,5	Eurocono	1
6282Z005	5 WAYS - 1"	355	25,5	69,5	85,5	Eurocono	1
6282Z006	6 WAYS - 1"	385	25,5	69,5	85,5	Eurocono	1
6282Z007	7 WAYS - 1"	435	25,5	69,5	85,5	Eurocono	1
6282Z008	8 WAYS - 1"	485	25,5	69,5	85,5	Eurocono	1
6282Z009	9 WAYS - 1"	535	25,5	69,5	85,5	Eurocono	1
6282Z010	10 WAYS - 1"	585	25,5	69,5	85,5	Eurocono	1
6282Z011	11 WAYS - 1"	635	25,5	69,5	85,5	Eurocono	1
6282Z012	12 WAYS - 1"	685	25,5	69,5	85,5	Eurocono	1

CONTROLLER S

SINGLE BAR DISTRIBUTION STEEL MANIFOLD



The dimensions given are valid for all the models listed below; the value **L** will vary depending on the number of ways fitted to the manifold (see corresponding table).

Components

- 1** Manifold
- 2** Seals
- 3** Fixing brackets

Material

AISI 304 stainless steel
 EPDM
 UNI Fe 320 UNI 10440

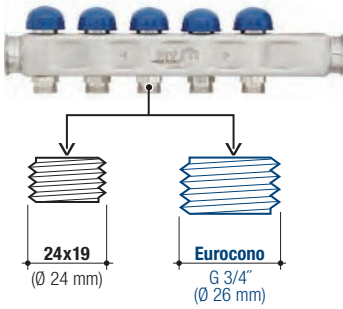
EN GENERAL CHARACTERISTICS

Main connection 1"
 Connection for seals 24x19 or 3/4" Eurocone
 Centre distance 50 mm

OPERATING CONDITIONS

Maximum working temperature: +90 °C
 Maximum working pressure: 6 bar
 Instructions and diagrams in the Technical Attachments.

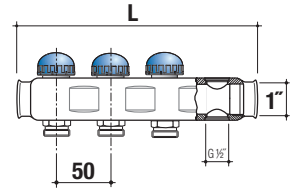
GP 2755
CONTROLLER S



Takeoffs at 50 mm centres with valves (return).

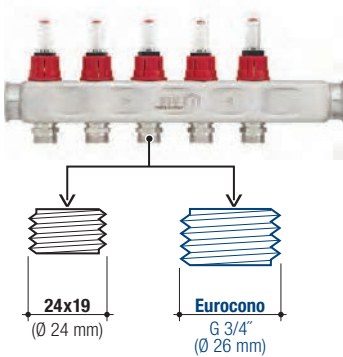
AISI 304 stainless steel return manifold with brushed finish, 1" - 24x19 or 3/4" Eurocono derivations, complete with manual valves with cap designed for electrothermic heads and additional connections for vent valve and drain cock.

(*) Available only on request.



CODE	Model	L mm	Takeoff	Pack pcs/box
6306Z002	2 WAYS - 1"	175	24x19	2
6306Z003	3 WAYS - 1" (*)	225	24x19	2
6306Z004	4 WAYS - 1" (*)	275	24x19	2
6306Z005	5 WAYS - 1" (*)	325	24x19	2
6306Z006	6 WAYS - 1" (*)	375	24x19	2
6306Z007	7 WAYS - 1" (*)	425	24x19	2
6306Z008	8 WAYS - 1" (*)	475	24x19	2
6306Z009	9 WAYS - 1" (*)	525	24x19	2
6306Z010	10 WAYS - 1" (*)	575	24x19	2
6306Z011	11 WAYS - 1" (*)	625	24x19	2
6306Z012	12 WAYS - 1" (*)	675	24x19	2
6310Z002	2 WAYS - 1" (*)	175	Eurocono	2
6310Z003	3 WAYS - 1" (*)	225	Eurocono	2
6310Z004	4 WAYS - 1" (*)	275	Eurocono	2
6310Z005	5 WAYS - 1" (*)	325	Eurocono	2
6310Z006	6 WAYS - 1" (*)	375	Eurocono	2
6310Z007	7 WAYS - 1" (*)	425	Eurocono	2
6310Z008	8 WAYS - 1" (*)	475	Eurocono	2
6310Z009	9 WAYS - 1" (*)	525	Eurocono	2
6310Z010	10 WAYS - 1" (*)	575	Eurocono	2
6310Z011	11 WAYS - 1" (*)	625	Eurocono	2
6310Z012	12 WAYS - 1" (*)	675	Eurocono	2

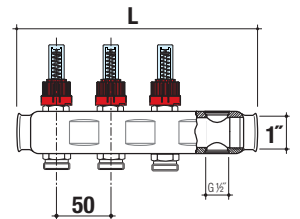
GP 2755
CONTROLLER S



Takeoffs at 50 mm with lockshields incorporating flow meters (flow).

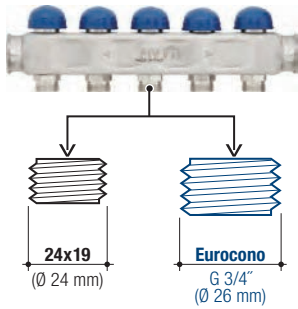
AISI 304 stainless steel delivery manifold with brushed finish, 1" - 24x19 or 3/4" Eurocono derivations, complete with lockshields with built-in flow meters 0:4 l/min and additional connections for vent valve and drain cock.

(*) Available only on request.



CODE	Model	L mm	Takeoff	Pack pcs/box
6307Z002	2 WAYS - 1"	175	24x19	2
6307Z003	3 WAYS - 1" (*)	225	24x19	2
6307Z004	4 WAYS - 1" (*)	275	24x19	2
6307Z005	5 WAYS - 1" (*)	325	24x19	2
6307Z006	6 WAYS - 1" (*)	375	24x19	2
6307Z007	7 WAYS - 1" (*)	425	24x19	2
6307Z008	8 WAYS - 1" (*)	475	24x19	2
6307Z009	9 WAYS - 1" (*)	525	24x19	2
6307Z010	10 WAYS - 1" (*)	575	24x19	2
6307Z011	11 WAYS - 1" (*)	625	24x19	2
6307Z012	12 WAYS - 1" (*)	675	24x19	2
6311Z002	2 WAYS - 1" (*)	175	Eurocono	2
6311Z003	3 WAYS - 1" (*)	225	Eurocono	2
6311Z004	4 WAYS - 1" (*)	275	Eurocono	2
6311Z005	5 WAYS - 1" (*)	325	Eurocono	2
6311Z006	6 WAYS - 1" (*)	375	Eurocono	2
6311Z007	7 WAYS - 1" (*)	425	Eurocono	2
6311Z008	8 WAYS - 1" (*)	475	Eurocono	2
6311Z009	9 WAYS - 1" (*)	525	Eurocono	2
6311Z010	10 WAYS - 1" (*)	575	Eurocono	2
6311Z011	11 WAYS - 1" (*)	625	Eurocono	2
6311Z012	12 WAYS - 1" (*)	675	Eurocono	2

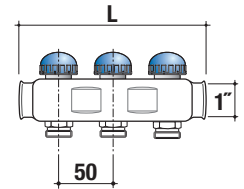
GP 2755
CONTROLLER S



Takeoffs at **50 mm** centres with valves (return).

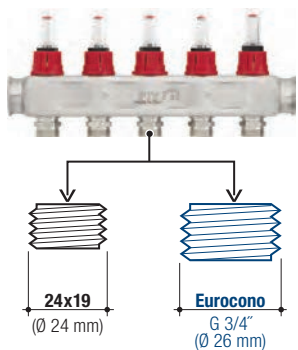
AISI 304 stainless steel return manifold with brushed finish, 1" - 24x19 or 3/4" Eurocone derivations, WITHOUT additional way, complete with manual valves with cap designed for electrothermic heads and additional connections for vent valve and drain cock.

Available only on request.



CODE	Model	L mm	Takeoff	Pack pcs/box
6304Z002	2 WAYS - 1"	125	24x19	2
6304Z003	3 WAYS - 1"	175	24x19	2
6304Z004	4 WAYS - 1"	225	24x19	2
6304Z005	5 WAYS - 1"	275	24x19	2
6304Z006	6 WAYS - 1"	325	24x19	2
6304Z007	7 WAYS - 1"	375	24x19	2
6304Z008	8 WAYS - 1"	425	24x19	2
6304Z009	9 WAYS - 1"	475	24x19	2
6304Z010	10 WAYS - 1"	525	24x19	2
6304Z011	11 WAYS - 1"	575	24x19	2
6304Z012	12 WAYS - 1"	625	24x19	2
6308Z002	2 WAYS - 1"	125	Eurocono	2
6308Z003	3 WAYS - 1"	175	Eurocono	2
6308Z004	4 WAYS - 1"	225	Eurocono	2
6308Z005	5 WAYS - 1"	275	Eurocono	2
6308Z006	6 WAYS - 1"	325	Eurocono	2
6308Z007	7 WAYS - 1"	375	Eurocono	2
6308Z008	8 WAYS - 1"	425	Eurocono	2
6308Z009	9 WAYS - 1"	475	Eurocono	2
6308Z010	10 WAYS - 1"	525	Eurocono	2
6308Z011	11 WAYS - 1"	575	Eurocono	2
6308Z012	12 WAYS - 1"	625	Eurocono	2

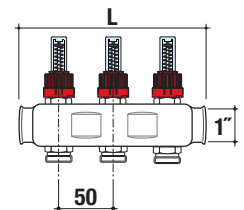
GP 2755
CONTROLLER S



Takeoffs at **50 mm** with lockshields incorporating flow meters (flow).

AISI 304 stainless steel delivery manifold with brushed finish, 1" - 24x19 or 3/4" Eurocone derivations, WITHOUT additional way, complete with lockshields with built-in flow meters 0÷4 l/min and additional connections for vent valve and drain cock.

Available only on request.



CODE	Model	L mm	Takeoff	Pack pcs/box
6305Z002	2 WAYS - 1"	125	24x19	2
6305Z003	3 WAYS - 1"	175	24x19	2
6305Z004	4 WAYS - 1"	225	24x19	2
6305Z005	5 WAYS - 1"	275	24x19	2
6305Z006	6 WAYS - 1"	325	24x19	2
6305Z007	7 WAYS - 1"	375	24x19	2
6305Z008	8 WAYS - 1"	425	24x19	2
6305Z009	9 WAYS - 1"	475	24x19	2
6305Z010	10 WAYS - 1"	525	24x19	2
6305Z011	11 WAYS - 1"	575	24x19	2
6305Z012	12 WAYS - 1"	625	24x19	2
6309Z002	2 WAYS - 1"	125	Eurocono	2
6309Z003	3 WAYS - 1"	175	Eurocono	2
6309Z004	4 WAYS - 1"	225	Eurocono	2
6309Z005	5 WAYS - 1"	275	Eurocono	2
6309Z006	6 WAYS - 1"	325	Eurocono	2
6309Z007	7 WAYS - 1"	375	Eurocono	2
6309Z008	8 WAYS - 1"	425	Eurocono	2
6309Z009	9 WAYS - 1"	475	Eurocono	2
6309Z010	10 WAYS - 1"	525	Eurocono	2
6309Z011	11 WAYS - 1"	575	Eurocono	2
6309Z012	12 WAYS - 1"	625	Eurocono	2

EN TECHNICAL DATA

Valve body thread with Female fitting: UNI EN 10226-1 (ISO 7-1: 1994)
 End sleeve thread with Male fitting: UNI EN ISO 228-1
 Tang and nut thread: UNI EN ISO 228-1
REDUCED BORE

O-RING SEAL:

Stem upper seal O-Ring: VITON 70 Sh A (ASTM D2240)
 Stem lower seal O-Ring: EPDM Peroxidic 70 Sh A (ASTM D2240)
 O-ring tang seal: EPDM Peroxidic 70 Sh A (ASTM D2240)

Flow direction: Both ways.

Minimum and maximum operating temperature: -20°C/+120°C **

Maximum pressure (T=120°C): 10 bar

Nominal pressure (T=20°C): 40 bar

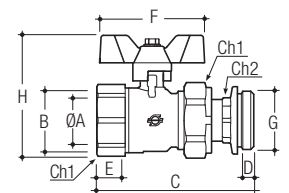
** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

Valves must be used in fully open or fully closed position.

GP 2240
ACCESSORIES



Kit for steel and brass manifolds consisting of 2 nickel-plated straight ball valves with Blue/Red butterfly handles, with pipe union.
 Valve with reduced bore and ISO 228/1 thread.



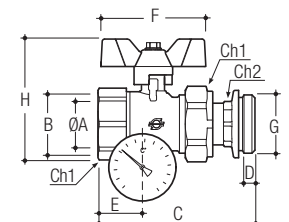
CODE	Size	DN	ØA mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Ch.1 mm	Ch.2 mm	gr	Pack pcs/box
6289R006	1"	20	20	1"	88,5	7	14,5	60,2	1"	68,8	38	24	-	1

Use the pair of red O-Rings for valve installation on Controller S steel manifolds, and the pair of black O-Rings for valve installation on Controller brass manifolds. Both pairs of O-Rings are supplied in the package.

GP 2240
ACCESSORIES



Kit for steel and brass manifolds consisting of 2 nickel-plated straight ball valves with Blue/Red butterfly handles, with pipe union and 2 thermometers.
 Valves with reduced bore and ISO 228/1 thread - Thermometer scale 0-80 °C.



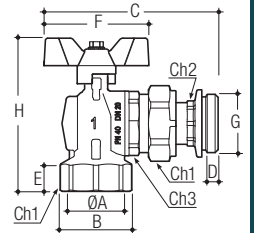
CODE	Size	DN	ØA mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Ch.1 mm	Ch.2 mm	gr	Pack pcs/box
6290R006	1"	20	20	1"	88,5	12,3	25	60,2	1"	68,8	38	24	-	1

Use the pair of red O-Rings for valve installation on Controller S steel manifolds, and the pair of black O-Rings for valve installation on Controller brass manifolds. Both pairs of O-Rings are supplied in the package.

GP 2240
ACCESSORIES



Kit for steel and brass manifolds consisting of 2 nickel-plated angle valves with Blue/Red butterfly handles with pipe union. Valves with reduced bore and ISO 228/1 thread.



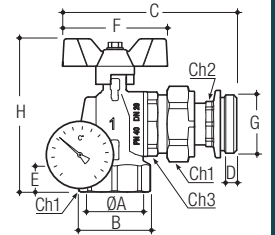
CODE	Size	DN	ØA mm	B	C	D	E	F	G	H	Ch.1/2/3 mm	gr	Pack pcs/box
6291R006	1"	20	20	1"	99	7	14,5	60,2	1"	86,9	38/24/34	-	1

Use the pair of red O-Rings for valve installation on Controller S steel manifolds, and the pair of black O-Rings for valve installation on Controller brass manifolds. Both pairs of O-Rings are supplied in the package.

GP 2240
ACCESSORIES



Kit for steel and brass manifolds consisting of 2 nickel-plated angle valves with Blue/Red butterfly handles with pipe union and 2 thermometers. Valves with reduced bore and ISO 228/1 thread - Thermometer scale 0-80 °C.



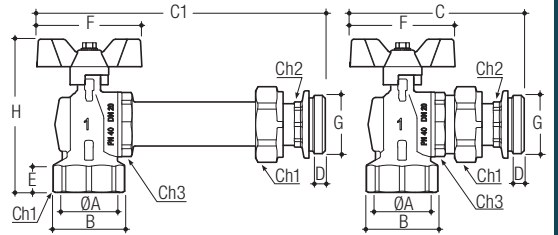
CODE	Size	DN	ØA mm	B	C	D	E	F	G	H	Ch.1/2/3 mm	gr	Pack pcs/box
6292R006	1"	20	20	1"	99	7	14,5	60,2	1"	86,9	38/24/34	-	1

Use the pair of red O-Rings for valve installation on Controller S steel manifolds, and the pair of black O-Rings for valve installation on Controller brass manifolds. Both pairs of O-Rings are supplied in the package.

GP 2240
ACCESSORIES



Kit for steel and brass manifolds consisting of 2 nickel-plated angle valves with Blue/Red butterfly handles with pipe union. Valves with reduced bore and ISO 228/1 thread.



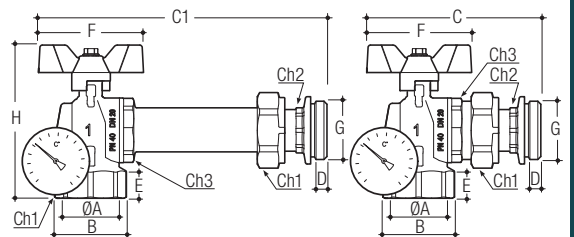
CODE	Size	DN	ØA mm	B	C	C1	D	E	F	G	H	Ch.1/2/3 mm	gr	Pack pcs/box
6293R006	1"	20	20	1"	99	164	7	14,5	60,2	1"	86,9	38/24/34	-	1

Use the pair of red O-Rings for valve installation on Controller S steel manifolds, and the pair of black O-Rings for valve installation on Controller brass manifolds. Both pairs of O-Rings are supplied in the package.

GP 2240
ACCESSORIES



Kit for steel and brass manifolds consisting of 2 nickel-plated angle valves with Blue/Red butterfly handles with pipe union and 2 thermometers. Valves with reduced bore and ISO 228/1 thread - Thermometer scale 0-80 °C.



CODE	Size	DN	ØA mm	B	C	C1	D	E	F	G	H	Ch.1/2/3 mm	gr	Pack pcs/box
6294R006	1"	20	20	1"	108,4	173,4	7	14,5	60,2	1"	86,9	38/24/34	-	1

Use the pair of red O-Rings for valve installation on Controller S steel manifolds, and the pair of black O-Rings for valve installation on Controller brass manifolds. Both pairs of O-Rings are supplied in the package.

CONTROLLER S

ACCESSORIES FOR CONTROLLER S STEEL MANIFOLD



GP 2798
ACCESSORIES



Kit lockshield with incorporated flow meter 0-4 l/min.

CODE	Range	Pack pcs/box
01306810	0-4 l/min	4

GP 2798
ACCESSORIES



Lockshield / Flow meter seat.

CODE	Size	Pack pcs/box
01306812	For manifolds 1" - 24x19	4
01306814	For manifolds 1" - 3/4" Eurocono	4

GP 2799
ACCESSORIES



Kit thermostatic shutter valve for steel manifold.

CODE	Size	Pack pcs/box
9701R024	1" - 24x19	4
9704R005	1" - 3/4" Eurocono	4

GP 2799
ACCESSORIES



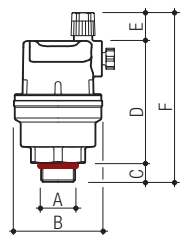
Nipple with O-Ring for steel manifold.

CODE	Size	Pack pcs/box
01306820	1/2" - 24x19	30
01306822	1/2" - 3/4" Eurocono	4

GP 2070
ACCESSORIES



Wind Plus. air bleed valve with plastic cover for steel manifold.

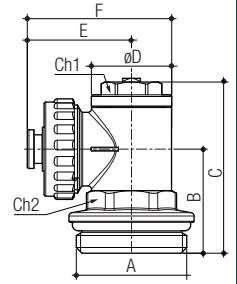


CODE	Size	A	B	C	D	E	F	PN	Pack pcs/box	Master pcs/box
00400020	1/2"	G 1/2"	42	9	58,5	13,5	81	10	12	96

GP 2799
ACCESSORIES



Adjustable discharge cock of 1" with pipe-fitting M 3/4", nickel-plated, for steel manifold.

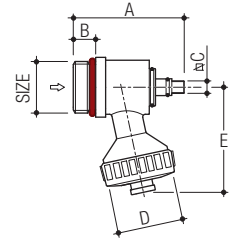


CODE	Size	A	B	C	ØD	E	F	Ch1	Ch2	Pack
		mm	mm	mm	mm	mm	mm	mm	mm	pcs/box
6322R100	1"	1"	31	50,9	23,9	31	43	16	24	18

GP 2799
ACCESSORIES



Adjustable discharge cock of 1/2" with pipe-fitting M 3/4", nickel-plated, for steel manifold.



CODE	Size	A	B	Ch. C	D	E	Pack
		mm	mm	mm		mm	pcs/box
01306824	1/2"	44,5	9	5	3/4"	42	18

GP 2799
ACCESSORIES



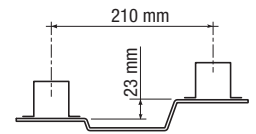
Blind plug M, nickel-plated, with O-Ring EP 851.

CODE	Size	Pack
		pcs/box
9683R006	1" M	20

GP 2799
ACCESSORIES



Pair of double metal brackets for manifolds, zinc-plated.

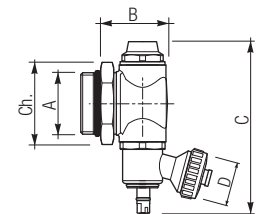


CODE	Size	Takeoff	Pack
			pcs/box
01306826	1"	210 mm	1

GP 2799
ACCESSORIES



Couple of terminal with manual vent valve and adjustable bibcock. Supplied with 1/2" manual vent valve and 1/2" water bibcock for water charge/drain with adjustable 3/4" connection. For use on Controller S steel manifolds, replace the black O-Ring with the red ones supplied in the package. Usable with Controller brass manifolds (with appropriate black o-rings in the package).



CODE	Size	A	B	C	D	Ch.	PN	Pack
		mm	mm	mm		mm		pcs/box
01306158	1"	1"	36	92	3/4"	38	10	2

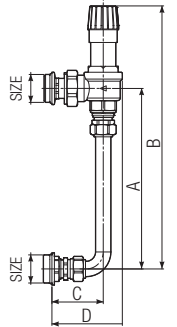
NEW

GP 2778
ACCESSORIES



TERMINAL kit, nickel plated, for Controller and Controller S manifolds, with By-pass valve and O-Ring seals.

Maximum operating temperature: 110 °C.
Maximum operating pressure: 6 bar.
Thread: UNI EN ISO 228-1



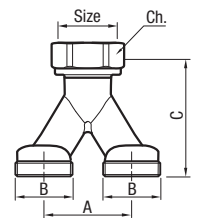
CODE	Size	A mm	B mm	C mm	D mm	Pack pcs/box
01307010	1"	210 max.	309	60	83	1

Equipped with red O-Ring on the upper union, for coupling with the Controller S steel manifolds; to use the item in combination with the Controller brass manifolds, replace the red O-Ring with the black one supplied in the package.

GP 2799
ACCESSORIES

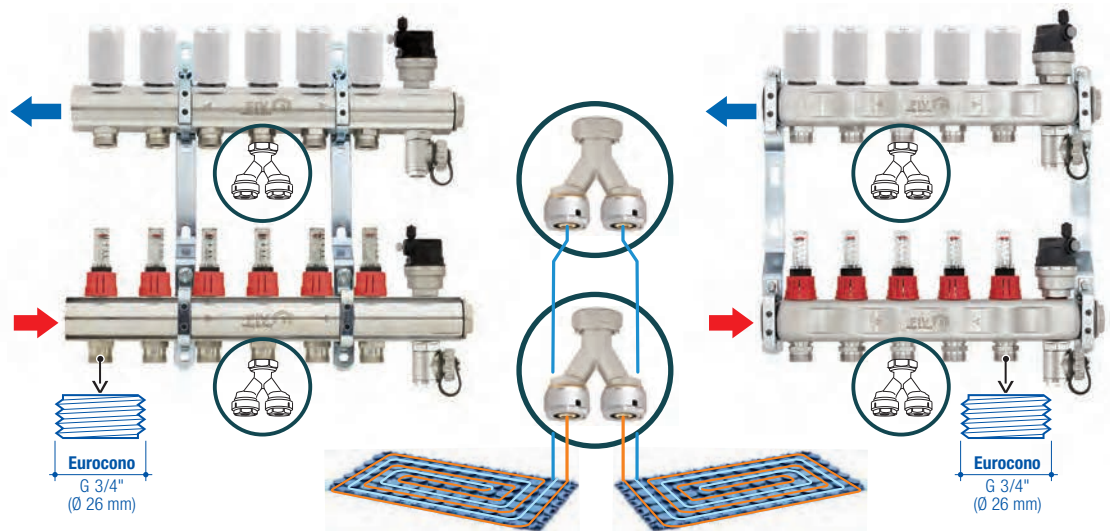


Splitter fitting with 24x19 or 3/4" Eurocone takeoffs, for CONTROLLER brass manifolds and CONTROLLER S steel manifolds, with takeoffs with 50 mm centre distance. UNI EN ISO 228-1 thread.



CODE	Size	A mm	B mm	C mm	Ch mm	gr	Pack pcs/box	Master pcs/box
01300000	24x19	36	24x19	58	27	130	2	80
6320R001	3/4"	36	3/4"	49,5	27	122	2	90

Example of application of the splitter fitting cod. 6320R001 + 12x2, 24x19 or 3/4" EK Monobloc seal to Controller and Controller S manifolds



GP 2799
ACCESSORIES



Fitting Female 24x19 - Male M32x1,5.

CODE	Size	Pack pcs/box
01306252	24x19 - M32x1,5	10

Complete with O-Ring and adapter female side.

GP 2799
ACCESSORIES



Insulating shells for CONTROLLER S manifolds in steel.
In closed cell cross-linked polyethylene foam.

CODE	Size	Pack pcs/box
5480P001	1"	1

Number of derivation holes: 13, centre distance 50 mm.
To be cut to size according to the number of ways of the manifold to be isolated.

GP 2799
ACCESSORIES



Pair of insulating shells for angle valve kits with and without thermometer holder,
for CONTROLLER S manifolds in Steel.
In closed cell cross-linked polyethylene foam.

CODE	Size	Pack pcs/box
5480P002	1"	1

GP 2799
ACCESSORIES

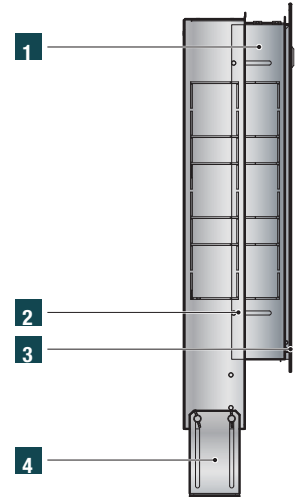


Pair of insulating shells for straight valve kits with and without thermometer holder,
for CONTROLLER S manifolds in Steel.
In closed cell cross-linked polyethylene foam.

CODE	Size	Pack pcs/box
5480P003	1"	1

BOX SYSTEM PLUS

CABINET FOR MANIFOLDS



Components

- 1** Telescopic case
- 2** Telescopic base
- 3** Door frame flush with the plaster
- 4** Adjustable foot

Material

- EN 10346 DX51+Z140 MA
- EN 10346 DX51+Z140 MA
- EN 10346 DX51+Z140 MA
- EN 10346 DX51+Z140 MA

EN GENERAL FEATURES

Cassette for manifold systems for wall installation with telescopic body, door and frame in metal sheet 8/10 in plastic, white colour RAL 9010, flush with the wall with slotted screwdriver lock installed, which can be converted to key lock.

H600 mm and up to H700 mm with extended supported, for modular built-in depth from 95 to 140 mm and up to 160 mm with the support of the door frame. Height adjustable feet from 0 to 100 mm. Frame flush with the plaster 3 mm.

It is supplied with a rubble protection cover.

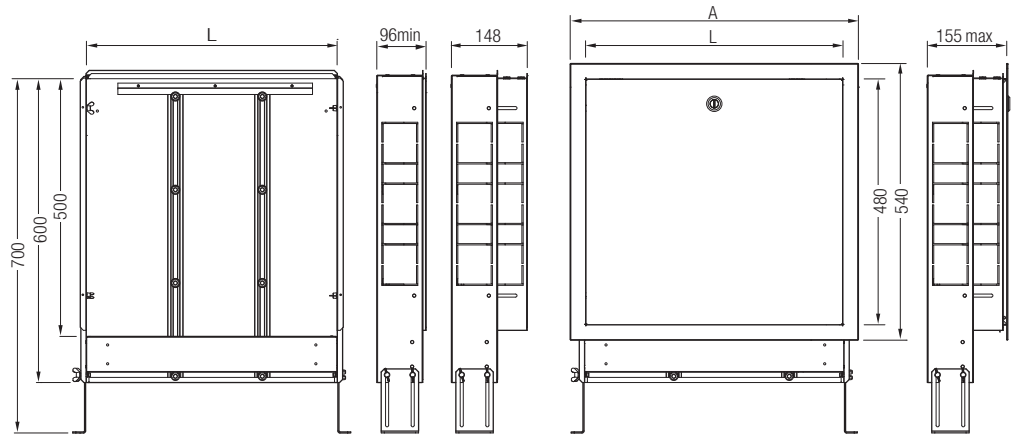
GP 2787
BOX SYSTEM PLUS



Zinc-coated metal cassette with plastic frame and door, white colour.
Suitable for flush mounting with adjustable depth for partition from 80 to 120 mm.

CODE	Size	L mm	A mm	Pack pcs/box
01301450	500	500	560	1
01301452	600	600	660	1
01301454	700	700	760	1
01301456	850	850	910	1
01301458	1000	1000	1060	1
01301460	1200	1200	1260	1

It is supplied with a slotted screwdriver lock and with a rubble protection cover.



GP 2799
ACCESSORIES

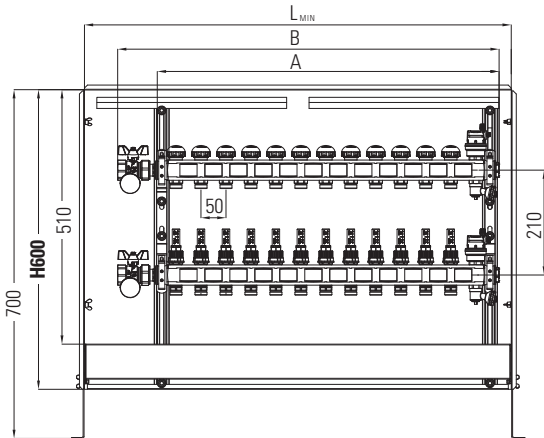
Key lock.



CODE	Pack pcs/box
90067980	1

Box System Plus

SELECTION GUIDE FOR THE INSTALLATION OF CONTROLLER S MANIFOLDS WITH EVOLUTION BALL VALVES + THERMOMETERS, IN METAL CABINET BOX SYSTEM PLUS

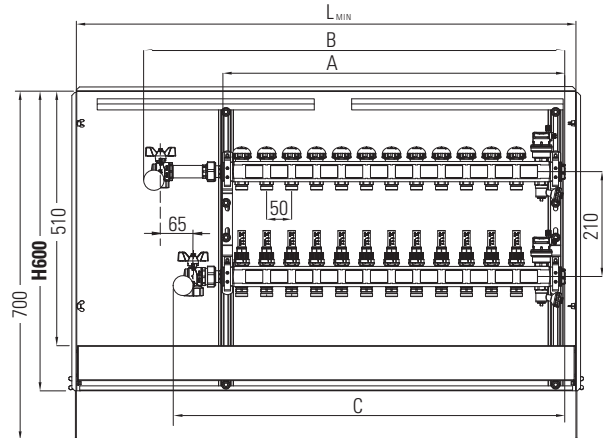


Combination of Controller S manifolds in metal cabinet

N° ways	A [mm]	B [mm]	L _{MIN} [mm]
2	184	264	500
3	234	314	500
4	284	364	500
5	334	414	500
6	384	464	500
7	434	514	600
8	484	564	600
9	534	614	700
10	584	664	700
11	634	714	850
12	684	764	850

Note: L_{MIN} including fittings pressing dimensions:

- with 1" Evolution straight valve kit with pipe unions 6289R006;
- with 1" Evolution straight valve kit with thermometers and pipe unions 6290R006.



Combination of Controller S manifolds in metal cabinet

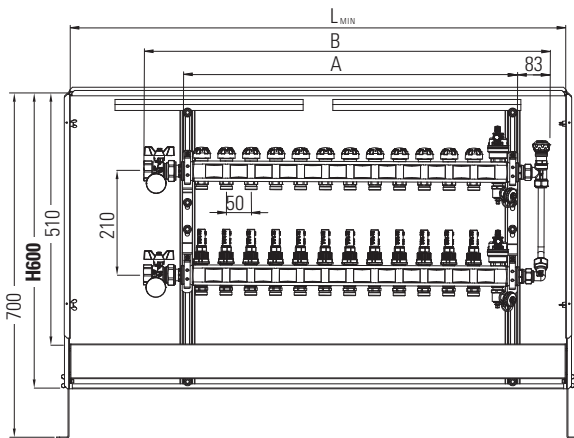
N° ways	A [mm]	B [mm]	C [mm]	L _{MIN} [mm]
2	184	344	279	500
3	234	394	329	500
4	284	444	379	500
5	334	494	429	600
6	384	544	479	600
7	434	594	529	700
8	484	644	579	700
9	534	694	629	850
10	584	744	679	850
11	634	794	729	850
12	684	844	779	1000

Note: L_{MIN} including fittings pressing dimensions:

- with 1" Evolution angle valve kit with pipe unions 6293R006-6291R006;
- with 1" Evolution angle valve kit with thermometers and pipe unions 6294R006-6292R006.

Box System Plus

SELECTION GUIDE FOR INSTALLATION OF CONTROLLER S STEEL MANIFOLDS, WITH EVOLUTION VALVES + THERMOMETERS AND TERMINAL KIT WITH BY-PASS IN METAL CABINET BOX SYSTEM PLUS

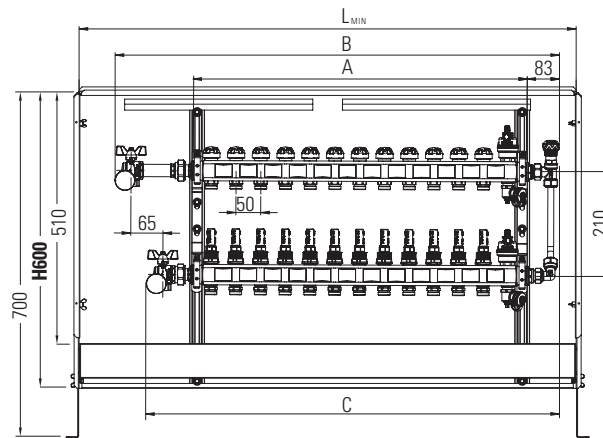


Combination of Controller S manifolds in metal cabinet

N° ways	A [mm]	B [mm]	L _{MIN} [mm]
2	175	337	500
3	225	387	500
4	275	437	600
5	325	487	600
6	375	537	700
7	425	587	700
8	475	637	850
9	525	687	850
10	575	737	850
11	625	787	1000
12	675	837	1000

Note: L_{MIN} including fittings pressing dimensions:

- with 1" Evolution straight valve kit with pipe unions 6289R006;
- with 1" Evolution straight valve kit with thermometers and pipe unions 6290R006.



Combination of Controller S manifolds in metal cabinet

N° ways	A [mm]	B [mm]	C [mm]	L _{MIN} [mm]
2	174	415	350	500
3	224	465	400	600
4	274	515	450	600
5	324	565	500	700
6	374	615	550	700
7	424	665	600	850
8	474	715	650	850
9	524	765	700	850
10	574	815	750	1000
11	624	865	800	1000
12	674	915	850	1000

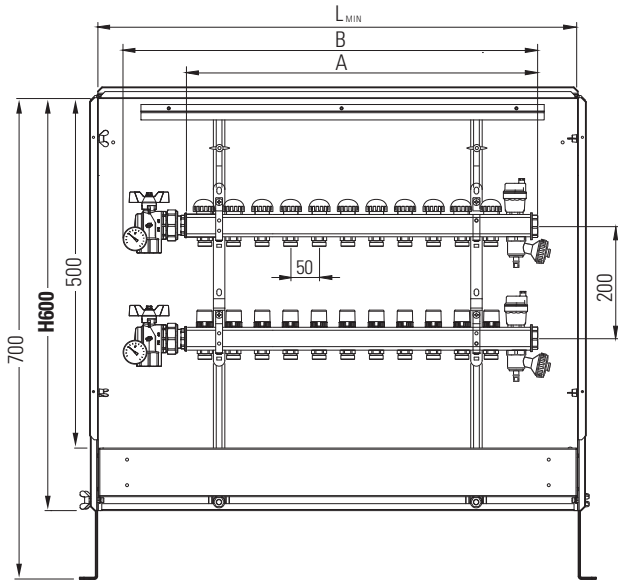
Note: L_{MIN} including fittings pressing dimensions:

- with 1" Evolution angle valve kit with pipe unions 6293R006-6291R006;
- with 1" Evolution angle valve kit with thermometers and pipe unions 6294R006-6292R006.

Box System Plus

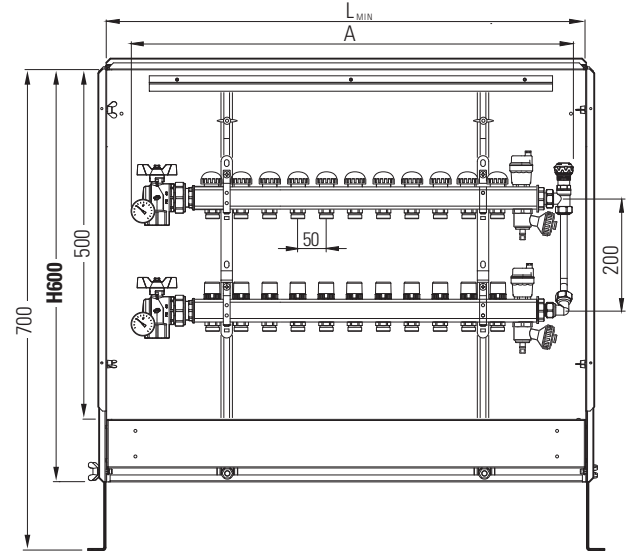
SELECTION GUIDE FOR INSTALLATION OF CONTROLLER BRASS MANIFOLDS + ACCESSORIES, IN METAL CABINET BOX SYSTEM PLUS

Controller manifold with Evolution ball valves + thermometers



Cabinet for 80 and 120 mm brick thickness (frontal view of cabinet body).

Controller manifold with Evolution ball valves + thermometers and terminal kit with by-pass



Cabinet for 80 and 120 mm brick thickness (frontal view of cabinet body).

Combination of Controller 1" manifolds in metal cabinet

N° ways	A [mm]	B 1 [mm]	B 2 [mm]	L _{MIN} [mm]
2	172	270	280	500
3	222	320	330	500
4	272	370	380	500
5	322	420	430	500
6	372	470	480	600
7	422	520	530	600
8	472	570	580	700
9	522	620	630	700
10	572	670	680	850
11	622	720	730	850
12	672	770	780	1000

Note: L_{MIN} including fittings pressing dimensions:

- 1 With 1" Evolution straight valve kit with thermometers and pipe unions;
- 2 With 1" Evolution angle valve kit with thermometers and pipe unions.

Combination of Controller 1" manifolds in metal cabinet

N° ways	A 1 [mm]	A 2 [mm]	L _{MIN} 1 [mm]	L _{MIN} 2 [mm]
2	357	367	500	500
3	407	417	500	500
4	457	467	600	600
5	507	517	600	600
6	557	567	700	700
7	607	617	700	700
8	657	667	850	850
9	707	717	850	850
10	757	757	850	850
11	807	817	1000	1000
12	857	867	1000	1000

Note: L_{MIN} including fittings pressing dimensions:

- 1 With 1" Evolution straight valve kit with thermometers and pipe unions;
- 2 With 1" Evolution angle valve kit with thermometers and pipe unions.

Combination of Controller 1 1/4" manifolds in metal cabinet

N° ways	A [mm]	B 1 [mm]	B 2 [mm]	L _{MIN} [mm]
2	182	316	300	500
3	232	366	350	600
4	282	416	400	600
5	332	466	450	700
6	382	516	500	700
7	432	566	550	850
8	482	616	600	850
9	532	666	650	850
10	582	716	700	1000
11	632	766	750	1000
12	682	816	800	1000

Note: L_{MIN} including fittings pressing dimensions:

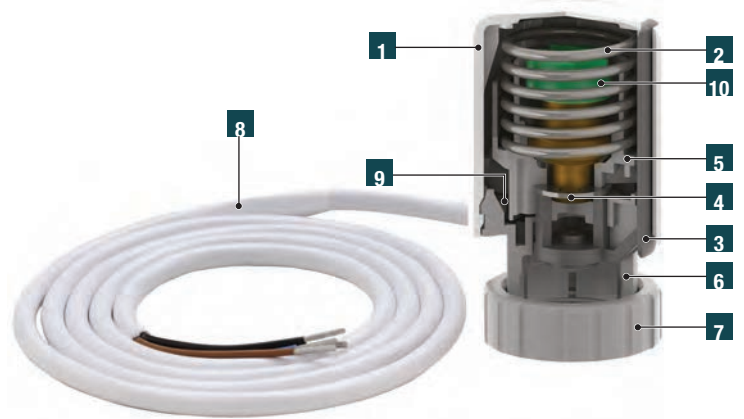
- 1 With 1 1/4" Evolution straight valve kit with thermometers and pipe unions;
- 2 With 1 1/4" Evolution angle valve kit with thermometers and pipe unions.

Combination of Controller 1 1/4" manifolds in metal cabinet

N° ways	A 1 [mm]	A 2 [mm]	L _{MIN} 1 [mm]	L _{MIN} 2 [mm]
2	415	395	600	500
3	465	445	600	600
4	515	495	700	600
5	565	545	850	700
6	615	595	850	700
7	665	645	850	850
8	715	695	850	850
9	765	745	1000	850
10	815	795	1000	850
11	865	845	1000	1000
12	915	895	1000	1000

Note: L_{MIN} including fittings pressing dimensions:

- 1 With 1 1/4" Evolution straight valve kit with thermometers and pipe unions;
- 2 With 1 1/4" Evolution angle valve kit with thermometers and pipe unions.



Components

Material

1	Casing	Polycarbonate PC
2	Spring	Stainless steel
3	Indicator	PPA (35% FV)
4	Radial stop ring	Steel
5	Stopper support	Polycarbonate PC
6	Base	Polycarbonate PC
7	Ring nut M30x1.5	PA 66 (50% FV) UNI EN 12164 CW614N
8	Cable	PVC
9	1 A microswitch	
10	Wax electro-thermal actuator	

EN GENERAL CHARACTERISTICS

Opening takes places with controlled power supply of the thermostat (Head Normally Closed).
Closing takes places with controlled power supply of the thermostat (Head Normally Open).

Input for model 230 V: 3.45 VA - for model 24 V: 3 VA
Protection IP 40 (IP 44 vertical position, head upwards)
Auxiliary contact capacity: 1 A 250 V
Length of cable 1 m
Breakaway current 230 V: 0.25 A - for model 24 V: 0.35 A
Opening/closing time: 5-6 min
Threaded connection size: M30x1.5

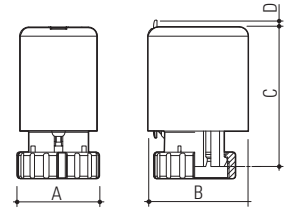
NOTE

The electro-thermal heads can be combined with:
Controller and Controller S bar manifolds with valves

GP 2790
TEF 08



Electrothermic head normally closed.

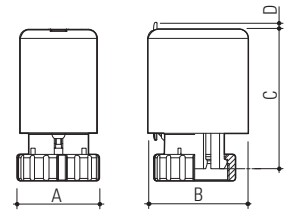


CODE	Model	Ring nut	A mm	B mm	C mm	D mm	Pack pcs/box
9665P950	24 V	Plastic	36	44	62	3	1
9665P952	230 V	Plastic	36	44	62	3	1

GP 2790
TEF 08



Electrothermic head WITH AUXILIARY MICRO normally closed.

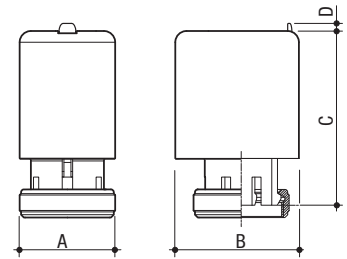


CODE	Model	Ring nut	A mm	B mm	C mm	D mm	Pack pcs/box
9666P950	24 V	Plastic	36	44	62	3	1
9666P952	230 V	Plastic	36	44	62	3	1
9656P953	230 V	Metal	36	44	62	3	1

GP 2790
TEF 08

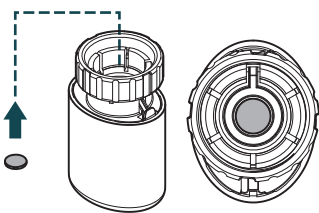


Electrothermic head normally open.



CODE	Model	Ring nut	A mm	B mm	C mm	D mm	Pack pcs/box
9657P952	230 V	Plastic	36	44	62	3	1

GP 2799
TEF 08



Adapter for Electrothermic heads TEF 08.

To be used in the event of incomplete closure on manifolds not produced by FIV S.r.l. Unipersonale.

CODE	Pack pcs/box
90039364	12

GP 2630
6T BASIC CONTROL UNIT

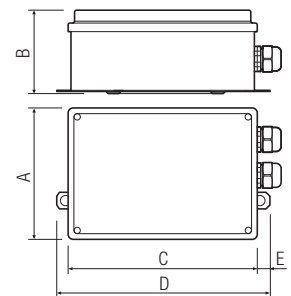


6T basic control unit - Electronic system for electrothermic heads.

TECHNICAL DATA

Optional 230 V or 24 V power supply - Direct powering of the electrothermic heads (at the same voltage supplied to the control unit) - Direct connection of the ambient thermostats (at the same voltage supplied to the control unit) - Connection of up to six electrothermic heads (configurable as high or low temperature) - Connection of up to six ambient thermostats - Connection for low-temperature circulator pump - Connection for boiler consent - Adjustable (30-60°C) safety thermostat - Contact for signalling safety thermostat intervention - Circulator pump anti-seizure function.

Application diagrams: consult the technical annexes section.

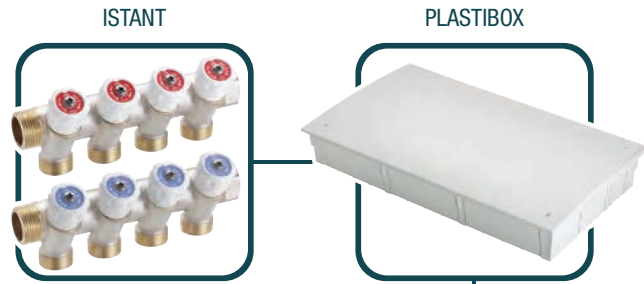


CODE	A mm	B mm	C mm	D mm	E mm	Pack pcs/box
9895X000	118	76	158	180	11	1

Electronic control system for electrothermic heads.

ISTANT

pressed manifold with valves



ISTANT

SIMPRE PRESSED BRASS MANIFOLD
WITH ISOLATING TAPS



Components

- 1 Manifold
- 2 Knobs
- 3 Gaskets

Material

UNI EN 12165 CW617N - DW

ABS

EPDM

EN GENERAL CHARACTERISTICS

Outlets side threaded 24x19

Centre distance 36 mm

Knobs fitted with red and blue stickers indicating the various domestic terminals

OPERATING CONDITIONS

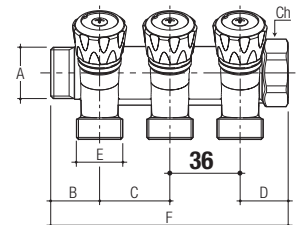
Maximum working temperature: 100 °C.

Maximum working pressure: 10 bar.

Pressure drops: See diagram on Technical Attachments.

GP 2752
ISTANT

Simple MODULAR manifold with isolating taps assembled together by bridging piece (art. 013072), made from pressed brass, for domestic hot water systems, nickel-plated, for copper, multilayer, PEX, PP and PB pipes.



CODE	Model	A	B	C	D	E	F	Ch	Pack
		mm	mm	mm	mm		mm		pcs/box
9693R002	3/4" - 2 WAYS	3/4"	25	36	24,5	24x19	86	31	10
9693R003	3/4" - 3 WAYS	3/4"	25	36	24,5	24x19	122	31	6
9693R004	3/4" - 4 WAYS	3/4"	25	36	24,5	24x19	158	31	6
9694R002	1" - 2 WAYS	1"	27	36	27,5	24x19	92	37	8
9694R003	1" - 3 WAYS	1"	27	36	27,5	24x19	128	37	6
9694R004	1" - 4 WAYS	1"	27	36	27,5	24x19	164	37	4

GP 2799
ISTANT

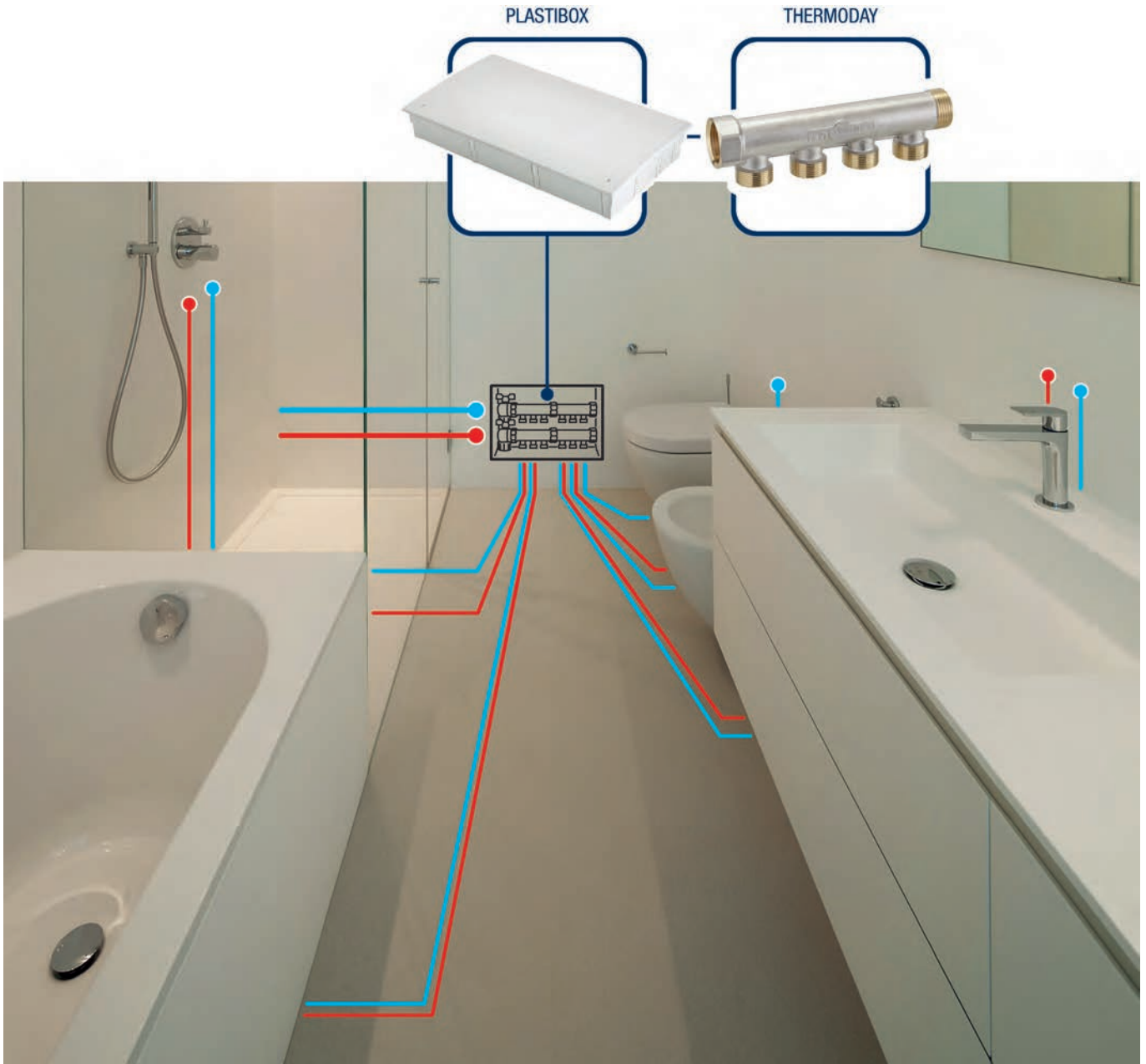
ISTANT manifold bridging piece, with O-ring.



CODE	Model	gr	Pack
			pcs/box
01307200	3/4"	22	10
01307210	1"	35	10

THERMODAY

pressed manifold





Components

Pcs Material

1 Manifold

1 UNI EN 12165 CW617N - DW

EN GENERAL CHARACTERISTICS

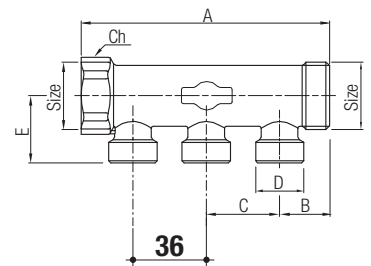
Outlets side threaded 24x19
Centre distance 36 mm
Ways' bore \varnothing 14 mm

OPERATING CONDITIONS

Maximum working temperature: 110 °C
Maximum working pressure: 10 bar

GP 2754
THERMODAY

Simple pressed brass manifold 24x19 Male derivations, nickel-plated, for monoblocco seals, copper, multi-layer, PEX, PP and PB Pipes (see section monoblocco seals).

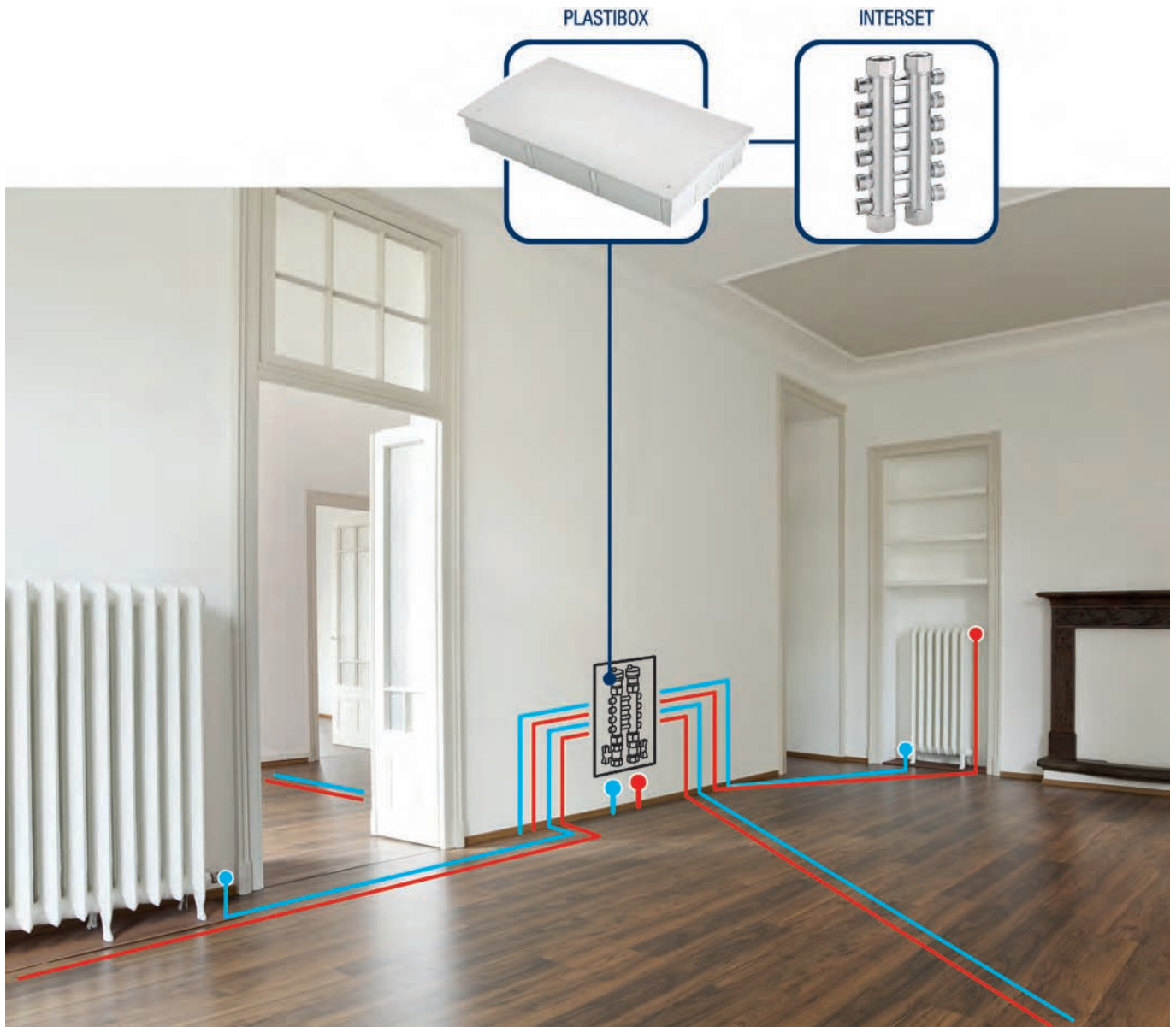


Takeoffs at **36 mm** centres

CODE	Model	DN	A mm	B mm	C mm	D	E mm	Ch mm	gr	PN	Pack pcs/box
0165K102	3/4" - 2 WAYS	20	85	24,5	36	24x19	29	31	185	10	10
0165K103	3/4" - 3 WAYS	20	121	24,5	36	24x19	29	31	230	10	6
0165K104	3/4" - 4 WAYS	20	157	24,5	36	24x19	29	31	330	10	10
0166K102	1" - 2 WAYS	25	86	24,5	36	24x19	33	38	240	10	6
0166K103	1" - 3 WAYS	25	122	24,5	36	24x19	33	38	325	10	10
0166K104	1" - 4 WAYS	25	158	24,5	36	24x19	33	38	410	10	8

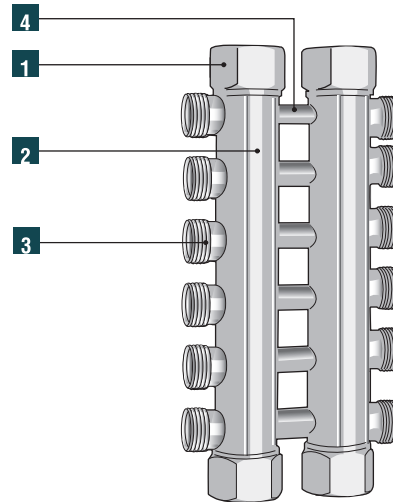
INTERSET

steel complanar manifold



INTERSET

STEEL COMPLANAR MANIFOLD



Components

- 1** Flange
- 2** Pipes
- 3** Side fitting
- 4** Outlets

Material

- Steel AVP
- Steel Fe 360 B
- Steel AVP
- Steel Fe 360 B

EN GENERAL CHARACTERISTICS

Flange: 3/4"
 Columns: $\varnothing 35 \times 2$, End connection ISO 7/1
 Fittings: 24 x 19 showing Inlet/Outlet
 Takeoffs: $\varnothing 14 \times 1,5$
 Tested: 100%
RANGE INTERSET
 3/4 " 2x2

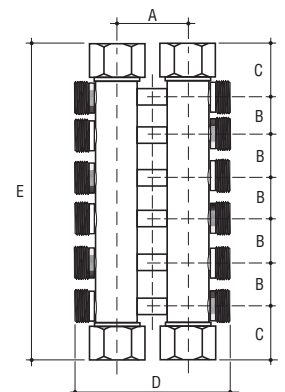
OPERATING CONDITIONS

Maximum working temperature: +110 °C.
 Maximum working pressure: 10 bar.
 Continuous furnace brazing at 1080 °C with 99.9% copper filler wire.
 Immersion surface treatment by nickel-plating followed by chroming.
 Used to connect radiators and fan coils with FIV Systems and inserted in a Plastibox.
 Pressure drop: See diagram on Technical Attachments.

GP 2760
 INTERSET

Steel brazing-welded complanar manifold with chromium and nickel-plated treatment.

Article available while stocks last.



CODE	Model	A mm	B mm	C mm	D mm	E mm	Pack pcs/box
9695X002	3/4" 2x2	55	36	39	122	110	1

PLASTIBOX

PLASTIC BOX FOR MANIFOLDS



Components

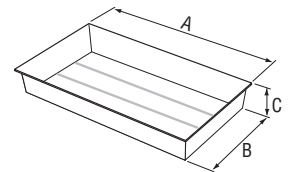
Box
Cover
Supports for manifold

Material

ABS
PS rigid shock-resistant
PA6

GP 2785
PLASTIBOX

Plastibox, white plastic box for manifolds. It is provided complete with rear plaster base synthetic mesh and worksite cardboard protection.



CODE	A mm	B mm	C mm	Pack pcs/box
9707P533	310	310	90	5
9707P548	460	310	90	3
9707P563	610	310	90	2

GP 2799
PLASTIBOX

Support KIT with 10 pairs in each pack, for CONTROLLER manifold.



CODE	Size	Pack pcs/box
9738P006	1"	1

GP 2799
PLASTIBOX

Support KIT including 10 pair pack, for THERMODAY / Istant manifold.



CODE	Size	Pack pcs/box
9739P005	3/4"	1
9739P006	1"	1

GP 2799
PLASTIBOX

Support KIT including 10 pieces per pack, for INTERSET manifold.



CODE	Size	Pack pcs/box
9740P005	3/4" - 1"	1

GP 2799
PLASTIBOX

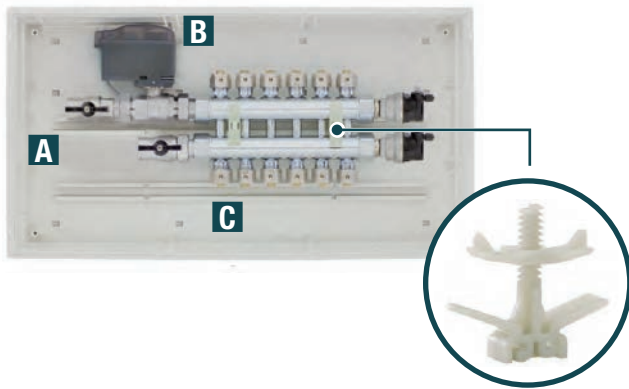
Aluminium profile for supports manifolds, complete with screws and plugs.



CODE	Size	Pack pcs/box
01306400	400 mm	1

guide to selecting the plastibox cassette

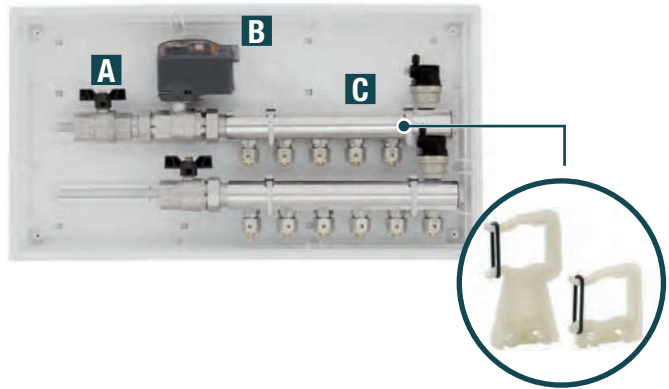
Plastibox with INTERSET manifold



Recommended number of ways for Plastibox with INTERSET manifold

PLASTIBOX	3/4"
Size	A+B+C
460x310	2 ways

Plastibox with CONTROLLER manifold

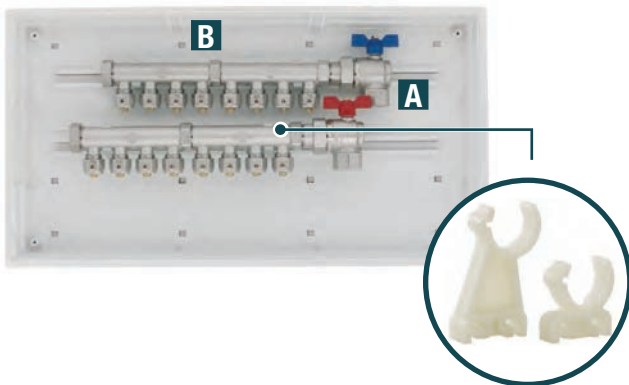


Recommended number of ways for Plastibox with CONTROLLER manifold

PLASTIBOX	1"	3/4"	3/4"	1"	3/4"	3/4"	1"	3/4"	3/4"
Size	A+C	A+C (*)	A+C (**)	B+C	B+C (*)	B+C (**)	A+B+C	A+B+C (*)	A+B+C (**)
310x310	2 ways	3 ways	4 ways	-	2 ways	2 ways	-	-	-
460x310	5 ways	6 ways	8 ways	4 ways	5 ways	6 ways	3 ways	4 ways	5 ways
610x310	8 ways	9 ways	12 ways	7 ways	8 ways	11 ways	6 ways	7 ways	9 ways

(*) Takeoffs 50 mm / (**) Takeoffs 36 mm

Plastibox with THERMODAY manifold

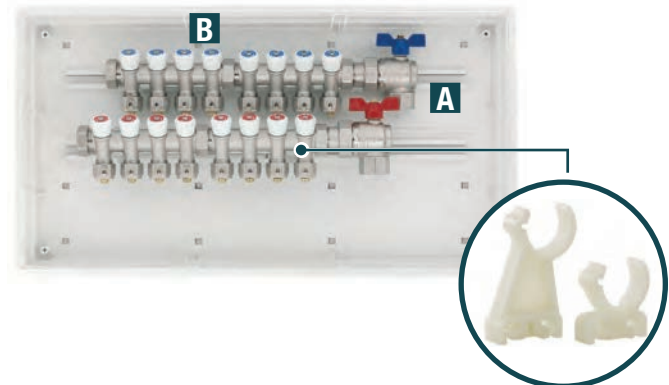


Recommended number of ways for Plastibox with THERMODAY manifold

PLASTIBOX	1"	3/4"
Size	A+B (**)	A+B (**)
310x310	3 ways	4 ways
460x310	7 ways	8 ways
610x310	12 ways	12 ways

(**) Takeoffs 36 mm

Plastibox with INSTANT manifold



Recommended number of ways for Plastibox with INSTANT manifold

PLASTIBOX	1"	3/4"
Size	A+B	A+B
310x310	3 ways	4 ways
460x310	7 ways	8 ways
610x310	12 ways	12 ways

MOTORVALV

MOTOR DRIVEN BALL VALVE



The MOTORVALV motorised ball valve can be used:

- For heating systems with different zones to control the room temperature. The Presidential Decree 412/93 prescribes the subdivision into zones "if parts of the building are limited to different occupant factors, such as separate flats and offices..." intended to separate the heat supply according to the different uses of these premises (art. 5 clause 12);
- For sanitary hot water production systems for controlling the temperature of the hot water tank;
- For other public and industrial systems (automatic irrigation, etc.) using non-aggressive fluids.

Thanks to its high torque, the servomotor is suitable for the ball valve up to a measurement of 2". The connection between the valve and the servomotor is extremely strong and accurate. The MOTORVALV valve is equipped with an auxiliary micro and SPST contact, for use with a thermostat with two contacts.

WIRING DIAGRAMS: See on Technical Attachments.

For the overpressure valve, adjustable from 0.1 to 0.6 bar from 3/4 or 1"1/4 see accessories for Controller manifolds.

EN TECHNICAL DATA AND MATERIALS VALVE

Body in brass: UNI EN 12165 CW617N nickel-plated
 Ball in brass: UNI EN 12165 CW617N chromed
 Working temperature: from -40 to 100 °C (Circulating fluid)
 Working pressure: 40 bar
 Thread UNI EN 10226 (ISO 7/1 Rp) (DIN 2999)
 Male end: Thread ISO 228/1 (DIN 259)
 Maximum pressure differential: 6 bar
 Ball valve seals: PTFE with anti-seizure device
 Functioning arm grip: O-Ring in HNBR
 Electric connection cable:
 servomotor Gray (size 1/2" - 3/4" - 1"): Length 70 cm
 servomotor Blue (size 1"1/4 - 1"1/2 - 2"): Not provided.

SERVOMOTOR TECHNICAL FEATURES

Power supply: 230 V / 50 Hz
 Consumption: 4 VA
 Angle of rotation: 90° (2 ways) - 180° (3 ways) - 90°/270° (4 ways)
 Rotation time: 60" (2 ways) - 120" (3 ways) - 60"/180" (4 ways)
 Torque: 1/2" - 3/4" - 1": 8 Nm / 1"1/4 - 1"1/2 - 2": 28 Nm
 Auxiliary contact: volt-free 3A (gray) / volt-free 3A (blue) / 230 V (on-off)
 Indicator: valve open (2 ways) diverted flow c-left c-right (3 ways)
 Protection rating: IP 43 - IP 40
 Insulation class: II

NOTE:

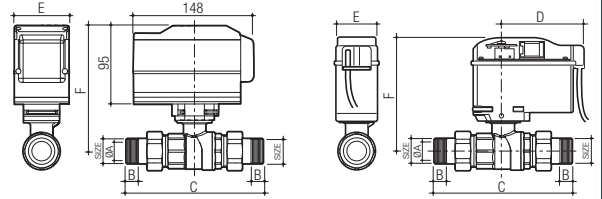
In the 3-way model the passage of the fluid during manoeuvring is guaranteed.

Suitable for hot and cold water domestic distribution plants (Ref. Directive 2014/68/EU Art. 13) for special uses (in accordance with the pressures set out for these items and the compatibility of the different fluids with the materials making up the specific item) see chemical compatibility chart in the technical annexes.

GP 2262
MOTORVALV



Two-way ball valve, with threaded union attachments, nickel-plated, complete with electric servo-motor.

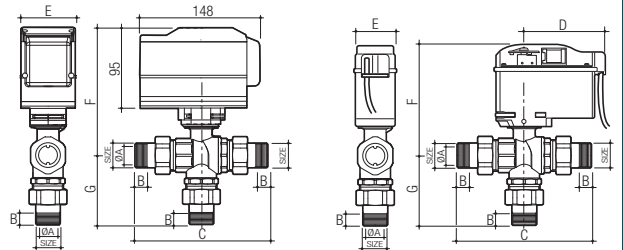


CODE	Size	DN	A mm	B mm	C mm	D mm	E mm	F mm	Pack pcs/box
GREY VERSION (8 Nm)									
8940R004	1/2"	15	15	10,5	119	90	46	113	1
8940R005	3/4"	20	20	12	141	90	46	116	1
8940R006	1"	25	25	13,5	162	90	46	120	1
BLUE VERSION (28 Nm)									
8940R007	1"1/4	32	32	16	183	75	65	150	1
8940R008	1"1/2	40	40	18	204	75	65	164	1
8940R009	2"	50	50	20	244	75	65	171	1

GP 2262
MOTORVALV



Three-way ball valve, with threaded union attachments, nickel-plated, complete with electric servo-motor.

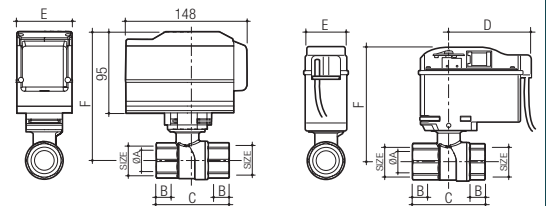


CODE	Size	DN	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Pack pcs/box
GREY VERSION (8 Nm)										
8941R004	1/2"	15	15	10,5	119	90	46	113	63,5	1
8941R005	3/4"	20	20	12	141	90	46	116	73,5	1
8941R006	1"	25	25	13,5	162	90	46	120	85	1
BLUE VERSION (28 Nm)										
8941R007	1"1/4	32	32	16	183	75	65	150	102	1
8941R008	1"1/2	40	40	18	204	75	65	164	114	1
8941R009	2"	50	50	20	244	75	65	171	137	1

GP 2262
MOTORVALV



Two-way female ball valve, nickel-plated, complete with electric servomotor.

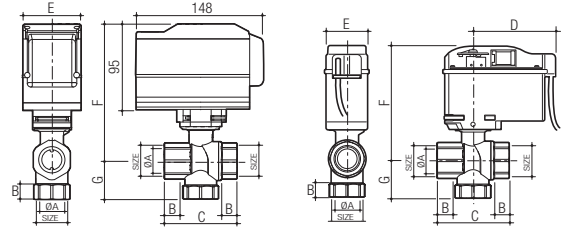


CODE	Size	DN	A mm	B mm	C mm	D mm	E mm	F mm	Pack pcs/box
GREY VERSION (8 Nm)									
8946R104	1/2"	15	15	15	64	90	46	113	1
8946R105	3/4"	20	20	16,3	73	90	46	116	1
8946R106	1"	25	25	19,1	88	90	46	120	1
BLUE VERSION (28 Nm)									
8946R107	1"1/4	32	32	21,4	101	75	65	150	1
8946R108	1"1/2	40	40	21,4	112	75	65	164	1
8946R109	2"	50	50	25,6	132	75	65	171	1

GP 2262
MOTORVALV



Three-way female ball valve, nickel-plated, complete with electric servomotor.

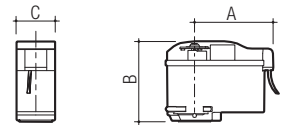


CODE	Size	DN	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Pack pcs/box
GREY VERSION (8 Nm)										
8947R104	1/2"	15	15	15	64	90	46	113	36	1
8947R105	3/4"	20	20	16,3	73	90	46	116	38	1
8947R106	1"	25	25	19,1	88	90	46	120	47	1
BLUE VERSION (28 Nm)										
8947R107	1"1/4	32	32	21,4	101	75	65	150	59	1
8947R108	1"1/2	40	40	21,4	112	75	65	164	65	1
8947R109	2"	50	50	25,6	132	75	65	171	82	1

GP 2262
MOTORVALV



Electric servomotor 230 Vac for motor-driven valve.

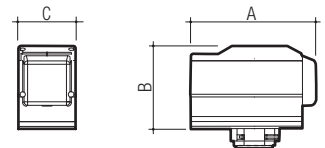


CODE	Application	A mm	B mm	C mm	Angle rotation	Time rotation	Pack pcs/box
01425880	for 2-way valves 8 Nm	90	86	46	90°	60"	1
01425882	for 3-way valves 8 Nm	90	86	46	180°	120"	1
01425884	for 4-way valves 8 Nm	90	86	46	90° / 270°	60" / 180"	1

GP 2262
MOTORVALV



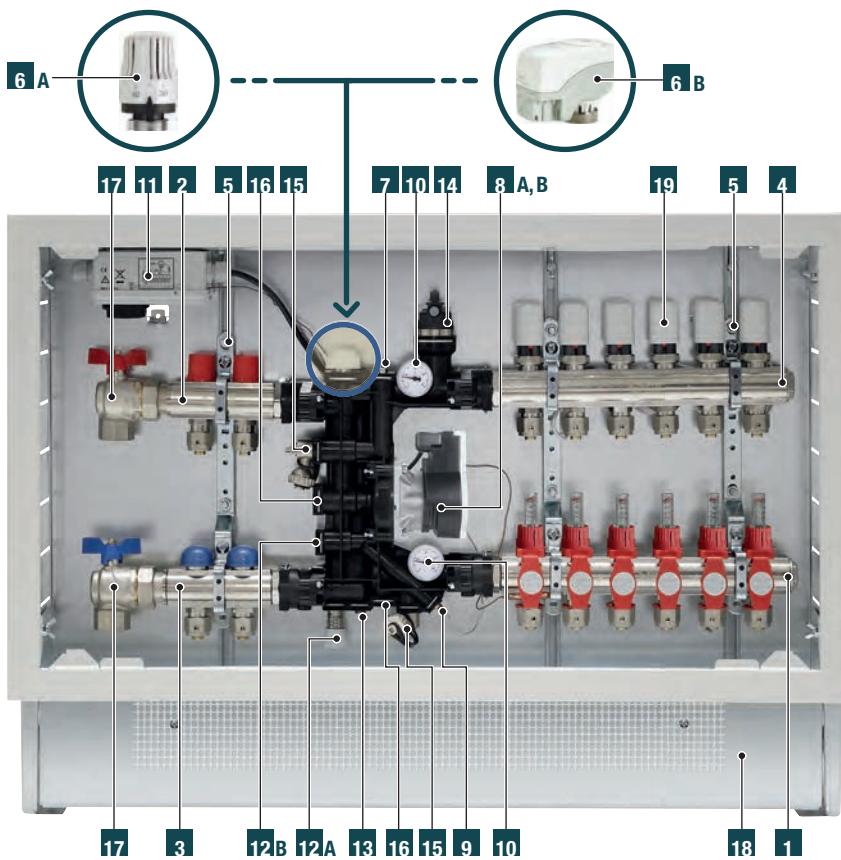
Electric servomotor 230 Vac for motor-driven valve.



CODE	Application	A mm	B mm	C mm	Angle rotation	Time rotation	Pack pcs/box
01420180	for 2-way valves 28 Nm	148	95	64	90°	60"	1
01420182	for 3-way valves 28 Nm	148	95	64	180°	120"	1

FLOOR MIXING CONTROLLER

PREASSEMBLED REGULATION GROUP
(FIXED-POINT OR CLIMATIC ELECTRONIC)



Components

- | | |
|-------------|---|
| 1 | Flow bar for underfloor heating system with flow meters |
| 2 | Flow bar for radiator heating system with regulation lockshields |
| 3 | Return bar for radiator heating system set up for assembly of electrothermic heads |
| 4 | Return bar for underfloor heating system set up for assembly of electrothermic heads |
| 5 | Bar fixing brackets |
| 6 A | Regulation valve with thermostatic head and immersion probe from 20 to 65 °C (not supplied as standard) |
| 6 B | Mixing valve with 3-point motorised valves or 0-10 Vdc (climatic version, not supplied as standard) |
| 7 | Calibration valve and by-pass |
| 8 A | Circulation pump Wilo Para HU 15/7 cable (wired with tripolar L=1000mm) |
| 8 B | Only in model with 3-speed Wilo HU 15/6 circulator |
| 9 | Remote sensing probe pocket |
| 10 | Control thermometers from 0 to 80 °C |
| 11 | Box with safety thermostat for low-temperature circulation pump wiring (not supplied as standard) |
| 12 A | Overpressure valve (between 0.1 and 0.6 bar) one valve for the High Temperature zone |
| 12 B | Overpressure valve (between 0.1 and 0.6 bar) one valve for the Low Temperature zone (only in models with 3-speed Wilo HU 15/6 circulator) |
| 13 | Shut-off and balancing lockshield, for servicing |
| 14 | 1/2" Automatic air vent |
| 15 | Drain/fill valves with swivel connection and safety cap |
| 16 | Circulator isolating valve, for servicing pump |
| 17 | Valve Kit (not supplied as standard) |
| 18 | Box System Plus metal cabinet (not supplied as standard) |
| 19 | Electrothermic heads (not supplied as standard) |

EN GENERAL CHARACTERISTICS

Max temperature on the primary circuit: 90 °C
 Maximum operating pressure: 6 bar

MANIFOLDS

Head threads UNI EN ISO 228/1 G 1" Female
 Takeoffs: 24x19 Male, centre distance 50 mm

REGULATION UNIT

Connections to the primary circuit: G 1" Male
 (also G 1 1/4 Male for without manifolds units)
 Thermostatic head range of adjustment
 (low temp.): 20-65 °C
 Excess pressure valve range of adjustment:
 0.1÷0.6 bar
 Thermometer scale: 0-80 °C
 Mixer valve pressure drops: see
 Technical attachments section

MIXER KIT MATERIALS

Brass UNI EN 12164 CW614N
 PPA resin (35% glass reinforced)
 EPDM 70 Sh O-Rings gaskets
 AISI 304 Stainless steel elements

MANIFOLD MATERIALS

Manifolds obtained from drawn bar
 Brass UNI EN 12168 CW614N
 Manifolds seals in EPDM 70 Sh

CIRCULATION PUMP WILO PARA HU 15/7

Max static pressure: 7 m
 Max delivery capacity: 2,0 m³/h
 Power supply: 1~230V +10% / -15%, 50/60 Hz
 Protection class: IPX4D
 Insulation class: F
 Energy consumption from 1-230 V:
 8.2 ÷ 50 W
 Current consumption at 1-230 V:
 0.07 ÷ 0.44 A
 EEI<=0,20

USABLE FLUIDS

Cooling and heating water.
 Water and glycol: max 1:1

CONFORMITY

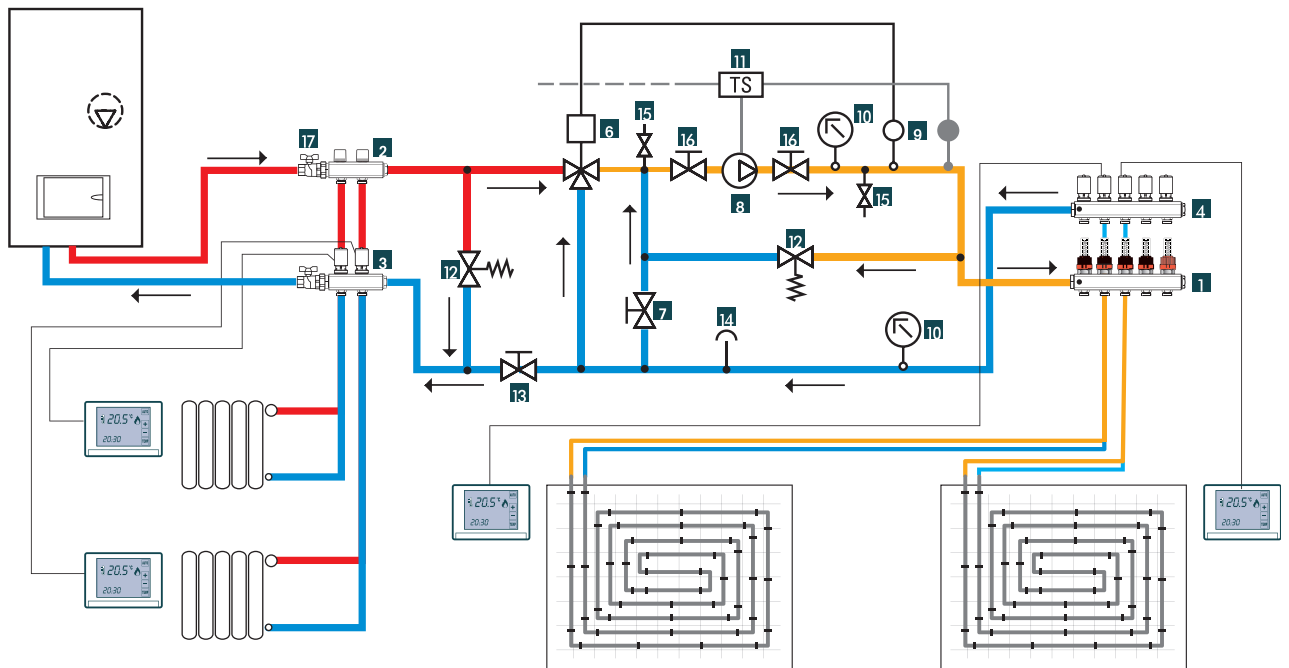
ErP directive
 EN 61800-3
 EN 61000-6-1
 EN 61000-6-2
 EN 61000-6-3
 EN 61000-6-4
 2014/35/UE (Low voltage)
 2014/30/UE (electromagnetic compatibility)

Performance diagrams in Technical attachments

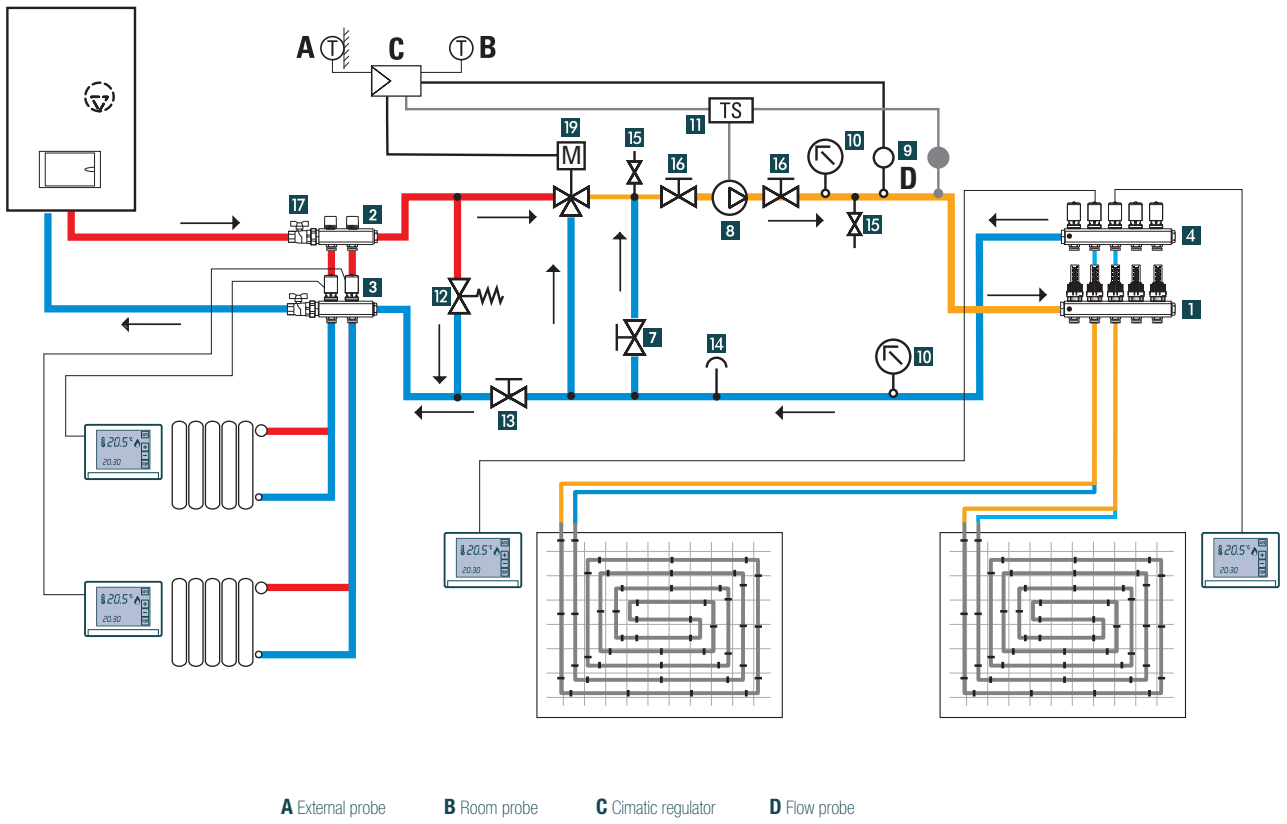
THE RANGE

- Floor Mixing Controller B:
 Low-temperature regulation and distribution unit (3- to 13-ways) and electronic circulator
- Floor Mixing Controller 2A + B:
 High-temperature 2-way + Low-temperature (3- to 13-ways) regulation and distribution unit and electronic circulator
- Floor Mixing Controller 3A + B:
 High-temperature 3-way + Low-temperature (3- to 12-ways) regulation and distribution unit and electronic circulator
- Floor Mixing Controller without manifolds:
 Mixing Low-temperature unit with electronic circulator, G 1" M or G 1 1/4 M threaded connections
- Floor Mixing Controller without manifolds:
 Mixing Low-temperature unit with 3-speed circulator, G 1" M or G 1 1/4 M threaded connections (Articles exclusively for non-European markets)

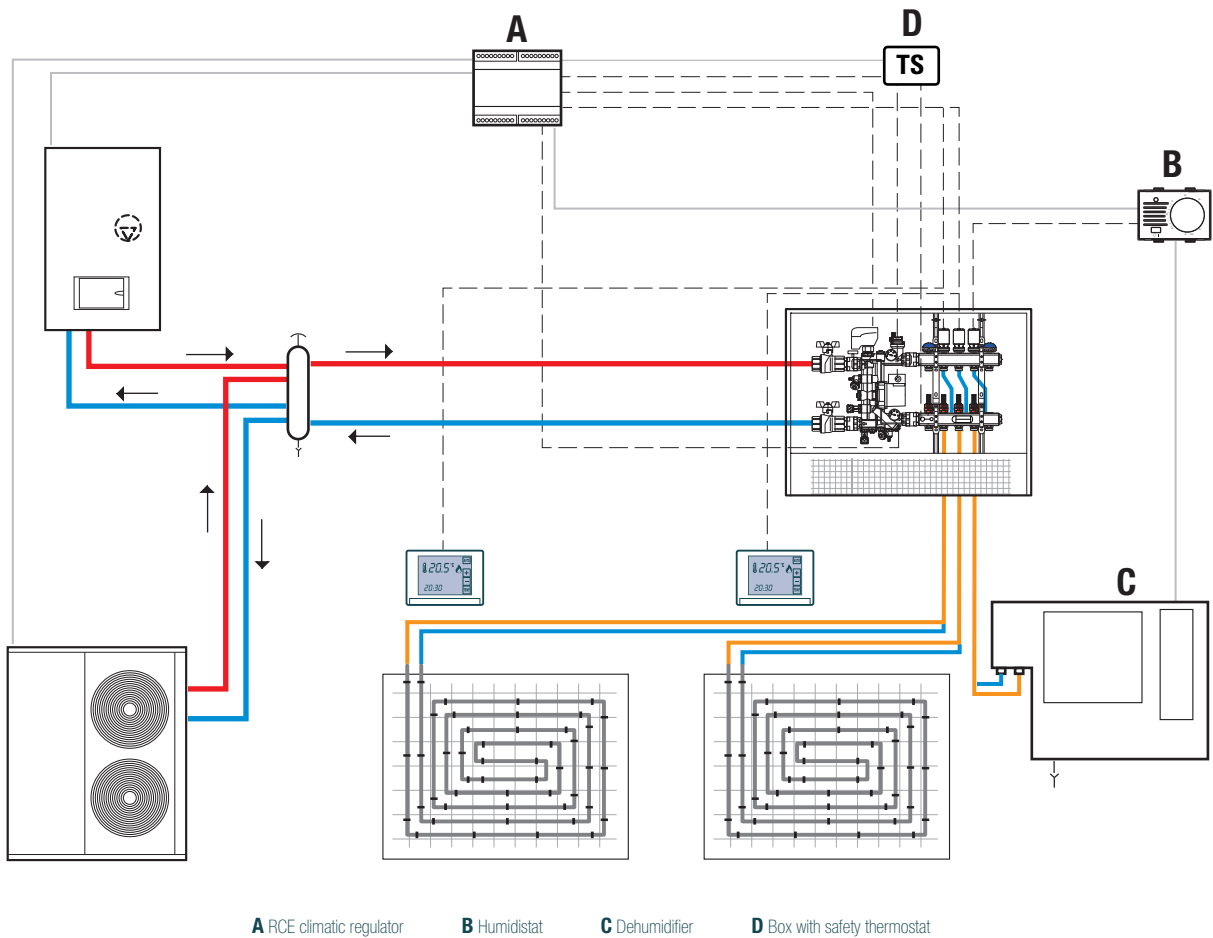
Hydraulic diagram for fixed-point group

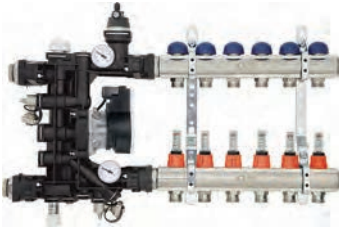


Hydraulic diagram for climatic regulation group - heating only



Hydraulic diagram in single system, in heating and cooling with fixed-point regulation





Preassembled regulation (fixed point or climatic electronic) and distribution group, for low temperature radiant systems, with ErP compliant electronic circulator.

Available only on request.

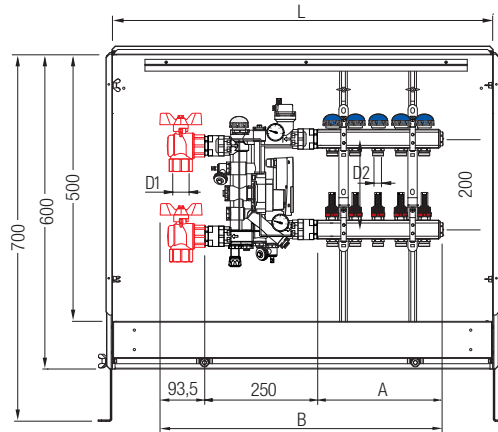
- Complete with:
- Thermostatic head with immersion probe code 90046760
 - or
 - 3-point electric servomotor code 28157212
 - or
 - 0-10 Vdc electric servomotor code 28157222

In case of installation of an electric servomotor, combine the RCE climatic regulation kit.

CODE	Model	No. Ways HIGH temp.	No. Ways LOW temp.	A mm	B mm	L mm	D1	D2	Pack pcs/box
6318R003	3B	—	3	174	498	700	G 1"	M 24x19	1
6318R004	4B	—	4	224	548	700	G 1"	M 24x19	1
6318R005	5B	—	5	274	598	700	G 1"	M 24x19	1
6318R006	6B	—	6	324	648	700	G 1"	M 24x19	1
6318R007	7B	—	7	374	698	850	G 1"	M 24x19	1
6318R008	8B	—	8	424	748	850	G 1"	M 24x19	1
6318R009	9B	—	9	474	798	850	G 1"	M 24x19	1
6318R010	10B	—	10	524	848	1000	G 1"	M 24x19	1
6318R011	11B	—	11	574	898	1000	G 1"	M 24x19	1
6318R012	12B	—	12	624	948	1000	G 1"	M 24x19	1
6318R013	13B	—	13	674	998	1200	G 1"	M 24x19	1

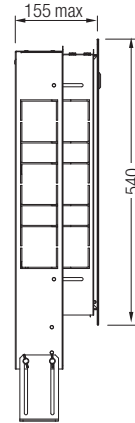
FLOOR MIXING CONTROLLER (B)

Low

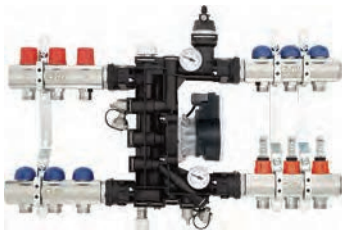


FLOOR MIXING CONTROLLER

Profile



GP 2626
FLOOR MIXING CONTROLLER



Preassembled regulation (fixed point or climatic electronic) and distribution group, for mixed systems with two temperature levels, high and low, with ErP compliant electronic circulator.

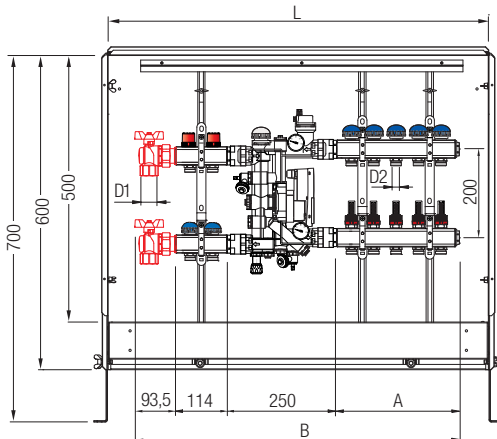
Available only on request.

- Complete with:
- Thermostatic head with immersion probe code 90046760
 - or
 - 3-point electric servomotor code 28157212
 - or
 - 0-10 Vdc electric servomotor code 28157222

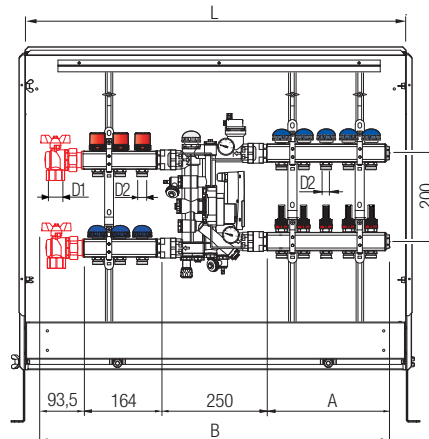
In case of installation of an electric servomotor, combine the RCE climatic regulation kit.

CODE	Model	No. Ways HIGH temp.	No. Ways LOW temp.	A mm	B mm	L mm	D1	D2	Pack pcs/box
6319R003	2A + 3B	2	3	174	633	700	G 1"	M 24x19	1
6319R004	2A + 4B	2	4	224	683	850	G 1"	M 24x19	1
6319R005	2A + 5B	2	5	274	733	850	G 1"	M 24x19	1
6319R006	2A + 6B	2	6	324	783	850	G 1"	M 24x19	1
6319R007	2A + 7B	2	7	374	833	1000	G 1"	M 24x19	1
6319R008	2A + 8B	2	8	424	883	1000	G 1"	M 24x19	1
6319R009	2A + 9B	2	9	474	933	1000	G 1"	M 24x19	1
6319R010	2A + 10B	2	10	524	983	1200	G 1"	M 24x19	1
6319R011	2A + 11B	2	11	574	1033	1200	G 1"	M 24x19	1
6319R012	2A + 12B	2	12	624	1083	1200	G 1"	M 24x19	1
6319R013	2A + 13B	2	13	674	1133	1200	G 1"	M 24x19	1
6320R003	3A + 3B	3	3	174	683	850	G 1"	M 24x19	1
6320R004	3A + 4B	3	4	224	733	850	G 1"	M 24x19	1
6320R005	3A + 5B	3	5	274	783	850	G 1"	M 24x19	1
6320R006	3A + 6B	3	6	324	833	1000	G 1"	M 24x19	1
6320R007	3A + 7B	3	7	374	883	1000	G 1"	M 24x19	1
6320R008	3A + 8B	3	8	424	933	1000	G 1"	M 24x19	1
6320R009	3A + 9B	3	9	474	983	1200	G 1"	M 24x19	1
6320R010	3A + 10B	3	10	524	1033	1200	G 1"	M 24x19	1
6320R011	3A + 11B	3	11	574	1083	1200	G 1"	M 24x19	1
6320R012	3A + 12B	3	12	624	1133	1200	G 1"	M 24x19	1

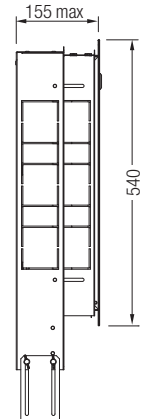
FLOOR MIXING CONTROLLER (2A + B)
High+Low



FLOOR MIXING CONTROLLER (3A + B)
High+Low



FLOOR MIXING CONTROLLER
Profile



GP 2624
FLOOR MIXING CONTROLLER

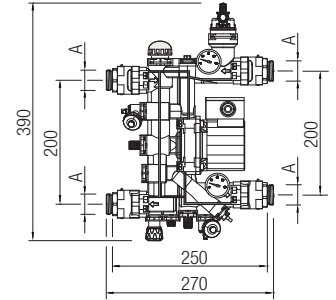


Floor Mixing Controller without manifolds, with 3-speed Wilo HU 15/6 circulator.
Male threaded connections G 1 "or G 1" 1/4.

Available only on request.

Complete with:
- Thermostatic head with immersion probe code 90046760
or
- 3-point electric servomotor code 28157212
or
- 0-10 Vdc electric servomotor code 28157222

In case of installation of an electric servomotor, combine the RCE climatic regulation kit.



CODE	Model	A mm	Pack pcs/box
9934R006	1"	G 1"	1
9934R007	1"1/4	G 1"1/4	1

Articles exclusively for non-European markets as produced outside of the provisions of European Directive ErP 2015 (EC Regulation 641/2009 and EU 622/2012)

GP 2624
FLOOR MIXING CONTROLLER

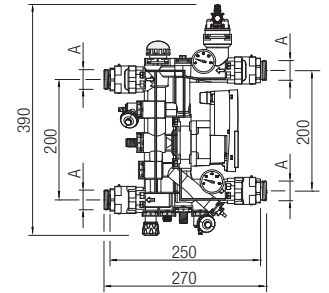


Floor Mixing Controller without manifolds, with Wilo Para HU 15/7 electronic circulator.
Male threaded connections G 1 "or G 1" 1/4.

Available only on request.

Complete with:
- Thermostatic head with immersion probe code 90046760
or
- 3-point electric servomotor code 28157212
or
- 0-10 Vdc electric servomotor code 28157222

In case of installation of an electric servomotor, combine the RCE climatic regulation kit.



CODE	Model	A mm	Pack pcs/box
6316R201	1"	G 1"	1
6316R202	1"1/4	G 1"1/4	1

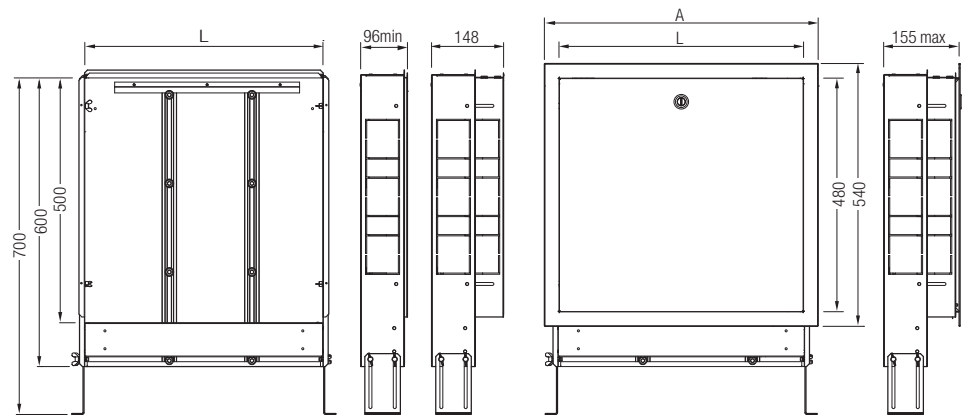
GP 2787
BOX SYSTEM PLUS



Manifold cabinet for wall installation with telescopic body, door and frame in metal sheet 8/10 in plastic, white colour RAL 9010, flush with the wall with slotted screwdriver lock installed, which can be converted to key lock. H600 mm and up to H700 mm with extended supported, for modular built-in depth from 95 to 140 mm and up to 160 mm with the support of the door frame. Height adjustable feet from 0 to 100 mm. Frame flush with the plaster 3 mm. It is supplied with a rubble protection cover. Opening capacity for access to hydraulic groups or manifolds after the masonry, feet mounted considered, uniformed at 505 mm.

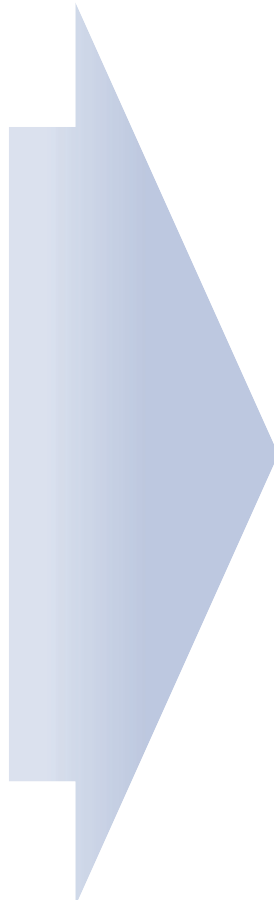
CODE	Size	L mm	A mm	Max derivations	Pack pcs/box
01301454	700	700	760	9	1
01301456	850	850	910	11	1
01301458	1000	1000	1060	12	1
01301460	1200	1200	1260	12	1
90067980	Key lock				1

It is supplied with a slotted screwdriver lock and with a rubble protection cover.



Guidelines for choosing the Box System Plus metal cabinet to combine with the Floor Mixing Controller groups

FLOOR MIXING CONTROLLER	
SIZE	CODE
3B	6318R003
4B	6318R004
5B	6318R005
6B	6318R006
7B	6318R007
8B	6318R008
9B	6318R009
10B	6318R010
11B	6318R011
12B	6318R012
13B	6318R013
2A+3B	6319R003
2A+4B	6319R004
2A+5B	6319R005
2A+6B	6319R006
2A+7B	6319R007
2A+8B	6319R008
2A+9B	6319R009
2A+10B	6319R010
2A+11B	6319R011
2A+12B	6319R012
2A+13B	6319R013
3A+3B	6320R003
3A+4B	6320R004
3A+5B	6320R005
3A+6B	6320R006
3A+7B	6320R007
3A+8B	6320R008
3A+9B	6320R009
3A+10B	6320R010
3A+11B	6320R011
3A+12B	6320R012

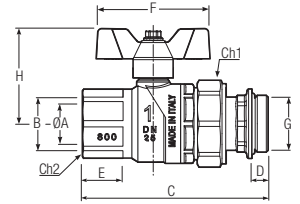


BOX SYSTEM PLUS	
SIZE	CODE
L700	01301454
L700	01301454
L700	01301454
L700	01301454
L850	01301456
L850	01301456
L850	01301456
L1000	01301458
L1000	01301458
L1000	01301458
L1200	01301460
L700	01301454
L850	01301456
L850	01301456
L850	01301456
L1000	01301458
L1000	01301458
L1000	01301458
L1200	01301460
L1200	01301460
L1200	01301460
L1200	01301460
L1200	01301460
L850	01301456
L850	01301456
L850	01301456
L1000	01301458
L1000	01301458
L1000	01301458
L1200	01301460
L1200	01301460
L1200	01301460

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution straight valves with Blue/Red butterfly handles, with pipe union with o-ring seal. Valve with total bore and ISO 7/1 thread. To be used in groups equipped with high temperature manifolds.

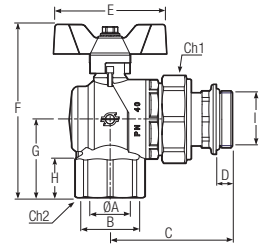


CODE	Size	DN	ØA mm	B	C	D	E	F	G	H	Ch.1 mm	Ch.2 mm	gr	Pack pcs/box
6062R006	1"	25	25	1"	106,4	9,2	22	65	1"	54,5	47	38	1286	1

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution angle valves with Blue/Red butterfly handles, with pipe union with o-ring seal. Valve with total bore and ISO 7/1 thread. To be used in groups equipped with high temperature manifolds.

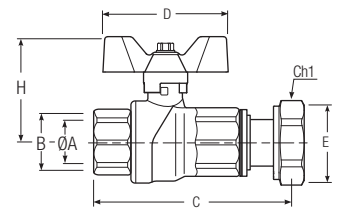


CODE	Size	DN	ØA mm	B	C	D	E	F	G	H	I	Ch.1/2 mm	gr	Pack pcs/box
6064R006	1"	25	25	1"	70,3	9,2	65	99,3	45	22	1"	47/38	1424	1

GP 2258
KIT VALVES



Kit consisting of 2 nickel-plated Evolution straight Female-Pipe union valves with Blue/Red butterfly handles, nickel-plated. To be used in groups without high-temperature manifolds.



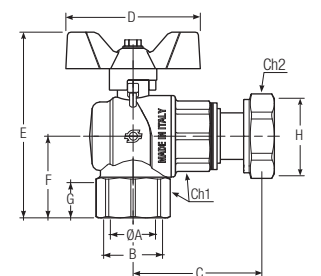
CODE	Size	ØA mm	B	C	D	E	H	Ch.1 mm	gr	Pack pcs/box	Master pcs/box
6055R106	1" x 1"	25	1"	97	65	1"	56	38	1290	12	48

Complete with n. 2 gaskets.

GP 2258
KIT VALVES



Kit consisting of 2 nickel-plated Evolution angle Female-Pipe union valves with Blue/Red butterfly handles. To be used in groups without high-temperature manifolds.



CODE	Size	ØA mm	B	C	D	E	F	G	H	gr	Ch.1 mm	Ch.2 mm	Pack pcs/box	Master pcs/box
6056R106	1" x 1"	25	1"	58,5	65	99,5	45	22	1"	1260	38	38	12	48

Complete with n. 2 gaskets.

GP 2630
ACCESSORIES



Vent valve kit, spare part for Floor Mixing Controller Group.

CODE

Pack
pcs/box

00400028

1

GP 2799
ACCESSORIES



Insulating shell for Floor Mixing Controller control unit in closed cell crosslinked expanded polyethylene.

For the installation of the insulating shell, it is first necessary to remove the hydraulic assembly from the box (therefore do not make the hydraulic and electrical connections before installing the insulating shell).

If the shell is installed on a unit inside a metal box, it is advisable to install the unit while maintaining a distance between the back of the box and the flush mounting of 135 mm.

CODE

Size

Pack
pcs/box

01306510

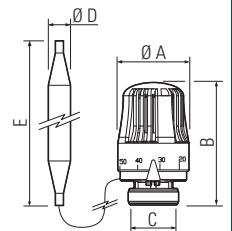
-

1

GP 2700
THERMOSTATIC HEAD



Thermostatic head with immersion probe for fixed-point adjustment.
Adjustment range: 20-65 °C / threaded connection size: M30x1.5.



CODE

ØA
mm

B
mm

C

ØD
mm

E
mm

Pack
pcs/box

90046760

48

87

M30x1,5

11

111

1

GP 2630
ELECTRIC SERVOMOTOR



Floating electric 3-point servomotor.

TECHNICAL DATA

Type of operation: 3-position control / Nominal voltage: 230 Vac ($\pm 15\%$)

Nominal frequency: 50/60 Hz / Maximum consumption: 6 VA / Permissible room temperature: 0-55 °C

Maximum permissible fluid temperature: 110 °C / Nominal stroke: 2.5 mm / (maximum 5.5 mm)

Stroke time: 150 s (at 50/60 Hz, regarding a stroke of 2.5 mm)

Nominal force: 100 N / Degree of protection: IP40 according to EN 60529

Insulation class: II according to EN 60730 / Threaded fitting size: M30x1.5

Available only on request.

CODE

Pack
pcs/box

28157212

1

GP 2630
ELECTRIC SERVOMOTOR



Floating electric 0-10 V DC servomotor.

TECHNICAL DATA

Type of operation: 0-10 V DC control / Nominal voltage: AC/DC 24 V ($\pm 20\%$ / $\pm 25\%$)
 Nominal frequency: 50/60 Hz / Maximum consumption: 2 VA / Permissible room temperature: 1-50 °C
 Maximum permissible fluid temperature: 110 °C / Nominal stroke: 2.5 mm / Maximum stroke: 5.5 mm
 Stroke time: 150 s (at 50/60 Hz, regarding a stroke of 2.5 mm)
 Nominal force: 100 N / Degree of protection: IP40 according to EN 60529
 Insulation class: III according to EN 60730 / Threaded fitting size: M30x1.5

Available only on request.

CODE

28157222

**Pack
pcs/box**

1

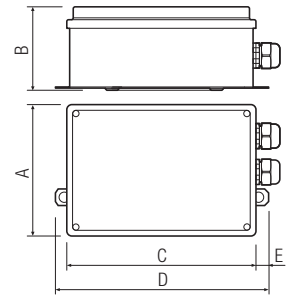
GP 2630
6T BASIC CONTROL UNIT



6T basic control unit - Electronic system for electrothermic heads.

TECHNICAL DATA

Optional 230 V or 24 V power supply - Direct powering of the electrothermic heads (at the same voltage supplied to the control unit) - Direct connection of the ambient thermostats (at the same voltage supplied to the control unit) - Connection of up to six electrothermic heads (configurable as high or low temperature) - Connection of up to six ambient thermostats - Connection for low-temperature circulator pump - Connection for boiler consent - Adjustable (30-60°C) safety thermostat - Contact for signalling safety thermostat intervention - Circulator pump anti-seizure function.



Application diagrams: consult the technical annexes section.

CODE

9895X000

**A
mm**

**B
mm**

**C
mm**

**D
mm**

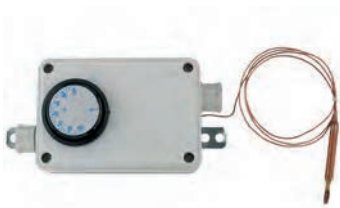
**E
mm**

**Pack
pcs/box**

1

Electronic control system for electro-thermal heads.

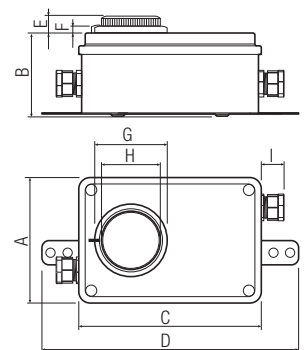
GP 2630
ELECTRICAL BOX



Electrical box with safety thermostat for wiring of low temperature circulation pump.

TECHNICAL DATA

Bulb length: 65 mm - Bulb diameter: 7 mm
 Range of adjustment: 30-60 °C ± 3
 Contacts capacity: 400 V 16(4) A - Differential: 4 °C



Application diagrams: see section on technical attachments.

CODE

9892X000

**A
mm**

**B
mm**

**C
mm**

**D
mm**

**E
mm**

**F
mm**

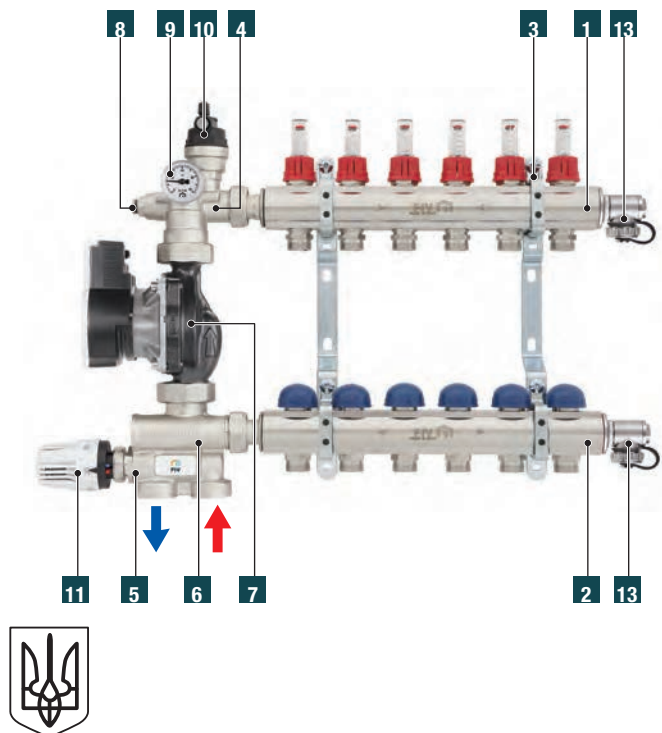
**G
mm**

**H
mm**

**I
mm**

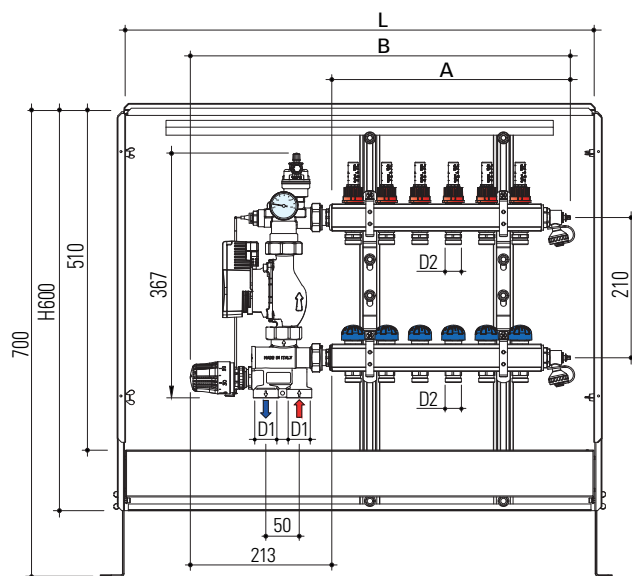
**Pack
pcs/box**

1



UFH MIXING CONTROLLER

PRE-ASSEMBLED REGULATION GROUP



Components

- | | |
|-----------|--|
| 1 | Flow bar for floor heating system with flow meters |
| 2 | Return bar for floor heating system set up to take electrothermic heads |
| 3 | Brackets for fixing manifolds |
| 4 | Housing for thermostat probe of security |
| 5 | Mixing valve thread M30x1,5 set up to thermostatic head (adjustment range 20 ÷ 65 °C) with immersion probe |
| 6 | Adjusting valve and by-pass |
| 7 | Wilo Para 25/7 electronic circulator pump with tripolar cable L=1000 mm |
| 8 | Housing for temperature flow probe |
| 9 | Control thermometer from 0 to 80 °C |
| 10 | ½" Automatic bleed valve |
| 11 | Thermostatic head with immersion probe from 20 to 65 °C (fixed-point adjustment) |
| 12 | Non-return valve integrated (not shown in the figure) |
| 13 | Fill and discharge adjustable bibcocks with safety plug |

EN GENERAL CHARACTERISTICS

Max temperature for primary circuit: 90 °C
 Max operating pressure: 6 bar
 ΔP max for primary circuit: 1 bar
 Secondary temperature range:
 20÷65 °C (fixed-point regulation)
 Thermal power exchangeable ΔT=7 °C,
 ΔP useful 0,25 bar
 - Fixed-point regulation:
 10 kW by-pass position 0
 - Fixed-point regulation:
 12.5 kW by-pass position 5
 Pressure drop with by-pass valve position 5:
 Kvmax=4,8
 Thermometer scale: 0-80 °C
 Mixing group head threads: G 1" Female
 Controller manifolds head threads: G 1" Female
 Controller distribution manifolds takeoffs threads:
 24x19 Male - centre distance 50 mm
 Circulation pump connections:
 pipe union 1"1/2 - centre distance 130 mm

CIRCULATION PUMP WILO PARA 25/7
 Threads UNI EN ISO 228-1 (G 1"1/2)
 centre distance: 130 mm.
 Max static pressure: 7 m
 Max delivery capacity: 3.5 m³/h
 Power supply 1~230 V +10% / -15%, 50/60 Hz
 Protection class: IPX 4D, Insulation class: F
 Energy consumption from 1-230 V: 8.2÷50 W
 Current consumption at 1-230 V: 0.07 ÷0,44 A
 EEI ≤ 0,2

USABLE FLUIDS
 Cooling and heating water
 Water and glycol: max 1:1

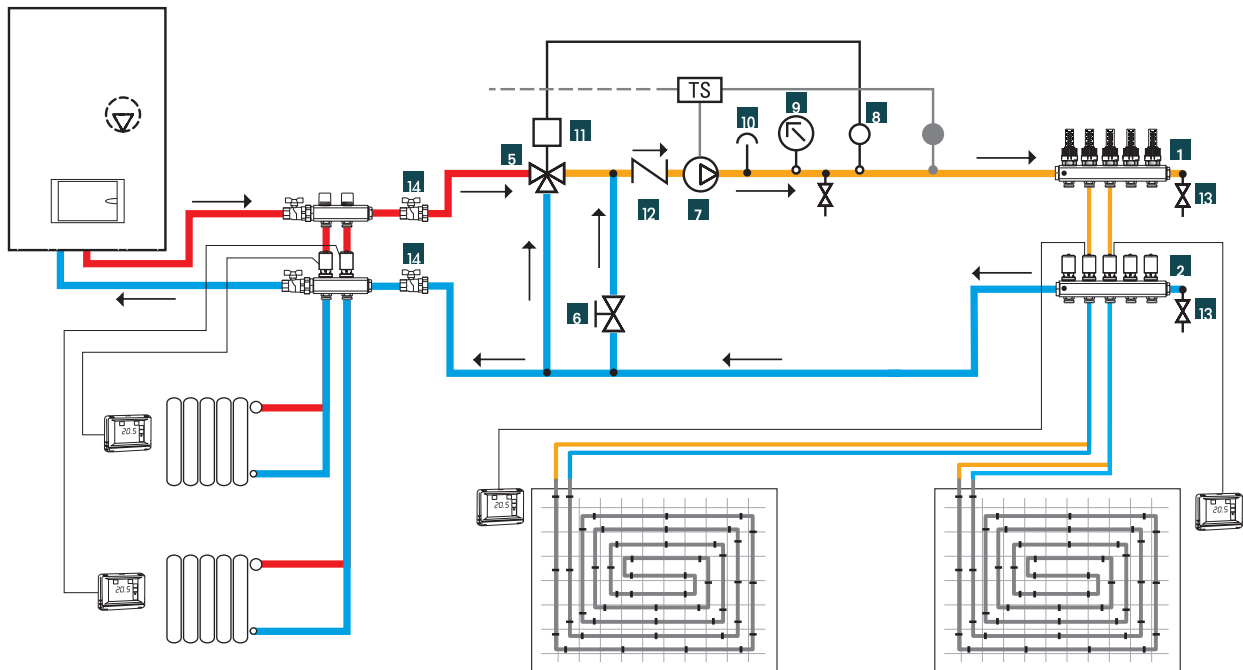
CONFORMITY
 ErP directive
 EN 61800-3
 EN 61000-6-3 / EN 61000-6-4
 EN 61000-6-2 / EN 61000-6-1
 2014/35/UE (low voltage)
 2014/30/UE (electromagnetic compatibility)

RANGE

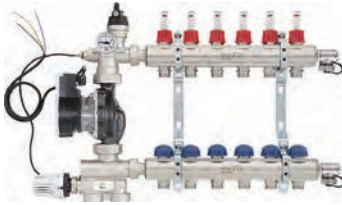
- UFH Mixing Controller:
 Pre-assembled low temperature adjustment group (from 2 to 12 ways) with flow meter, with and without circulator pump
 - UFH Mixing Controller:
 Pre-assembled thermostatic group with and without circulator pump

Performance diagrams in Technical attachments

Example of plumbing diagram



GP 2627
UFH MIXING CONTROLLER

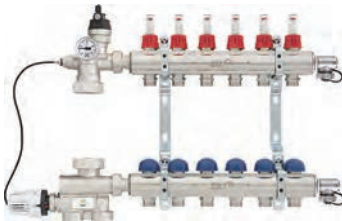


Pre-assembled thermostatic regulation group with manifolds fitted with flow meters (4 l/min), low temperature, complete with thermostatic head with immersion probe and electronic circulator.

Available only on request.

CODE	Size	No. Ways LOW temp.	A mm	D1	D2	Pack pcs/box
6314R002	2B	2	157	G 1"	M 24x19	1
6314R003	3B	3	207	G 1"	M 24x19	1
6314R004	4B	4	257	G 1"	M 24x19	1
6314R005	5B	5	307	G 1"	M 24x19	1
6314R006	6B	6	357	G 1"	M 24x19	1
6314R007	7B	7	407	G 1"	M 24x19	1
6314R008	8B	8	457	G 1"	M 24x19	1
6314R009	9B	9	507	G 1"	M 24x19	1
6314R010	10B	10	557	G 1"	M 24x19	1
6314R011	11B	11	607	G 1"	M 24x19	1
6314R012	12B	12	657	G 1"	M 24x19	1

GP 2627
UFH MIXING CONTROLLER



Pre-assembled thermostatic regulation group with manifolds fitted with flow meters (4 l/min), low temperature, complete with thermostatic head with immersion probe.

Available only on request.

CODE	Size	No. Ways LOW temp.	A mm	D1	D2	Pack pcs/box
6284R002	2B	2	157	G 1"	M 24x19	1
6284R003	3B	3	207	G 1"	M 24x19	1
6284R004	4B	4	257	G 1"	M 24x19	1
6284R005	5B	5	307	G 1"	M 24x19	1
6284R006	6B	6	357	G 1"	M 24x19	1
6284R007	7B	7	407	G 1"	M 24x19	1
6284R008	8B	8	457	G 1"	M 24x19	1
6284R009	9B	9	507	G 1"	M 24x19	1
6284R010	10B	10	557	G 1"	M 24x19	1
6284R011	11B	11	607	G 1"	M 24x19	1
6284R012	12B	12	657	G 1"	M 24x19	1

GP 2627
UFH MIXING CONTROLLER



Pre-assembled thermostatic regulation group, complete with thermostatic head with immersion probe and electronic circulator.

Available only on request.

CODE	D1	Pack pcs/box
6315R001	G 1"	1

GP 2627
UFH MIXING CONTROLLER



Pre-assembled thermostatic regulation group, complete with thermostatic head with immersion probe.

Available only on request.

CODE	D1	Pack pcs/box
6285R000	G 1"	1

GP 2799
ACCESSORIES



UFH Mixing Controller mixing valve

CODE	Size	Pack pcs/box
90055552		1

GP 2799
ACCESSORIES



Kit of security thermostat for mixing group.

Available only on request.

CODE	Pack pcs/box
6288R000	1

GP 2750
CONTROLLER



Pre-assembled distribution manifold, 24x19 takeoffs, consisting of: manual valves with valve-caps, set up to take thermoelectric heads, Flow meter 0-4 l/min, brackets and additional unions with bleed valve and drain valve.

Article packed with manifolds removed from brackets.

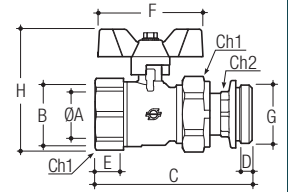
Available only on request.

CODE	Size	Ways	L mm	D2	Pack pcs/box
6128R002	1"	2	157	M 24x19	1
6128R003	1"	3	207	M 24x19	1
6128R004	1"	4	257	M 24x19	1
6128R005	1"	5	307	M 24x19	1
6128R006	1"	6	357	M 24x19	1
6128R007	1"	7	407	M 24x19	1
6128R008	1"	8	457	M 24x19	1
6128R009	1"	9	507	M 24x19	1
6128R010	1"	10	557	M 24x19	1
6128R011	1"	11	607	M 24x19	1
6128R012	1"	12	657	M 24x19	1

GP 2240
ACCESSORIES



Kit for steel and brass manifolds consisting of 2 nickel-plated straight ball valves with Blue/Red butterfly handles, with pipe union. Valve with reduced bore and ISO 228/1 thread.



CODE	Size	DN	ØA mm	B	C mm	D mm	E mm	F mm	G	H mm	Ch.1 mm	Ch.2 mm	gr	Pack pcs/box
6289R006	1"	20	20	1"	88,5	7	14,5	60,2	1"	68,8	38	24	-	1

Use the pair of red O-Rings for valve installation on Controller S steel manifolds, and the pair of black O-Rings for valve installation on Controller brass manifolds. Both pairs of O-Rings are supplied in the package.

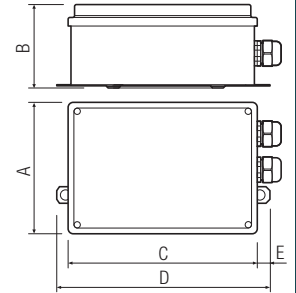
GP 2630
6T BASIC CONTROL UNIT



6T basic control unit - Electronic system for electrothermic heads.

TECHNICAL DATA

Optional 230 V or 24 V power supply - Direct powering of the electrothermic heads (at the same voltage supplied to the control unit) - Direct connection of the ambient thermostats (at the same voltage supplied to the control unit) - Connection of up to six electrothermic heads (configurable as high or low temperature) - Connection of up to six ambient thermostats - Connection for low-temperature circulator pump - Connection for boiler consent - Adjustable (30-60°C) safety thermostat - Contact for signalling safety thermostat intervention - Circulator pump anti-seizure function.

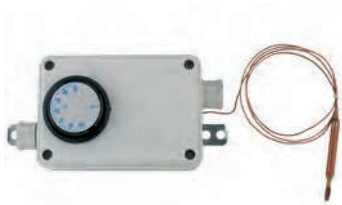


Application diagrams: consult the technical annexes section.

CODE	A mm	B mm	C mm	D mm	E mm	Pack pcs/box
9895X000	118	76	158	180	11	1

Electronic control system for electro-thermal heads.

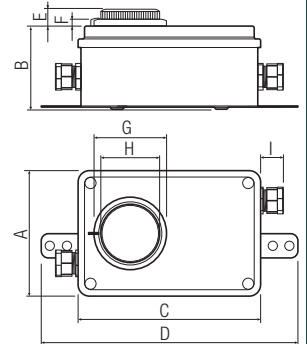
GP 2630
ELECTRICAL BOX



Electrical box with safety thermostat for wiring of low temperature circulation pump.

TECHNICAL DATA

Bulb length: 65 mm - Bulb diameter: 7 mm
Range of adjustment: 30-60 °C ±3
Contacts capacity: 400 V 16(4) A - Differential: 4 °C

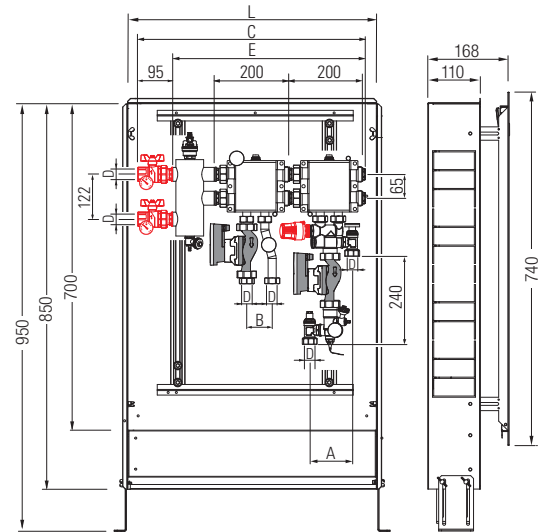
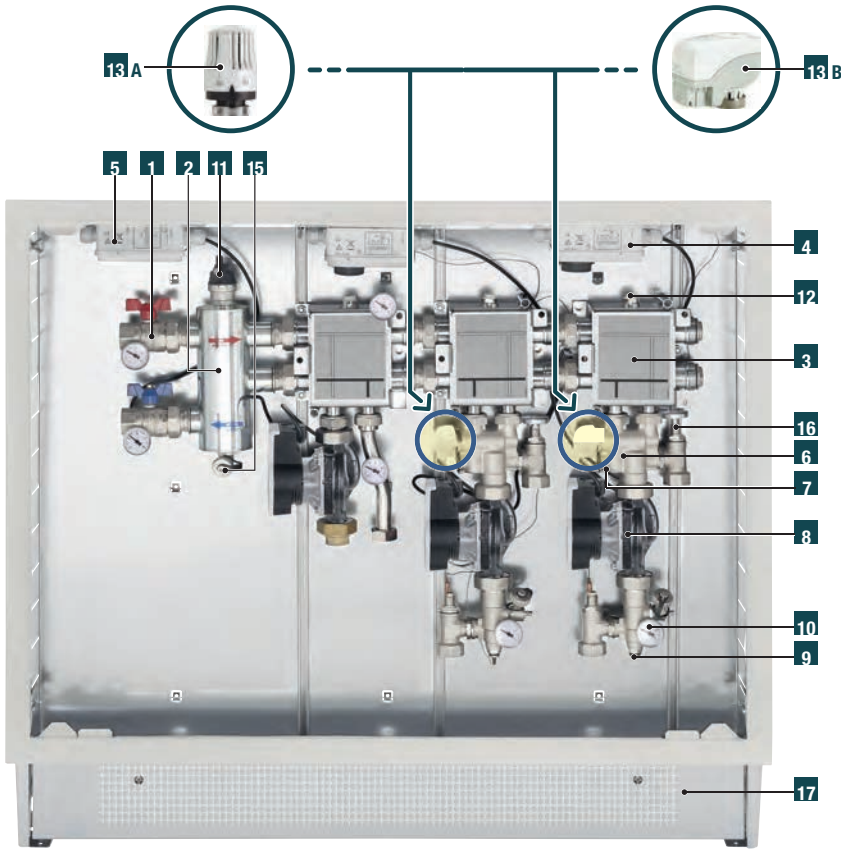


Application diagrams: see section on technical attachments.

CODE	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Pack pcs/box
9892X000	88	58	128	180	17	7	51	43	22	1

MODULAR MIXING GROUP

DISTRIBUTION MODULES FOR HIGH AND LOW TEMPERATURE SYSTEMS
(WITH FIXED POINT OR CLIMATIC ELECTRONIC)



Components

- | | |
|-------------|--|
| 1 | Ball valve kit (not supplied as standard) |
| 2 | Open manifold (where provided) |
| 3 | Distribution manifold |
| 4 | Electrical box with safety thermostat for wiring the low temperature circulation pump (not supplied as standard) |
| 5 | Electrical box for wiring the circulation pump (not supplied as standard) |
| 6 | Mixing valve with thread M30x1.5 for installing a thermostatic head with immersion probe from 20 to 65 °C or an electric servomotor (not supplied as standard) |
| 7 | Calibration and by-pass valve |
| 8 | Electronic circulation pump Wilo Para 25/7 wired with tripolar cable L=1000 mm |
| 9 | Compartment for delivery temperature probe |
| 10 | Control thermometer from 0 to 80 °C |
| 11 | Automatic air vent valve ½" |
| 12 | Manual air vent valve ½" |
| 13 A | Regulation valve with thermostatic head and immersion probe from 20 to 65 °C (not supplied as standard) |
| 13 B | Mixing valve with 3-point motorised valves or 0-10 Vdc (climatic version, not supplied as standard) |
| 14 | Non-return valve (not shown in the figure) |
| 15 | Drain/fill valves with swivel connection and safety cap (where provided) |
| 16 | Shutoff lockshield for thermometer compartment or return probe (climatic version) |
| 17 | Manifold cabinet (where provided) |

EN GENERAL CHARACTERISTICS

Threads UNI EN ISO 228/1
Distribution manifold head threads: 1"1/4 M - 1" F
Distribution manifold takeoffs threads: nut 1" F
Single zone takeoffs threads: 1" F
Maximum temperature of manifold: 110 °C
Maximum pressure: 10 bar
Circulation pump connections: pipe union 1"1/2
centre distance 130 mm

LOW TEMPERATURE MIXING GROUP

Maximum temperature of primary circuit: 90 °C
Maximum pressure: 6 bar
Max Δp of primary circuit: 1 bar
Mixing group adjustment field: 20÷65 °C (fixed point regul.)
Exchangeable thermal capacity (ΔT 7 °C, Δp usable 0.25 bar)
Fixed point regulation: 10 kW by-pass pos. 0
Fixed point regulation: 12.5 kW by-pass pos. 5
Pressure drops Mixing valve (fixed point regul.) Kv 3
Pressure drops with by-pass valve open (fixed point regul.) Kvmax 4.8
Mixing group head threads: 1" Male

MATERIALS

Brass UNI EN 12168 CW614N
Brass UNI EN 12165 CW617N
Annealed copper
O-rings gaskets EPDM 70 Sh

CIRCULATION PUMP WILO PARA 25/7

Threads UNI EN ISO 228/1 G1"1/2
Centre distance: 130 mm
Max static pressure: 7 m
Max delivery capacity: 3.5 m³/h
Electrical connection 1~230 V, +10% / -15%, 50/60 Hz
Protection class IPX4D
Insulation class F
Rated motor power : 37 W
Energy consumption from 1~230 V: 8.2 ÷ 50 W
Current consumption at 1~230 V: 0.44 A
EEI ≤ 0,2

USABLE FLUIDS

Cooling and heating water.
Water and glycol: max 1:1

CONFORMITY

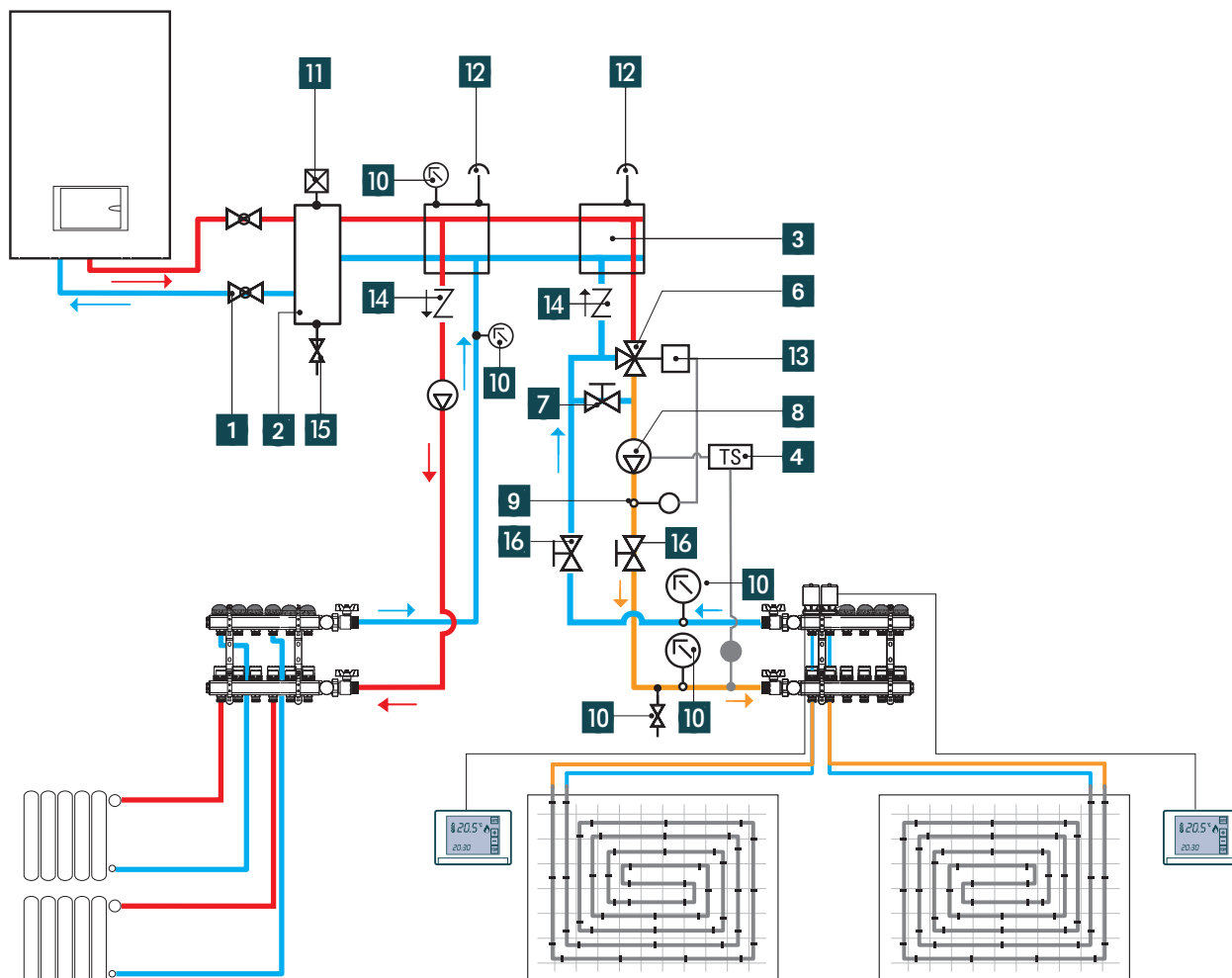
ErP directive
EN 61800-3
EN 61000-6-3 / EN 61000-6-4
EN 61000-6-2 / EN 61000-6-1
2014/35/UE (low voltage)
2014/30/UE (Electromagnetic compatibility)

Performance diagrams in Technical attachments

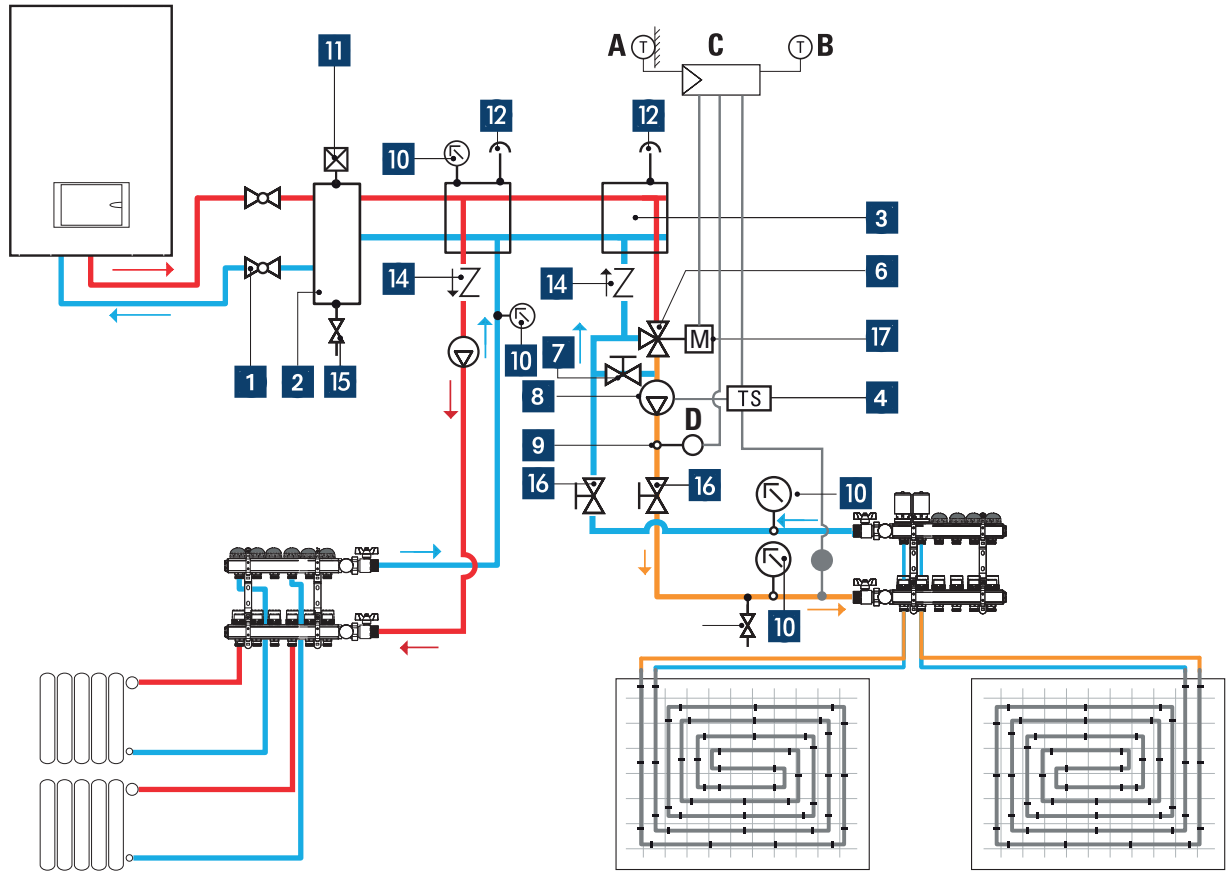
THE RANGE

- Modular Mixing Group A: distribution modules for high temperature zones
- Modular Mixing Group B: distribution modules for low temperature zones
- Modular Mixing Group A+B: distribution modules for high and low temperature zones
- Recessed distribution modules for high/low temperature systems, provided pre-assembled in metallic box complete with door and frame and coated doors
- Individual distribution modules, to be assembled using joint nipples M 1" - F 1"1/4

Hydraulic diagram for fixed-point group



Hydraulic diagram for climatic regulation group



A external probe B room probe C climatic regulator D flow probe

GP 2751
MODULAR MIXING GROUP

Distribution modules for High temperature heating systems with electronic circulation pumps and open manifold.

Available only on request.

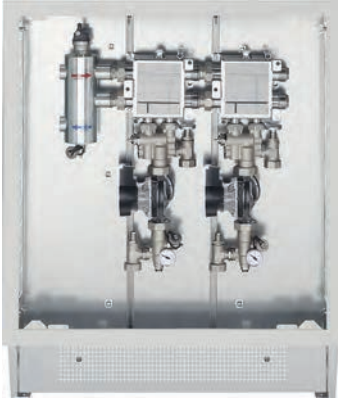


CODE	Size	L mm	A mm	B mm	C mm	D mm	E mm	Pack pcs/box
6313R001	1A	500	min 110 - max 120	min 60 - max 70	420	G 1" F	325	1
6313R002	2A	700	min 110 - max 120	min 60 - max 70	620	G 1" F	525	1
6313R003	3A	1000	min 110 - max 120	min 60 - max 70	820	G 1" F	725	1

Note: for proper built-in mounting we recommend you install the module at a distance of 135 mm between the back side of the box and wall wire.

Dimensions: See page 168 (introduction page Modular Mixing Group).

GP 2751
MODULAR MIXING GROUP



Distribution modules for low temperature heating systems with mixing valve, electronic circulation pumps and open manifold.

Available only on request.

Complete with:
- Thermostatic head with immersion probe code 90046760
or
- 3-point electric servomotor code 28157212
or
- 0-10 Vdc electric servomotor code 28157222

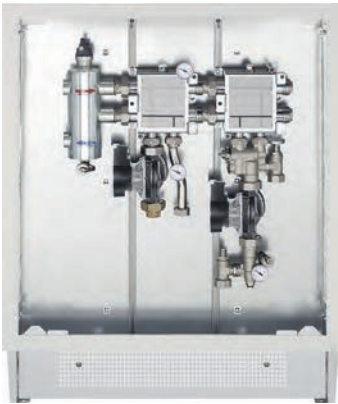
In case of installation of an electric servomotor, combine the RCE climatic regulation kit.

CODE	Size	L mm	A mm	B mm	C mm	D mm	E mm	Pack pcs/box
6313R004	1B	500	min 110 - max 120	min 60 - max 70	420	G 1" F	325	1
6313R005	2B	700	min 110 - max 120	min 60 - max 70	620	G 1" F	525	1
6313R006	3B	1000	min 110 - max 120	min 60 - max 70	820	G 1" F	725	1

Note: for proper built-in mounting we recommend you install the module at a distance of 135 mm between the back side of the box and wall wire.

Dimensions: See page 168 (introduction page Modular Mixing Group).

GP 2751
MODULAR MIXING GROUP



Distribution modules for combined (High + Low temperature) heating systems with mixing valve, electronic circulation pumps and open manifold.

Available only on request.

Complete with:
- Thermostatic head with immersion probe code 90046760
or
- 3-point electric servomotor code 28157212
or
- 0-10 Vdc electric servomotor code 28157222

In case of installation of an electric servomotor, combine the RCE climatic regulation kit.

CODE	Size	L mm	A mm	B mm	C mm	D mm	E mm	Pack pcs/box
6313R007	1A + 1B	700	min 110 - max 120	min 60 - max 70	620	G 1" F	525	1
6313R008	1A + 2B	1000	min 110 - max 120	min 60 - max 70	820	G 1" F	725	1
6313R009	2A + 1B	1000	min 110 - max 120	min 60 - max 70	820	G 1" F	725	1

Note: for proper built-in mounting we recommend you install the module at a distance of 135 mm between the back side of the box and wall wire.

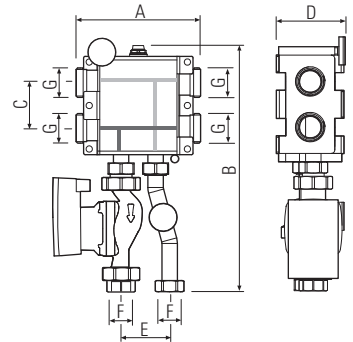
Dimensions: See page 168 (introduction page Modular Mixing Group).

GP 2751
MODULAR MIXING GROUP



Individual distribution module with electronic circulation pump, High temperature.

Available only on request.



CODE	Size	A mm	B mm	C mm	D mm	E mm	F	G	Pack pcs/box
6312R001	1A	178	351	65	96	min 60 - max 70	G 1" F	G 1"¼ M - G 1" F	1

Can be facing upwards or downwards. Delivered pre-assembled and facing downwards.

GP 2751
MODULAR MIXING GROUP

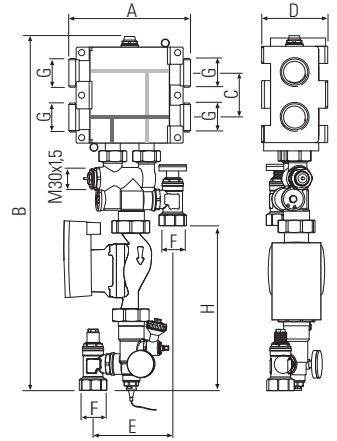


Individual distribution module with electronic circulation pump, Low temperature.

Available only on request.

Complete with:
- Thermostatic head with immersion probe code 90046760
or
- 3-point electric servomotor code 28157212
or
- 0-10 Vdc electric servomotor code 28157222

In case of installation of an electric servomotor, combine the RCE climatic regulation kit.



CODE	Size	A mm	B mm	C mm	D mm	E mm	F	G	H mm	Pack pcs/box
6312R002	1B	178	516	65	96	min 110 - max 120	G 1" F	G 1"¼M - G 1" F	240	1

Can be facing upwards or downwards.
Delivered pre-assembled and facing downwards.

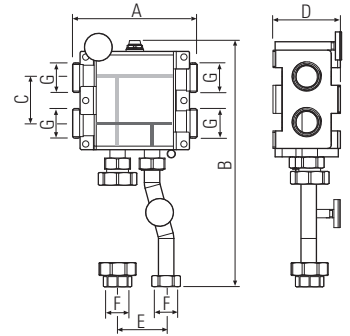
GP 2751
MODULAR MIXING GROUP



Individual distribution module preset for circulation pump, High temperature.

Available only on request.

Supplied with coupling to be installed downline of the circulator.
Connections for circulators: 1"½ F flat seal.
Can be facing upwards or downwards.



CODE	Size	A mm	B mm	C mm	D mm	E mm	F	G	Pack pcs/box
6199R100	1A	178	351	65	96	min 60 - max 70	G 1" F	G 1"¼M - G 1" F	1

GP 2751
MODULAR MIXING GROUP

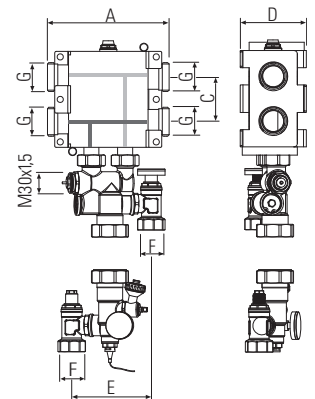


Individual distribution module preset for circulation pump, Low temperature.

Available only on request.

Complete with:
- Thermostatic head with immersion probe code 90046760
or
- 3-point electric servomotor code 28157212
or
- 0-10 Vdc electric servomotor code 28157222

In case of installation of an electric servomotor, combine the RCE climatic regulation kit.



CODE	Size	A mm	B mm	C mm	D mm	E mm	F	G	Pack pcs/box
6200R001	1B	178	-	65	96	min 110 - max 120	G 1" F	G 1"¼M - G 1" F	1

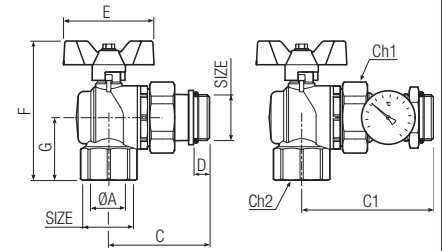
Supplied with coupling to be installed downline of the circulator.
Connections for circulators: 1"½ F flat seal.
Can be facing upwards or downwards.
Supplied pre-assembled facing downwards.

GP 2258
VALVES KIT



Kit consisting of 2 Evolution angle valves, with Blue/Red butterfly handles, with sealing tang and thermometer holder tang + thermometer.

Available only on request.



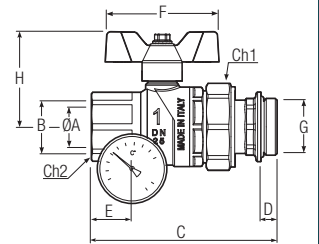
CODE	Size	DN	ØA mm	C mm	C1 mm	D mm	E mm	F mm	G mm	Ch.1 mm	Ch.2 mm	gr	Pack pcs/box
9902R006	1"x1"	25	25	73,5	95	11,5	65	99,5	45	47	38	2980	1

(*) Weight of kit (2 valves).

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution straight valves with Blue/Red butterfly handles, with pipe union with o-ring seal and 2 thermometers.
Valve with total bore and ISO 7/1 thread.

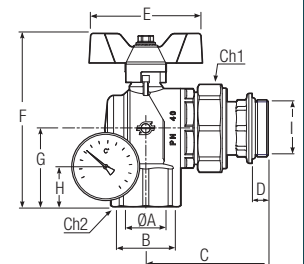


CODE	Size	DN	ØA mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Ch.1 mm	Ch.2 mm	gr	Pack pcs/box
6061R006	1"	25	25	1"	106,4	9,2	22	65	1"	54,5	47	38	1390	1

GP 2258
ACCESSORIES



Kit consisting of 2 nickel-plated Evolution angle valves with Blue/Red butterfly handles, with pipe union with O-Ring seal and 2 thermometers.
Valve with total bore and ISO 7/1 thread.



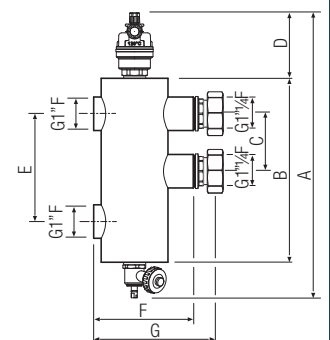
CODE	Size	DN	ØA mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Ch.1/2 mm	gr	Pack pcs/box
6063R006	1"	25	25	1"	70,3	9,2	65	99,3	45	22	1"	47/38	1534	1

GP 2751
OPEN MANIFOLD



Open manifold 2+2 ways, complete with 2 junction unions, air-vent valve and discharge cock.

Available only on request.



CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Pack pcs/box
6229R010	2"1/2	320	202	65	74	122	115	140	1

GP 2799
PIPE UNIONS

Couple of nipples for module coupling.

Available only on request.



CODE	Size	Pack pcs/box
6201R006	1" M x 1"1/4 F	2

GP 2799
BLIND

Blind plug M, nickel-plated, with O-Ring EP 851.



CODE	Size	Pack pcs/box
9683R006	1" M	20

GP 2799
INSULATING SHELL

Insulating shell for 1 High zone distribution modules.



CODE	Size	Pack pcs/box
01306566	1A	1

GP 2799
INSULATING SHELL

Insulating shell for 1 Low zone distribution modules.



CODE	Size	Pack pcs/box
01306568	1B	1

GP 2799
INSULATING SHELL

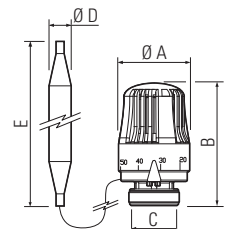
Insulating shell for open manifold.



CODE	Size	Pack pcs/box
01306564	-	1

GP 2700
THERMOSTATIC HEAD

Thermostatic head with immersion probe for fixed-point adjustment.
Adjustment range: 20-65 °C / threaded connection size: M30x1.5.



CODE	ØA mm	B mm	C	ØD mm	E mm	Pack pcs/box
90046760	48	87	M30x1,5	11	111	1

GP 2630
ELECTRIC SERVOMOTOR



Floating electric 3-point servomotor.

TECHNICAL DATA

Type of operation: 3-position control / Nominal voltage: 230 Vac ($\pm 15\%$)
 Nominal frequency: 50/60 Hz / Maximum consumption: 6 VA / Permissible room temperature: 0-55 °C
 Maximum permissible fluid temperature: 110 °C / Nominal stroke: 2.5 mm / (maximum 5.5 mm)
 Stroke time: 150 s (at 50/60 Hz, regarding a stroke of 2.5 mm)
 Nominal force: 100 N / Degree of protection: IP40 according to EN 60529
 Insulation class: II according to EN 60730 / Threaded fitting size: M30x1.5

Available only on request.

CODE

**Pack
pcs/box**

28157212

1

GP 2630
ELECTRIC SERVOMOTOR



Floating electric 0-10 V DC servomotor.

TECHNICAL DATA

Type of operation: 0-10 V DC control / Nominal voltage: AC/DC 24 V ($\pm 20\%$ / $\pm 25\%$)
 Nominal frequency: 50/60 Hz / Maximum consumption: 2 VA / Permissible room temperature: 1-50 °C
 Maximum permissible fluid temperature: 110 °C / Nominal stroke: 2.5 mm / Maximum stroke: 5.5 mm
 Stroke time: 150 s (at 50/60 Hz, regarding a stroke of 2.5 mm)
 Nominal force: 100 N / Degree of protection: IP40 according to EN 60529
 Insulation class: III according to EN 60730 / Threaded fitting size: M30x1.5

Available only on request.

CODE

**Pack
pcs/box**

28157222

1

GP 2630
6T BASIC CONTROL UNIT

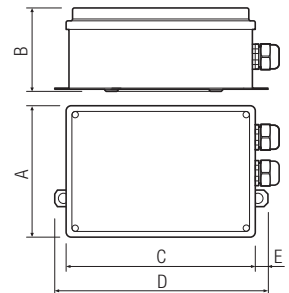


6T basic control unit - Electronic system for electrothermic heads.

TECHNICAL DATA

Optional 230 V or 24 V power supply - Direct powering of the electrothermic heads (at the same voltage supplied to the control unit) - Direct connection of the ambient thermostats (at the same voltage supplied to the control unit) - Connection of up to six electrothermic heads (configurable as high or low temperature) - Connection of up to six ambient thermostats - Connection for low-temperature circulator pump - Connection for boiler consent - Adjustable (30-60°C) safety thermostat - Contact for signalling safety thermostat intervention - Circulator pump anti-seizure function.

Application diagrams: consult the technical annexes section.



CODE

**A
mm**

**B
mm**

**C
mm**

**D
mm**

**E
mm**

**Pack
pcs/box**

9895X000

118

76

158

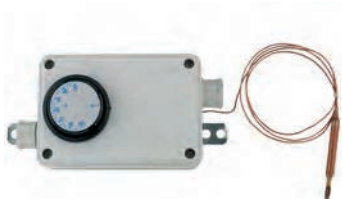
180

11

1

Electronic control system for electro-thermal heads.

GP 2630
ELECTRICAL BOX

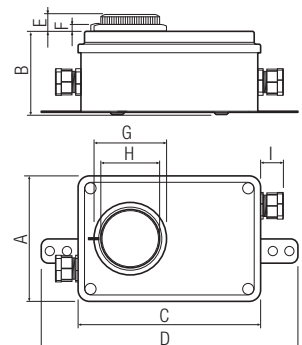


Electrical box with safety thermostat for wiring of low temperature circulation pump.

TECHNICAL DATA

Bulb length: 65 mm - Bulb diameter: 7 mm
 Range of adjustment: 30-60 °C ± 3
 Contacts capacity: 400 V 16(4) A - Differential: 4 °C

Application diagrams: see section on technical attachments.



CODE

**A
mm**

**B
mm**

**C
mm**

**D
mm**

**E
mm**

**F
mm**

**G
mm**

**H
mm**

**I
mm**

**Pack
pcs/box**

9892X000

88

58

128

180

17

7

51

43

22

1



Regulation and control **4**



pages 178 - 179

**Fiv Touch WI-FI
chrono
thermostats**



page 183

**Regolo Evo
manual
thermostat**



page 180

**Fiv Touch Evo
chrono
thermostat**



page 184

**Recessed
electronic
humidistat**



page 181

**Fiv Touch Evo
thermostat**



page 185

**Radiofrequency
thermoregulation**



page 182

**Fiv Touch
chrono
thermostat**



page 187

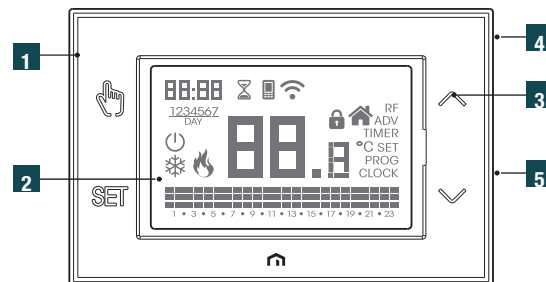
**RCE
climatic
regulator kit**



NEW

FIV TOUCH WI-FI

WEEKLY CHRONOTHERMOSTAT WITH WI-FI



Components

- 1 Plastic base for wall installation or to cover the 3-module recessed box
- 2 Large backlit display for viewing the measured temperature and the set programming
- 3 Backlit touch keys on the sides of the display
- 4 Terminal block on the back of the device for connecting the load and power supply
- 5 Integrated Wi-Fi module compatible with 802.11 b/g/n standard

EN GENERAL CHARACTERISTICS

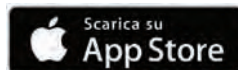
Fixing: to the wall or to cover on a standard 503 type box
 230Vac power supply (-15% ÷ +10%) 50/60Hz,
 maximum consumption: 6 VA / 230Vac - Relay capacity at 250 Vac: 5 A
 Operating mode: summer/winter/off
 Control type: ON/OFF or proportional
 Differential: 0.1 ÷ 1 °C
 Programming: weekly, minimum interval 1 hour
 Settable temperatures: 3 + manual + anti-freeze
 Settable setpoint: 2 ÷ 50 °C
 Measured temperature resolution: 0.1 °C
 Measurement accuracy: 0.5°C
 Antifreeze temperature (excludable): 1 ÷ 50 °C
 Start-up delay: 15, 30 or 45 minutes
 Clock accuracy: ± 1 s/day
 Keyboard lock with password to prevent unauthorised changes
 Automatic summer/winter time change and automatic date and time
 synchronisation when connected to the network
 Blue backlit touch screen
 Operating temperature: 0 ÷ 50 °C
 Storage temperature: -10 ÷ 65 °C
 Operating humidity: 20% ÷ 90% non-condensing RH
 Degree of protection: IP40
 Delegated Regulation (EU) No. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 4; class IV
 - Contribution of the temperature control device to the seasonal energy
 efficiency of environment heating in%: 2%

FIV TOUCH APP

The FIV TOUCH App allows you to remotely control the thermostat using your smartphone or tablet. In detail:

- turn on and off the air conditioning system;
- create and modify weekly programs;
- change the values of the operating temperatures;
- simplify programming thanks to the copy-paste of a program over several days;
- set some holiday days in which the system remains off;
- configure e-mail address to receive notifications when the measured temperature has exceeded a minimum or maximum value that can be set;
- block operation from the keyboard ("local operation block"), allowing the device to be controlled only from the App itself.

Free FIV TOUCH App available for iOS and Android systems



Compatible with Google Home and Amazon Echo



FIV TOUCH

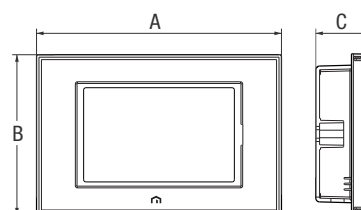


NEW

GP 2512
FIV TOUCH WI-FI



Electronic chronothermostat with Wi-Fi connection, weekly programming and wall installation, designed for adjusting the room temperature both in heating mode (winter) and in air conditioning mode (summer).
 The free app, available on the AppStore and Google Play, allows programming and complete control even from your smartphone or tablet.
 Any alarm situations are reported by sending an email to the specified address.
 The keyboard consists of four touch keys located on the sides of the display.

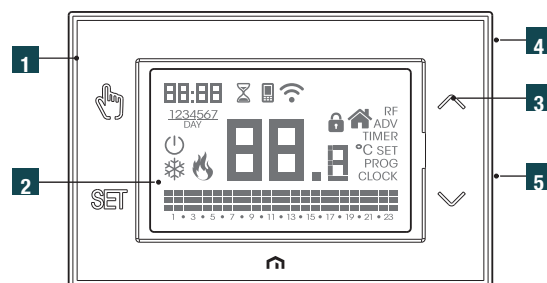


CODE	Model	A mm	B mm	C mm	Pack pcs/box
6104R007	FIV TOUCH Wi-Fi, 230 Vac power supply	130	85	28	1

NEW

FIV TOUCH WI-FI with battery

BATTERY-POWERED WI-FI WEEKLY CHRONOTHERMOSTAT



Components

- 1 Plastic base for wall installation or to cover the 3-module recessed box
- 2 Large backlit display for viewing the measured temperature and the set programming
- 3 Backlit touch keys on the sides of the display
- 4 Terminal block on the back of the device for connecting the load and power supply
- 5 Integrated Wi-Fi module compatible with 802.11 b/g/n standard

EN GENERAL CHARACTERISTICS

Fixing: to the wall or to cover on a standard 503 type box
 Power supply 4 1.5 V AA alkaline non-rechargeable batteries (not supplied).
 With standard setting (update every 8 hours) and nominal conditions of the Wi-Fi network, the estimated battery life is 36 months.
 Relay capacity at 250 Vac: 5 A
 Operating mode: summer / winter / off
 Type of regulation: ON / OFF or proportional
 Differential: 0.1 ÷ 1 °C
 Programming: weekly, minimum interval 1 hour
 Settable temperatures: 3 + manual + antifreeze
 Settable setpoint: 2 ÷ 50 °C - Resolution of measured temperature: 0.1 °C
 Measurement accuracy: 0.5 °C
 Antifreeze temperature (excludable): 1 ÷ 50 °C
 Ignition delay: 15, 30 or 45 minutes
 Clock accuracy: ± 1 s/day
 Keypad lock with password to prevent changes by unauthorized persons
 Automatic change of daylight saving time and automatic synchronization of date and time when connected to the network
 Blue backlit touch screen
 Operating temperature: 0 ÷ 50 °C
 Storage temperature: -10 ÷ 65 °C
 Operating humidity: 20% ÷ 90% RH non condensing
 Degree of protection: IP40
 Delegated Regulation (EU) No. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 4; class IV
 - Contribution of the temperature control device to the seasonal energy efficiency of environment heating in%: 2%

FIV TOUCH APP

The FIV TOUCH app allows you to remotely control the thermostat using your smartphone or tablet. In detail:

- turn on and off the air conditioning system;
- create and modify weekly programs;
- change the values of the operating temperatures;
- simplify programming thanks to the copy-paste of a program over several days;
- set some holiday days in which the system remains off;
- configure e-mail address to receive notifications when the measured temperature has exceeded a minimum or maximum value that can be set;
- block operation from the keyboard ("local operation block"), allowing the device to be controlled only from the App itself.

Interval between two connections to the cloud: 10 min - 8 h

Free FIV TOUCH App available for iOS and Android systems



Compatible with Google Home and Amazon Echo



FIV TOUCH

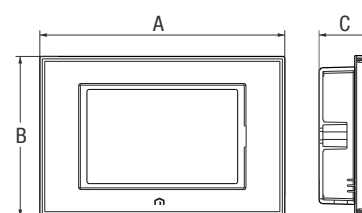
**NEW**

GP 2512

FIV TOUCH Wi-Fi with battery



Electronic chronothermostat with Wi-Fi connection, with battery power, weekly programming and wall installation, designed for adjusting the room temperature both in heating mode (winter) and in air conditioning mode (summer). The free app, available on the AppStore and Google Play, allows programming and complete control even from your smartphone or tablet. The energy saving function allows you to set the daily frequency with which the programmable thermostat connects to the cloud, thus optimizing battery life. Any alarm situations such as exceeding temperature limits or approaching battery discharge are reported by sending an email to the specified address or via notification in the app. The keyboard consists of four touch keys located on the sides of the display.



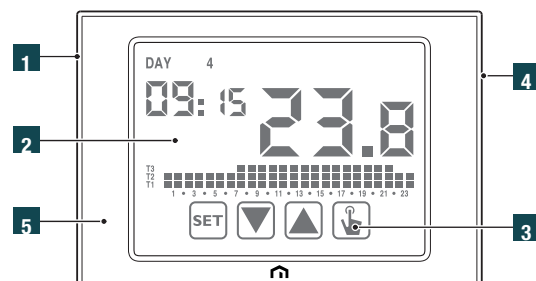
CODE	Model	A mm	B mm	C mm	Pack pcs/box
6104R008	FIV TOUCH Wi-Fi, battery-powered	130	85	28	1

FIV TOUCH EVO

WEEKLY CHRONOTHERMOSTAT WITH BACKLIT TOUCH SCREEN



TOUCH SCREEN



Components

- 1** Plastic base for wall installation or to cover the 3-module recessed box
- 2** Large backlit display for viewing the measured temperature and the set programming
- 3** Touch-screen keyboard in the lower part of the display
- 4** Terminal block on the back of the device for charging and power connection (230 Vac version) or external contact (battery version)
- 5** Frame

GENERAL CHARACTERISTICS

Installation: wall or cover on standard 503 type box
 Operating mode: summer/winter/off
 Control type: ON/OFF or proportional - Differential: $0,1 \div 1 \text{ }^\circ\text{C}$
 Programming: weekly, minimum interval 1 hour
 Settable temperatures: 3 + manual + anti-freeze
 Settable setpoint: $2 \div 50 \text{ }^\circ\text{C}$ - Measured temperature resolution: $0,1 \text{ }^\circ\text{C}$
 Measurement accuracy: $0,5 \text{ }^\circ\text{C}$ - Antifreeze temperature (excludable): $1 \div 50 \text{ }^\circ\text{C}$
 Start-up delay: 15, 30 or 45 minutes - Clock accuracy: $\pm 1 \text{ s/day}$
 Keyboard lock with password to prevent unauthorised changes
 Operating temperature: $0 \div 50 \text{ }^\circ\text{C}$
 Storage temperature: $-10 \div 65 \text{ }^\circ\text{C}$
 Operating humidity: 20% ÷ 90% non-condensing RH - Degree of protection: IP40
 Delegated regulation (EU) no. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 4; Class IV
 - Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

ELECTRICAL DATA OF VERSION WITH 230 Vac POWER SUPPLY

Power supply: 230 Vac ($-15\% \div +10\%$) 50/60Hz,
 maximum consumption: 6 VA / 230 Vac
 Touch screen with multi-colour backlighting (can be deactivated)
 Relay capacity at 250 Vac: 5 A

ELECTRICAL DATA OF BATTERY POWERED VERSION

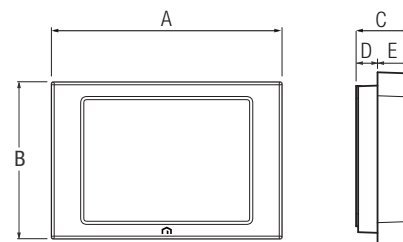
Battery powered: 2x1.5 V alkaline (type AAA) not supplied,
 12 months autonomy
 Touch screen with blue backlight active when keys are pressed
 Relay capacity at 250 Vac: 5 A
 Configurable digital input for connection of an external contact with which to reduce the set temperature by 3°C .

Wiring diagrams: see in the Technical Attachments section.

GP 2512
FIV TOUCH EVO



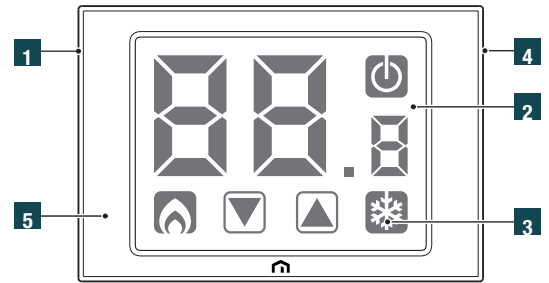
Electronic chronothermostat with backlit touch screen display, weekly programming and wall installation, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer).
 The keyboard consists of four icons located in the lower part of the touch screen display.
 Available in mains or battery powered versions.



CODE	Model	A mm	B mm	C mm	Pack pcs/box
6104R003	FIV TOUCH EVO Chronothermostat, 230 Vac power supply	125	85	26	1
6104R004	FIV TOUCH EVO Chronothermostat, battery-powered	125	85	26	1

FIV TOUCH EVO

ELECTRONIC THERMOSTAT WITH BACKLIT TOUCH SCREEN



Components

- 1 Plastic base for wall installation or to cover the 3-module recessed box
- 2 Large backlit display for viewing the measured temperature
- 3 Touch-screen keys in the lower part of the display
- 4 Terminal block on the back of the device for charging and power connection (230 Vac version) or external contact (battery version)
- 5 Frame

EN GENERAL CHARACTERISTICS

Installation: wall or cover on standard 503 type box
 Operating mode: summer/winter/off
 Control type: ON/OFF or proportional
 Differential: $0.1 \div 1$ °C - Settable setpoint: $2 \div 50$ °C
 Measured temperature resolution: 0.1 °C - Measurement accuracy: 0.5 °C
 Antifreeze temperature (excludable): $1 \div 50$ °C
 Keyboard lock with password to prevent unauthorised changes
 Operating temperature: $0 \div 50$ °C
 Storage temperature: $-10 \div 65$ °C
 Operating humidity: $20\% \div 90\%$ non-condensing RH
 Degree of protection: IP40
 Delegated regulation (EU) no. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 4; Class IV
 - Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

ELECTRICAL DATA OF VERSION WITH 230 Vac POWER SUPPLY

Power supply: 230 Vac ($-15\% \div +10\%$) 50/60Hz,
 maximum consumption: 6 VA / 230 Vac
 Touch screen with multi-colour backlighting (can be deactivated)
 Relay capacity at 250 Vac: 5 A

ELECTRICAL DATA OF BATTERY POWERED VERSION

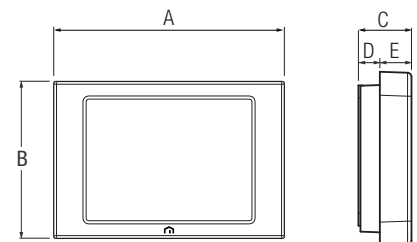
Battery powered: 2x1.5 V alkaline (type AAA) not supplied,
 12 months autonomy
 Touch screen with blue backlight active when keys are pressed
 Relay capacity at 250 Vac: 5 A
 Configurable digital input for connection of an external contact with which to reduce the set temperature by 3°C.

Wiring diagrams: see in the Technical Attachments section.

GP 2512
 FIV TOUCH EVO



Electronic thermostat with backlit touch screen with wall installation, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer). The keyboard consists of two icons located in the lower part of the touch screen display. Available in mains or battery powered versions.



CODE	Model	A mm	B mm	C mm	Pack pcs/box
6104R006	FIV TOUCH EVO Thermostat, 230 Vac power supply	125	85	26	1
6104R005	FIV TOUCH EVO Thermostat, battery-powered	125	85	26	1



EN GENERAL FEATURES

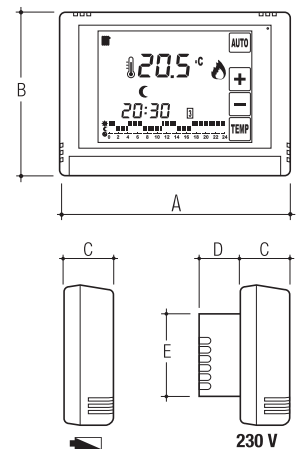
External dimensions: 120 x 90 x 28 mm
 Touch screen display 80 x 55 mm (3.8")
 Weekly programming for periods of at least 30 minutes.
 Temperatures can be adjusted on 3 levels:
 - Comfort (sun symbol)
 - Saving (moon symbol)
 - Off (prohibition symbol)
 with possibility of setting the frost protection.
 Temperature adjustment range, from 4 °C to 40 °C (from 40 °F to 99.5 °F),
 with 0.5 °C/°F pace.
 System on/off differential, 0.5 °C (adjustable)
 Summer/Winter function
 Operating temperature and storage, between 0 °C and 40 °C
 With reminder alarm
 Backlit Display
 Fixing with recessed part (mod. 230 V) or with covering (mod. batteries)
 on standard box 503

ELECTRICAL DATA - VERSION WITH BATTERY POWER SUPPLY
 Power supply with 2 alkaline batteries AAA - LR3 - 1.5 V
 Protection rating IP20
 System activation contact: relay with 1 free deviation contact
 6÷230 V - 5 (0.5) A max

ELECTRICAL DATA - VERSION WITH 230 Vac POWER SUPPLY
 Power supply from 110 to 230 Vac - 50/60 Hz
 Protection rating IP20
 System activation contact: relay with 1 free deviation contact
 6÷230 V - 5 (0.5) A max
 Contact for telephone actuator or centralised Summer-Winter commuter

GP 2516
FIV TOUCH

Backlit touch-screen chronothermostat, wall-mounted and battery-operated or semi-recessed with utility power, option of weekly programming and 3/8" touch-screen display.



CODE	Model	A mm	B mm	C mm	D mm	E mm	Pack pcs/box
6177R001	Wall-mounted chronothermostat, battery-powered	120	90	29	—	50	1
6177R002	Semi-recessed chronothermostat, 230 Vac power supply	120	90	29	27	50	1

REGOLO EVO

MECHANICAL THERMOSTAT



EN GENERAL CHARACTERISTICS

Gas expansion sensible element

Temperature limiting/blocking device

Protection class: IP 20

Contact's rating at 250 V: 16 (2,5) A or 10 (1,5) A
(dependent of the model)

Temperature range: from 5 to 30 °C

Temperature differential: $\Delta T \leq 1^\circ\text{C}$

Thermal gradient: 1 °C/15 min

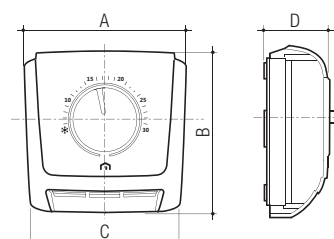
Delegated Regulation (EU) n. 811/2013; annex IV-3:

- Class of the temperature control device: Class 1: Class I

- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

GP 2792
REGOLO EVO

Mechanical ambient thermostat.



CODE	A mm	B mm	C mm	D mm	Type	Pack pcs/box
6323R001	83,7	82,9	76,5	30,9	3 contacts without signal light	1
6323R002	83,7	82,9	76,5	30,9	3 contacts with signal light	1
6323R003	83,7	82,9	76,5	30,9	3 contacts with signal light and on/off switch	1
6323R004	83,7	82,9	76,5	30,9	2 contacts with signal light and winter/summer switch	1

RECESSED ELECTRONIC HUMIDISTAT



EN GENERAL CHARACTERISTICS

Power supply:

- 230 Vac (-15% ÷ +10%) 50/60Hz
- absorption: 4VA (0.7 W)

Installation on 3 modules box (503 type)

Terminals:

- 3 terminals for 1.5 mm cables for bistable output relay 5A / 250 Vac
- 2 terminals for 1.5 mm cables for power supply

Output: bistable relay 5(3)A / 250 Vac

Minimum time between a switching and the next one: 1 minute

Regulation type: on/off with fixed differential of $\pm 2,5\%$ RH

Adjustment range: 30% - 90% RH

2-position selector switch: always off or automatic

Storage temperature: $-10\text{ }^{\circ}\text{C}$ ÷ $+60\text{ }^{\circ}\text{C}$

Operating humidity: 20÷90% non condensing

Protection degree: IP40 front

Provided with LEDs to indicate operation status and error

ADAPTABLE PLATES

The adapters inside the box allow assembly with following plates:

ABB: Chiara - Mylos

AVE: S44

BTICINO: Axolute - Light - Light Tech - Living - Livinglight - Livinglight Air - Matrix

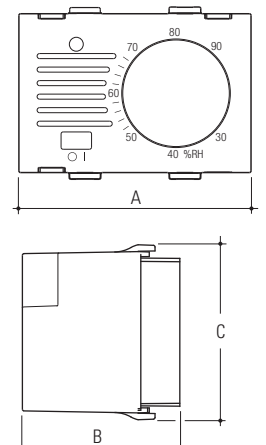
GEWISS: Chorus

VIMAR: Eikon - Eikon Evo - Idea - Plana - Arké

GP 2630
ELECTRONIC HUMIDISTAT



230 Vac recessed humidistat to adjust humidity in domestic environments.
Installation in boxes for three recessed modules.
Interchangeable front panel in two colours: anthracite grey and white
(included in the package).

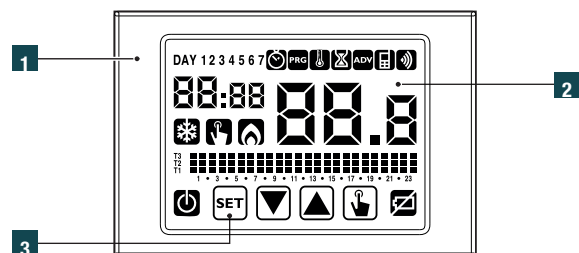


CODE	A mm	B mm	C mm	Pack pcs/box
28154581	69	51	50	1

NEW

RADIOFREQUENCY THERMOREGULATION

RADIO FREQUENCY TOUCH SCREEN WEEKLY CHRONOTHERMOSTAT



Components

- 1** Plastic base for wall installation or to cover the 503 box
- 2** Large backlit touch screen display for viewing the operating status, the time and day and the measured temperature
- 3** Touch screen keyboard for programming the device

EN GENERAL CHARACTERISTICS

Power supply: 2 x 1,5 V (type AAA)
 Power reserve (to change batteries): 1 minute
 Autonomy: 12 months (with low battery indication, estimated but not guaranteed)
 Summer/Winter mode
 Automatic programming with:
 - 7 programs for winter operation (changeable)
 - 7 programs for summer operation (changeable)
 Temperature adjustment ON/OFF or proportional
 5 settable temperatures:
 - T1, T2, T3 in automatic mode
 - Tm in manual mode
 - Toff in off mode (anti-freeze temperature, excludable)
 Minimum adjustment interval: 1 hour
 Communication delay settable between 15, 30 or 45 minutes (independent for each hour)
 Keylock with password
 Summer/winter time change automatic
 Open window detection function
 Display with blue backlight (active at the touch of a button)
 Delegated Regulation (EU) No. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 4; class IV
 - Contribution of the temperature control device to the seasonal energy efficiency of environment heating in%: 2%

TECHNICAL DATA

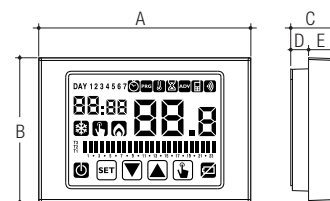
Battery powered: 2x1,5 V alkaline batteries (type AAA) (not supplied)
 Fixing: to the wall or to cover on a standard 503 type box
 Weekly programming
 Operating mode: summer/winter/off
 Type of regulation: ON / OFF or proportional or setpoint sending for autonomous management of the radiofrequency actuator
 Differential: 0,1 ÷ 1 °C
 Settable temperatures: 3 + manual + antifreeze
 Settable setpoint: 2 ÷ 35 °C
 Resolution of measured temperature: 0,1 °C
 Measurement precision: 0,5 °C
 Antifreeze temperature (excludable): 1 ÷ 10 °C
 Programming resolution: 1 hour
 Ignition delay: 15, 30 or 45 minutes
 Clock accuracy: ± 1 s/day
 Maximum distance between radiofrequency chronothermostat and actuator: 50 meters in free field
 Operating temperature: 0 ÷ 50 °C
 Storage temperature: -10 ÷ 65 °C
 Operating humidity: 20% to 90% RH non-condensing
 Degree of protection: IP40

NEW

GP 2512 RADIOFREQUENCY THERMOREGULATION



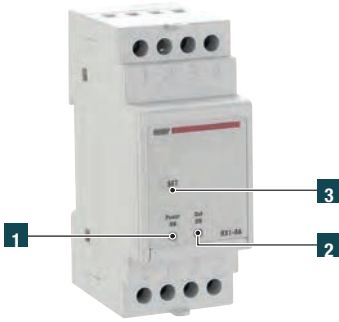
Radio frequency touch screen weekly chronothermostat to be combined with radio frequency actuators.



CODE	A mm	B mm	C mm	D mm	E mm	Pack pcs/box
02018144	125	85	26	10,5	15,5	1

NEW

GP 2512
RADIOFREQUENCY
THERMOREGULATION



1-channel DIN rail radio frequency actuator with fixed delay.

Radio frequency actuator that receives the actuation command directly from the electronic radio frequency chronothermostat, operating as a normal remote actuator, installed on a DIN rail for boiler management, for example. Actuation occurs 5 minutes after the actuator has received the command from the chronothermostat.

- 1 Green LED indicating the operating status
- 2 Red LED indicating the relay status
- 3 SET button for programming and resetting the channel

TECHNICAL DATA

Power supply: 230 V AC (-15%/+10%) 50/60 Hz

Outputs:

- 1 relay with 8A 250 V AC changeover contact with resistive load
- Activation with a fixed delay of 5 minutes after receiving the command from the radio frequency chronothermostat, and instantaneous deactivation
- Connection to an external antenna (optional)

Maximum distance between radiofrequency chronothermostat and actuator:
50 meters in free field.

Operating temperature: 0 ÷ 50 °C

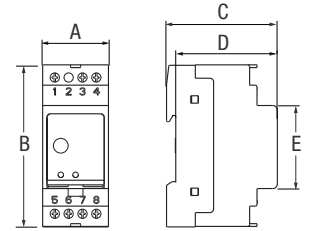
Storage temperature: -10 ÷ 65 °C

Installation on DIN rail - Measurement: 2 DIN modules

Protection degree: IP40

Compliant with EU Directives:

- Low voltage (LVD)
- Electromagnetic compatibility (EMC)



Available only on request.

CODE	Size	A mm	B mm	C mm	D mm	E mm	Pack pcs/box
02018124	2 DIN modules	35,6	87,8	60	55	45	1

Example of radio frequency chronothermostat configuration + 1-channel DIN rail radio frequency actuator with fixed delay



(*) RF actuator from DIN bar for boiler consent with 5 minutes delay.

Use: autonomous single-zone type system

RCE CLIMATIC REGULATOR

CLIMATIC REGULATOR KIT FOR MIXING UNITS



Components	Pcs
1 RCE climatic regulator	1
2 NTC temperature probes (*)	2
3 Probe-holder kit	1
4 Wall plug for display	1
5 Male/Female connector kit for display extension cable (connectors for 4-pin MSTB printed circuit boards)	1

(*) Use one of the two probes as flow temperature probe;
the other probe is to be used as a return probe (when used in 'modulating' operation mode) or as outdoor probe
(when operating in 'climatic' operation mode) in conjunction with the case provided separately.

CLIMATIC REGULATOR RCE

The RCE climatic regulator is an intelligent and automatic control system of all heating and air conditioning functions of small and medium-sized, both floor-assembled and/or radiant ceiling, and high temperature installations (radiators, fan coils), such as houses, apartments, offices, shops, etc., managing all the functions necessary for the climate control of the mixing system.

The regulator is also able to handle centralised systems in two different modes:

- with a single mixing valve in a thermal power plant;
- with a regulator and a mixing valve (mixing unit) in every apartment.

MAIN FUNCTIONS

- Only heating / Only cooling /Both
- High temperature (radiators)/ Low temperature (radiant panels)
- Flow temperature: Fixed point / Modulating / Temperature control
- Security function condensation in cooling mode
- Safety thermostat function
- System on/off via thermostats or home automation systems
- On/Off by remote command
- Season change from remote control

EN GENERAL FEATURES

- Power supply: 110-230 Vac \pm 10%, 50/60 Hz
- Double insulation
- Contacts capacity: 5A / 230 Vac
- Protection degree: IP20
- It can be fastened on DIN (EN 60715) rail according to DIN 43880 standard
- Regulator material: Self-extinguishing PPO
- Regulator colour: grey RAL 7035
- Size: 6 DIN modules (95 x 105 x 82 mm)
- Display material: PC/ABS
- Display colour: white
- Supplementing regulation (EU) n. 811/2013; annex IV-3 (only for EU countries):
- Class of the temperature control device: Class 3; Class III
- Contribution of the temperature control device to seasonal energy efficiency of environment heating in %: 1.5%

INPUTS AND OUTPUTS CLIMATE REGULATOR

- 2 analogic inputs for NTC temperature probes (flow temperature, return/ external temperature)
- 4 digital inputs free of voltage (heating/cooling/dehumidification consensus change of season, remote on/off, alarms)
- 1 digital output for the circulator
- 1 digital output for the generator consensus
- 1 output to a floating servomotor 3 points (the RCE regulator can manage only one servomotor)
- 1 analogic output to a modulating servomotor 0-10 V (the RCE regulator can manage only one servomotor)

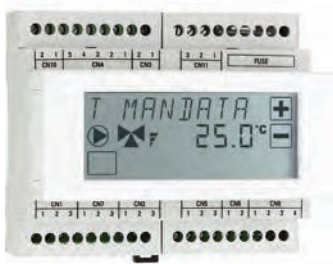
TECHNICAL DATA OF TEMPERATURE PROBES

- Type: NTC, 10K Ω at 25 °C; IP68
- Cable length: 3 m / probe length 50 mm / probe diameter 6 mm

TECHNICAL DATA OF THE WALL PLUG FOR DISPLAY

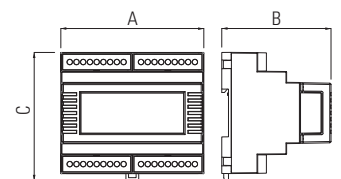
Fixing on 503 standard box

GP 2518
CLIMATIC REGULATOR



RCE Climatic regulator kit.

Available only on request.



CODE	A mm	B mm	C mm	Pack pcs/box
9951R503	105	82	95	1

GP 2730
HOUSING



Housing equipped with cable gland for external probe in white colour, self-extinguishing ABS.
Dimensions: 80x80x25 mm

Available only on request.

CODE	Pack pcs/box
9954R001	1

GP 2630
DEW SENSOR



Dew sensor.
To be used in the event that the climatic regulator RCE for mixing units operates also in cooling mode.
Order one dew sensor for each system delivery manifold.

TECHNICAL DATA
Power supply: 15 Vdc \pm 10%
RH% of intervention: 90-95%
Probe length: 1,5 m
Dimensions (LxHxP) 50x10x15 mm.

Available only on request.

CODE	Pack pcs/box
28139078	1

GP 2630
CONVERTER



Converter for dew sensor.
To be used for central system operating also in cooling mode with one single mixing valve.
Order one converter for each zone valve installed per apartment for the heat transfer fluid to flow in the apartment.

TECHNICAL DATA
Power supply: 24 Vac \pm 10%; 50/60 Hz - Max. consumption 4.5 W
Contact capacity: 5 A / 230 Vac - Protection rating: IP20
Connected to DIN (EN 60715) guide in according to standards DIN 43880
Converter material: Self-extinguishing PPO - Converter colour: RAL 7035 grey
Dimensions: 2 DIN modules (95 x 35 x 58 mm).

Available only on request.

CODE	Pack pcs/box
28139074	1

GP 2630
TRANSFORMER



Transformer 230/24 Vac 10 VA
To be used to power maximum two converters per dew sensor or to power 0-10V / 24 Vac servomotors
(the number of servomotors that can be powered depends on the load required).

TECHNICAL DATA:
230/24 V / P = 10 VA / F = 50/60 Hz
Dimensions: Depth 64,8 mm / Width 35 mm

Available only on request.

CODE	Pack pcs/box
9953R900	1



Connection and control

OF HEATING UNITS

5



page 194

Oasi
manual radiator
valve



page 204

Ghibli
thermostatic
radiator valve



page 196

Oasi
thermostatic
radiator valve



page 206

Lockshields
for oasi and
ghibli valves



page 198

Oasi
thermostatic
radiator valve



page 209

Climatic and
Climatic Eco
thermostatic
heads



page 200

Ghibli
manual radiator
valve



pages 211 - 212

Kit Climatic
and **Kit Ghibli**



page 202

Ghibli
thermostatic
radiator valve



page 213

Stand alone
chronothermostatic
actuator

Valves and products for heating system

CLIMATIC
thermostatic head



FIV TOUCH
chronothermostat



GHIBLI valves



GHIBLI lockshields

Comfort and efficiency with the FIV heating system

To complete the heating system, FIV offers a wide range of valves and lockshields for radiators, which can be used for the connection and interception of radiators, thermal convectors and fan coil units which can be installed on any kind of pipe: copper, galvanized steel, plastic or multi-layer tubes, using the relative seal systems.

OASI AND GHIBLI VALVES AND LOCKSHIELDS

Oasi and Ghibli valves are available in the following versions: manually, thermostatable, thermostatic with or without radiator seal O-ring.

OASI AND GHIBLI THERMOSTATABLE AND THERMOSTATIC

Oasi and Ghibli thermostatable or thermostatic valves are standard equipped with a thermostatic shutter. Therefore, it is suitable for installation on a thermostatic head so as to make the heating component fully autonomous, with independent and automatic ambient temperature adjustment. This makes for rational comfort control and energy savings.

Production quality guarantee

The highly automated production system of the valves and lockshields allows for a high quality standard to be achieved, ensuring the constancy of the construction and fluid-dynamic characteristics of an entire production batch.

The leak test is conducted during the automatic assembly phase on each component, using a special electro-pneumatic station. Additional tests are carried out at the hydraulic workbench to check the performance in critical operating conditions.

Simple and intuitive use aimed at saving

To control the temperature in each room, FIV provides precision thermostats and chronothermostats for domestic use, sensitive to the climatic variations of the environment where they are located.

The sensitivity of the thermostat is essential: it must react well and promptly to temperature changes, such as, for example, those produced by human heat (many people in one room), by the fire of a fireplace, the kitchen oven or the gas stove.

Or by the heat of the sun. It must be able to maintain the set temperature permanently and precisely, without causing sudden changes.

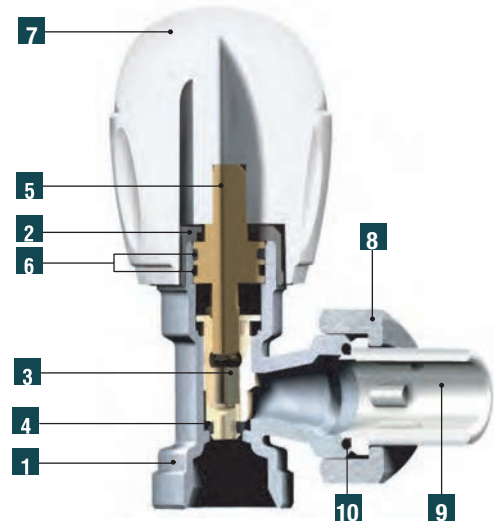
THERMOSTATS AND CHRONOTHERMOSTATS

The operation of the thermostat consists in turning the boiler on and off only in function of the temperature, thus keeping the house at a certain temperature.

The mechanical thermostat Regolo EVO is a device used on a large scale and in different contexts, which is used to measure and adjust the temperature with the aim of keeping the temperature constant in the room where it is installed.

The function of the chronothermostat also takes into account the time period set, that is to keep the house at that temperature for a certain time.

The chronothermostat FIV Touch EVO, with weekly programming, is simple and intuitive, and represents the ideal solution to avoid heat and energy waste and therefore money.



Components		Pcs	Material
1	Body	1	UNI EN 12165 CW617N
2	Ring nut	1	UNI EN 12164 CW614N
3	Shutter	1	UNI EN 12164 CW614N
4	O-Ring for shutter seal	1	NBR
5	Stem	1	UNI EN 12164 CW614N
6	O-Ring for stem seal	1	EPDM
7	Knob	1	ABS white RAL 9003
8	Nut	1	UNI EN 12165 CW617N
9	Tang	1	UNI EN 12164 CW614N
10	O-Ring for tang seal	1	NBR

EN GENERAL CHARACTERISTICS

Nut and tang thread: UNI EN ISO 228-1
 Male valve body thread: gas 24x19
 (24 mm diameter and 19 threads per inch)
 Female valve body thread: UNI EN ISO 228-1

OPERATING CONDITIONS

Max working pressure: 10 bar.
 Max differential pressure: 1 bar.
 Max working temperature: +100 °C.
 Pressure drops: See diagram on Technical Attachments.

For single-piece seals, threaded 24x19 and 1/2", see chapter 1 "FIVPress System".

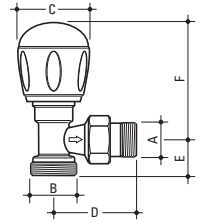
For accessories, see section "Accessories for Oasi and Ghibli valves".

GP 2710
OASI



Manual right-angle valve for copper pipe, multi-layer, PEX, PP, PB.

Lockshields in section "Oasi and Ghibli Lockshields".



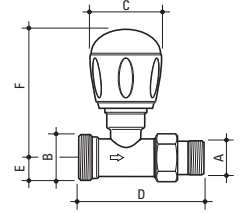
CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9600R003		3/8"	24x19	37,5	46	19	61,5	10	25
9600R004		1/2"	24x19	37,5	46	19	61,5	10	25
9575R003	with O-R	3/8"	24x19	37,5	51	19	61,5	10	25
9575R004	with O-R	1/2"	24x19	37,5	51	19	61,5	10	25

GP 2710
OASI



Manual straight valve for copper pipe, multi-layer, PEX, PP, PB.

Lockshields in section "Oasi and Ghibli Lockshields".



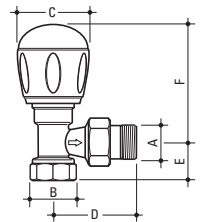
CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9602R003		3/8"	24x19	37,5	65	14	67,5	10	25
9602R004		1/2"	24x19	37,5	70	15	67,5	10	25
9577R003	with O-R	3/8"	24x19	37,5	70	14	67,5	10	25
9577R004	with O-R	1/2"	24x19	37,5	70	15	67,5	10	25

GP 2710
OASI



Manual right-angle valve for steel pipe.

Lockshields in section "Oasi and Ghibli Lockshields".



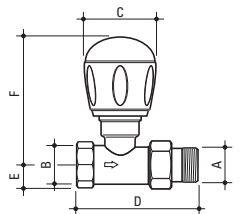
CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9604R003		3/8"	3/8"	37,5	46	23	61,5	10	25
9604R004		1/2"	1/2"	37,5	46	23	61,5	10	25
9579R003	with O-R	3/8"	3/8"	37,5	51	23	61,5	10	25
9579R004	with O-R	1/2"	1/2"	37,5	51	23	61,5	10	25

GP 2710
OASI

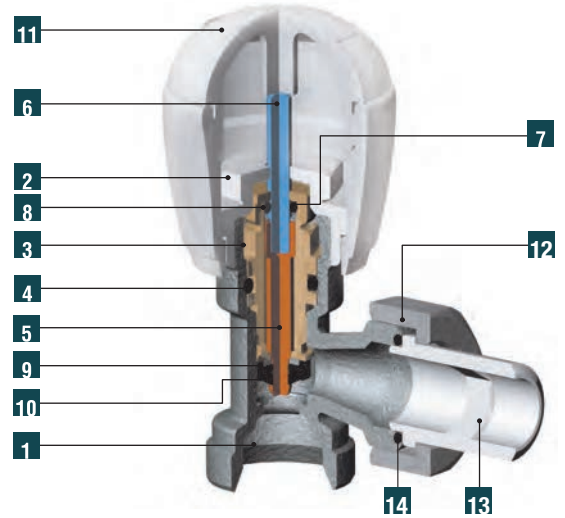


Manual straight valve for steel pipe.

Lockshields in section "Oasi and Ghibli Lockshields".



CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9606R004		1/2"	1/2"	37,5	70	15	67,5	10	25
9581R004	with O-R	1/2"	1/2"	37,5	70	15	67,5	10	25



Components

	Components	Pcs	Material
1	Body	1	UNI EN 12165 CW617N
2	Ring nut	1	UNI EN 12164 CW614N
3	Shutter body	1	UNI EN 12164 CW614N
4	O-ring for shutter seal	1	NBR
5	Shutter stem	1	UNI EN 12164 CW614N
6	Push rod	1	Steel AISI 304
7	Shutter ring	1	UNI EN 12164 CW614N
8	O-ring for rod seal	1	EPDM
9	Locking washer	1	UNI EN 12164 CW614N
10	Shutter gasket	1	NBR
11	Knob in 2 pcs	1	ABS white RAL 9003
12	Nut	1	UNI EN 12165 CW617N
13	Tang	1	UNI EN 12164 CW614N
14	O-ring for tang seal	1	NBR

EN GENERAL CHARACTERISTICS

Nut and tang thread: UNI EN ISO 228-1
 Male valve body thread: gas 24x19
 (24 mm diameter and 19 threads per inch)
 Female valve body thread: UNI EN ISO 228-1

OPERATING CONDITIONS

Max working pressure: 10 bar.
 Max differential pressure: 1 bar.
 Max working temperature: +100 °C.
 Pressure drops: See diagram on Technical Attachments.

To transform the thermostatic Oasi valves into thermostatic ones (3/8" and 1/2" models only, not applicable to 3/4" models), see in the Technical Attachments.

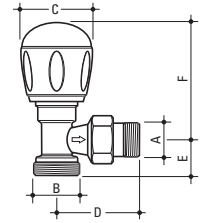
For single-piece seals, threaded 24x19 and 1/2", see chapter 1 "FIVPress System".

For accessories, see section "Accessories for Oasi and Ghibli valves".

GP 2710
OASI



Thermostatic right-angle valve for copper pipe, multi-layer, PEX, PP, PB.



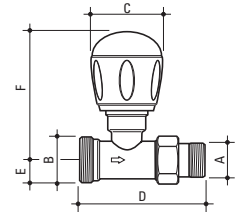
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9616R003		3/8"	24x19	37,5	46	19	61	10	25
9616R004		1/2"	24x19	37,5	46	19	61	10	25
9587R003	with O-R	3/8"	24x19	37,5	51	19	61	10	25
9587R004	with O-R	1/2"	24x19	37,5	51	19	61	10	25

GP 2710
OASI



Thermostatic straight valve for copper pipe, multi-layer, PEX, PP, PB.



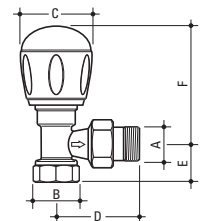
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9617R003		3/8"	24x19	37,5	65	14	65	10	25
9617R004		1/2"	24x19	37,5	70	15	65	10	25
9588R003	with O-R	3/8"	24x19	37,5	70	14	65	10	25
9588R004	with O-R	1/2"	24x19	37,5	70	15	65	10	25

GP 2710
OASI



Thermostatic right-angle valve for steel pipe.



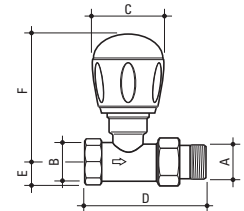
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9618R003		3/8"	3/8"	37,5	46	23	60	10	25
9618R004		1/2"	1/2"	37,5	46	23	60	10	25
9589R003	with O-R	3/8"	3/8"	37,5	51	23	60	10	25
9589R004	with O-R	1/2"	1/2"	37,5	51	23	60	10	25

GP 2710
OASI

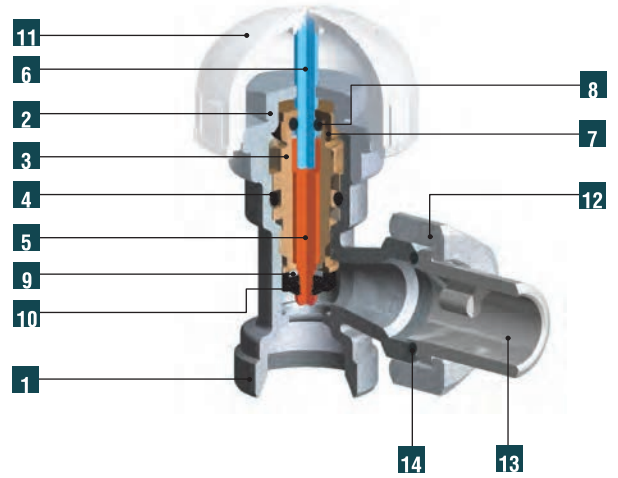


Thermostatic straight valve for steel pipe.



Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9619R004		1/2"	1/2"	37,5	70	15	65	10	25
9590R004	with O-R	1/2"	1/2"	37,5	70	15	65	10	25



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N
2 Ring nut	1	UNI EN 12164 CW614N
3 Shutter body	1	UNI EN 12164 CW614N
4 O-ring for shutter seal	1	NBR
5 Shutter stem	1	UNI EN 12164 CW614N
6 Push rod	1	Steel AISI 304
7 Shutter ring	1	UNI EN 12164 CW614N
8 O-ring for rod seal	1	EPDM
9 Locking washer	1	UNI EN 12164 CW614N
10 Shutter gasket	1	NBR
11 Cap	1	ABS white RAL 9003
12 Nut	1	UNI EN 12165 CW617N
13 Tang	1	UNI EN 12164 CW614N
14 O-ring for tang seal	1	NBR

EN GENERAL CHARACTERISTICS

Nut and tang thread: UNI EN ISO 228-1
 Male valve body thread: gas 24x19
 (24 mm diameter and 19 threads per inch)
 Female valve body thread: UNI EN ISO 228-1

OPERATING CONDITIONS

Max working pressure: 10 bar.
 Max differential pressure: 1 bar.
 Max working temperature: +100 °C.
 Pressure drops: See diagram on Technical Attachments.

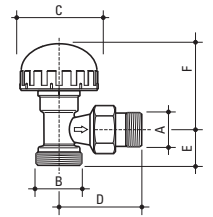
For single-piece seals, threaded 24x19 and 1/2", see chapter 1 "FIVPress System".

For accessories, see section "Accessories for Oasi and Ghibli valves".

GP 2710
OASI



Thermostatic right-angle valve for copper pipe, multi-layer, PEX, PP, PB.



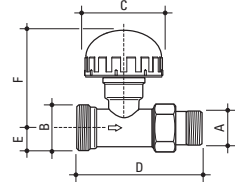
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9612R003		3/8"	24x19	37,5	46	19	46	10	25
9612R004		1/2"	24x19	37,5	46	19	46	10	25
9591R003	with O-R	3/8"	24x19	37,5	51	19	46	10	25
9591R004	with O-R	1/2"	24x19	37,5	51	19	46	10	25

GP 2710
OASI



Thermostatic straight valve for copper pipe, multi-layer, PEX, PP, PB.



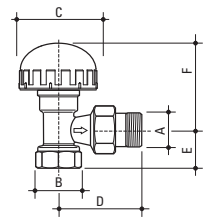
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9614R003		3/8"	24x19	37,5	65	14	53	10	25
9614R004		1/2"	24x19	37,5	70	15	53	10	25
9593R003	with O-R	3/8"	24x19	37,5	70	14	53	10	25
9593R004	with O-R	1/2"	24x19	37,5	70	15	53	10	25

GP 2710
OASI



Thermostatic right-angle valve for steel pipe.



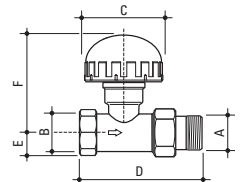
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9613R003		3/8"	3/8"	37,5	46	23	47	10	25
9613R004		1/2"	1/2"	37,5	46	23	47	10	25
9592R003	with O-R	3/8"	3/8"	37,5	51	23	47	10	25
9592R004	with O-R	1/2"	1/2"	37,5	51	23	47	10	25

GP 2710
OASI

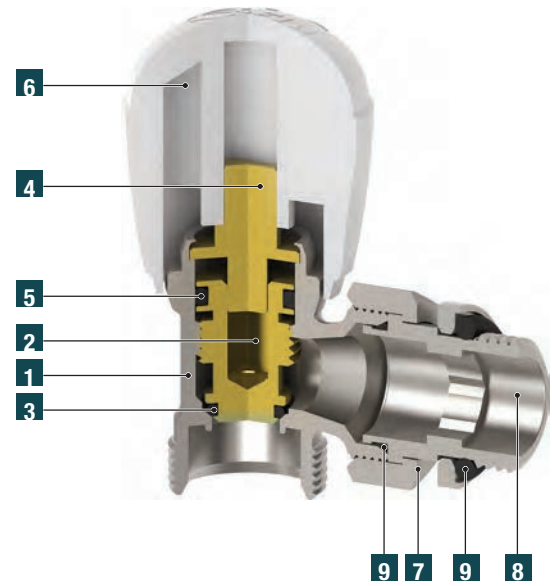


Thermostatic straight valve for steel pipe.



Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
9615R004		1/2"	1/2"	37,5	70	15	53	10	25
9594R004	with O-R	1/2"	1/2"	37,5	70	15	53	10	25



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N
2 Shutter	1	UNI EN 12164 CW614N
3 O-ring for shutter seal	1	EPDM
4 Stem	1	UNI EN 12164 CW614N
5 Upper O-ring for shutter seal	1	EPDM
6 Knob	1	ABS white RAL 9003
7 Nut	1	UNI EN 12165 CW617N
8 Tang	1	UNI EN 12164 CW614N
9 O-ring for tang seal	1	NBR

EN GENERAL CHARACTERISTICS

Nut and tang thread: UNI EN ISO 228-1
 Male valve body thread: gas 24x19
 (24 mm diameter and 19 threads per inch)
 Female valve body thread: UNI EN ISO 228-1
 Large capacity
 Fitting also available with O-ring (NBR)

OPERATING CONDITIONS

Max working pressure: 10 bar.
 Max differential pressure: 1 bar.
 Max working temperature: +100 °C.
 Pressure drops: See diagram on Technical Attachments.

For single-piece seals, threaded 24x19 and 1/2", see chapter 1 "FIVPress System".

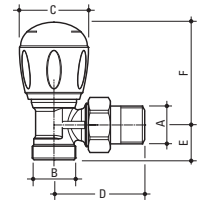
For accessories, see section "Accessories for Oasi and Ghibli valves".

GP 2712
GHIBLI



Manual right-angle valve for copper pipe, multi-layer, PEX, PP, PB.

Lockshields in section "Oasi and Ghibli Lockshields".



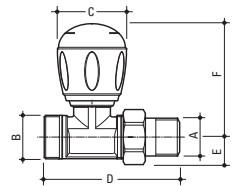
CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
24x19 CONNECTION									
6251R004		3/8"	24x19	37,5	46	19	55	10	25
6124R004		1/2"	24x19	37,5	44	19	55	10	25
6251R104	with O-R	3/8"	24x19	37,5	52	19	55	10	25
6124R104	with O-R	1/2"	24x19	37,5	48	19	55	10	25
1/2" CONNECTION									
6163R004		3/8"	1/2"	37,5	44	19	55	10	25
6167R004		1/2"	1/2"	37,5	44	19	55	10	25
6163R104	with O-R	3/8"	1/2"	37,5	44	19	55	10	25
6167R104	with O-R	1/2"	1/2"	37,5	48	19	55	10	25
3/4" CONNECTION									
6263R104	with O-R	3/4"	3/4"	37,5	60	22	54,5	10	20

GP 2712
GHIBLI



Manual straight valve for copper pipe, multi-layer, PEX, PP, PB.

Lockshields in section "Oasi and Ghibli Lockshields".



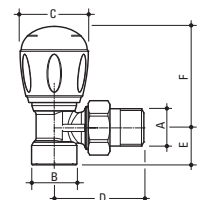
CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
24x19 CONNECTION									
6257R004		3/8"	24x19	37,5	65	14	62	10	25
6204R004		1/2"	24x19	37,5	70	15	62	10	25
6257R104		3/8"	24x19	37,5	70	14	62	10	25
6204R104	with O-R	1/2"	24x19	37,5	75	15	62	10	25
1/2" CONNECTION									
6208R004		1/2"	1/2"	37,5	69	15	62	10	25
6208R104	with O-R	1/2"	1/2"	37,5	74	15	62	10	25

GP 2712
GHIBLI



Manual right-angle valve for steel pipe.

Lockshields in section "Oasi and Ghibli Lockshields".



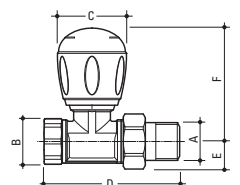
CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
6253R004		3/8"	3/8"	37,5	46	23	54	10	25
6126R004		1/2"	1/2"	37,5	44	20,5	54,5	10	25
6253R104	with O-R	3/8"	3/8"	37,5	52	23	54	10	25
6126R104	with O-R	1/2"	1/2"	37,5	49	20,5	54,5	10	25
6265R104	with O-R	3/4"	3/4"	37,5	60	25,5	54,5	10	20

GP 2712
GHIBLI

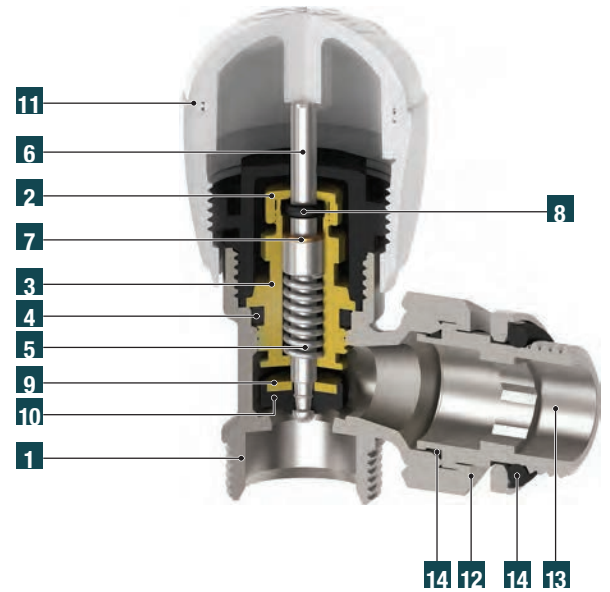


Manual straight valve for steel pipe.

Lockshields in section "Oasi and Ghibli Lockshields".



CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
6206R004		1/2"	1/2"	37,5	70	15	62	10	25
6206R104	with O-R	1/2"	1/2"	37,5	75	15	62	10	25



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N
2 Ring nut	1	PA6 (30% FV)
3 Shutter	1	UNI EN 12164 CW614N
4 O-ring for shutter seal	1	EPDM
5 Spring	1	AISI 302 steel
6 Stem	1	AISI 304 steel
7 Shutter ring	1	UNI EN 12164 CW614N
8 O-Ring for stem seal	1	EPDM
9 Washer for gasket	1	UNI EN 12164 CW614N
10 Shutter gasket	1	NBR
11 Knob	1	ABS white RAL 9003
12 Nut	1	UNI EN 12165 CW617N
13 Tang	1	UNI EN 12164 CW614N
14 O-ring for tang seal	1	NBR

EN GENERAL CHARACTERISTICS
 Nut and tang thread: UNI EN ISO 228-1
 Male valve body thread: gas 24x19
 (24 mm diameter and 19 threads per inch)
 Female valve body thread: UNI EN ISO 228-1
 Large capacity
 Fitting also available with O-ring (NBR)

OPERATING CONDITIONS
 Max working pressure: 10 bar.
 Max differential pressure: 1 bar.
 Max working temperature: +100 °C.
 Pressure drops: See diagram on Technical Attachments.

To transform the thermostatic Ghibli valves into thermostatic ones (3/8" and 1/2" models only, not applicable to 3/4" models), see in the Technical Attachments.

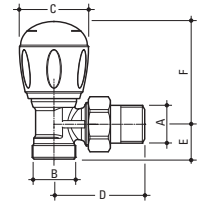
For single-piece seals, threaded 24x19 and 1/2", see chapter 1 "FIVPress System".

For accessories, see section "Accessories for Oasi and Ghibli valves".

GP 2714
GHIBLI



Thermostatic right-angle valve for copper pipe, multi-layer, PEX, PP, PB.



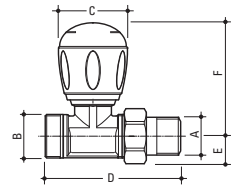
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
24x19 CONNECTION									
6255R004		3/8"	24x19	37,5	46	19	59	10	25
6157R004		1/2"	24x19	37,5	44	19	59	10	25
6255R104	with O-R	3/8"	24x19	37,5	52	19	59	10	25
6157R104	with O-R	1/2"	24x19	37,5	48	19	59	10	25
1/2" CONNECTION									
6164R004		3/8"	1/2"	37,5	44	19	59	10	25
6168R004		1/2"	1/2"	37,5	44	19	59	10	25
6164R104	with O-R	3/8"	1/2"	37,5	44	19	59	10	25
6168R104	with O-R	1/2"	1/2"	37,5	48	19	59	10	25
3/4" CONNECTION									
6267R104	with O-R	3/4"	3/4"	37,5	60	22	59	10	20

GP 2714
GHIBLI



Thermostatic straight valve for copper pipe, multi-layer, PEX, PP, PB.



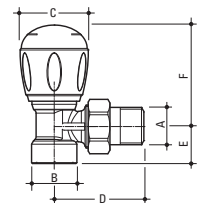
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
24x19 CONNECTION									
6262R004		3/8"	24x19	37,5	65	14	67	10	25
6210R004		1/2"	24x19	37,5	70	15	67	10	25
6262R104	with O-R	3/8"	24x19	37,5	70	14	67	10	25
6210R104	with O-R	1/2"	24x19	37,5	75	15	67	10	25
1/2" CONNECTION									
6212R004		1/2"	1/2"	37,5	69	15	67	10	25
6212R104	with O-R	1/2"	1/2"	37,5	74	15	67	10	25

GP 2714
GHIBLI



Thermostatic right-angle valve for steel pipe.



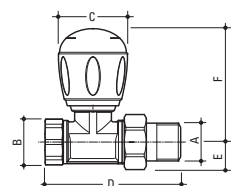
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
6256R004		3/8"	3/8"	37,5	46	23	55	10	25
6158R004		1/2"	1/2"	37,5	44	20,5	59,5	10	25
6256R104	with O-R	3/8"	3/8"	37,5	52	23	55	10	25
6158R104	with O-R	1/2"	1/2"	37,5	49	20,5	59,5	10	25
6268R104	with O-R	3/4"	3/4"	37,5	60	25,5	59,5	10	20

GP 2714
GHIBLI

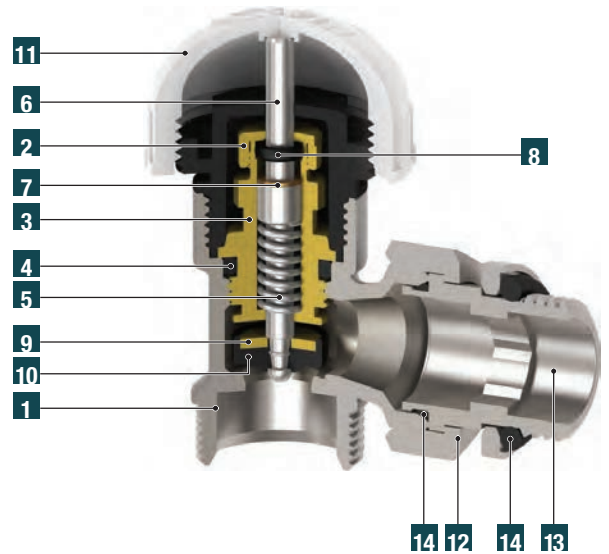


Thermostatic straight valve for steel pipe.



Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
6211R004		1/2"	1/2"	37,5	70	15	67	10	25
6211R104	with O-R	1/2"	1/2"	37,5	75	15	67	10	25



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N
2 Ring nut	1	PA6 (30% FV)
3 Shutter	1	UNI EN 12164 CW614N
4 O-ring for shutter seal	1	EPDM
5 Spring	1	AISI 302 steel
6 Stem	1	AISI 304 steel
7 Shutter ring	1	UNI EN 12164 CW614N
8 O-Ring for stem seal	1	EPDM
9 Washer for gasket	1	UNI EN 12164 CW614N
10 Shutter gasket	1	NBR
11 Cap	1	ABS white RAL 9003
12 Nut	1	UNI EN 12165 CW617N
13 Tang	1	UNI EN 12164 CW614N
14 O-ring for tang seal	1	NBR

EN GENERAL CHARACTERISTICS

Nut and tang thread: UNI EN ISO 228-1
 Male valve body thread: gas 24x19
 (24 mm diameter and 19 threads per inch)
 Female valve body thread: UNI EN ISO 228-1
 Large capacity
 Fitting also available with O-ring (NBR)

OPERATING CONDITIONS

Max working pressure: 10 bar.
 Max differential pressure: 1 bar.
 Max working temperature: +100 °C.
 Pressure drops: See diagram on Technical Attachments.

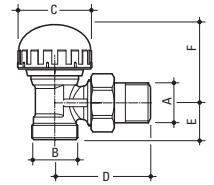
For single-piece seals, threaded 24x19 and 1/2", see chapter 1 "FIVPress System".

For accessories, see section "Accessories for Oasi and Ghibli valves".

GP 2713
GHIBLI



Thermostatic right-angle valve for copper pipe, multi-layer, PEX, PP, PB.



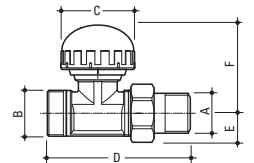
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
24x19 CONNECTION									
6259R004		3/8"	24x19	37,5	46	19	45	10	25
6161R004		1/2"	24x19	37,5	44	19	45	10	25
6259R104	with O-R	3/8"	24x19	37,5	52	19	45	10	25
6161R104	with O-R	1/2"	24x19	37,5	48	19	45	10	25
1/2" CONNECTION									
6165R004		3/8"	1/2"	37,5	44	19	45	10	25
6169R004		1/2"	1/2"	37,5	44	19	45	10	25
6165R104	with O-R	3/8"	1/2"	37,5	44	19	45	10	25
6169R104	with O-R	1/2"	1/2"	37,5	48	19	45	10	25
3/4" CONNECTION									
6269R104	with O-R	3/4"	3/4"	37,5	60	22	42	10	20

GP 2713
GHIBLI



Thermostatic straight valve for copper pipe, multi-layer, PEX, PP, PB.



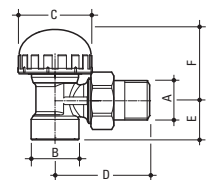
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
24x19 CONNECTION									
6261R004		3/8"	24x19	37,5	65	14	53	10	25
6213R004		1/2"	24x19	37,5	70	15	53	10	25
6261R104	with O-R	3/8"	24x19	37,5	70	14	53	10	25
6213R104	with O-R	1/2"	24x19	37,5	75	15	53	10	25
1/2" CONNECTION									
6215R004		1/2"	1/2"	37,5	69	15	53	10	25
6215R104	with O-R	1/2"	1/2"	37,5	74	15	53	10	25

GP 2713
GHIBLI



Thermostatic right-angle valve for steel pipe.



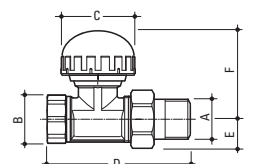
Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
6260R004		3/8"	3/8"	37,5	46	23	45	10	25
6162R004		1/2"	1/2"	37,5	44	20,5	45,5	10	25
6260R104	with O-R	3/8"	3/8"	37,5	52	23	45	10	25
6162R104	with O-R	1/2"	1/2"	37,5	49	20,5	45,5	10	25
6270R104	with O-R	3/4"	3/4"	37,5	60	22	41,5	10	20

GP 2713
GHIBLI



Thermostatic straight valve for steel pipe.

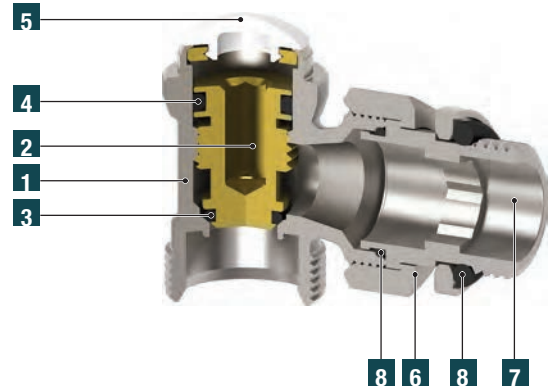


Lockshields in section "Oasi and Ghibli Lockshields".

CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
6214R004		1/2"	1/2"	37,5	70	15	53	10	25
6214R104	with O-R	1/2"	1/2"	37,5	75	15	53	10	25

LOCKSHIELDS

LOCKSHIELDS FOR OASI AND GHIBLI VALVES



Components

Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N
2 Shutter	1	UNI EN 12164 CW614N
3 O-ring for shutter seal	1	EPDM
4 Upper O-ring for shutter seal	1	EPDM
5 Cap	1	ABS white RAL 9003
6 Nut	1	UNI EN 12165 CW617N
7 Tang	1	UNI EN 12164 CW614N
8 O-ring for tang seal	1	NBR

EN GENERAL CHARACTERISTICS

Nut and tang thread: UNI EN ISO 228-1
 Male valve body thread: gas 24x19
 (24 mm diameter and 19 threads per inch)
 Female valve body thread: UNI EN ISO 228-1
 Tang also available with O-ring (NBR)

OPERATING CONDITIONS

Max working pressure: 10 bar.
 Max differential pressure: 1 bar.
 Max working temperature: +100 °C.
 Pressure drops: See diagram on Technical Attachments.

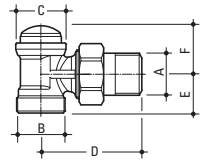
For single-piece seals, threaded 24x19 and 1/2", see chapter 1 "FIVPress System".

For accessories, see section "Accessories for Oasi and Ghibli valves".

GP 2712
LOCKSHIELDS



Right-angle lockshield for copper pipe, multi-layer, PEX, PP, PB.

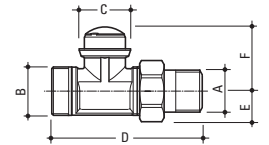


CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
24x19 CONNECTION									
6252R004		3/8"	24x19	25	46	19	24	10	25
6125R004		1/2"	24x19	25	44	19	24	10	25
6252R104	with O-R	3/8"	24x19	25	52	19	24	10	25
6125R104	with O-R	1/2"	24x19	25	48	19	24	10	25
1/2" CONNECTION									
6166R004		3/8"	1/2"	25	44	19	24	10	25
6170R004		1/2"	1/2"	25	44	19	24	10	25
6166R104	with O-R	3/8"	1/2"	25	44	19	24	10	25
6170R104	with O-R	1/2"	1/2"	25	48	19	24	10	25
3/4" CONNECTION									
6264R104	with O-R	3/4"	3/4"	25	60	22	24	10	20

GP 2710 - 2712
LOCKSHIELDS



Straight lockshield for copper pipe, multi-layer, PEX, PP, PB.

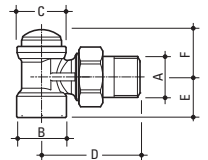


CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
24x19 CONNECTION									
6258R004		3/8"	24x19	25	65	14	32	10	25
6205R004		1/2"	24x19	25	70	15	32	10	25
6258R104	with O-R	3/8"	24x19	25	70	14	32	10	25
6205R104	with O-R	1/2"	24x19	25	75	15	32	10	25
1/2" CONNECTION									
6209R004		1/2"	1/2"	25	69	15	32	10	25
6209R104	with O-R	1/2"	1/2"	25	74	15	32	10	25

GP 2712
LOCKSHIELDS



Right-angle lockshield for steel pipe.

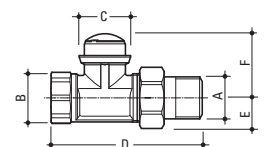


CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
6254R004		3/8"	3/8"	25	46	23	24	10	25
6127R004		1/2"	1/2"	25	44	20,5	23,5	10	25
6254R104	with O-R	3/8"	3/8"	25	52	23	24	10	25
6127R104	with O-R	1/2"	1/2"	25	49	20,5	23,5	10	25
6266R104	with O-R	3/4"	3/4"	25	60	25,5	24	10	20

GP 2710 - 2712
LOCKSHIELDS



Straight lockshield for steel pipe.



CODE		A	B	C mm	D mm	E mm	F mm	PN	Pack pcs/box
6207R004		1/2"	1/2"	25	70	15	32	10	25
6207R104	with O-R	1/2"	1/2"	25	75	15	32	10	25



GP 2799
ACCESSORIES



Kit consisting of Nut and Tail with conical seal for Oasi valve.

CODE	Size	Model	Connection	Pack pcs/box
7589R103	3/8"	Straight and Right-angle	1/2"	20
7591R004	1/2"	Straight and Right-angle	24x19	20

GP 2799
ACCESSORIES



Kit consisting of Nut and Tail with conical seal and O-Ring for Oasi valve.

CODE	Size	Model	Connection	Pack pcs/box
7590R003	3/8"	Straight and Right-angle	1/2"	20
7590R004	1/2"	Straight and Right-angle	24x19	20

GP 2799
ACCESSORIES



Kit consisting of Nut and Tail with conical seal for Ghibli valve.

CODE	Size	Model	Connection	Pack pcs/box
7589R103	3/8"	Straight and Right-angle	1/2"	20
7591R004	1/2"	Right-angle	24x19	20
7590R004	1/2"	Straight	24x19	20

GP 2799
ACCESSORIES



Kit consisting of Nut and Tail with conical seal and O-Ring for Ghibli valve.

CODE	Size	Model	Connection	Pack pcs/box
7590R003	3/8"	Straight and Right-angle	1/2"	20
7590R004	1/2"	Straight and Right-angle	24x19	20
7590R005	3/4"	Right-angle	3/4"	20

GP 2799
ACCESSORIES



Shutter for thermostatic valve. Only for Oasi valve.

CODE	Pack pcs/box
9637L004	20

GP 2000
ACCESSORIES

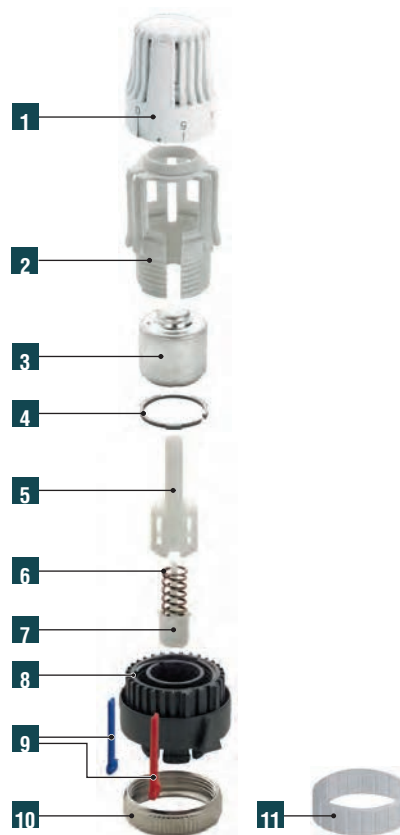


Manual bleed valve.

CODE	Size	t max °C	P max bar	Pack pcs/box
9717R002	1/4"	100	10	10/100
9717R003	3/8"	100	10	10/100
9717R004	1/2"	100	10	10/100
9717R900	Bleed valve wrench			1

CLIMATIC and CLIMATIC ECO

THERMOSTATIC HEADS



Components

	Components	Pcs	Material
1	Regulation knob	1	ABS white RAL 9003
2	Basket	1	PA 6.6 stiffened
3	Thermostatic sensor	1	Steel and fluid expansion
4	Ring	1	Spring steel
5	Pusher	1	Natural Acetalyc Resin
6	Spring	1	Nickel steel Class D UNI 3823
7	Stem	1	Natural Acetalyc Resin
8	Base	1	PA 6.6 stiffened
9	Regulation limiter	1	Acetalyc Resin
10	Ring nut M30x1.5	1	UNI EN 12164 CW614N
11	Ring nut M30x1.5	1	PA 6.6 (50% GF)

EN TECHNICAL DATA OF CONNECTION BETWEEN CLIMATIC THERMOSTATIC HEAD AND OASI THERMOSTATIC AND THERMOSTATISABLE VALVES

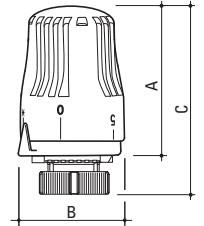
Max working pressure: 10 bar
 Max differential pressure: 1 bar
 Influence of differential pressure: 0.3 K
 Max ambient temperature: 40 °C
 Max system water temperature: 100 °C
 Storage temperature: -10 ÷ +50 °C
 Range of adjustment: 7 ÷ 28 °C

Nominal climb: 0.22 mm/K
 Hysteresis: 0.8 K
 Antifrost action: 7 °C
 Nominal flow rate Oasi straight valves: 125 l/h
 Nominal flow rate Oasi right-angle valves: 125 l/h
 Authority: 0.88
 Water temperature influence: 1 K
 Response time: 25 minutes
 Control Accuracy (CA): 1K

GP 2700
CLIMATIC

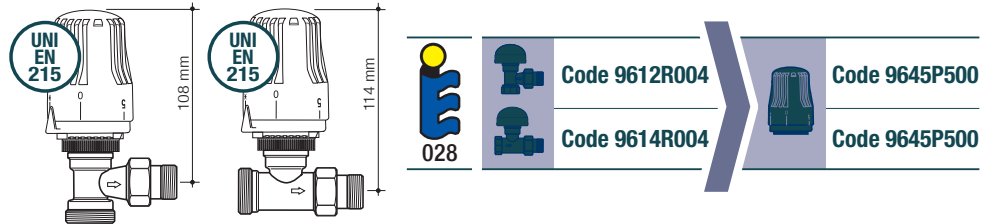


Thermostatic head with liquid sensor, complies with UNI EN 215.



CODE	Size ring nut	A mm	B mm	C mm	Pack pcs/box
9645P500	M30x1,5	71,5	48	87	1/6

CEN CERTIFIED PRODUCT ACCORDING TO THE UNI EN 215 FOR THE FOLLOWING CONFIGURATIONS




ADJUSTMENT SCALE

On the knob there is a scale with values from 0 to 5. Each number matches a set temperature.

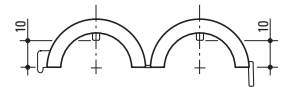
The distances between each number correspond to intermediate temperatures.

The table indicates the approximate equivalence between the scale on the knob and the relevant temperatures.

0		1	2	3	4	5
(*)	7°C (**)	12°C	16°C	20°C	24°C	28°C
(*) Closed		(**) Antifreeze				

GP 2799
CLIMATIC

Tamperproof lock for thermostatic heads.

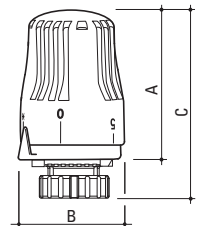


CODE	Pack pcs/box
90023720	6

It can only be used in combination with the thermostatic head code 9645P500.

GP 2700
CLIMATIC ECO

Thermostatic head with liquid sensor.



CODE	Size ring nut	A mm	B mm	C mm	Pack pcs/box
9645P510	M30x1,5	71,5	48	87	1/12

KIT CLIMATIC WITH OASI

The Climatic Kit with Oasi is a boxed set containing a thermostatic head, an Oasi 1/2" thermostatic valve for steel pipe or for multilayer pipe, a 1/2" lockshield for steel pipe or for multilayer pipe, any seals 16x2 and fitting instructions.

It is a high quality liquid expansion thermostatic radiator valve that can be pre-set to desired room temperature.

As the room temperature raises or lowers, so the valve closes or opens, either stopping the flow or releasing more hot water into the radiator.

GP 2700
KIT CLIMATIC



Kit consisting of a Climatic thermostatic head with liquid sensor, Oasi right-angle thermostatic valve, right-angle lockshield and 16x2 Monoblocco fittings for multi-layer pipe.

CODE		Pack pcs/box
6218R004	1/2", CEN CERTIFIED PRODUCT ACCORDING TO UNI EN 215	1
6218R104	1/2" with O-RING	1

GP 2700
KIT CLIMATIC



Kit consisting of a Climatic thermostatic head with liquid sensor, Oasi right-angle thermostatic valve and right-angle lockshield for steel pipe.

CODE		Pack pcs/box
6219R004	1/2"	1
6219R104	1/2" with O-RING	1

KIT CLIMATIC WITH GHIBLI

The Climatic Kit with Ghibli is a boxed set containing a thermostatic head, a Ghibli thermostatic valve for multilayer pipe, a Ghibli lockshield for multilayer pipe, any seals 16x2 and fitting instructions. It is a high quality liquid expansion thermostatic radiator valve that can be pre-set to desired room temperature. As the room temperature raises or lowers, so the valve closes or opens, either stopping the flow or releasing more hot water into the radiator.

GP 2700
KIT CLIMATIC



Kit consisting of a Climatic thermostatic head with liquid sensor, Ghibli right-angle thermostatic valve, Ghibli right-angle lockshield and 16x2 Monoblocco fittings for multi-layer pipe.

CODE		Pack pcs/box
6274R001	3/8"	1
6274R002	3/8" with O-RING	1

GP 2700
KIT CLIMATIC



Kit consisting of a Climatic thermostatic head with liquid sensor, Ghibli right-angle thermostatic valve for 24x19 connection and right-angle lockshield Ghibli for 24x19 connection.

CODE		Pack pcs/box
6274R003	3/8"	1
6274R004	3/8" with O-RING	1
6274R005	1/2"	1
6274R006	1/2" with O-RING	1

KIT GHIBLI

The Ghibli Kit is a boxed set containing a manual radiator valve and a 1/2" lockshield, along with the required 16x2 seals for multilayer pipe and fitting instructions.

GP 2700
KIT GHIBLI

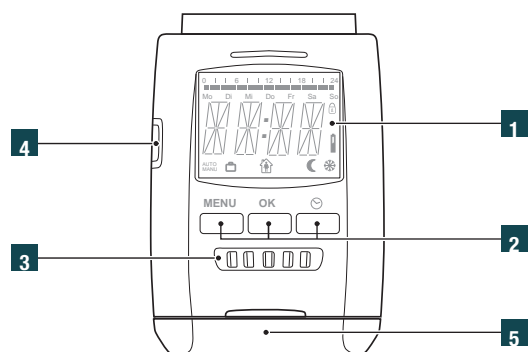


Kit consisting of a Ghibli right-angle manual valve, right-angle lockshield and 16x2 Monoblocco fittings for multi-layer pipe.

CODE		Pack pcs/box
6220R004	1/2"	1
6220R104	1/2" with O-RING	1

STAND ALONE CHRONOTHERMOSTATIC ACTUATOR

STAND ALONE ELECTRONIC CHRONOTHERMOSTATIC
ACTUATOR FOR RADIATOR VALVES



Components

- 1** Display for programming
- 2** Function keys (MENU / OK / CLOCK)
- 3** Selection wheel
- 4** Mini USB port for programming via programming stick
- 5** Battery compartment

EN GENERAL CHARACTERISTICS

- Power supply: 2 batteries 1.5 V (type AA)
- Autonomy: 5 years (with low battery indication; estimated but not guaranteed)
- Degree of protection: IP30 - Operating temperature: 0 ÷ 50 °C
- Storage temperature: -20 °C ÷ +70 °C
- Valve connection: M30x1,5
- Delegated Regulation (EU) n. 811/2013; annex IV-3:
 - Class of the temperature control device: Class 4: Class IV
 - Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%

OPERATION

- MANUAL, with temperature set using the wheel
- AUTOMATIC, with two temperature levels (comfort and economy), weekly programming

Maximum number of daily switching (automatic operation):
4 in comfort and 4 in economy

Holiday function, which adjusts to a temperature (or valve closure) for a set period

Window function, with valve closure in case the window is open
Keylock function

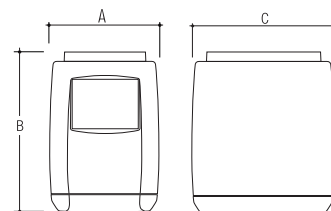
GP 2512
STAND ALONE
CHRONOTHERMOSTATIC
ACTUATOR



Electronic programmable thermostatic actuator for installation on radiator thermostat valves for the adjustment of the ambient temperature.

The device acts on the valve itself, opening it partially in function of the difference between the set temperature and the temperature detected. The function keys, the wheel and the LCD display allow for direct programming on the device.

To facilitate the operation, you can use the special mini USB programming stick which allows for the programming, in graphical form, directly on your PC.



CODE	Model	A mm	B mm	C mm	Pack pcs/box
6321R001	Stand alone electronic chronothermostatic actuator for radiator valves (*)	52	83	65	1
6321R002	Programming key for electronic chronothermostatic actuator (**)				1

(*) Can be combined with Ghibli and Oasi thermostatic and thermostatzable valves.

(**) Key programming compatibility with USB 1.1 or 2.0 ports. System requirements: Windows Xp (or higher).



Heating unit components, **6**

FITTINGS AND FLEXIBLE PIPES



page 216

Export compensated pressure reducers



page 232

Tightening connections with plastic seals



page 219

Compensated pressure reducers



page 236

Tightening connections with brass seals



page 222

Automatic filler unit



page 240

3-piece fittings for radiators



page 224

Kit safety group



page 242

AISI 304 stainless steel flexible pipes



pages 226 - 228

Wind Plus e Wind automatic air vent valves



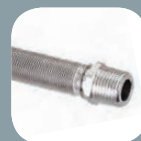
page 246

Antivibration flexible pipes



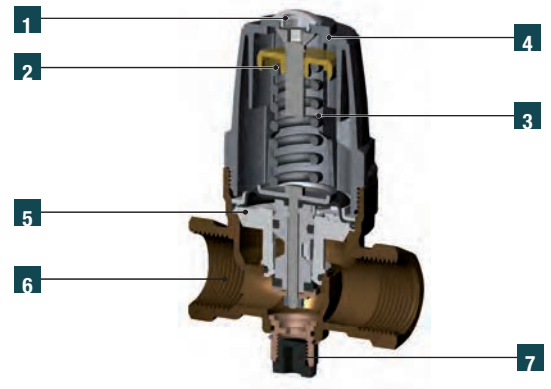
page 230

Security safety valve



page 248

Extensible flexible pipes



Components

- 1** Protection cap
- 2** Adjustment mechanics
- 3** Spring
- 4** Cap
- 5** Shutter cartridge:
 - Plastics
 - Gasket and membrane
 - Stem and washers
- 6** Body
- 7** G 1/4 "F fitting for pressure gauge

Material

- PA6 (15% GF)
- UNI EN 12164 CW617N - DW
- AISI 302 Stainless steel
- PA66 (30% FV)
- Hostaform
- EPDM 70 WRAS
- AISI 304 Stainless steel
- UNI EN 12165 CW617N - DW
- UNI EN 12165 CW617N - DW
- UNI EN 12164 CW617N - DW

Diagram of pressure drops: see technical attachments.

EXPORT - COMPENSATED PRESSURE REDUCERS

Membrane pressure reducer equipped with stopper with compensated surfaces.

This measure ensures stability of outlet pressure regardless of variations in upstream pressure.

The stopper is made of synthetic material with a low friction coefficient to reduce the formation of lime build-up, which is the main cause of malfunctions. The stopper cartridge, which can be entirely replaced, and the seal gaskets of the body can however all be removed and serviced without having to remove the reducer from the system.

Available with connections to pipes with male/female double threading.

The pressure reducers can work with maximum upstream pressure of 25 bar with minimum downstream pressure of 1 bar and a maximum of 6 bar.

They are calibrated at the test bench with an upstream pressure of 8 bar and 3 bar downstream, with 100% testing prior to packaging.

The default calibration can be changed by loosening the upper screw to decrease pressure or by tightening it to increase pressure.

The reducer body are standard equipped with fittings for the gauge for the control of downstream pressure (thread G 1/4" female).

Upstream from the reducer it is advisable to install a silt filter to collect any impurities in the water. This will ensure longer life of the reducer.

EN GENERAL CHARACTERISTICS

Maximum upstream pressure: 25 bar

Downstream pressure: 1 ÷ 6 bar

Maximum temperature: 70°C

Preset at the outlet to 3 bar

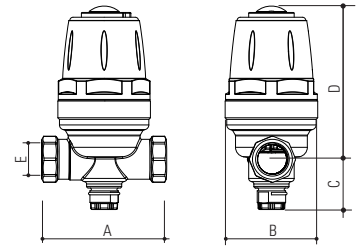
External connection Male thread of reducer ISO 228/1 (DIN 259)

Internal connection Female thread of reducer ISO 228/1 (DIN 259)

For special uses (in accordance with the pressure values established for these pressure reducers and the compatibility of the various fluids with the materials the item is made of) see the chemical compatibility table in the technical annexes.

GP 2282
EXPORT

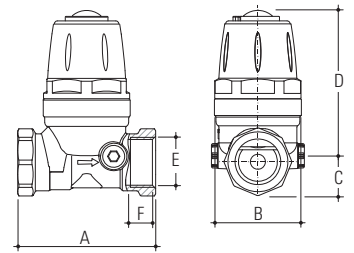
Pressure reducer Female-Female without pipe unions, sand-blasted.



CODE	Size	DN	A mm	B mm	C mm	D mm	E	Pack pcs/box
8719S004	1/2"	15	78	58	31,5	96	1/2"	1
8719S005	3/4"	20	86	58	32,5	96	3/4"	1

GP 2282
EXPORT

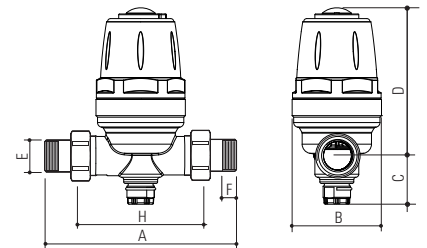
Pressure reducer Female-Female without pipe unions, sand-blasted.



CODE	Size	DN	A mm	B mm	C mm	D mm	E	F mm	Pack pcs/box
8721S006	1"	25	92	62	23	102	1"	16,8	1

GP 2282
EXPORT

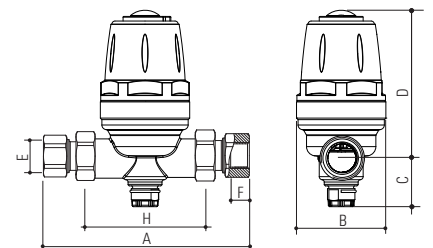
Pressure reducer complete with male pipe unions, sandblasted.



CODE	Size	DN	A mm	B mm	C mm	D mm	E	F mm	H mm	Pack pcs/box
8718S004	1/2"	15	132	58	31,5	96	1/2"	8	78	1
8718S005	3/4"	20	146	58	32,5	96	3/4"	10	86	1

GP 2282
EXPORT

Pressure reducer complete with female pipe unions, sandblasted.



CODE	Size	DN	A mm	B mm	C mm	D mm	E	F mm	H mm	Pack pcs/box
8717S004	1/2"	15	156	70	24	93	1/2"	15	92	1
8717S005	3/4"	20	165	70	25	93	3/4"	16,3	96	1

GP 2299
PIPE UNIONS

Female threaded pipe union kit, flat seal with gasket (provided in pairs), sandblasted.



CODE	Size	Pack pcs/box
8709S104	1/2" F	1
8709S105	3/4" F	1

GP 2299
PIPE UNIONS

Male threaded pipe union kit, flat seal with gasket (provided in pairs), sandblasted.



CODE	Size	Pack pcs/box
8710S004	1/2" M	1
8710S005	3/4" M	1

NEW

GP 2000
GAUGE

Pressure gauge \varnothing 63 with a 1/4" radial fitting for pressure reducers.



CODE	Size	Pressure	Pack pcs/box
00622006	1/4"	6 bar	10

NEW

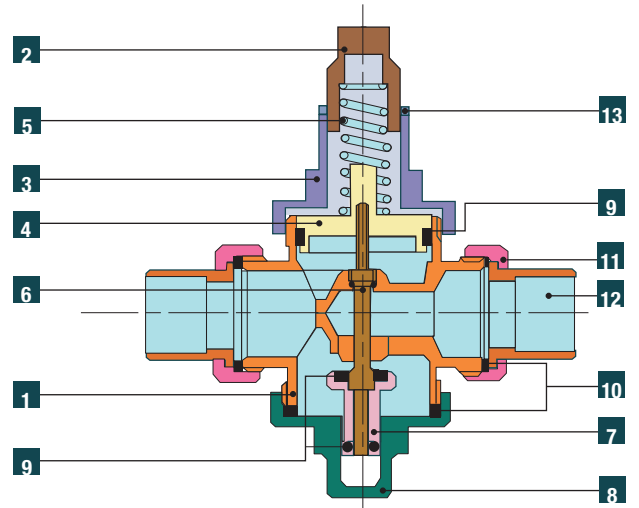
GP 2000
GAUGE

Pressure gauge \varnothing 50 with rear fitting 1/4" for pressure reducers.



CODE	Size	Pressure	Pack pcs/box
00622442	1/4"	10 bar	10

PRESSURE REDUCERS AND SAFETY VALVE



Components

	Components	Pcs	Material
1	Body	1	UNI EN 12165 CW617N - DW
2	Spring press	1	UNI EN 12164 CW617N - DW
3	Cap	1	UNI EN 12164 CW617N - DW
4	Diaphragm	1	UNI EN 12164 CW617N - DW
5	Spring	1	Cadmiun-plated Steel
6	Stem	1	UNI EN 12164 CW617N - DW
7	Shutter	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW AISI 303 from 1"1/4 to 2"
8	Lower cap	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
9	Seal	1	NBR
10	Seal	1	FASIT
11	Nuts	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
12	Tangs	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
13	Block nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW

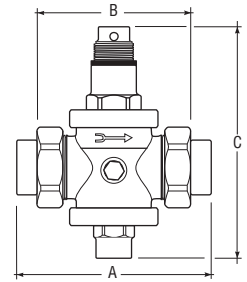
Characteristics

Maximum upstream pressure	25 bar
Downstream adjustment range	0,5 - 6 bar
Preset at outlet	3 bar
Maximum temperature	80 °C
Tang threads	UNI EN ISO 228/1
Side connections for pressure gauge	1/4"
In accordance with regulation	DIN EN 1567

GP 2028
PRESSURE REDUCERS



Compensated pressure reducers with two Female pipe unions, nickel-plated.



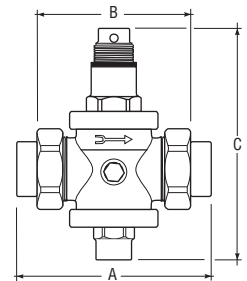
CODE	Size	A mm	B mm	C mm	Flow rate ideal l/min	Flow rate ideal m³/h	gr	Pack pcs/box	Master pcs/box
08026002	1/2"	112	75	120	20 - 50	1,2 - 3	920	1	8
08026004	3/4"	135	88	160	50 - 75	3 - 4,5	1600	1	6

Pressure drops diagram in the Technical annexes.

GP 2028
PRESSURE REDUCERS



Compensated pressure reducers with two Female pipe unions, sand-blasted.



CODE	Size	A mm	B mm	C mm	Flow rate ideal l/min	Flow rate ideal m³/h	gr	Pack pcs/box	Master pcs/box
08026114	1"1/4	170	110	220	95 - 130	6 - 8	3430	1	8
08026112	1"1/2	175	110	220	110 - 140	7 - 8,5	3450	1	8
08026200	2"	200	130	250	120 - 160	7,5 - 10	5110	1	6

Pressure drops diagram in the Technical annexes.

CHOISE OF REDUCER

When choosing a Pressure reducer to install on the system, choose on the basis of the ideal load values, expressed both in litres/minute and in m³/hour, indicated in the table representing the load range within which functioning, silence and reduced load loss are optimized.

INSTALLATION

Pressure reducers with balancing chambers remain stable in the face of upstream pressure that does not influence downstream pressure and may be installed in any position (horizontal, vertical, oblique or upside down). Reducers can be damaged by impurities present in the water; a self-cleaning filter installed on the reducer provides adequate protection against this hazard.

In case of a boiler in the system, below the reducer, malfunctions in the pressure reducer are possible due to the increase in pressure following an increase in water temperature; install a surge chamber between the boiler and the pressure reducer to eliminate this problem. Finally, insert an anti-pipe hammer in the system to avoid failure of the internal elements of the pressure reducer.

PRESSURE SETTING

All pressure reducers are tested and set in output at a pressure of 3 bar; output pressure may easily be modified even when the reducer is installed on the system.

To change output pressure loosen the ring nut and rotate the spring clamp. Rotating in a clockwise direction increases output pressure, rotating in an anti-clockwise direction decreases pressure. Correct pressure setting must be made in closed system mode.

NEW

GP 2000
GAUGE

Pressure gauge \varnothing 50 with rear fitting 1/4" for pressure reducers.

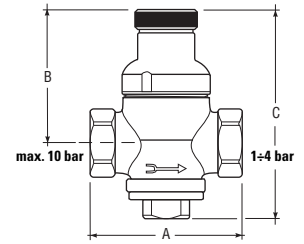


CODE	Size	Pressure	Pack pcs/box
00622442	1/4"	10 bar	10

GP 2028
PRESSURE REDUCER



1/2" Female-Female nickel-plated pressure reducer for water heater.



CODE	Size	A mm	B mm	C mm	Flow rate ideal l/min	Flow rate ideal m³/h	gr	Pack pcs/box	Master pcs/box
08026312	1/2"	60	55	93	10 - 14	0,6 - 0,8	430	8	64

Pressure drops diagram in the Technical annexes.

CHARACTERISTICS

- Maximum pressure upstream: 15 bar
- Downstream pressure: 1 - 4 bar
- Preset at outlet at 3 bar
- Maximum temperature: 80 °C
- Threading connections: ISO 228/1

USES

Considering their small size, pressure reducers for boilers are ideal for water systems with one user, boiler charge systems, coffee machines and soft drink vending machines.

INSTALLATION

Pressure reducers for boilers may be installed in any position (horizontal, vertical, oblique or upside down). Reducers can be damaged by impurities present in the water; a self-cleaning filter installed on the reducer provides adequate protection against this hazard. In case of a boiler in the system, below the reducer, malfunctions in the pressure reducer are possible due to the increase in pressure following an increase in water temperature; install a surge chamber between the boiler and the pressure reducer to eliminate this problem. Finally, insert an anti-pipe hammer in the system to avoid failure of the internal elements of the pressure reducer.

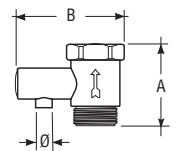
PRESSURE SETTING

All pressure reducers are tested and set in output at a pressure of 3 bar; output pressure may easily be modified even when the reducer is installed on the system. To change output pressure unscrew and remove the black plastic tap; use a screwdriver to unscrew the brass spring clamp; rotating in a clockwise direction increases output pressure, rotating in an anti-clockwise direction decreases pressure. Correct pressure setting must be made in closed system mode.

GP 2030
SAFETY VALVE



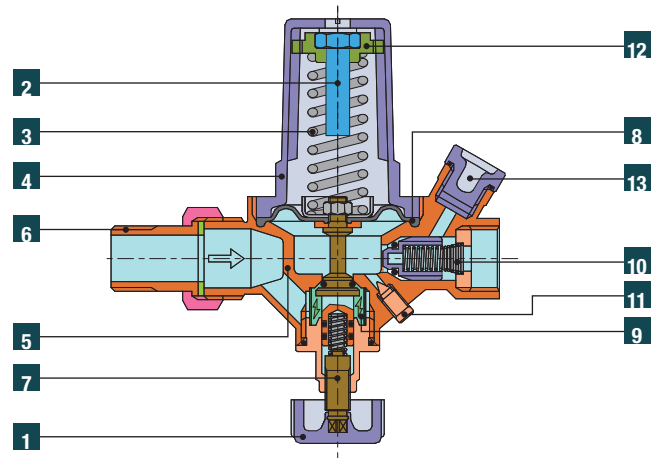
Male safety no-return valve for water heater, nickel-plated.



- Preset at 6 bar

CODE	Size	A mm	B mm	Ø mm	gr	Pack pcs/box	Master pcs/box
08022012	1/2"	41	52	5	83	50	400
08022034	3/4"	57	71	9	196	20	160

AUTOMATIC FILLING VALVE



Components

Material

1	Knob	High impact plastic
2	Adjustment mechanism	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
3	Spring	AISI 302 stainless steel
4	Cap	High impact plastic
5	Body	UNI EN 12165 CW617N - DW
6	Pipe joints	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
7	Shutter	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
8	Membrane	NBR rubber reinforced with nylon fabric
9	Filtering cartridge	AISI 304 stainless steel
10	Check valve	Hostaform
11	Drain	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
12	Spring presser	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
13	Pressure gauge connection	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW

Flow rate / pressure drops diagram: see Technical Annexes.

AUTOMATIC FILLING VALVE

Automatic filling valve for closed or open vessel heating systems. The valve is fitted with a pressure reducer, a filter, an on/off valve and a check valve. The valve is placed between the water supply network and the heating system to ensure the pressure is kept stable at a pre-set value and water losses are automatically replenished in the system.

They have a manual tap to intercept the water supplied to the system and a check valve used as a protection against possible flow reversal, which would contaminate the water supply system.

EN GENERAL CHARACTERISTICS

Maximum upstream pressure: 10 bar

Downstream pressure: 0.3 ÷ 4 bar

Maximum flow rate: 1.8 m³/h

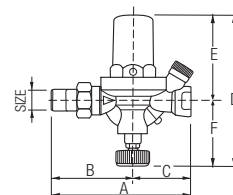
Maximum temperature: 40 °C

Fittings: Thread UNI EN ISO 228/1 (DIN 259)

Pressure gauge connection: 1/4" F

GP 2799
AUTOMATIC FILLER

Automatic filler unit for heating systems.



CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	gr	Pack pcs/box
6106R004	1/2"	125	73	52	142	78,5	63,5	550	1

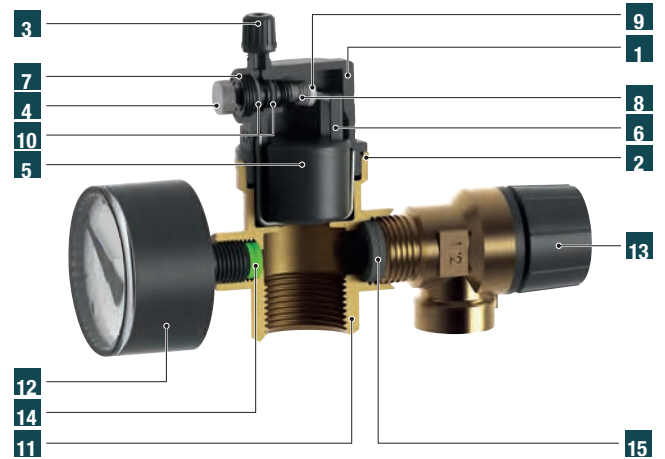
NEWGP 2000
GAUGE

Pressure gauge Ø 63 with a 1/4" radial fitting for pressure reducers.

CODE	Size	Pressure	Pack pcs/box
00622006	1/4"	6 bar	10

SAFETY GROUP KIT

SAFETY VALVE / AIR VENT / PRESSURE GAUGE



Components	Pcs	Material
1 Cover	1	Zytel (HTN51)
2 Cup	1	UNI EN 12165 CW617N - DW
3 Black plug for manual vent	1	PA 6 stiffened
4 Grey plug for automatic vent	1	PA 6 stiffened
5 Float	1	PP
6 Stem	1	PA 6
7 Ring nut	1	PPO
8 Spring	1	Steel inox
9 Shutter	1	Silicone rubber
10 O-Ring seal	2	NBR
11 Main body	1	UNI EN 12165 CW617N - DW
12 Pressure gauge \varnothing 50 mm	1	
13 Safety valve from 3 bar	1	
14 Gaskets	2	Fasit
15 Gasket	1	EPDM

SAFETY GROUP KIT

The Safety Group is usually employed in thermal centres. Its purpose is to discharge the water when the pressure limit is reached and can be used as protection for hot water heaters and water systems generally. The excellent air flow characteristics make the Safety Group indispensable for eliminating any air bubbles from water heating systems. Even with a high air flow capacity, the space taken up is low enough to allow for use with gas wall boilers, on collectors, and anywhere where conduits need to be purged of air. The visual checking of water pressure is possible using the manometer with a full scale from 0-4 bar. Every product is individually tested immersed in water to ensure perfect operation.

EN GENERAL CHARACTERISTICS

Range: from 3/4"
Female fitting: Threaded ISO 228/1 (DIN 259)

OPERATING CONDITIONS

Nominal working pressure: 10 bar
Maximum working pressure: 3 bar
Maximum working temperature: 95 °C

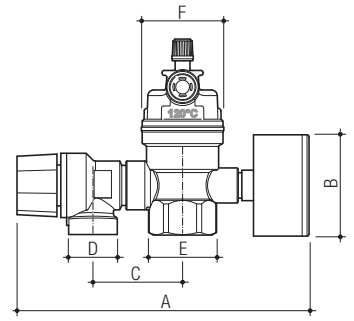
TECHNICAL FEATURES

The membrane of the stopper is protected by anti-adherence characteristics and remains unchanged over time.
The calibration pressure is printed in the plug at the top of the valve.
Accidental manual opening is prevented by a protective cap.—To use the knob, you must remove the cap.

GP 2799
SAFETY GROUP KIT



KIT Safety Group, complete with gasket, 3 bar 1/2" F-F safety valve and \varnothing 50 mm pressure gauge, 4 bar full scale.



CODE	Size	A mm	B mm	C mm	D	E	F	Pack pcs/box
6230R005	3/4" F	150	100	46	G 1/2"	G 3/4"	M 38x1,5	1

GP 2799
SAFETY GROUP KIT

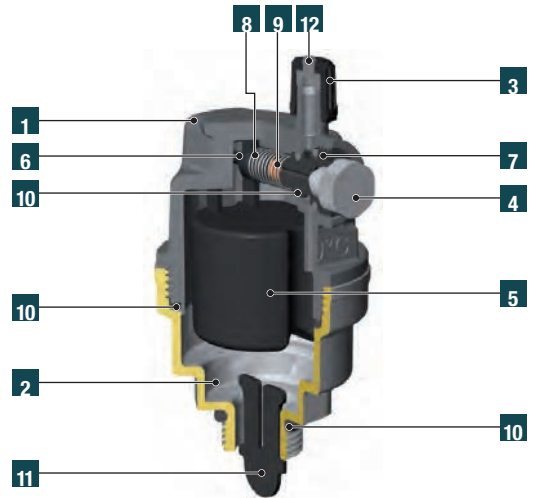


Spare cartridge Wind Plus valve for Safety Group.

CODE	Size	Pack pcs/box
6231R005	1/2"	1

WIND PLUS

AUTOMATIC AIR VENT VALVES WITH PLASTIC COVER



Components	Pcs	Material
1 Cover	1	Zytel (HTN51)
2 Cup	1	UNI EN 12165 CW617N - DW
3 Black plug for manual vent	1	PA 6 stiffened
4 Grey plug for automatic vent	1	PA 6 stiffened
5 Float	1	PP
6 Stem	1	PA 6
7 Ring nut	1	PPO
8 Spring	1	Steel Inox
9 Shutter	1	Silicone rubber
10 O-Ring seal	3	NBR
11 Bubble breaker	1	PA 6 stiffened
12 Gasket	1	NBR

Pressure drops: See diagram on Technical Attachments.

EN GENERAL CHARACTERISTICS

Range: From 3/8" to 1/2"

Male fitting: Threaded ISO 228/1 (DIN 259)

OPERATING CONDITIONS

Maximum temperature: 110 °C.

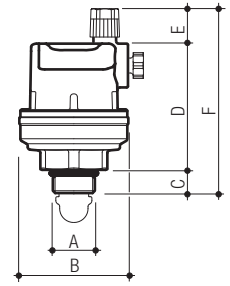
Max. working pressure: 10 bar.

Excellent air flow characteristics, it is indispensable for eliminating any air bubbles from water heating systems. Even with a high air flow capacity, the space taken up is low enough to allow for use with gas wall boilers, on collectors, and anywhere where conduits need to be purged of air. Every product is individually tested immersed in water to ensure perfect operation.

GP 2070
WIND PLUS



Reduced air vent valve, with plastic cover and anti-dirt air chamber, with bubble breaker.

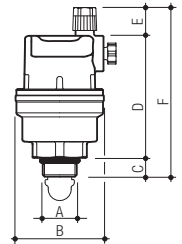


CODE	Size	A	B	C	D	E	F	PN	Pack pcs/box	Master pcs/box
			mm	mm	mm	mm	mm			
9460R003	3/8"	G 3/8"	42	9	49	13,5	71,5	10	12	96

GP 2070
WIND PLUS



Standard air vent valve, with plastic cover and anti-dirt air chamber, with bubble breaker.

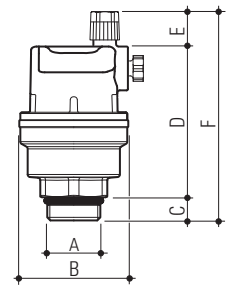


CODE	Size	A	B	C	D	E	F	PN	Pack pcs/box	Master pcs/box
			mm	mm	mm	mm	mm			
9461R003	3/8"	G 3/8"	42	9	58,5	13,5	81	10	12	96

GP 2070
WIND PLUS



Standard air vent valve, with plastic cover and anti-dirt air chamber, without bubble breaker.

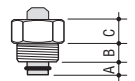


CODE	Size	A	B	C	D	E	F	PN	Pack pcs/box	Master pcs/box
			mm	mm	mm	mm	mm			
9461R004	1/2"	G 1/2"	42	9	58,5	13,5	81	10	12	96

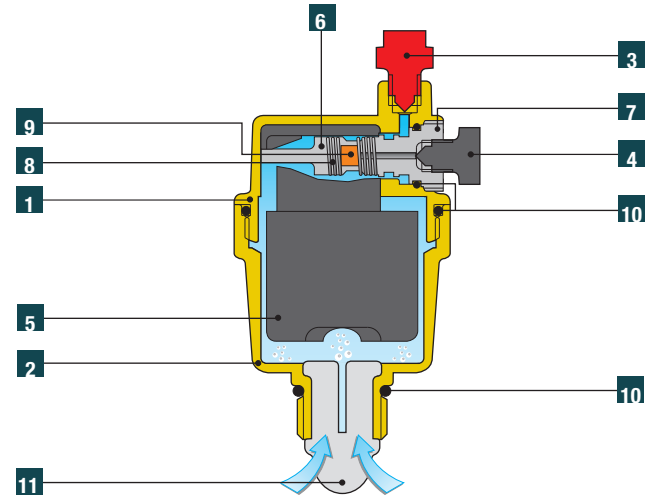
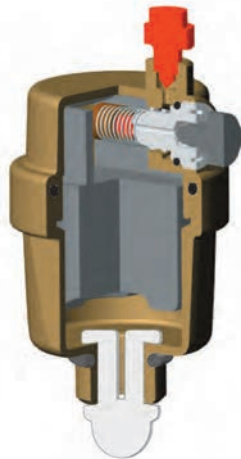
GP 2070
WIND PLUS



Check valve for air vent valve.



CODE	Size	A	B	C	PN	Pack pcs/box	Master pcs/box
		mm	mm	mm			
08020100	F3/8"-M3/8"	5	10	12	10	12	960
08023812	F3/8"-M1/2"	5	10	12	10	12	960
08020112	F1/2"-M1/2"	5	10	12	10	12	960



Components	Pcs	Material
1 Cover	1	UNI EN 12165 CW617N - DW
2 Cup	1	UNI EN 12165 CW617N - DW
3 Red plug for manual vent	1	PA 6 stiffened
4 Black plug for automatic vent	1	PA 6 stiffened
5 Float	1	PP
6 Stem	1	PA 6
7 Ring nut	1	PPO
8 Spring	1	Steel Inox
9 Shutter	1	Silicone rubber
10 O-Ring seal	3	NBR
11 Bubble breaker	1	PA 6 stiffened

Pressure drops: See diagram on Technical Attachments.

EN GENERAL CHARACTERISTICS

Range: From 3/8" to 1/2"

Male fitting: Thread ISO 228/1 (DIN 259)

OPERATING CONDITIONS

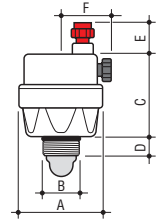
Maximum temperature: 120 °C.

Maximum working pressure: 10 bar.

Constructed entirely in UNI EN 12165 CW617N brass with excellent air flow characteristics, it is indispensable for eliminating any air bubbles from water heating systems. Even with a high air flow capacity, the space taken up is low enough to allow for use with gas wall boilers, on collectors, and anywhere where conduits need to be purged of air. Every product is individually tested immersed in water to ensure perfect operation.

GP 2070
WIND

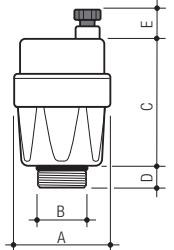
Reduced size automatic air vent valve, with bubble breaker.



CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	PN	Pack pcs/box	Master pcs/box
00400630	3/8"	40	3/8"	40	10	15	25	10	16	96

GP 2070
VALVOLE WIND

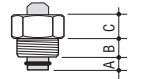
Standard upper air vent valve, without bubble breaker.



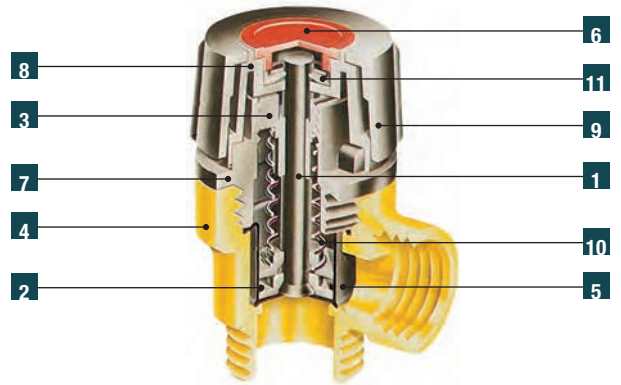
CODE	Size	øA mm	B mm	C mm	D mm	E mm	PN	Pack pcs/box	Master pcs/box
00400670	1/2"	40	1/2"	50	10	12	10	12	96

GP 2070
WIND

Check valve for air vent valve.



CODE	Size	A mm	B mm	C mm	PN	Pack pcs/box	Master pcs/box
08020100	F3/8"-M3/8"	5	10	12	10	12	960
08023812	F3/8"-M1/2"	5	10	12	10	12	960
08020112	F1/2"-M1/2"	5	10	12	10	12	960



Components	Pcs	Material
1 Stem	1	Nylon reinforced
2 Disk	1	Nylon reinforced
3 Calibration ring nut	1	Nylon
4 Body	1	UNI EN 12165 CW617N - DW
5 Membrane	1	EPDM
6 Identification plug	1	PVC
7 Closure ring nut	1	Nylon
8 Click knob	1	Nylon
9 Protection cap	1	Nylon
10 Spring	3	Steel inox AISI 302
11 Fastener	1	Steel KS5

EN GENERAL CHARACTERISTICS

Range: 1/2"

Male and female fitting: Thread ISO 228/1 (DIN 259)

OPERATING CONDITIONS

Maximum temperature: 110 °C.

TECHNICAL FEATURES

The membrane of the stopper is protected by anti-adherence characteristics and remains unchanged over time.

The calibration pressure is printed in the plug at the top of the valve.

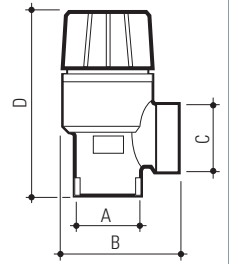
Accidental manual opening is prevented by a protective cap.-To use the knob, you must remove the cap.

The Security Pressure Relief Valve is normally used in heating systems with closed expansion tank. Its purpose is to discharge the water if the pressure limit is reached. It can also be used to protect the heaters of domestic water and in water systems in general.

GP 2032
SECURITY



Relief valves 1/2" FF, plug with calibration pressure, protective cap and manual discharge knob.

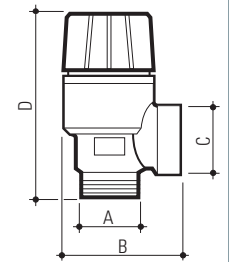


CODE	Size	A	B mm	C	D mm	Calibration pressure bar	Nominal discharge pressure bar	Pack pcs/box	Master pcs/box
9470S004	1/2"	1/2"	43	1/2"	64,5	3	3,3	12	48
9472S004	1/2"	1/2"	43	1/2"	64,5	6	6,6	12	48

GP 2032
SECURITY



Relief valves 1/2" MF, plug with calibration pressure, protective cap and manual discharge knob.

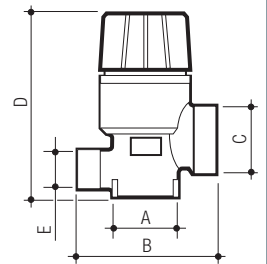


CODE	Size	A	B mm	C	D mm	Calibration pressure bar	Nominal discharge pressure bar	Pack pcs/box	Master pcs/box
9471S004	1/2"	1/2"	43	1/2"	64,5	3	3,3	12	48
9473S004	1/2"	1/2"	43	1/2"	64,5	6	6,6	12	48

GP 2032
SECURITY



Relief valves 1/2" FF, plug with calibration pressure, protective cap, manual discharge knob and with pressure gauge.

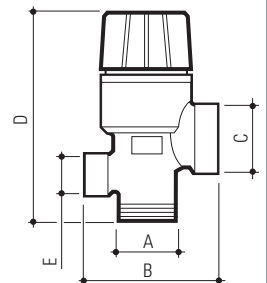


CODE	Size	A	B mm	C	D mm	E	Calibration pressure bar	Nominal discharge pressure bar	Pack pcs/box	Master pcs/box
9474S004	1/2"	1/2"	49,5	1/2"	67	1/4"	3	3,3	8	32
9476S004	1/2"	1/2"	49,5	1/2"	67	1/4"	6	6,6	8	32

GP 2032
SECURITY

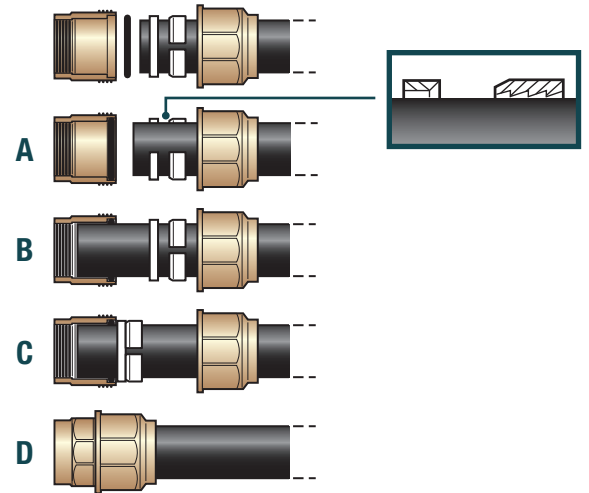


Relief valves 1/2" MF, plug with calibration pressure, protective cap, manual discharge knob and with pressure gauge.



CODE	Size	A	B mm	C	D mm	E	Calibration pressure bar	Nominal discharge pressure bar	Pack pcs/box	Master pcs/box
9475S004	1/2"	1/2"	49,5	1/2"	73,5	1/4"	3	3,3	8	32
9477S004	1/2"	1/2"	49,5	1/2"	73,5	1/4"	6	6,6	8	32

TIGHTENING CONNECTIONS FOR POLYETHYLENE PIPES, WITH PLASTIC SEALS



Components

	Components	Pcs	Material
1	Body	1	UNI EN 12165 CW617N - DW
2	O-Ring seal	1	NBR 70 Sh A (ASTM D 2240)
3	Stop ring	1	Hostaform
4	Toothed ring	1	Hostaform
5	Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW

INSTALLATION

Connection of the joints for F.I.V. polyethylene is extremely simple.

If the extremity of the tube to be connected is smooth (i.e. is cut using a tube-shear), it is sufficient to loosen the nut, insert the tube fully into the coupling and then tighten the nut securely.

If the extremity of the tube is rough-edged, it is advisable to connect as follows:

A Insert the O-Ring into its seat in the joint. Fit the STOP RING, the TOOTHED RING and the NUT to the polyethylene tube. If necessary, also fit the 'pressure cone' to the tube.

B Insert the tube into its seat in the joint.

C Slide the STOP RING and the TOOTHED RING towards the O-Ring.

D Tighten the NUT.

EN GENERAL CHARACTERISTICS

Bore: Full

Range: From 1/2" (20) to 2" (63)

Female fitting: Thread UNI EN ISO 228/1 (DIN 259)

Male fitting: Thread UNI EN ISO 228/1 (DIN 259)

OPERATING CONDITIONS

Flow direction: Both ways.

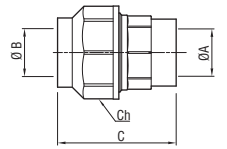
Temperature limit from -20 °C to +90 °C.

Maximum working pressure: 16 bar.

Suitable for use in circuits for water distribution and non-aggressive fluids, with high or low density polyethylene pipes.

GP 2065
JOINT

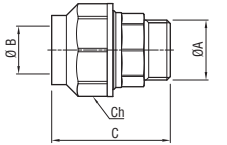
Straight joint with Female threaded connection, sand-blasted.



CODE	Size	ØA	ØB mm	C mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07010012	20x1/2"	1/2"	21	45,5	31	80	16	40	320
07010034	25x3/4"	3/4"	26	52,5	38	120	16	20	160
07010100	32x1"	1"	33	60	47	202	16	15	120
07010114	40x1"1/4	1"1/4	41	75	56	317	16	8	64
07010112	50x1"1/2	1"1/2	51	69	70,5	475	16	10	40
07010200	63x2"	2"	64	90	85	737	16	6	24

GP 2065
JOINT

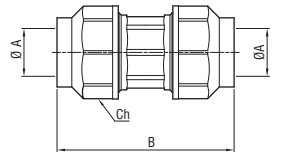
Straight joint with Male threaded connection, sand-blasted.



CODE	Size	ØA	ØB mm	C mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07011012	20 x 1/2"	1/2"	21	45,5	31	80	16	40	320
07011034	25 x 3/4"	3/4"	26	52,5	38	128	16	20	160
07011100	32 x 1"	1"	33	60	47	217	16	15	120
07011114	40 x 1"1/4	1"1/4	41	75	56	334	16	8	64
07011112	50 x 1"1/2	1"1/2	51	69	70,5	456	16	10	40
07011200	63 x 2"	2"	64	90	85	714	16	6	24

GP 2065
JOINT

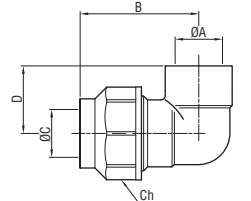
Double straight joint connection, sand-blasted.



CODE	Size	ØA mm	B mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07012012	20x20	21	72	31	140	16	25	200
07012034	25x25	26	79	38	207	16	15	120
07012100	32x32	33	86	47	331	16	10	80
07012114	40x40	41	114,5	56	493	16	5	40
07012112	50x50	51	106	70,5	693	16	6	24
07012200	63x63	64	140,5	85	1113	16	4	16

GP 2065
JOINT

Elbow joint with Female threaded connection, sand-blasted.

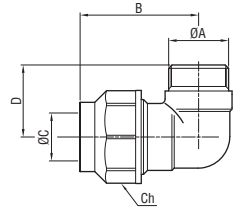


CODE	Size	ØA	B mm	ØC mm	D mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07000012	20 x 1/2"	1/2"	44	21	30,5	31	108	16	30	240
07000034	25 x 3/4"	3/4"	58	26	29,8	38	162	16	18	144
07000100	32 x 1"	1"	59,5	33	32,5	47	251	16	10	80
07000114	40 x 1"1/4	1"1/4	73,5	41	44	56	414	16	5	40
07000112	50 x 1"1/2	1"1/2	83	51	55	70,5	662	16	6	24
07000200	63 x 2"	2"	103	64	67,5	85	1001	16	3	12

GP 2065
JOINT



Elbow joint with Male threaded connection, sand-blasted.

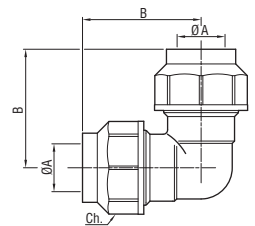


CODE	Size	ØA	B mm	C mm	D mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07001012	20 x 1/2"	1/2"	44	21	30	31	113	16	30	240
07001034	25 x 3/4"	3/4"	58	26	31,8	38	183	16	18	144
07001100	32 x 1"	1"	59,5	33	37,5	47	299	16	10	80
07001114	40 x 1 1/4"	1 1/4"	73	41	44	56	453	16	5	40
07001112	50 x 1 1/2"	1 1/2"	83	51	54,5	70,5	699	16	6	24
07001200	63 x 2"	2"	103	64	67	85	1109	16	4	16

GP 2065
JOINT



Double joint elbow, sand-blasted.

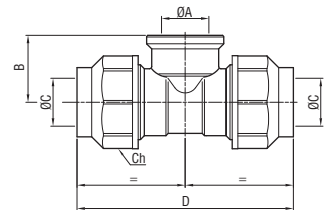


CODE	Size	A mm	B mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07002012	20x20	21	46	31	155	16	20	160
07002034	25x25	26	55,5	38	247	16	10	80
07002100	32x32	33	60	47	387	16	8	64
07002114	40x40	41	73,5	56	564	16	3	24
07002112	50x50	51	83	70,5	895	16	4	16
07002200	63x63	64	103	85	1367	16	2	8

GP 2065
JOINT



T-joint with Female threaded connection, sand-blasted.

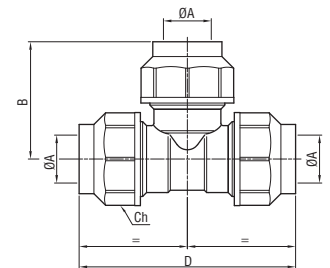


CODE	Size	ØA	B mm	ØC mm	D mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07003012	20x1/2"x20	1/2"	23,5	21	87	31	160	16	18	144
07003034	25x3/4"x25	3/4"	29,5	26	99,5	38	264	16	10	80
07003100	32x1"x32	1"	35,5	33	112,5	47	416	16	6	48
07003114	40x1 1/4x40	1 1/4"	41,5	41	151,5	56	629	16	4	32
07003112	50x1 1/2x50	1 1/2"	50	51	130	70,5	1028	16	4	16
07003200	63x2"x63	2"	65	64	190	85	1595	16	2	8

GP 2065
JOINT



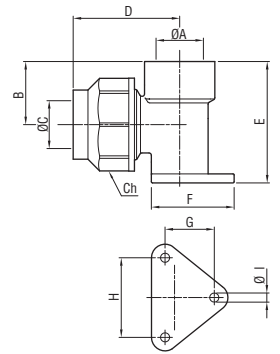
T-joint with three-piece connection, sand-blasted.



CODE	Size	ØA mm	B mm	C mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07004012	20x20x20	21	48,5	87	31	210	16	12	96
07004034	25x25x25	26	55,5	99,5	38	332	16	8	64
07004100	32x32x32	33	65	112,5	47	515	16	4	32
07004114	40x40x40	41	74	151,5	56	769	16	3	24
07004112	50x50x50	51	84	130	70,5	1164	16	2	8
07004200	63x63x63	64	103,5	190	85	1863	16	2	8

GP 2065
JOINT

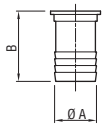
Elbow joint flanged with Female threaded connection, sand-blasted.



CODE	Size	ØA	B	ØC	D	E	F	G	H	ØI	Ch	gr	PN	Pack pcs/box	Master pcs/box
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm				
07009012	1/2"x20	1/2"	24,8	21	47	46,5	33,5	21,5	35	4	31	167	16	20	160
07009034	3/4"x25	3/4"	27,8	26	58	53,5	36,5	24,5	39	4	38	245	16	12	96

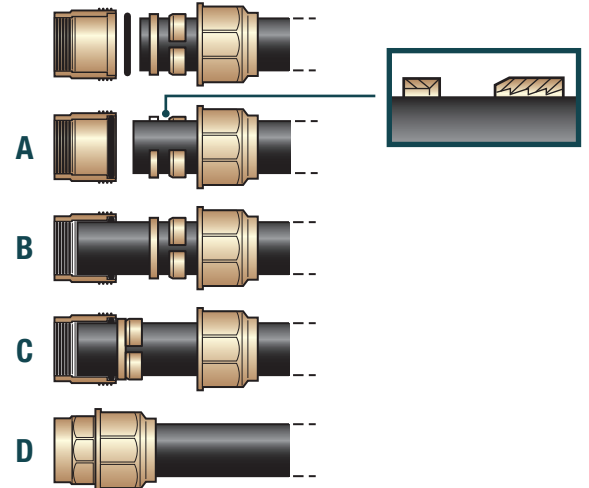
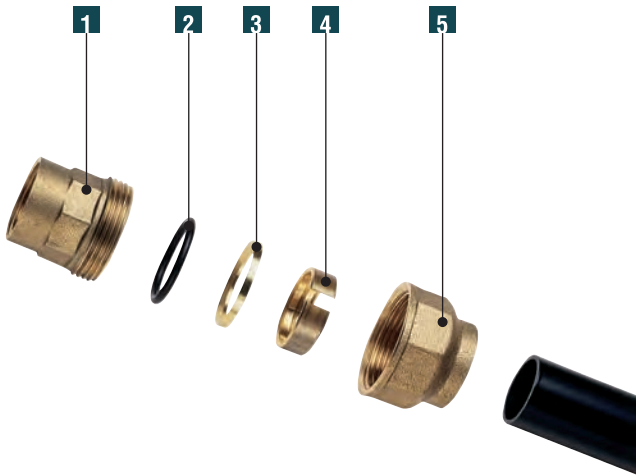
GP 2065
JOINT

Internal pressure cone.



CODE	Size	ØA	B	gr	Pack pcs/box	Master pcs/box
		mm	mm			
07005012	20	13,5	26	12	25	2300
07005034	25	18,5	31	25	50	800
07005100	32	25	35,5	46	25	400
07005114	40	32	46,5	88	15	240
07005112	50	40	56	108	10	160
07005200	63	52	65,5	294	4	64

TIGHTENING CONNECTIONS FOR POLYETHYLENE PIPES, WITH BRASS SEALS



Components

	Components	Pcs	Material
1	Body	1	UNI EN 12165 CW617N - DW
2	O-Ring seal	1	O-Ring NBR 70 Sh A (ASTM D 2240)
3	Stop ring	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
4	Toothed ring	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
5	Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW

INSTALLATION

Connection of the joints for F.I.V. polyethylene is extremely simple.

If the extremity of the tube to be connected is smooth (i.e. is cut using a tube-shear), it is sufficient to loosen the nut, insert the tube fully into the coupling and then tighten the nut securely.

If the extremity of the tube is rough-edged, it is advisable to connect as follows:

A Insert the O-Ring into its seat in the joint. Fit the STOP RING, the TOOTHED RING and the NUT to the polyethylene tube. If necessary, also fit the 'pressure cone' to the tube.

B Insert the tube into its seat in the joint.

C Slide the STOP RING and the TOOTHED RING towards the O-Ring.

D Tighten the NUT.

EN GENERAL CHARACTERISTICS

Bore: Full

Range: From 1/2" (20) to 2" (63)

Female fitting: Thread UNI EN ISO 228/1 (DIN 259)

Male fitting: Thread UNI EN ISO 228/1 (DIN 259)

OPERATING CONDITIONS

Flow direction: Both ways.

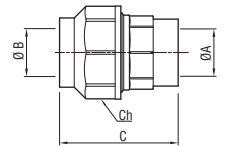
Temperature limit from -20 °C to +90 °C.

Maximum working pressure: 16 bar.

Suitable for use in circuits for water distribution and non-aggressive fluids, with high or low density polyethylene pipes.

GP 2065
JOINT

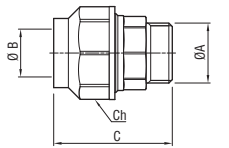
Straight joint with Female threaded connection, sand-blasted.



CODE	Size	ØA	ØB mm	C mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07710012	20 x 1/2"	1/2"	21	43	31	86	16	40	320
07710034	25 x 3/4"	3/4"	26	49	38	136	16	20	160
07710100	32 x 1"	1"	33	58	47	214	16	15	120
07710114	40 x 1"1/4	1"1/4	41	72	56	335	16	8	64
07710112	50 x 1"1/2	1"1/2	51	64,5	70,5	515	16	10	40
07710200	63 x 2"	2"	64	85,5	85	806	16	6	24

GP 2065
JOINT

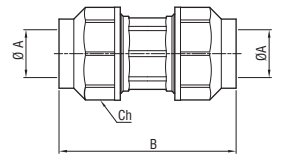
Straight joint with Male threaded connection, sand-blasted.



CODE	Size	ØA	ØB mm	C mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07711012	20 x 1/2"	1/2"	21	43	31	86	16	40	320
07711034	25 x 3/4"	3/4"	26	49	38	136	16	20	160
07711100	32 x 1"	1"	33	58	47	229	16	15	120
07711114	40 x 1"1/4	1"1/4	41	72	56	352	16	8	64
07711112	50 x 1"1/2	1"1/2	51	64,5	70,5	456	16	10	40
07711200	63 x 2"	2"	64	85,5	85	783	16	6	24

GP 2065
JOINT

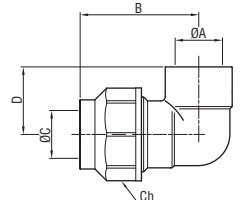
Double straight joint connection, sand-blasted.



CODE	Size	ØA mm	B mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07712012	20x20	21	67,5	31	152	16	25	200
07712034	25x25	26	72	38	223	16	15	120
07712100	32x32	33	82	47	355	16	10	80
07712114	40x40	41	96,5	56	529	16	5	40
07712112	50x50	51	108	70,5	773	16	6	24
07712200	63x63	64	131	85	1251	16	4	16

GP 2065
JOINT

Elbow joint with Female threaded connection, sand-blasted.

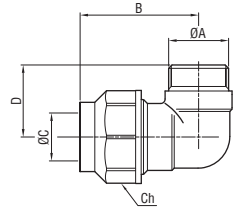


CODE	Size	ØA	B mm	ØC mm	D mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07700012	20 x 1/2"	1/2"	41,5	21	30,5	31	114	16	30	240
07700034	25 x 3/4"	3/4"	54	26	29,8	38	170	16	18	144
07700100	32 x 1"	1"	57,5	33	32,5	47	263	16	10	80
07700114	40 x 1"1/4	1"1/4	69	41	44	56	432	16	5	40
07700112	50 x 1"1/2	1"1/2	80	51	55	70,5	702	16	6	24
07700200	63 x 2"	2"	98,5	64	67,5	85	1070	16	3	12

GP 2065
JOINT



Elbow joint with Male threaded connection, sand-blasted.

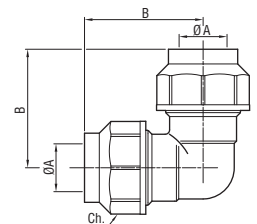


CODE	Size	ØA	B mm	ØC mm	D mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07701012	20 x 1/2"	1/2"	41,5	21	30	31	119	16	30	240
07701034	25 x 3/4"	3/4"	54	26	31,8	38	191	16	18	144
07701100	32 x 1"	1"	57,5	33	37,5	47	311	16	10	80
07701114	40 x 1 1/4"	1 1/4"	69	41	44	56	471	16	5	40
07701112	50 x 1 1/2"	1 1/2"	80	51	54,5	70,5	709	16	6	24
07701200	63 x 2"	2"	98,5	64	67	85	1178	16	4	16

GP 2065
JOINT



Double joint elbow, sand-blasted.

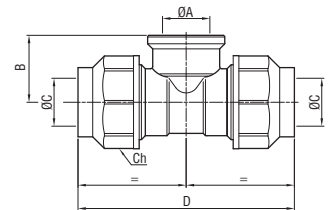


CODE	Size	ØA mm	B mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07702012	20x20	21	44	31	167	16	20	160
07702034	25x25	26	52	38	263	16	10	80
07702100	32x32	33	58	47	411	16	8	64
07702114	40x40	41	69	56	600	16	3	24
07702112	50x50	51	80	70,5	975	16	4	16
07702200	63x63	64	98,5	85	1505	16	2	8

GP 2065
JOINT



T-joint with Female threaded connection, sand-blasted.

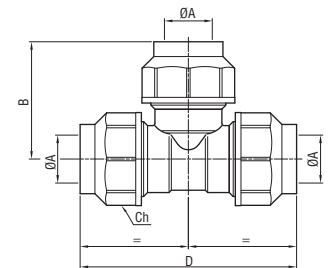


CODE	Size	ØA	B mm	ØC mm	D mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07703012	20x1/2"x20	1/2"	23,5	21	83	31	172	16	18	144
07703034	25x3/4"x25	3/4"	29,5	26	92,5	38	280	16	10	80
07703100	32x1"x32	1"	35,5	33	108,5	47	440	16	6	48
07703114	40x1 1/4"x40	1 1/4"	41,5	41	121	56	665	16	4	32
07703112	50x1 1/2"x50	1 1/2"	50	51	145	70,5	1108	16	4	16
07703200	63x2"x63	2"	65	64	180,5	85	1733	16	2	8

GP 2065
JOINT



T-joint with three-piece connection, sand-blasted.

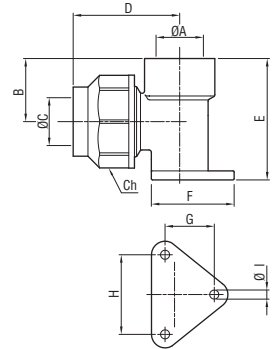


CODE	Size	ØA mm	B mm	C mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
07704012	20x20x20	21	46	83	31	228	16	12	96
07704034	25x25x25	26	52	92,5	38	356	16	8	64
07704100	32x32x32	33	69,5	108,5	47	551	16	4	32
07704114	40x40x40	41	74	121	56	823	16	3	24
07704112	50x50x50	51	81	145	70,5	1284	16	2	8
07704200	63x63x63	64	99	180,5	85	2070	16	2	8

GP 2065
JOINT



Elbow joint flanged with Female threaded connection, sand-blasted.

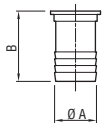


CODE	Size	ØA	B	ØC	D	E	F	G	H	ØI	Ch	gr	PN	Pack pcs/box	Master pcs/box
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm				
07709012	20 x 1/2"	1/2"	24,8	21	47	46,5	33,5	21,5	35	4	31	173	16	20	160
07709034	25 x 3/4"	3/4"	27,8	26	58	53,5	36,5	24,5	39	4	38	253	16	12	96

GP 2065
JOINT

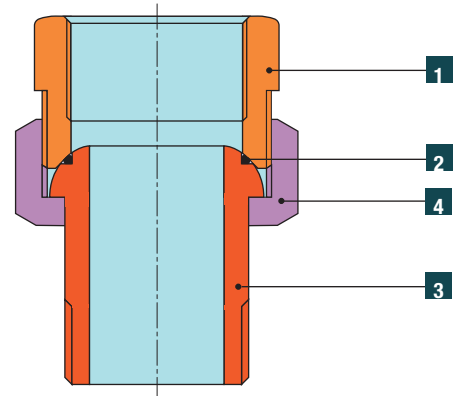


Internal pressure cone.



CODE	Size	ØA	B	gr	PN	Pack pcs/box	Master pcs/box
		mm	mm				
07005012	20	13,5	26	12	16	25	2300
07005034	25	18,5	31	25	16	50	800
07005100	32	25	35,5	46	16	25	400
07005114	40	32	46,5	88	16	15	240
07005112	50	40	56	108	16	10	160
07005200	63	52	65,5	294	16	4	64

3-PIECE FITTINGS FOR RADIATORS



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N - DW
2 O-Ring seal	1	NBR 70 Sh A (ASTM D 2240)
3 Tang	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
4 Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW

Temperature limit

From -20 °C to +100 °C

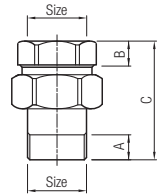
Male and female threads

UNI EN ISO 228/1 (DIN 259)

GP 2067
JOINT



Female-Male straight fitting with conical seal, sandblasted.

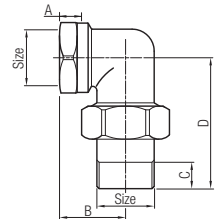


CODE	Size	A mm	B mm	C mm	gr	Pack pcs/box	Master pcs/box
07040012	1/2"	11	12	47	93	50	400
07040034	3/4"	11	12	51	169	30	240
07040100	1"	15	15	59	293	15	120
07040114	1"1/4	15	15	64	428	8	64

GP 2067
JOINT



Female-Male elbow fitting with conical seal, sandblasted.

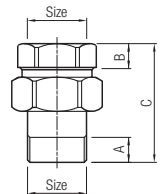


CODE	Size	A mm	B mm	C mm	D mm	gr	Pack pcs/box	Master pcs/box
07050012	1/2"	10	23	10	50	139	30	240
07050034	3/4"	10	29	12	56	228	16	128
07050100	1"	12	34	14	63	374	8	64
07050114	1"1/4	12	34	16	73	518	6	48

GP 2067
JOINT



Female-Male straight fitting with conical seal, nickel-plated.

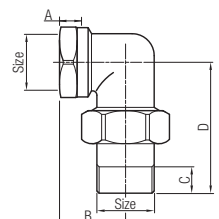


CODE	Size	A mm	B mm	C mm	gr	Pack pcs/box	Master pcs/box
07041012	1/2"	11	12	47	93	50	400
07041034	3/4"	11	12	51	169	30	240
07041100	1"	15	15	59	293	15	120
07041114	1"1/4	15	15	64	428	8	64

GP 2067
JOINT



Female-Male elbow fitting with conical seal, nickel-plated.



CODE	Size	A mm	B mm	C mm	D mm	gr	Pack pcs/box	Master pcs/box
07051012	1/2"	10	23	10	50	139	30	240
07051034	3/4"	10	29	12	56	228	16	128
07051100	1"	12	34	14	63	374	8	64
07051114	1"1/4	12	34	16	73	518	6	48



INOX AISI 304 FLEXIBLE



Components

Fittings

Material

UNI EN 12165 CW617N - DW
UNI EN 12164 CW617N - DW

Internal pipe

DUTRAL NFT 54041 DIN 7715 non toxic rubber

Covering

Stainless AISI 304 in 24 plaits with 8 strands each, section 0.22 mm

Internal diameter

9,5 mm

External diameter

14 mm

Nominal pressure

10 bar

Temperature limit

from +4 °C to +90 °C

Water flow (l/min)

20 (1 bar) - 28,8 (2 bar) - 35,6 (3 bar)

- Excellent resistance to: air and steam up to 130 °C, seawater, saline solutions, bases and their solutions, glycols, alcohols, ketones, ozone and atmospheric agents.
- Good resistance to: acids and their solutions, vegetable and animal oils and grease.
- Little or no resistance to: Mineral oils and grease, aromatic and chlorinated hydrocarbons.
- We confirm that the hoses contain no harmful substances that can be extracted by the passage of water: thus we can assure you that there is no possibility for migration of harmful substances from the hose to the water.

GP 2310
AISI FLEXIBLE PIPES



AISI 304 stainless steel flexible pipes Female-Female.



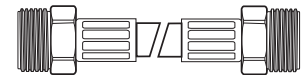
Longer sizes available on request.

CODE	Size	Length cm	Pack pcs/box
06030015	3/8" - 3/8"	15	25
06030020	3/8" - 3/8"	20	25
06030025	3/8" - 3/8"	25	25
06030030	3/8" - 3/8"	30	25
06030035	3/8" - 3/8"	35	25
06030040	3/8" - 3/8"	40	25
06030045	3/8" - 3/8"	45	25
06030050	3/8" - 3/8"	50	25
06030060	3/8" - 3/8"	60	25
06031120	3/8" - 1/2"	20	25
06031125	3/8" - 1/2"	25	25
06031130	3/8" - 1/2"	30	25
06031135	3/8" - 1/2"	35	25
06031140	3/8" - 1/2"	40	25
06031145	3/8" - 1/2"	45	25
06031150	3/8" - 1/2"	50	25
06031160	3/8" - 1/2"	60	25
06031015	1/2" - 1/2"	15	25
06031020	1/2" - 1/2"	20	25
06031025	1/2" - 1/2"	25	25
06031030	1/2" - 1/2"	30	25
06031035	1/2" - 1/2"	35	25
06031040	1/2" - 1/2"	40	25
06031045	1/2" - 1/2"	45	25
06031050	1/2" - 1/2"	50	25
06031060	1/2" - 1/2"	60	25

GP 2310
AISI FLEXIBLE PIPES



AISI 304 stainless steel flexible pipes Male-Male, short hexagonal.



Longer sizes available on request.

CODE	Size	Length cm	Pack pcs/box
06037015	M 3/8" - M 3/8"	15	25
06037020	M 3/8" - M 3/8"	20	25
06037025	M 3/8" - M 3/8"	25	25
06037030	M 3/8" - M 3/8"	30	25
06038015	M 3/8" - M 1/2"	15	25
06038020	M 3/8" - M 1/2"	20	25
06038025	M 3/8" - M 1/2"	25	25
06038030	M 3/8" - M 1/2"	30	25
06039015	M 1/2" - M 1/2"	15	25
06039020	M 1/2" - M 1/2"	20	25
06039025	M 1/2" - M 1/2"	25	25
06039030	M 1/2" - M 1/2"	30	25



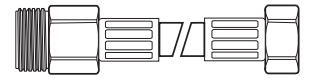
Longer sizes available on request.

CODE	Size	Length cm	Pack pcs/box
06032015	M 3/8" - F 3/8"	15	25
06032020	M 3/8" - F 3/8"	20	25
06032025	M 3/8" - F 3/8"	25	25
06032030	M 3/8" - F 3/8"	30	25
06032035	M 3/8" - F 3/8"	35	25
06032040	M 3/8" - F 3/8"	40	25
06032045	M 3/8" - F 3/8"	45	25
06032050	M 3/8" - F 3/8"	50	25
06032060	M 3/8" - F 3/8"	60	25
06033015	M 1/2" - F 1/2"	15	25
06033020	M 1/2" - F 1/2"	20	25
06033025	M 1/2" - F 1/2"	25	25
06033030	M 1/2" - F 1/2"	30	25
06033035	M 1/2" - F 1/2"	35	25
06033040	M 1/2" - F 1/2"	40	25
06033045	M 1/2" - F 1/2"	45	25
06033050	M 1/2" - F 1/2"	50	25
06033060	M 1/2" - F 1/2"	60	25
06034015	M 3/8" - F 1/2"	15	25
06034020	M 3/8" - F 1/2"	20	25
06034025	M 3/8" - F 1/2"	25	25
06034030	M 3/8" - F 1/2"	30	25
06034035	M 3/8" - F 1/2"	35	25
06034040	M 3/8" - F 1/2"	40	25
06034045	M 3/8" - F 1/2"	45	25
06034050	M 3/8" - F 1/2"	50	25
06034060	M 3/8" - F 1/2"	60	25
06035015	M 1/2" - F 3/8"	15	25
06035020	M 1/2" - F 3/8"	20	25
06035025	M 1/2" - F 3/8"	25	25
06035030	M 1/2" - F 3/8"	30	25
06035035	M 1/2" - F 3/8"	35	25
06035040	M 1/2" - F 3/8"	40	25
06035045	M 1/2" - F 3/8"	45	25
06035050	M 1/2" - F 3/8"	50	25
06035060	M 1/2" - F 3/8"	60	25

GP 2310
AISI FLEXIBLE PIPES



AISI 304 stainless steel flexible pipes Female - Male long hexagonal.



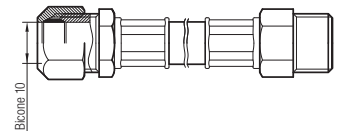
Longer sizes available on request.

CODE	Size	Length cm	Pack pcs/box
06050015	M 3/8" - F 3/8"	15	25
06050020	M 3/8" - F 3/8"	20	25
06050025	M 3/8" - F 3/8"	25	25
06050030	M 3/8" - F 3/8"	30	25
06050035	M 3/8" - F 3/8"	35	25
06050040	M 3/8" - F 3/8"	40	25
06050045	M 3/8" - F 3/8"	45	25
06050050	M 3/8" - F3/8"	50	25
06050060	M 3/8" - F 3/8"	60	25
06051015	M 1/2" - F 1/2"	15	25
06051020	M 1/2" - F 1/2"	20	25
06051025	M 1/2" - F 1/2"	25	25
06051030	M 1/2" - F 1/2"	30	25
06051035	M 1/2" - F 1/2"	35	25
06051040	M 1/2" - F 1/2"	40	25
06051045	M 1/2" - F 1/2"	45	25
06051050	M 1/2" - F 1/2"	50	25
06051060	M 1/2" - F 1/2"	60	25
06052015	M 3/8" - F 1/2"	15	25
06052020	M 3/8" - F 1/2"	20	25
06052025	M 3/8" - F 1/2"	25	25
06052030	M 3/8" - F 1/2"	30	25
06052035	M 3/8" - F 1/2"	35	25
06052040	M 3/8" - F 1/2"	40	25
06052045	M 3/8" - F 1/2"	45	25
06052050	M 3/8" - F 1/2"	50	25
06052060	M 3/8" - F 1/2"	60	25
06053015	M 1/2" - F 3/8"	15	25
06053020	M 1/2" - F 3/8"	20	25
06053025	M 1/2" - F 3/8"	25	25
06053030	M 1/2" - F 3/8"	30	25
06053035	M 1/2" - F 3/8"	35	25
06053040	M 1/2" - F 3/8"	40	25
06053045	M 1/2" - F 3/8"	45	25
06053050	M 1/2" - F 3/8"	50	25
06053060	M 1/2" - F 3/8"	60	25

GP 2310
AISI FLEXIBLE PIPES



Flexible pipe AISI 304 stainless steel Male - Bicone 10.



Longer sizes available on request.

CODE	Size	Length cm	Pack pcs/box
06048020	1/2"x10	20	25
06048025	1/2"x10	25	25
06048030	1/2"x10	30	25
06048035	1/2"x10	35	25
06048040	1/2"x10	40	25
06048050	1/2"x10	50	25



ANTIVIBRATION FLEXIBLE PIPES



Components

Fittings

Material

Zinc-plated Steel (1") or
UNI EN 12165 CW617N - DW
(1/2" - 3/4" - 1" - 1"1/4 - 1"1/2 - 2")

Internal pipe

EPDM meshed in galvanized

Covering

Plait in zinc-plated Steel

Temperature limit

from +4 °C to +90 °C

Suitable for passage of water and air at low pressure for pumps and autoclaves, with blue/blue bands.

SIZE	DN	∅ internal rubber	∅ external rubber	∅ Internal hose passage	∅ Male-side passage	∅ Female-side passage	No. of wires	PN	Curvature
1/2"	13x18	13 mm	18 mm	12,5	7,6	9	7	18 bar	90°
3/4"	19x25	19 mm	25 mm	18,5	14	14	9	18 bar	90°
1"	25x33	25 mm	33 mm	25	20	19	10	16 bar	80°
1"1/4	32x42	32 mm	42 mm	31,5	26	26	12	10 bar	60°
1"1/2	40x51	40 mm	52 mm	40	32	32	12	7 bar	40°
2"	50x62	50 mm	62 mm	51,5	41	41	12	6 bar	35°

GP 2050
ANTIVIBRATION FLEXIBLE PIPES



Antivibration flexible pipes Female-Male.



Longer sizes available on request

CODE	Size	Length cm	Pack pcs/box
06081030	1/2"	30	1
06081040	1/2"	40	1
06081050	1/2"	50	1
06081060	1/2"	60	1
06081070	1/2"	70	1
06081080	1/2"	80	1
06081090	1/2"	90	1
06081100	1/2"	100	1
06082030	3/4"	30	1
06082040	3/4"	40	1
06082050	3/4"	50	1
06082060	3/4"	60	1
06082070	3/4"	70	1
06082080	3/4"	80	1
06082090	3/4"	90	1
06082100	3/4"	100	1
06083030	1"	30	1
06083040	1"	40	1
06083050	1"	50	1
06083060	1"	60	1
06083070	1"	70	1
06083080	1"	80	1
06083090	1"	90	1
06083100	1"	100	1
06084030	1" 1/4	30	1
06084040	1" 1/4	40	1
06084050	1" 1/4	50	1
06084060	1" 1/4	60	1
06084070	1" 1/4	70	1
06084080	1" 1/4	80	1
06084090	1" 1/4	90	1
06084100	1" 1/4	100	1
06085030	1" 1/2	30	1
06085040	1" 1/2	40	1
06085050	1" 1/2	50	1
06085060	1" 1/2	60	1
06085070	1" 1/2	70	1
06085080	1" 1/2	80	1
06085090	1" 1/2	90	1
06085100	1" 1/2	100	1
06086030	2"	30	1
06086040	2"	40	1
06086050	2"	50	1
06086060	2"	60	1
06086070	2"	70	1
06086080	2"	80	1
06086090	2"	90	1
06086100	2"	100	1

EXTENSIBLE FLEXIBLE PIPES



Components

Fittings

Internal pipe

Nominal pressure

Temperature limit

Material

Stainless AISI 303

Stainless AISI 316

6 bar

from -10 °C to +90 °C

EN GENERAL FEATURES

Deformable part in stainless steel ASTM A2 40 TP-AISI 316L

Lap fusion welded in an argon atmosphere.

Female fitting: Thread UNI EN ISO 228/1 (DIN 259)

Male fitting: Thread UNI EN 10226 (UNI EN ISO 7/1 R) (DIN 2999)

Good protection from intergranular corrosion.

OPERATING CONDITIONS

Extension up to twice the initial length.

Possibility of curvature up to 360°.

Maximum operating temperature: -10 °C a +90 °C.

GP 2330
EXTENSIBLE FLEXIBLE PIPES

Flexible pipe in stainless steel AISI 316, Male-Female fittings.
Maximum working pressure: 8 bar.



CODE	Size	Length cm	Pack pcs/box
6141P124	1/2" M-F	10-20	18
6141P244	1/2" M-F	20-40	18
6141P125	3/4" M-F	10-20	18
6141P245	3/4" M-F	20-40	18



Ball valves, check valves, BIBCOCKS AND UNDER SINKS FOR WATER **7**



page 252

**Perfecta
ball valves**



page 279

**Incasso
recessed
ball valve**



page 255

**Evolution
ball valves**



pages 281 - 284

**Garden
Export - Pesante
and Anti-freeze
ball bibcocks**



page 265

**Motorized
valve body**



pages 286 - 288

**Filter King
and Twister
angle bibcocks**



page 266

**3-way
ball valves
"L" and "T"**



page 290

**Mignon
ball valves**



page 268

**Compression
ball valves**



page 292

**Gate
valves**



page 272

**Water-Box 2.0
recessed ball
valve for water**



page 294

**Eura
check valves**



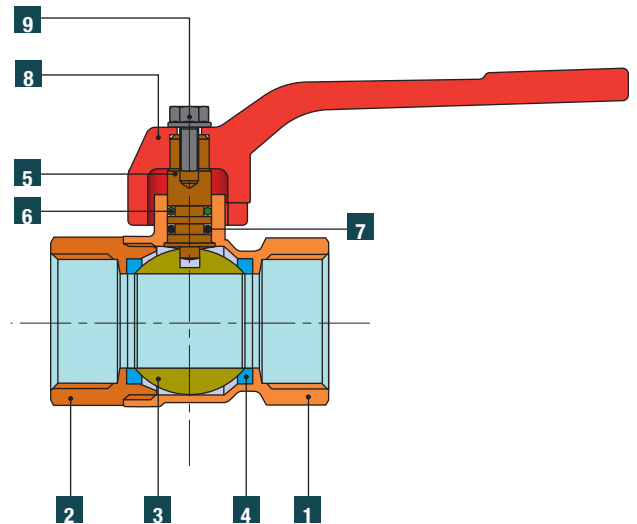
pages 275 - 277

Bibcocks



page 296

**Clapet
check valve,
Foot valve
and Sift filter**



Components

	Components	Pcs	Material
1	Body	1	UNI EN 12165 CW617N - DW
2	End sleeve	1	UNI EN 12165 CW617N - DW
3	Ball	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
4	Ball seal seats	2	P.T.F.E.
5	Stem	1	UNI EN 12164 CW617N - DW
6	Stem upper seal O-Ring	1	VITON 70 Sh A (ASTM D2240)
7	Stem lower seal O-Ring	1	EPDM Peroxidic 70 Sh A (ASTM D2240)
8	Aluminum lever handle	1	AL, painted
	Steel lever handle	1	Steel ZN, plastic-covered
	Alluminium butterfly handle	1	AL, painted
9	Screw	1	Zinc-plated Steel
	Nut		Zinc-plated Steel
*	Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
*	Tang	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
*	O-ring tang seal	1	EPDM Peroxidic 70 Sh A (ASTM D2240)

(*) With Pipe union

A ACCESSORIES

See Spacing kit for lever handle

EN GENERAL CHARACTERISTICS

Bore: Standard
 Range: From 1/2" to 2"
 Female fitting: Thread UNI EN ISO 228/1 (DIN 259)
 Male fitting: Thread UNI EN ISO 228/1 (DIN 259)
 Tang and nut: Thread UNI EN ISO 228/1 (DIN 259)
 Functioning: 90° degrees rotation of operating device.
 Operating device: Aluminium or steel lever handles, aluminium Butterfly.

OPERATING CONDITIONS

Flow direction: Both ways.
 Minimum and maximum operating temperature: -20 °C/+120 °C **
 Maximum pressure (T=120 °C): 10 bar
 Nominal pressure (T=20 °C): See tables below
 ** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

Valves must be used in fully open or fully closed position.

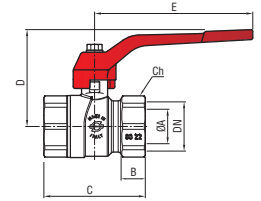
These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13). From size 1 1/4 they must not be used for fluids of group 1 (substances and mixes classified as dangerous).

For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue. The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxidic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2245
PERFECTA BALL VALVE



Female-Female nickel-plated ball valve, with red painted aluminum lever handle.



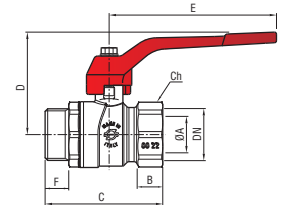
A

CODE	Size	øA mm	B mm	C mm	D mm	E mm	DN	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
8363R004	1/2"	14,8	12	47,5	49	85	15	25	141	50	36	144
8363R005	3/4"	18,5	13	54,5	52	85	20	31	201	40	24	96
8363R006	1"	23,5	14,5	64	61,5	105	25	38	319	25	12	48
8363R007	1"1/4	30	15,5	76	66,5	105	32	46	518	25	8	32
8363R008	1"1/2	35	17	88	84,5	135	40	54	771	25	4	16
8363R009	2"	45	18	103,5	92	135	50	66	1237	16	4	16

GP 2245
PERFECTA



Male-Female nickel-plated ball valve, with red painted aluminum lever handle.



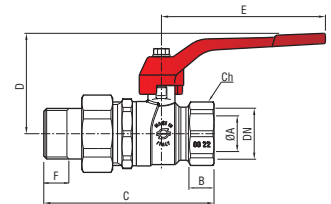
A

CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	DN	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
8364R004	1/2"	14,8	12	53	49	85	11	15	25	153	50	36	144
8364R005	3/4"	18,5	13	59,5	52	85	12	20	31	215	40	24	96
8364R006	1"	23,5	14,5	69,5	61,5	105	13,5	25	38	343	25	12	48
8364R007	1"1/4	30	15,5	81,5	66,5	105	14,5	32	46	557	25	8	32
8364R008	1"1/2	35	17	93	84,5	135	16	40	54	810	25	4	16
8364R009	2"	45	18	110	92	135	17,5	50	66	1328	16	4	16

GP 2245
PERFECTA



Female-Pipe union nickel-plated ball valve, with red painted aluminum lever handle.



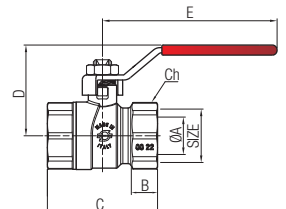
A

CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	DN	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
8372R004	1/2"	14,8	12	78	49	85	10	15	25	229	50	24	96
8372R005	3/4"	18,5	13	87	52	85	12	20	31	331	40	18	72
8372R006	1"	23,5	14,5	101	61,5	105	14	25	38	546	25	12	48
8372R007	1"1/4	30	15,5	117	66,5	105	15	32	46	806	25	8	32

GP 2245
PERFECTA



Female-Female nickel-plated ball valve, with red plastified steel lever handle.

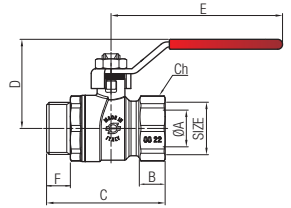


CODE	Size	øA mm	B mm	C mm	D mm	E mm	DN	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
8360R004	1/2"	14,8	12	47,5	44,5	86	15	25	152	50	36	144
8360R005	3/4"	18,5	13	54,5	48	86	20	31	212	40	24	96
8360R006	1"	23,5	14,5	64	57	112	25	38	352	25	12	48
8360R007	1"1/4	30	15,5	76	62	112	32	46	557	25	8	32
8360R008	1"1/2	35	17	88	71,5	143	40	54	837	25	4	16
8360R009	2"	45	18	103,5	79	143	50	66	1303	16	4	16

GP 2245
PERFECTA



Male-Female nickel-plated ball valve, with red plastified steel lever handle.

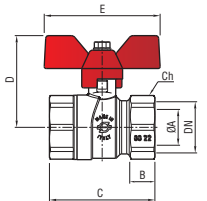


CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	DN	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
8361R004	1/2"	14,8	12	53	44,5	86	11	15	25	164	50	36	144
8361R005	3/4"	18,5	13	59,5	48	86	12	20	31	226	40	24	96
8361R006	1"	23,5	14,5	69,5	57	112	13,5	25	38	376	25	12	48
8361R007	1"1/4	30	15,5	81,5	62	112	14,5	32	46	596	25	8	32
8361R008	1"1/2	35	17	93	71,5	143	16	40	54	876	25	4	16
8361R009	2"	45	18	110	79	143	17,5	50	66	1394	16	4	16

GP 2245
PERFECTA



Female-Female nickel-plated ball valve, with red painted aluminum Butterfly handle.

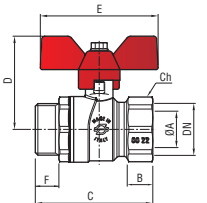


CODE	Size	øA mm	B mm	C mm	D mm	E mm	DN	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
8366R004	1/2"	14,8	12	47,5	44,5	60	15	25	139	50	36	144
8366R005	3/4"	18,5	13	54,5	47	60	20	31	199	40	24	96
8366R006	1"	23,5	14,5	64	53,5	65	25	38	314	25	12	48
8366R007	1"1/4	30	15,5	76	58,5	65	32	46	513	25	8	32

GP 2245
PERFECTA



Male-Female nickel-plated ball valve, with red painted aluminum Butterfly handle.

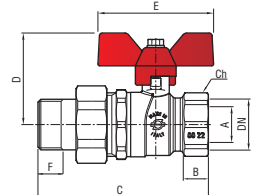


CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	DN	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
8367R004	1/2"	14,8	12	53	44,5	60	11	15	25	151	50	36	144
8367R005	3/4"	18,5	13	59,5	47	60	12	20	31	213	40	24	96
8367R006	1"	23,5	14,5	69,5	53,5	65	13,5	25	38	338	25	12	48
8367R007	1"1/4	30	15,5	81,5	58,5	65	14,5	32	46	551	25	8	32

GP 2245
PERFECTA



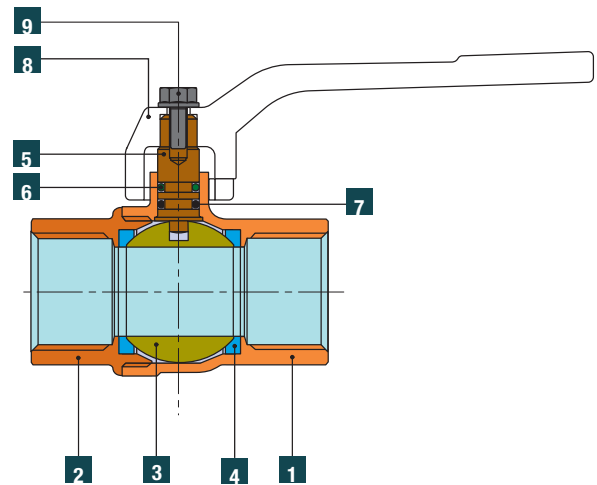
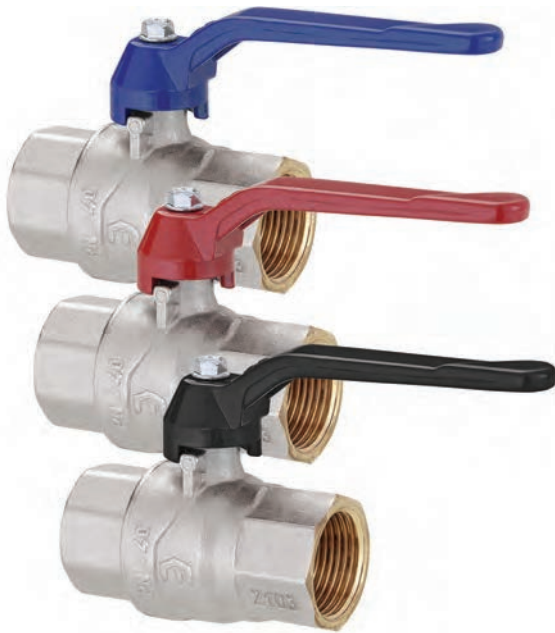
Female-Pipe union nickel-plated ball valve, with red painted aluminum Butterfly handle.



CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	DN	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
8373R004	1/2"	14,8	12	78	44,5	60	10	15	25	227	50	36	144
8373R005	3/4"	18,5	13	87	47	60	12	20	31	329	40	24	96
8373R006	1"	23,5	14,5	101	53,5	65	14	25	38	541	25	12	48
8373R007	1"1/4	30	15,5	117	58,5	65	15	32	46	801	25	8	32

EVOLUTION

BALL VALVES



Components

	Components	Pcs	Material
1	Body	1	UNI EN 12165 CW617N - DW
2	End sleeve	1	UNI EN 12165 CW617N - DW
3	Ball	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
4	Ball seal seats	2	P.T.F.E.
5	Stem	1	UNI EN 12164 CW617N - DW
6	Stem upper seal O-Ring	1	VITON 70 Sh A (ASTM D2240)
7	Stem lower seal O-Ring	1	EPDM Peroxidic 70 Sh A (ASTM D2240)
8	Aluminium lever handle	1	AL, painted
	Steel lever handle	1	Steel ZN, plastic-covered
	Alluminium butterfly handle	1	AL, painted
9	Screw	1	Zinc-plated Steel
	Nut	1	Zinc-plated Steel
*	Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
*	Tang	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
*	O-ring tang seal	1	EPDM Peroxidic 70 Sh A (ASTM D2240)

(*) With Pipe union

A ACCESSORIES

See Spacing kit for lever handle

EN GENERAL CHARACTERISTICS

Bore: Total
 Range: From 1/4" to 4"
 Female fitting from Rp 3/8" to Rp 2": Thread UNI EN 10226 (UNI EN ISO 7/1 Rp) (DIN 2999)
 Female fitting from Rp 2 1/2 to Rp 4": Thread UNI EN ISO 228/1 (DIN 259)
 Male fitting: Thread UNI EN 10226 (UNI EN ISO 7/1 R) (DIN 2999)
 Tang and Nut: Thread UNI EN ISO 228/1 (DIN 259)
 Functioning: 90° degrees rotation of operating device.
 Operating device: Aluminium or steel lever handles, aluminium Butterfly.

OPERATING CONDITIONS

Flow direction: Both ways.
 Minimum and maximum operating temperature: -20 °C/+120 °C **
 Maximum pressure (T=120 °C): 10 bar
 Nominal pressure (T=20 °C): See tables below
 ** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

Valves must be used in fully open or fully closed position.

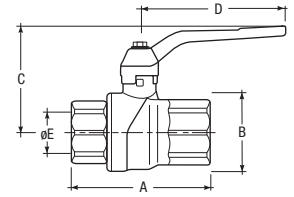
These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13). From size 1 1/4 they must not be used for fluids of group 1 (substances and mixes classified as dangerous).

For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue. The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxidic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2240
GP 2210
EVOLUTION



Female-Female nickel-plated ball valve, with painted aluminum lever handle.



(*) Note: 2"1/2 - 3" - 4" valves are with threading ISO 228/1 and are supplied with levers disassembled.

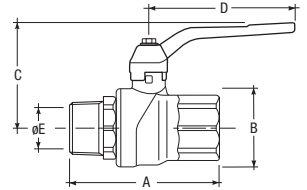
A

CODE	Size	A mm	øB mm	C mm	D mm	øE mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION										
80001014	1/4"	45	26	47	85	10	140	50	36	144
80001038	3/8"	47	26	47	85	10	141	50	36	144
80001012	1/2"	56	31	49	85	15	175	50	36	144
80001034	3/4"	67	38	53	85	20	280	40	24	96
80001100	1"	80	46	63	105	25	460	30	12	48
80001114	1"1/4	94	57	69	105	32	675	25	8	32
80001112	1"1/2	103	68	86	135	40	987	25	4	16
80001200	2"	126	85	94	135	50	1650	16	4	16
80001212	2"1/2 (*)	127	110	119	240	64	3060	15	1	8
80001300	3" (*)	149	135	129	240	76	3970	15	1	6
80001400	4" (*)	185,5	164	153	300	100	7835	15	1	2
RED VERSION										
86001014	1/4"	45	26	47	85	10	140	50	36	144
86001038	3/8"	47	26	47	85	10	141	50	36	144
86001012	1/2"	56	31	49	85	15	175	50	36	144
86001034	3/4"	67	38	53	85	20	280	40	24	96
86001100	1"	80	46	63	105	25	460	30	12	48
86001114	1"1/4	94	57	69	105	32	675	25	8	32
86001112	1"1/2	103	68	86	135	40	987	25	4	16
86001200	2"	126	85	94	135	50	1650	16	4	16
08007212	2"1/2 (*)	127	110	119	240	64	3060	15	1	8
08007300	3" (*)	149	135	129	240	76	3970	15	1	6
08007400	4" (*)	185,5	164	153	300	100	7835	15	1	2
BLACK VERSION										
81001012	1/2"	56	31	49	85	15	175	50	36	144
81001034	3/4"	67	38	53	85	20	280	40	24	96
81001100	1"	80	46	63	105	25	460	30	12	48
81001114	1"1/4	94	57	69	105	32	675	25	8	32
81001112	1"1/2	103	68	86	135	40	987	25	4	16
81001200	2"	126	85	94	135	50	1650	16	4	16
NEW 08107212	2"1/2 (*)	127	110	119	240	64	3060	15	1	8
NEW 08107300	3" (*)	149	135	129	240	76	3970	15	1	6
NEW 08107400	4" (*)	185,5	164	153	300	100	7835	15	1	2

GP 2240
EVOLUTION



Male-Female nickel-plated ball valve, with painted aluminum lever handle.



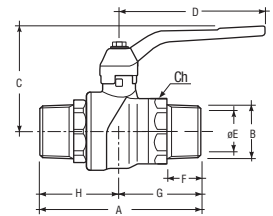
A

CODE	Size	A mm	øB mm	C mm	D mm	øE mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION										
80004014	1/4"	51	26	47	85	10	146	50	36	144
80004038	3/8"	52	26	47	85	10	160	50	36	144
80004012	1/2"	60	31	49	85	15	181	50	36	144
80004034	3/4"	70	38	53	85	20	287	40	24	96
80004100	1"	83	46	63	105	25	510	30	12	48
80004114	1"1/4	97	57	69	105	32	710	25	8	32
80004112	1"1/2	110	68	86	135	40	1080	25	4	16
80004200	2"	134	85	94	135	50	1700	16	4	16
RED VERSION										
86004014	1/4"	51	26	47	85	10	146	50	36	144
86004038	3/8"	52	26	47	85	10	160	50	36	144
86004012	1/2"	60	31	49	85	15	181	50	36	144
86004034	3/4"	70	38	53	85	20	287	40	24	96
86004100	1"	83	46	63	105	25	510	30	12	48
86004114	1"1/4	97	57	69	105	32	710	25	8	32
86004112	1"1/2	110	68	86	135	40	1080	25	4	16
86004200	2"	134	85	94	135	50	1700	16	4	16
BLACK VERSION										
81004012	1/2"	60	31	49	85	15	181	50	36	144
81004034	3/4"	70	38	53	85	20	287	40	24	96
81004100	1"	83	46	63	105	25	510	30	12	48
81004114	1"1/4	97	57	69	105	32	710	25	8	32
81004112	1"1/2	110	68	86	135	40	1080	25	4	16
81004200	2"	134	85	94	135	50	1700	16	4	16

GP 2240
EVOLUTION

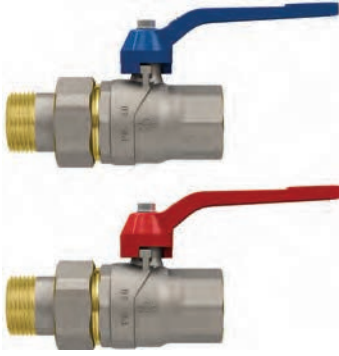


Male-Male nickel-plated ball valve, with painted aluminum lever handle.

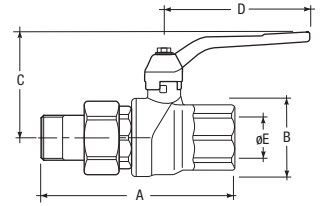


CODE	Size	DN	A mm	øB mm	C mm	D mm	øE mm	F mm	G mm	H mm	Ch1 mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION															
6046R104	1/2"	15	61	1/2"	49,5	85	15	14,8	29	32	25	185	50	36	144
6046R105	3/4"	20	71,3	3/4"	53	85	20	16,5	34,5	36,8	31	295	40	24	96
6046R106	1"	25	83	1"	63	105	25	19,5	40	43	38	475	30	12	48
RED VERSION															
6004R104	1/2"	15	61	1/2"	49,5	85	15	14,8	29	32	25	185	50	36	144
6004R105	3/4"	20	71,3	3/4"	53	85	20	16,5	34,5	36,8	31	295	40	24	96
6004R106	1"	25	83	1"	63	105	25	19,5	40	43	38	475	30	12	48

GP 2240
EVOLUTION



Female-Pipe union nickel-plated ball valve, with painted aluminum lever handle.



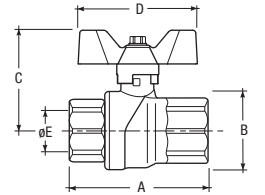
A

CODE	Size	A mm	øB mm	C mm	D mm	øE mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION										
80005013	1/2"	82	31	49	85	15	245	50	24	96
80005035	3/4"	94	38	53	85	20	395	40	18	72
80005101	1"	109	46	63	105	25	650	30	12	48
80005115	1"1/4	125	57	69	105	32	880	25	8	32
RED VERSION										
86005013	1/2"	82	31	49	85	15	245	50	24	96
86005035	3/4"	94	38	53	85	20	395	40	18	72
86005101	1"	109	46	63	105	25	650	30	12	48
86005115	1"1/4	125	57	69	105	32	880	25	8	32

GP 2240
EVOLUTION



Female-Female nickel-plated ball valve, with painted aluminum butterfly handle.

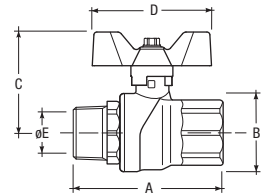


A

CODE	Size	A mm	øB mm	C mm	D mm	øE mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION										
80001015	1/4"	45	26	42	60	10	140	50	36	144
80001039	3/8"	47	26	42	60	10	140	50	36	144
80001013	1/2"	56	31	46	60	15	175	50	36	144
80001035	3/4"	67	38	49	60	20	280	40	24	96
80001101	1"	80	46	56	65	25	455	30	12	48
80001115	1"1/4	94	57	62	65	32	660	25	8	32
RED VERSION										
86001015	1/4"	45	26	42	60	10	140	50	36	144
86001039	3/8"	47	26	42	60	10	140	50	36	144
86001013	1/2"	56	31	46	60	15	175	50	36	144
86001035	3/4"	67	38	49	60	20	280	40	24	96
86001101	1"	80	46	56	65	25	455	30	12	48
86001115	1"1/4	94	57	62	65	32	660	25	8	32
BLACK VERSION										
81001013	1/2"	56	31	46	60	15	175	50	36	144
81001035	3/4"	67	38	49	60	20	280	40	24	96
81001101	1"	80	46	56	65	25	455	30	12	48
81001115	1"1/4	94	57	62	65	32	660	25	8	32

GP 2240
EVOLUTION

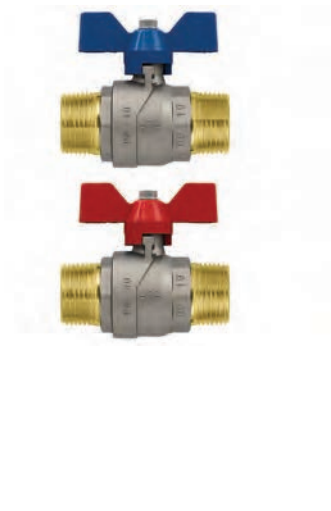
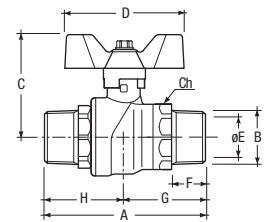
Male-Female nickel-plated ball valve, with painted aluminum butterfly handle.



CODE	Size	A mm	øB mm	C mm	D mm	øE mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION										
80004015	1/4"	51	26	42	60	10	140	50	36	144
80004039	3/8"	52	26	42	60	10	140	50	36	144
80004013	1/2"	60	31	46	60	15	180	50	36	144
80004035	3/4"	70	38	49	60	20	290	40	24	96
80004101	1"	83	46	56	65	25	470	30	12	48
80004115	1 1/4"	97	57	62	65	32	720	25	8	32
RED VERSION										
86004015	1/4"	51	26	42	60	10	140	50	36	144
86004039	3/8"	52	26	42	60	10	140	50	36	144
86004013	1/2"	60	31	46	60	15	180	50	36	144
86004035	3/4"	70	38	49	60	20	290	40	24	96
86004101	1"	83	46	56	65	25	470	30	12	48
86004115	1 1/4"	97	57	62	65	32	720	25	8	32
BLACK VERSION										
81004013	1/2"	60	31	46	60	15	180	50	36	144
81004035	3/4"	70	38	49	60	20	290	40	24	96
81004101	1"	83	46	56	65	25	470	30	12	48
81004115	1 1/4"	97	57	62	65	32	720	25	8	32

GP 2240
EVOLUTION

Male-Male nickel-plated ball valve, with painted aluminum butterfly handle.



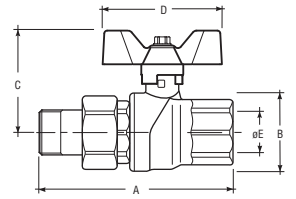
CODE	Size	DN mm	A mm	øB mm	C mm	D mm	øE mm	F mm	G mm	H mm	Ch1 mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION															
6041R104	1/2"	15	61	1/2"	14,8	60	15	46	29	32	25	185	50	36	144
6041R105	3/4"	20	71,3	3/4"	16,5	60	20	49,5	34,5	36,8	31	295	40	24	96
6041R106	1"	25	83	1"	19,5	65	25	56	40	43	38	475	30	12	48
RED VERSION															
6021R104	1/2"	15	61	1/2"	14,8	60	15	46	29	32	25	185	50	36	144
6021R105	3/4"	20	71,3	3/4"	16,5	60	20	49,5	34,5	36,8	31	295	40	24	96
6021R106	1"	25	83	1"	19,5	65	25	56	40	43	38	475	30	12	48

A

GP 2240
EVOLUTION



Female-Pipe union nickel-plated ball valve, with painted aluminum butterfly handle.



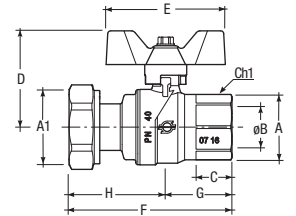
A

CODE	Size	A mm	øB mm	C mm	D mm	øE mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION										
80005012	1/2"	82	31	46	60	15	248	50	36	144
80005034	3/4"	94	38	49	60	20	400	40	24	96
80005100	1"	109	46	56	65	25	646	30	12	48
80005114	1"1/4	125	57	62	65	32	873	25	8	32
RED VERSION										
86005012	1/2"	82	31	46	60	15	248	50	36	144
86005034	3/4"	94	38	49	60	20	400	40	24	96
86005100	1"	109	46	56	65	25	646	30	12	48
86005114	1"1/4	125	57	62	65	32	873	25	8	32
BLACK VERSION										
81005012	1/2"	82	31	46	60	15	248	50	36	144
81005034	3/4"	94	38	49	60	20	400	40	24	96
81005100	1"	109	46	56	65	25	646	30	12	48
81005114	1"1/4	125	57	62	65	32	873	25	8	32

GP 2240
EVOLUTION



Female-Revolving nut nickel-plated ball valve, with painted aluminum butterfly handle.



A

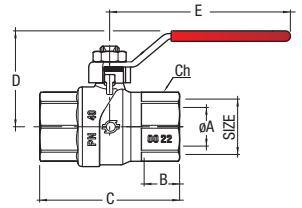
CODE	Size	A	A1	øB mm	C mm	D mm	E mm	F mm	G mm	H mm	Ch1 mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION															
6067R077	1/2"x3/4"	1/2"	3/4"	15	17	46	60	73,2	28,5	44,7	25	230	50	30	120
6067R080	3/4"x3/4"	3/4"	3/4"	20	18,3	49,5	60	81,9	33,5	48,4	31	327	40	18	72
6067R081	3/4"x1"	3/4"	1"	20	18,3	49,5	60	82,3	33,5	48,8	31	340	40	18	72
6067R085	1"x1"1/4	1"	1"1/4	25	22	56	65	93,5	40	53,5	38	535	30	12	48
RED VERSION															
6068R077	1/2"x3/4"	1/2"	3/4"	15	17	46	60	73,2	28,5	44,7	25	230	50	30	120
6068R080	3/4"x3/4"	3/4"	3/4"	20	18,3	49,5	60	81,9	33,5	48,4	31	327	40	18	72
6068R081	3/4"x1"	3/4"	1"	20	18,3	49,5	60	82,3	33,5	48,8	31	340	40	18	72
6068R085	1"x1"1/4	1"	1"1/4	25	22	56	65	93,5	40	53,5	38	535	30	12	48

GP 2240
EVOLUTION



Female-Female nickel-plated ball valve, with red plastified steel lever handle.

(* Note: 2"1/2 - 3" - 4" valves are with threading ISO 228/1 and are supplied with levers disassembled.

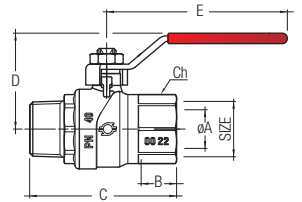


CODE	Size	DN	øA mm	B mm	C mm	D mm	E mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
80008014	1/4"	8	10	12,5	45	41	86	20	154	50	36	144
80008038	3/8"	10	10	13	47	41	86	20	158	50	36	144
80008012	1/2"	15	15	17	56	43	86	25	195	50	36	144
80008034	3/4"	20	20	18,3	67	46	86	31	297	40	24	96
80008100	1"	25	25	22	80	58	112	38	495	30	12	48
80008114	1"1/4	32	32	24	94	63	112	47	700	25	8	32
80008112	1"1/2	40	40	24	103	73	143	53	1070	20	4	16
80008200	2"	50	50	28,5	126	81	143	66	1755	20	4	16
08008826	2"1/2 (*)	64	65	22	127	119	240	84	3200	15	1	8
08008828	3" (*)	76	80	25	149	120	240	97	4110	15	1	6
08008830	4" (*)	100	100	29	185,5	149	251	124	8030	15	1	2

GP 2240
EVOLUTION



Male-Female nickel-plated ball valve, with red plastified steel lever handle.

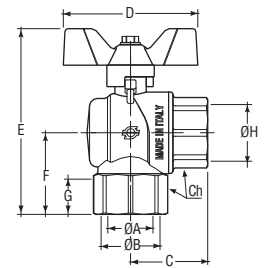


CODE	Size	DN	øA mm	B mm	C mm	D mm	E mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
80008514	1/4"	8	10	12,5	51	41	86	20	154	50	36	144
80008538	3/8"	10	10	13	52	41	86	20	158	50	36	144
80008512	1/2"	15	15	17	60	43	86	25	195	50	36	144
80008534	3/4"	20	20	18,3	70	46	86	31	297	40	24	96
80008600	1"	25	25	22	83	58	112	38	495	30	12	48
80008614	1"1/4	32	32	24	97	63	112	47	700	25	8	32
80008612	1"1/2	40	40	24	110	73	143	53	1070	20	4	16
80008700	2"	50	50	28,5	134	81	143	66	1755	20	4	16

GP 2240
EVOLUTION

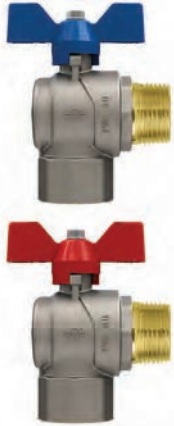


Female-Female nickel-plated ball angle valve, with painted aluminium butterfly handle.

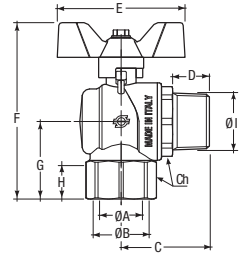


CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Ch mm	gr	Pack pcs/box	Master pcs/box
BLUE VERSION													
6770R104	1/2"x1/2"	15	1/2"	30	60	77,3	32,5	17	1/2"	25	196	36	144
6770R105	3/4"x3/4"	20	3/4"	34,5	60	86,6	38	18,3	3/4"	31	307	24	96
6770R106	1"x1"	25	1"	41,5	65	99,5	45	22	1"	38	505	12	48
6770R107	1"1/4x1"1/4	32	1"1/4	48,5	65	113	53	24	1"1/4	47	807	8	32
RED VERSION													
6778R104	1/2"x1/2"	15	1/2"	30	60	77,3	32,5	17	1/2"	25	196	36	144
6778R105	3/4"x3/4"	20	3/4"	34,5	60	86,6	38	18,3	3/4"	31	307	24	96
6778R106	1"x1"	25	1"	41,5	65	99,5	45	22	1"	38	505	12	48
6778R107	1"1/4x1"1/4	32	1"1/4	48,5	65	113	53	24	1"1/4	47	807	8	32

GP 2240
EVOLUTION



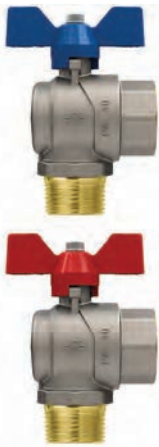
Female-Male nickel-plated ball angle valve, with painted aluminium butterfly handle.



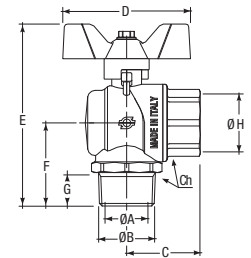
A

CODE	Size	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I	Ch mm	gr	Pack pcs/box	Master pcs/box
BLUE VERSION														
6771R104	1/2"x1/2"	15	1/2"	35,5	14,8	60	77,3	32,5	17	1/2"	25	208	36	144
6771R105	3/4"x3/4"	20	3/4"	40,5	16,5	60	86,6	38	18,3	3/4"	31	319	24	96
6771R106	1"x1"	25	1"	47,5	19,5	65	99,5	45	22	1"	38	535	12	48
RED VERSION														
6779R104	1/2"x1/2"	15	1/2"	35,5	14,8	60	77,3	32,5	17	1/2"	25	208	36	144
6779R105	3/4"x3/4"	20	3/4"	40,5	16,5	60	86,6	38	18,3	3/4"	31	319	24	96
6779R106	1"x1"	25	1"	47,5	19,5	65	99,5	45	22	1"	38	535	12	48

GP 2240
EVOLUTION



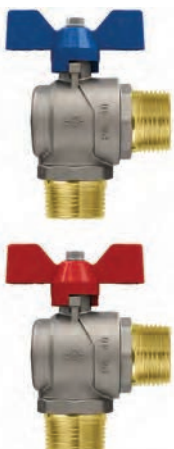
Male-Female nickel-plated ball angle valve, with painted aluminium butterfly handle.



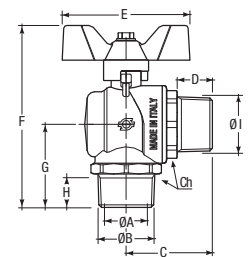
A

CODE	Size	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	Ch mm	gr	Pack pcs/box	Master pcs/box
BLUE VERSION													
6772R104	1/2"x1/2"	15	1/2"	30	60	79,8	35	14,8	1/2"	25	198	36	144
6772R105	3/4"x3/4"	20	3/4"	34,5	60	89,6	41	16,5	3/4"	31	309	24	96
6772R106	1"x1"	25	1"	41,5	65	102	47,5	19,5	1"	38	513	12	48
RED VERSION													
6780R104	1/2"x1/2"	15	1/2"	30	60	79,8	35	14,8	1/2"	25	198	36	144
6780R105	3/4"x3/4"	20	3/4"	34,5	60	89,6	41	16,5	3/4"	31	309	24	96
6780R106	1"x1"	25	1"	41,5	65	102	47,5	19,5	1"	38	513	12	48

GP 2240
EVOLUTION



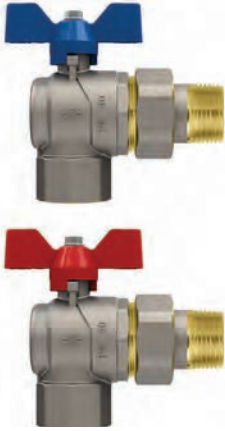
Male-Male nickel-plated ball angle valve, with painted aluminium butterfly handle.



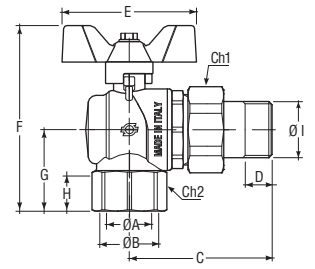
A

CODE	Size	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I	Ch mm	gr	Pack pcs/box	Master pcs/box
BLUE VERSION														
6773R104	1/2"x1/2"	15	1/2"	35,5	14,8	60	79,8	35	14,8	1/2"	25	210	36	144
6773R105	3/4"x3/4"	20	3/4"	40,5	16,5	60	89,6	41	16,5	3/4"	31	321	24	96
6773R106	1"x1"	25	1"	47,5	19,5	65	102	47,5	19,5	1"	38	543	12	48
RED VERSION														
6781R104	1/2"x1/2"	15	1/2"	35,5	14,8	60	79,8	35	14,8	1/2"	25	210	36	144
6781R105	3/4"x3/4"	20	3/4"	40,5	16,5	60	89,6	41	16,5	3/4"	31	321	24	96
6781R106	1"x1"	25	1"	47,5	19,5	65	102	47,5	19,5	1"	38	543	12	48

GP 2240
EVOLUTION



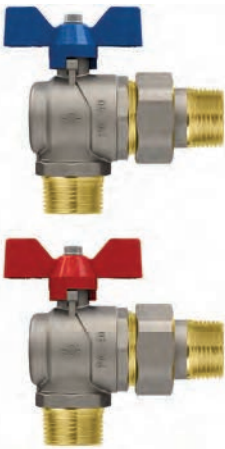
Female-Pipe union nickel-plated ball angle valve, with painted aluminium butterfly handle.



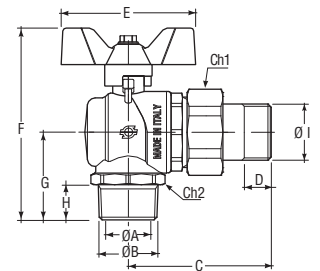
A

CODE	Size	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I	Ch1 mm	Ch2 mm	gr	Pack pcs/box	Master pcs/box
BLUE VERSION															
6774R076	1/2"x1/2"	15	1/2"	56,5	10	60	77,3	32,5	17	1/2"	30	25	273	30	120
6774R080	3/4"x3/4"	20	3/4"	63,5	12	60	86,6	38	18,3	3/4"	37	31	425	18	72
6774R084	1"x1"	25	1"	73,5	14	65	99,5	45	22	1"	46	38	690	10	40
RED VERSION															
6782R076	1/2"x1/2"	15	1/2"	56,5	10	60	77,3	32,5	17	1/2"	30	25	273	30	120
6782R080	3/4"x3/4"	20	3/4"	63,5	12	60	86,6	38	18,3	3/4"	37	31	425	18	72
6782R084	1"x1"	25	1"	73,5	14	65	99,5	45	22	1"	46	38	690	10	40

GP 2240
EVOLUTION



Male-Pipe union nickel-plated ball angle valve, with painted aluminium butterfly handle.



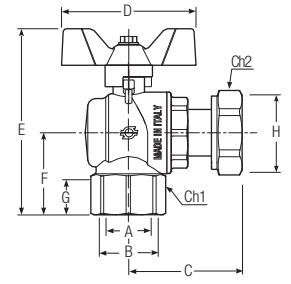
A

CODE	Size	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I	Ch1 mm	Ch2 mm	gr	Pack pcs/box	Master pcs/box
BLUE VERSION															
6775R076	1/2"x1/2"	15	1/2"	56,5	10	60	79,8	35	14,8	1/2"	30	25	275	30	120
6775R080	3/4"x3/4"	20	3/4"	63,5	12	60	89,6	41	16,5	3/4"	37	31	428	18	72
6775R084	1"x1"	25	1"	73,5	14	65	102	47,5	19,5	1"	46	38	697	10	40
RED VERSION															
6783R076	1/2"x1/2"	15	1/2"	56,5	10	60	79,8	35	14,8	1/2"	30	25	275	30	120
6783R080	3/4"x3/4"	20	3/4"	63,5	12	60	89,6	41	16,5	3/4"	37	31	428	18	72
6783R084	1"x1"	25	1"	73,5	14	65	102	47,5	19,5	1"	46	38	697	10	40

GP 2240
EVOLUTION



Female-Revolving nut nickel-plated ball angle valve, with painted aluminium butterfly handle.



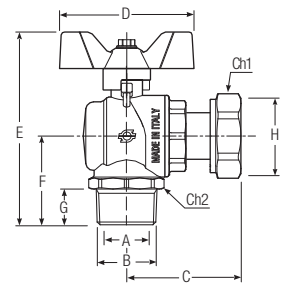
A

CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H	Ch1 mm	Ch2 mm	gr	PN	Pack pcs/box	Master pcs/box	
BLUE VERSION																
6069R077	1/2"Fx3/4"D	15	1/2"	47,8	60	77,3	32,5	17	3/4"	25	32	253	50	30	120	
6069R080	3/4"Fx3/4"D	20	3/4"	52,3	60	86,6	38	18,3	3/4"	31	32	361	40	18	72	
6069R081	3/4"Fx1"D	20	3/4"	52,8	60	86,6	38	18,3	1"	31	38	370	40	18	72	
6069R085	1"Fx1"1/4 D	25	1"	58,2	65	99,5	45	22	1"1/4	38	47	580	30	10	40	
RED VERSION																
6070R077	1/2"Fx3/4"D	15	1/2"	47,8	60	77,3	32,5	17	3/4"	25	32	253	50	30	120	
6070R080	3/4"Fx3/4"D	20	3/4"	52,3	60	86,6	38	18,3	3/4"	31	32	361	40	18	72	
6070R081	3/4"Fx1"D	20	3/4"	52,8	60	86,6	38	18,3	1"	31	38	370	40	18	72	
6070R085	1"Fx1"1/4 D	25	1"	58,2	65	99,5	45	22	1"1/4	38	47	580	30	10	40	

GP 2240
EVOLUTION



Male-Revolving nut nickel-plated ball angle valve, with painted aluminium butterfly handle.



A

CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H	Ch1 mm	Ch2 mm	gr	Pack pcs/box	Master pcs/box	
BLUE VERSION															
6071R077	1/2"Mx3/4"D	15	1/2"	47,8	60	79,8	35	14,8	3/4"	25	32	253	30	120	
6071R080	3/4"Mx3/4"D	20	3/4"	52,3	60	89,6	41	16,5	3/4"	31	32	364	18	72	
6071R081	3/4"Mx1"D	20	3/4"	52,8	60	89,6	41	16,5	1"	31	38	374	18	72	
6071R085	1"Mx1"1/4 D	25	1"	58,2	65	102	47,5	19,5	1"1/4	38	47	598	10	40	
RED VERSION															
6072R077	1/2"Mx3/4"D	15	1/2"	47,8	60	79,8	35	14,8	3/4"	25	32	253	30	120	
6072R080	3/4"Mx3/4"D	20	3/4"	52,3	60	89,6	41	16,5	3/4"	31	32	364	18	72	
6072R081	3/4"Mx1"D	20	3/4"	52,8	60	89,6	41	16,5	1"	31	38	374	18	72	
6072R085	1"Mx1"1/4 D	25	1"	58,2	65	102	47,5	19,5	1"1/4	38	47	598	10	40	

MOTORIZED VALVE BODY

FOR ACTUATORS FITTING ISO 5211



EN GENERAL CHARACTERISTICS AND MATERIALS VALVE

Body in brass: UNI EN 12165 CW617N nickel-plated
 Ball in brass: UNI EN 12165 CW617N chromed
 Thread UNI EN 10226 (UNI EN ISO 7/1 Rp) (DIN 2999)
 Ball seals: PTFE with anti-seizure device
 Functioning arm grip: O-Ring in HNBR

OPERATING CONDITIONS

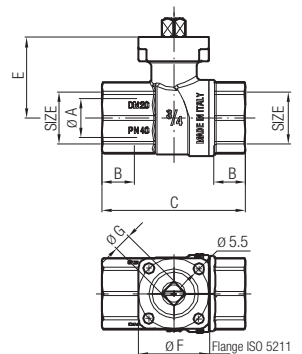
Operating temperature: from -40 to 100 °C (Circulating fluid)
 Operating pressure: 40 bar
 Maximum pressure differential: 6 bar

Suitable for hot and cold water domestic distribution plants (Ref. Directive 2014/68/EU Art. 13) for special uses (in accordance with the pressures set out for these items and the compatibility of the different fluids with the materials making up the specific item) see chemical compatibility chart in the technical annexes.

These valve bodies CANNOT be operated by MOTORVALV series servomotors.

GP 2262
MOTORIZED VALVE BODY

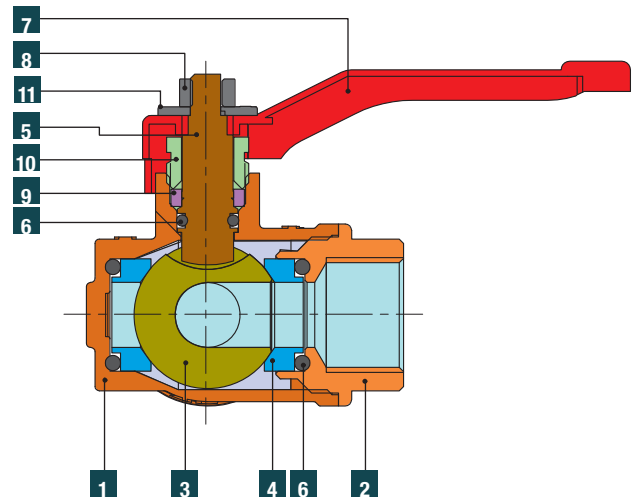
Two-way female nickel-plated ball valve for industrial use, with ISO 5211 fitting, for electric or pneumatic actuators.



CODE	Size	DN	B mm	B mm	C mm	E mm	F mm	G mm	Flange ISO	gr	Pack pcs/box
7956R104	1/2"	15	15	15	64	37	36	9	F3	291	1
7956R105	3/4"	20	20	16,3	73	40,5	36	9	F3	435	1
7956R106	1"	25	25	19,1	88	45	36	9	F3	745	1
7956R107	1"1/4	32	32	21,4	101	50,5	36	9	F3	1000	1
7956R108	1"1/2	40	40	21,4	112	62,5	42	11	F4	1700	1
7956R109	2"	50	50	25,6	132	69,5	42	11	F4	2585	1

THREE-WAY BALL VALVES

THREE-WAY BALL VALVES



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N - DW
2 End sleeve	1	UNI EN 12165 CW617N - DW
3 Ball	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
4 Ball seal seats	4	P.T.F.E.
5 Stem	1	UNI EN 12164 CW617N - DW
6 O-Ring	4	FPM (Viton®) (*)
7 Lever	1	Fe EN1011 DD13
8 Nut	1	Zinc-plated steel
9 Gasket	1	P.T.F.E. (**)
10 Gland	1	UNI EN 12164 CW617N - DW
11 Mark flow	1	EN 7639 SGALSI 1

(*) Viton is a registered trademark of DuPont Company
(**) Not present in the size 1"1/2 and 2" (Double O-ring seal)

In accordance with Directive 2014/68/EU as regards to pressure equipment (Table 6).

EN GENERAL CHARACTERISTICS

Bore: Reduced
 Range: From 1/2" to 2"
 Female fitting: Thread UNI EN ISO 228/1 (DIN 259)
 Functioning: 90° degrees rotation of operating device.
 Operating device: Painted iron lever handles.

OPERATING CONDITIONS

Temperature limit from -10 °C to +100 °C.
 Operating pressure: See diagram on Technical Attachments.
 Valves must be used in fully open or fully closed position.

USE

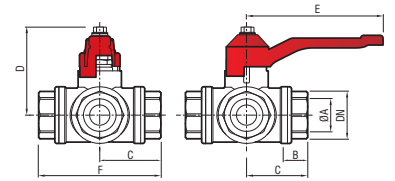
Valves suitable to redirect the flow from one lone to the other without using more two-way valves, with excellent seal at high pressures.

These valves must be used at the pressure shown in the catalogue and from measurement 1"1/4 they must not be used for group 1 fluids (substances and mixes classified as dangerous), Ref. Directive 2014/68/EU, art. 13 - for special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials, making up the valve) see chemical compatibility chart in the technical annexes of the applicable catalogue.
 Suitable for use for the distribution of water in hydrothermal plants, for transportation of drinkable water, in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2255
THREE-WAY BALL VALVES

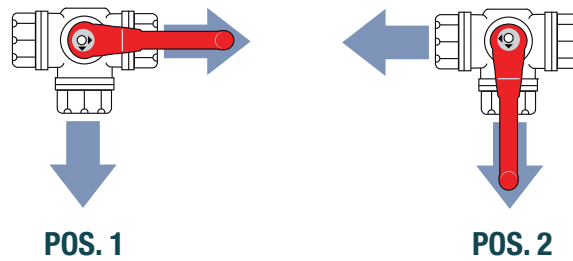


Three-way "L" ball valve in nickel plated brass, reduced bore.



CODE	Size	ØA mm	B mm	C mm	D mm	E mm	F mm	gr	PN	Pack pcs/box	Master pcs/box
9081R004	1/2"	10	17	41	52	115	82	633	16	6	36
9081R005	3/4"	15	18,5	45	55,5	115	90	864	16	5	30
9081R006	1"	20	20	53	64	150	106	1492	16	4	16
9081R007	1"1/4	25	23,5	60	76,5	150	120	2046	16	3	12
9081R008	1"1/2	32	28,5	71	93,5	240	142	3725	16	1	6
9081R009	2"	40	32	82,5	103,5	240	165	5860	16	1	4

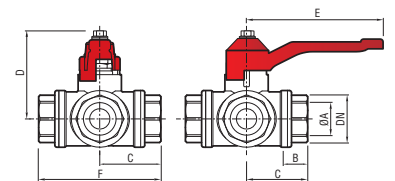
SCHEMES OF USE "L" BALL VALVE



GP 2255
THREE-WAY BALL VALVES

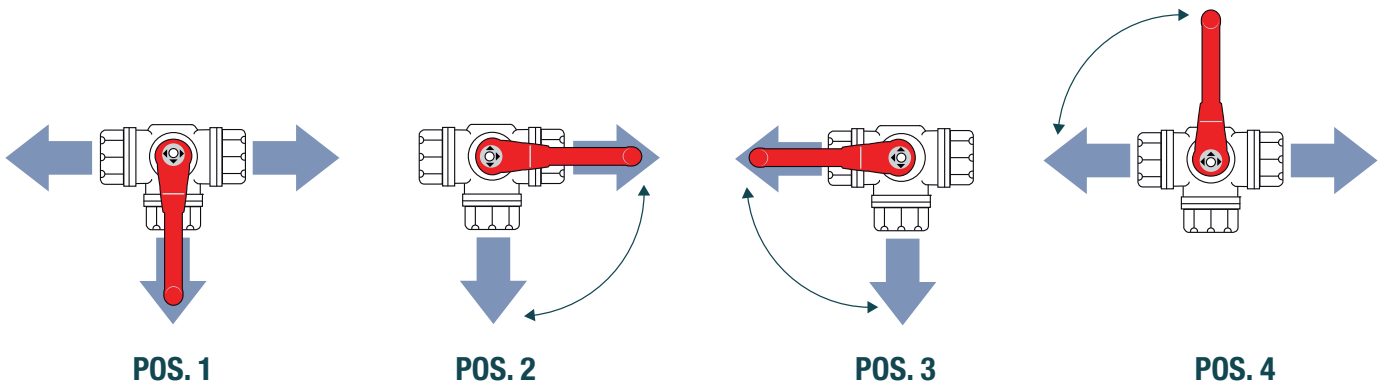


Three-way "T" ball valve in nickel plated brass, reduced bore.



CODE	Size	ØA mm	A mm	B mm	C mm	D mm	E mm	gr	PN	Pack pcs/box	Master pcs/box
9082R004	1/2"	10	17	41	52	115	82	626	16	6	36
9082R005	3/4"	15	18,5	45	55,5	115	90	861	16	5	30
9082R006	1"	20	20	53	64	150	106	1479	16	4	16
9082R007	1"1/4	25	23,5	60	76,5	150	120	1990	16	3	12
9082R008	1"1/2	32	28,5	71	93,5	240	142	3664	16	1	6
9082R009	2"	40	32	82,5	103,5	240	165	5728	16	1	4

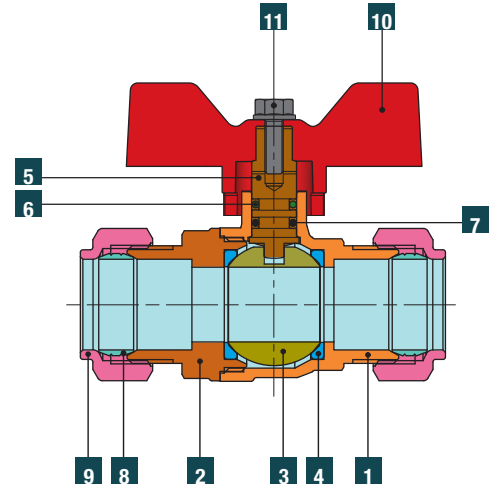
SCHEMES OF USE "T" BALL VALVE



To obtain position 3 and 4 it is necessary to remove the lever from the pin and place it at 90° towards left.

COMPRESSION

BALL VALVES



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N - DW
2 End sleeve	1	UNI EN 12165 CW617N - DW
3 Ball	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
4 Ball seal seats	2	P.T.F.E.
5 Stem	1	UNI EN 12164 CW617N - DW
6 Stem upper seal O-Ring	1	VITON 70 Sh A (ASTM D2240)
7 Stem lower seal O-Ring	1	EPDM Peroxidic 70 Sh A (ASTM D2240)
8 Ogive	2	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
9 Nut	2	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
10 Butterfly	1	AL, painted
11 Screw	1	Zinc-plated steel

EN GENERAL CHARACTERISTICS

Bore: See drawings and charts.
 Range: From mm 15 - 18 - 22.
 Female fitting: Thread UNI EN 10226 (UNI EN ISO 7/1 Rp) (DIN 2999).
 Male fitting: Thread UNI EN 10226 (UNI EN ISO 7/1 R) (DIN 2999).
 Male fitting 24x19: 24 mm diameter and 19 threads per inch.
 Functioning: 90° degrees rotation of operating device.
 Operating device: Aluminium Butterfly.

OPERATING CONDITIONS

Flow direction: Both ways.
 Minimum and maximum operating temperature: -20 °C/+120 °C **
 Maximum pressure (T=120 °C): 10 bar
 Nominal pressure (T=20 °C): See tables below
 ** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

Valves must be used in fully open or fully closed position.

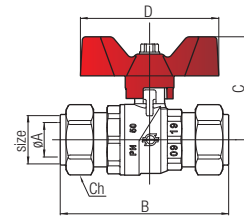
These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13). For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue.

The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxidic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2250
COMPRESSION



Nickel-plated ball valve complete with fittings for copper pipe BS 864, with red painted aluminum butterfly handle.

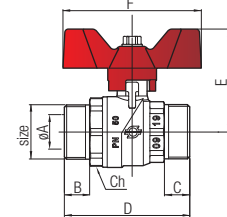


CODE	Size	øA mm	B mm	C mm	D mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
6012R515	15x15	15	64,8	44,8	60,2	24	220	10	36	144
6012R518	18x18	18	64,5	44,8	60,2	27	261	10	24	96
6012R522	22x22	20	77,1	48,5	60,2	32	377	10	12	48

GP 2250
COMPRESSION



Nickel-plated ball valve with 24x19 fittings for copper pipe, multilayer, PEX, PP, PB, with red painted aluminum butterfly handle.



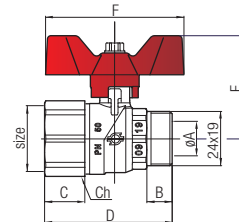
NOTE - See Monoblocco seals 24x19 on section Heating Fittings.

CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
6010R518	24x19	15	11	11	54,5	44,8	60,2	28	193	10	24	96

GP 2250
COMPRESSION



Female nickel-plated ball valve, 24x19 fitting, with red painted aluminium butterfly handle.



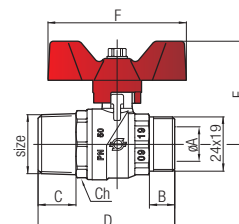
NOTE - See Monoblocco seals 24x19 on section Heating Fittings.

CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
6014R954	1/2" F - 24x19 M	15	11	17	53,4	44,8	60,2	25	193	10	24	96
6014R955	3/4" F - 24x19 M	15	11	18,3	55,5	44,8	60,2	31	197	10	24	96

GP 2250
COMPRESSION



Male nickel-plated ball valve, 24x19 fitting, with red painted aluminium butterfly handle.

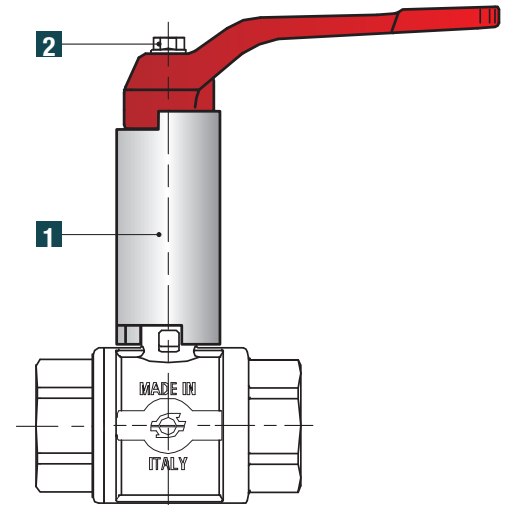


NOTE - See Monoblocco seals 24x19 on section Heating Fittings.

CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	Ch mm	gr	PN	Pack pcs/box	Master pcs/box
6018R954	1/2" - 24x19	15	11	14,8	57	44,8	60,2	25	195	10	24	96
6018R955	3/4" - 24x19	15	11	16,5	59,4	44,8	60,2	27,5	200	10	24	96

SPACING

ACCESSORY OF ELONGATION LEVER



Components	Pcs	Material
1 Elongation	1	Die-cast Aluminium
2 Screw	1	Zinc- plated Steel

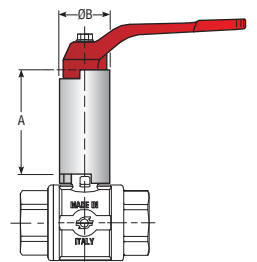
Suitable for Perfecta and Evolution valves.

GP 2000
SPACING

Kit SPACING, accessory of elongation lever.



The SPACING kits can only be coupled with aluminum Levers.



CODE		A mm	øB mm	Pack pcs/box
09008701	1°	55	23	20
09008702	2°	60	28	15
09008703	3°	60	33	10
09008704	4°	63	48	10
09008705	5°	64	54	10

TABLE FOR THE CHOICE OF THE MEASURE

	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
PERFECTA	1°	1°	2°	2°	3°	3°	/	/	/
EVOLUTION	1°	1°	2°	2°	3°	3°	4°	4°	4°

WATER-BOX 2.0

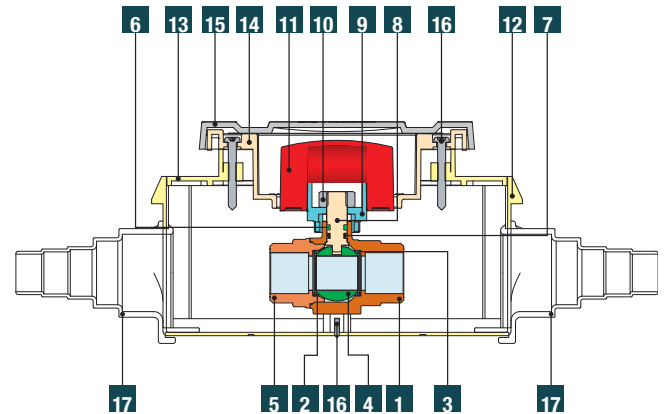
**recessed ball valve
for water**



WATER-BOX 2.0

WATER-BOX 2.0

RECESSED BALL VALVE FOR WATER



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
2 Side gasket	2	P.T.F.E.
3 O-ring	2	EPDM Peroxic 70 Sh A (ASTM D2240)
4 Ball	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
5 End sleeve	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
6 Stem upper seal O-Ring	1	VITON 70 Sh A (ASTM D2240)
7 Stem lower seal O-Ring	1	EPDM Peroxic 70 Sh A (ASTM D2240)
8 Stem	1	UNI EN 12164 CW617N - DW
9 Cap	1	PS AU yellow
10 Nut	1	Zinc-plated Steel
11 Knob	1	PS AU yellow
12 Box	1	PS AU yellow
13 Cover	1	PS AU yellow
14 Plate support	1	PS AU yellow
15 Plate	1	PS AU yellow
16 Screw	1	Zinc-plated steel
17 Extension	2	Polyethylene

EN GENERAL CHARACTERISTICS OF BALL VALVE

Passage: \varnothing 15 mm
 Range: valve of 1/2" with 3/4" fitting
 Functioning: rotation of 90°
 Instructions included.

OPERATING CONDITIONS

Flow direction: Both ways.
 Minimum and maximum operating temperature: -20 °C/+90 °C **
 Maximum pressure (T=90 °C): 10 bar
 Nominal pressure (T=20 °C): 10 bar
 ** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

Valves must be used in fully open or fully closed position.

These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13). For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue.

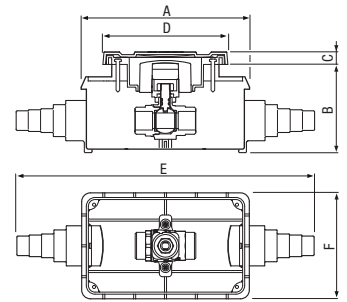
The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2240
WATER-BOX 2.0



Ball valve for built-in installation, for water, with fittings MM size 3/4" without couplings with concealed knobs (Blue and Red) and chrome-plated plate.

(*) Article available while stocks last.



CODE	Size	Connection	A mm	B mm	C mm	D mm	E mm	F mm	Pack pcs/box	Master pcs/box
6122R204	WATER-BOX 1/2" (*)	3/4"	163	min. 82 max. 88	12	121	289	103	1	8
NEW 8229R004	WATER-BOX 2.0 1/2"	3/4"	163	min. 82 max. 88	12	121	289	103	1	8

ACCESSORIES FOR WATER-BOX 2.0 RECESSED VALVE

GP 2000
WATER-BOX 2.0



Fitted door kit for Water-Box 2.0 valve
(5 pieces of the same colour are supplied with every pack).

CODE	Color	Pack pcs/box
6192P005	White	5
6192P006	Anthracite	5
6192P007	Chromed	5

GP 2000
WATER-BOX 2.0

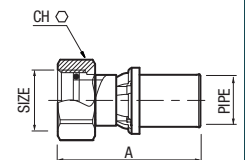


Plate support kit with knobs (Blue and Red) for Water-Box 2.0 built-in valve.

CODE	Pack pcs/box
6192P008	1

GP 2600
WATER-BOX 2.0

Straight joint with female swivel nut with flat seal, nichel-plated.



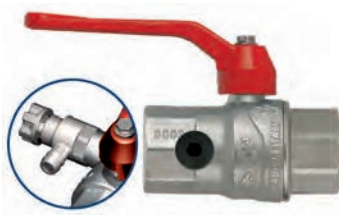
CODE	Size	Connection	Pipe	A mm	Ch mm	Pack pcs/box	Master pcs/box
9439R918	16 x 3/4"	3/4"	16x2	49,5	30	1/40	160
9439R920	20 x 3/4"	3/4"	20x2	49,5	30	1/40	160
9439R922	26 x 3/4"	3/4"	26x3	49,5	30	1/35	140

BALL VALVES WITH BLEEDER

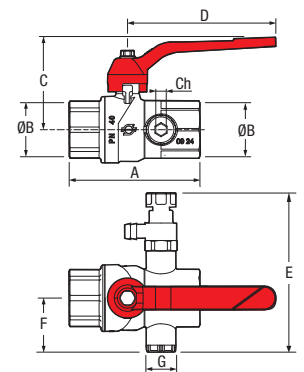


EN These valves must be used at the pressure shown in the catalogue and from measurement 1"1/4 they must not be used for group 1 fluids (substances and mixes classified as dangerous), Ref. Directive 2014/68/EU, art. 13 - for special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials, making up the valve) see chemical compatibility chart in the technical annexes of the applicable catalogue. Suitable for use for the distribution of water in hydrothermal plants, for transportation of drinkable water, in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2240
VALVES WITH BLEEDER



Female-female ball valve, with drain and nylon plug, with red-painted aluminium lever.

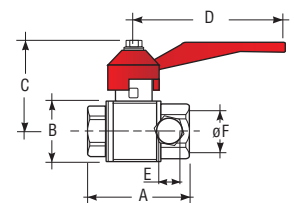


CODE	Size	A mm	øB mm	C mm	D mm	E mm	øF mm	G mm	gr	PN	Pack pcs/box	Master pcs/box
6022R004	1/2"	64	Rp 1/2"	49,5	85	77,2	24	G 1/4"	-	50	20	80
6022R005	3/4"	75	Rp 3/4"	53	85	83,2	27	G 1/4"	-	40	10	40
6022R006	1"	89	Rp 1"	63	105	87,2	29	G 1/4"	-	30	10	40

GP 2022
VALVES WITH BLEEDER



Female-female ball valve, with drain and nickel-plated plug, with red-painted aluminium lever.



CODE	Size	A mm	øB mm	C mm	D mm	E mm	øF mm	gr	PN	Pack pcs/box	Master pcs/box
08011114	1"1/4	86	56	65	115	G 1/4"	32	740	25	10	40
08011112	1"1/2	93	67	83	150	G 1/4"	40	1038	20	5	15
08011200	2"	112	82	94	180	G 1/4"	50	1675	20	2	12

BIBCOCKS



Components

Components	Pcs	Material
Body	1	UNI EN 12165 CW617N-DW UNI EN 12164 CW617N-DW for models: - Bibcock for washing machine - Drain bibcock - Oil bibcock UNI EN 12165 CW617N-DW UNI EN 12164 CW614N for models: - Bibcock with washing machine fitting - Bibcock Classic
End sleeve	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
Ball	1	UNI EN 12164 CW617N - DW
Ball seal seats	2	P.T.F.E.
Stem	1	UNI EN 12164 CW617N - DW
Stem seal O-Ring	2	EPDM Peroxidic 70 Sh A (ASTM D2240) for models: - Bibcock for washing machine - Drain bibcock - Oil bibcock NBR 70 Sh A (ASTM D2240) for models: - Bibcock with washing machine fitting - Bibcock Classic
Lever (FOR WASHING MACHINES)	1	Chromed ABS
Lever (FOR DRAIN BOXES AND OIL)	1	Painted aluminium
Screw	1	Zinc-plated Steel

EN GENERAL CHARACTERISTICS

Bore: See drawing.
Range: From 3/8" to 1/2"
Male fitting: Thread UNI EN ISO 228/1 (DIN 259)
Functioning: 90° rotation of operating device.
Operating device: ABS or Aluminium lever with open/close indicators.

OPERATING CONDITIONS

Flow direction: Both ways.
Minimum and maximum operating temperature: -20 °C/+90 °C **
Maximum pressure (T=90 °C): 10 bar
Nominal pressure` (T=20 °C): See tables below
** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

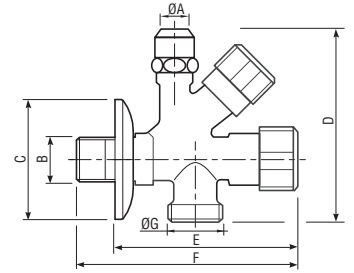
Valves must be used in fully open or fully closed position.

These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13). For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue. The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxidic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2016
BIBCOCK



Bibcock with washing machine fitting, chrome-plated.

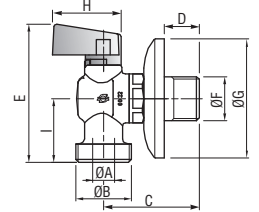


CODE	Size	ØA mm	B	ØC mm	D mm	E mm	F mm	ØG mm	gr	PN	Pack pcs/box	Master pcs/box
7702C004	1/2" x 3/4"	10	G 1/2"	56	87	87	105	3/4"	305	10	12	48

GP 2120
BIBCOCK



Chrome-plated bibcock for washing machines, with rosette.

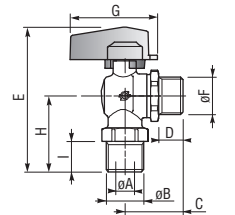


CODE	Size	DN	ØA mm	ØB	C mm	Dmin mm	Dmax mm	E mm	ØF mm	ØG mm	I mm	gr	PN	Pack pcs/box	Master pcs/box
7700C025	1/2" x 1/2"	15	10	1/2"	45	8	16	65	1/2"	56	30	155	10	24	96
7700C026	1/2" x 3/4"	15	10	3/4"	45	8	16	65	1/2"	56	30	162	10	24	96

GP 2120
BIBCOCK



Right angle ball bibcock for drain boxes, nickel-plated.

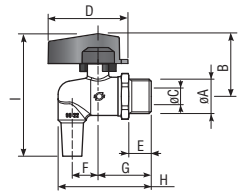


CODE	Size	DN	ØA mm	B	C mm	D mm	E mm	ØF mm	G mm	H mm	I mm	gr	PN	Pack pcs/box	Master pcs/box
8834R025	1/2" x 1/2"	15	10	1/2"	32,5	13,5	79,6	1/2"	48	42	17	159	10	48	192

GP 2120
BIBCOCK



Angle bibcocks for Oil canister with black handle.

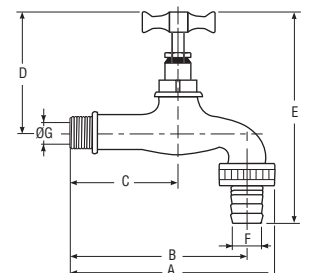


CODE	Size	DN	ØA mm	B mm	ØC mm	D mm	E mm	F mm	G mm	H mm	I mm	gr	PN	Pack pcs/box	Master pcs/box
8260R004	1/2"	10	1/2"	37,6	10	48	13,5	15,5	32,5	56,5	73,5	162	10	40	160

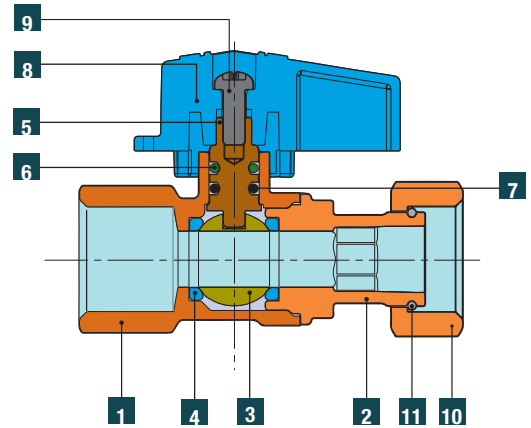
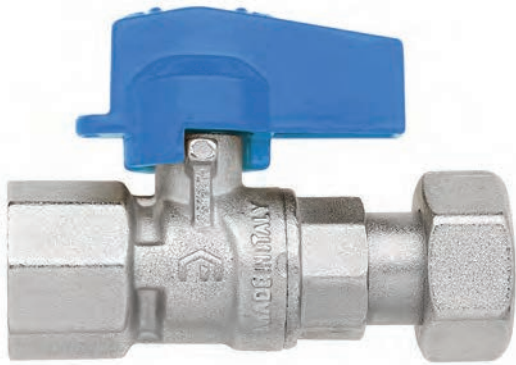
GP 2016
BIBCOCK



Hose end bibcock, sandblasted.



CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	ØG mm	gr	PN	Pack pcs/box	Master pcs/box
08027312	1/2" x 3/4"	113	98	60	69	121	15	10	270	20	20	80
08027334	3/4" x 1"	130	115	67	88	155	20	16	505	20	12	48



Components

Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N - DW
2 End sleeve	1	UNI EN 12165 CW617N - DW
3 Ball	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
4 Ball seal seats	2	P.T.F.E.
5 Stem	1	UNI EN 12164 CW617N - DW
6 Stem upper seal O-Ring	1	VITON 70 Sh A (ASTM D2240)
7 Stem lower seal O-Ring	1	EPDM Peroxidic 70 Sh A (ASTM D2240)
8 Aluminium butterfly handle	1	AL, painted
9 Screw	1	Zinc-plated Steel
10 Swivel nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
11 Elastic ring	1	CARB. STEEL EN 10270/1 SM

EN GENERAL CHARACTERISTICS

Bore: Total
 Range: 1/2"
 Female fitting: Thread UNI EN 10226 (UNI EN ISO 7/1 Rp) (DIN 2999)
 Male fitting: Thread UNI EN 10226 (UNI EN ISO 7/1 R) (DIN 2999)
 Tang and Nut: Thread UNI EN ISO 228/1 (DIN 259)
 Functioning: 90° degrees rotation of operating device.
 Operating device: Aluminium lever handle.

OPERATING CONDITIONS

Flow direction: Both ways.
 Minimum and maximum operating temperature: -20 °C/+120 °C **
 Maximum pressure (T=120 °C): 10 bar
 Nominal pressure (T=20 °C): 10 bar
 ** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

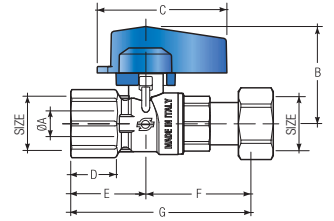
Valves must be used in fully open or fully closed position.

These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13). For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue.

The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxidic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2140
BIBCOCK

Female-swivel nut straight ball bibcock, with blue aluminum lever handle.

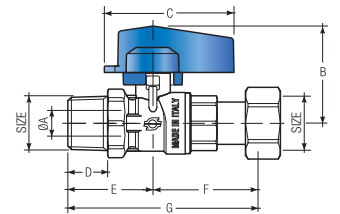


CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8124R076	1/2"F x 1/2"D	10	37.6	48	17	28	39	67	167	20	160

Body threads: Rp (UNI EN 10226-1)
Swivel nut threads: G (UNI EN ISO 228-1)

GP 2140
BIBCOCK

Male-swivel nut straight ball bibcock, with blue aluminum lever handle.

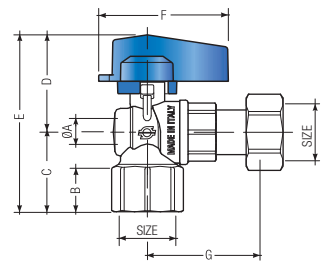


CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8125R076	1/2"M x 1/2"D	10	37.6	48	14.8	31.75	39	70.75	171	20	160

Body threads: R (UNI EN 10226-1)
Swivel nut threads: G (UNI EN ISO 228-1)

GP 2140
BIBCOCK

Female-swivel nut angle ball bibcock, with blue aluminum lever handle.

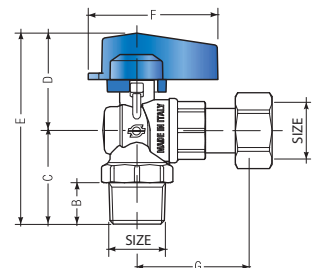


CODE	Size	øA mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8130R076	1/2"F x 1/2"D	10	17	31	37.6	68.6	48	39	174	20	160

Body threads: Rp (UNI EN 10226-1)
Swivel nut threads: G (UNI EN ISO 228-1)

GP 2140
BIBCOCK

Male-swivel nut angle ball bibcock, with blue aluminum lever handle.

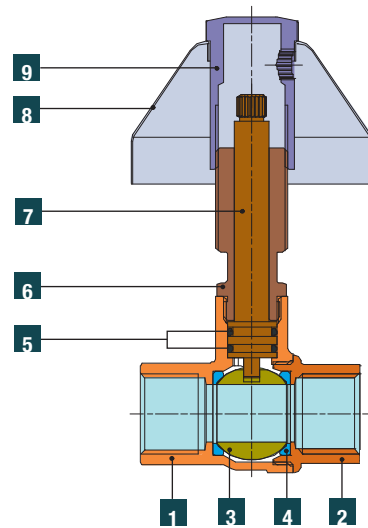


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8131R076	1/2"M x 1/2"D	10	14.8	34.5	37.6	72.1	48	39	177	20	160

Body threads: R (UNI EN 10226-1)
Swivel nut threads: G (UNI EN ISO 228-1)

INCASSO

BALL VALVES FOR BUILT-IN INSTALLATION



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N - DW
2 End sleeve	1	UNI EN 12165 CW617N - DW
3 Ball	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
4 Ball seal seats	2	P.T.F.E.
5 Stem seal O-Ring	2	EPDM 70 Sh A (ASTM D2240)
6 Stem press	1	UNI EN 12164 CW617N - DW
7 Stem	1	UNI EN 12164 CW617N - DW
8 Bell	1	Cromed-plated brass
9 Cap	1	Cromed-plated brass
Lever or Knob	1	Cromed-plated zama
* Screw	1	Zinc-plated Steel
* Coloured plug or Ring	1	ABS
* Knob plaque	1	Cromed-plated ABS

EN GENERAL CHARACTERISTICS

Bore: Total
 Range: From 1/2" to 3/4"
 Female fitting: Thread UNI EN 10226 (UNI EN ISO 7/1 Rp) (DIN 2999)
 Functioning: 90° degrees rotation of operating device.
 Operating device: Cap, Lever.

OPERATING CONDITIONS

Flow direction: Both ways.
 Minimum and maximum operating temperature: -20 °C/+90 °C **
 Maximum pressure (T=90 °C): 10 bar
 Nominal pressure (T=20 °C): See tables below
 ** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

Valves must be used in fully open or fully closed position.

These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13).

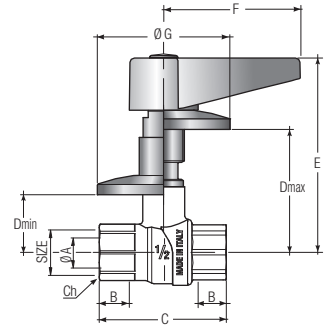
For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue.

The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxidic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2240
INCASSO



Ball valve with F-F fittings for built-in installation, sandblasted yellow, with chromed lever and rosette

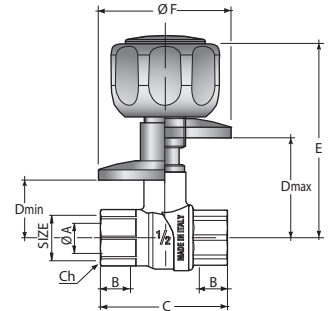


CODE	Size	A mm	B mm	C mm	Dmin mm	Dmax mm	E mm	F mm	ØG mm	Ch mm	PN	gr	Pack pcs/box	Master pcs/box
7360S104	1/2"	15	17	58	27	56,5	91,5	62	68	25	40	351	12	48
7360S105	3/4"	20	18,3	68	30,5	60	95	62	68	31	40	456	12	48

GP 2240
INCASSO



Ball valve with F-F fittings for built-in installation, sandblasted yellow, with chromed handle and rosette.

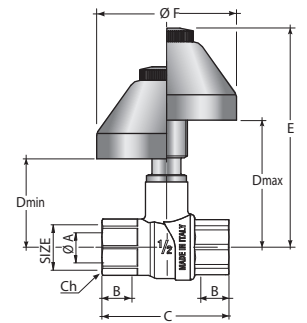


CODE	Size	A mm	B mm	C mm	Dmin mm	Dmax mm	E mm	F mm	Ch mm	PN	gr	Pack pcs/box	Master pcs/box
7361S104	1/2"	15	17	58	27	47	95,2	68	25	40	398	10	40
7361S105	3/4"	20	18,3	68	30,5	50,5	99	68	31	40	503	8	32

GP 2240
INCASSO



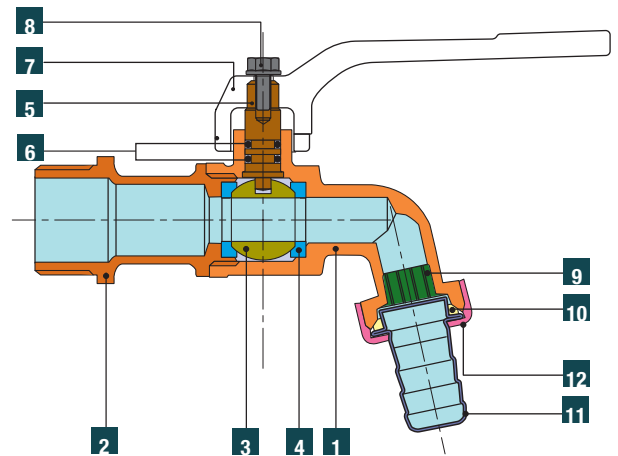
Ball valve with F-F fittings for built-in installation, sandblasted yellow, with chromed cap and bell.



CODE	Size	A mm	B mm	C mm	Dmin mm	Dmax mm	Emin mm	Emax mm	F mm	Ch mm	PN	gr	Pack pcs/box	Master pcs/box
7362S104	1/2"	15	17	58	41,5	60	85,5	103,5	63	25	40	300	10	40
7362S105	3/4"	20	18,3	68	45	63,5	88,5	107	63	31	40	405	12	48

GARDEN Export - Pesante

BALL BIBCOCKS



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N - DW
2 End sleeve	1	UNI EN 12165 CW617N - DW
3 Ball	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
4 Ball seal seats	2	P.T.F.E.
5 Stem	1	UNI EN 12164 CW617N - DW
6 Stem seal O-Ring	2	EPDM Peroxidic70 Sh A (ASTM D2240)
7 Lever handle	1	AL, painted
Butterfly handle	1	AL, painted
8 Screw	1	Zinc-plated Steel
9 Flow straightener	1	Nylon
10 Washer	1	EPDM Peroxidic 70 Sh A (ASTM D2240)
11 Hose end	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
12 Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW

EN GENERAL CHARACTERISTICS

Range: From 3/8" to 1"

Male fitting : Thread UNI EN ISO 228/1 (DIN 259)

Functioning : 90° degrees rotation of operating device.

Operating device : Aluminium lever handles, aluminium Butterfly.

OPERATING CONDITIONS

Flow direction: Both ways.

Minimum and maximum operating temperature: -20 °C/+90 °C **

Maximum pressure (T=90 °C): 10 bar

Nominal pressure (T=20 °C): See tables below

** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

Valves must be used in fully open or fully closed position.

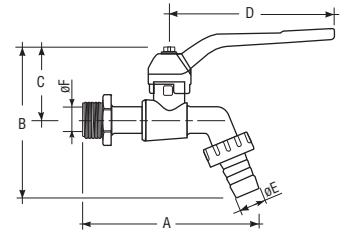
These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13). For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue.

The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxidic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2110
GARDEN EXPORT



Ball bibcocks with hose end, aluminium Lever handle.

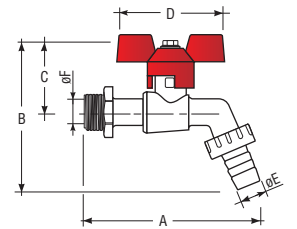


CODE	Size	A mm	B mm	C mm	D mm	øE mm	øF mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION											
08113038	3/8"-3/4"	95	82	30	80	15	10	200	15	20	80
08113012	1/2"-3/4"	100	82	30	80	15	10	186	15	20	80
08113036	3/4"-1"	112	94	38	85	20	12	310	15	12	48
08113106	1"-1 1/4"	122	105	40	85	25	12	418	15	8	32
RED VERSION											
08003038	3/8"-3/4"	95	82	30	80	15	10	200	15	20	80
08003012	1/2"-3/4"	100	82	30	80	15	10	186	15	20	80
08003036	3/4"-1"	112	94	38	85	20	12	310	15	12	48
08003106	1"-1 1/4"	122	105	40	85	25	12	418	15	8	32

GP 2110
GARDEN EXPORT



Ball bibcocks with hose end, aluminium Butterfly handle.

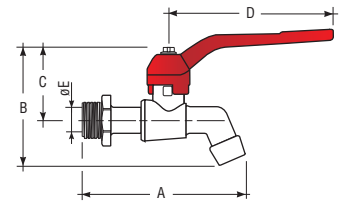


CODE	Size	A mm	B mm	C mm	D mm	øE mm	øF mm	gr	PN	Pack pcs/box	Master pcs/box
08003039	3/8"-3/4"	95	82	30	50	15	10	200	15	20	80
08003013	1/2"-3/4"	100	82	30	50	15	10	180	15	20	80
08003037	3/4"-1"	112	94	38	60	20	12	292	15	12	48
08003107	1"-1 1/4"	122	105	40	60	25	12	425	15	8	32

GP 2110
GARDEN EXPORT



Ball bibcocks with Plain end, aluminium Lever handle.

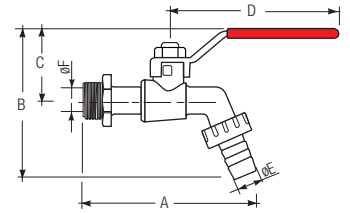


CODE	Size	A mm	B mm	C mm	D mm	øE mm	gr	PN	Pack pcs/box	Master pcs/box
08003112	1/2"	93	56	30	80	10	156	15	20	80

GP 2110
GARDEN EXPORT

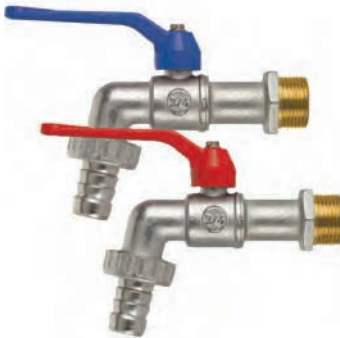


Ball bibcocks with hose end with red plastic-coated steel lever.

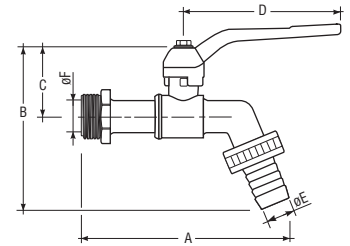


CODE	Size	A mm	B mm	C mm	D mm	øE mm	øF mm	PN	gr	Pack pcs/box	Master pcs/box
6048R004	1/2" - 3/4"	100	80	28	86,2	15	10	15	208	20	80

GP 2100
GARDEN PESANTE



Ball bibcocks with hose end, aluminium Lever handle.



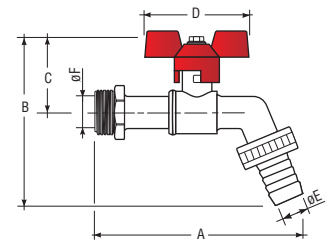
CODE	Size	A mm	B mm	C mm	D mm	øE mm	øF mm	gr	PN	Pack pcs/box	Master pcs/box
BLUE VERSION											
08112038	3/8"-3/4"	108	93	40	85	15	10	260	20	20	80
08112012	1/2"-3/4"	108	93	40	85	15	10	260	20	20	80
08112034	3/4"-1"	119	98	40	85	20	12	338	20	12	48
08112100	1"-1"1/4"	146	115	43	85	25	15	507	20	8	32

RED VERSION											
08002038	3/8"-3/4"	108	93	40	85	15	10	260	20	20	80
08002012	1/2"-3/4"	108	93	40	85	15	10	260	20	20	80
08002034	3/4"-1"	119	98	40	85	20	12	338	20	12	48
08002100	1"-1"1/4"	146	115	43	85	25	15	507	20	8	32

GP 2100
GARDEN PESANTE



Ball bibcocks with hose end, aluminium Butterfly handle.

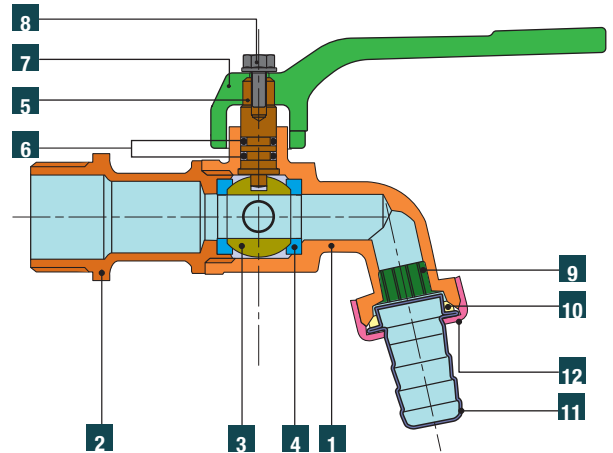


CODE	Size	A mm	B mm	C mm	D mm	øE mm	øF mm	gr	PN	Pack pcs/box	Master pcs/box
08002039	3/8"-3/4"	108	91	38	60	15	10	255	20	20	80
08002013	1/2"-3/4"	108	91	38	60	15	10	248	20	20	80
08002035	3/4"-1"	119	96	38	60	20	12	330	20	12	48
08002101	1"-1"1/4"	146	113	41	60	25	15	502	20	8	32



GARDEN ANTI-FREEZE

BALL BIBCOCKS WITH ANTI-FREEZE SAFETY DEVICE



Components

Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N - DW
2 End sleeve	1	UNI EN 12165 CW617N - DW
3 Ball	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
4 Ball seal seats	2	P.T.F.E.
5 Stem	1	UNI EN 12164 CW617N - DW
6 Stem seal O-Ring	2	EPDM Peroxidic 70 Sh A (ASTM D2240)
7 Lever handle	1	AL, painted
8 Screw	1	Zinc-plated Steel
9 Flow straightener	1	Nylon
10 Washer	1	EPDM Peroxidic 70 Sh A (ASTM D2240)
11 Hose end	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
12 Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW

EN GENERAL CHARACTERISTICS

Range: From 1/2" to 3/4"
 Male fitting: Thread UNI EN ISO 228/1 (DIN 259)
 Functioning: 90° degrees rotation of operating device.
 Operating device: Aluminium lever handles.

OPERATING CONDITIONS

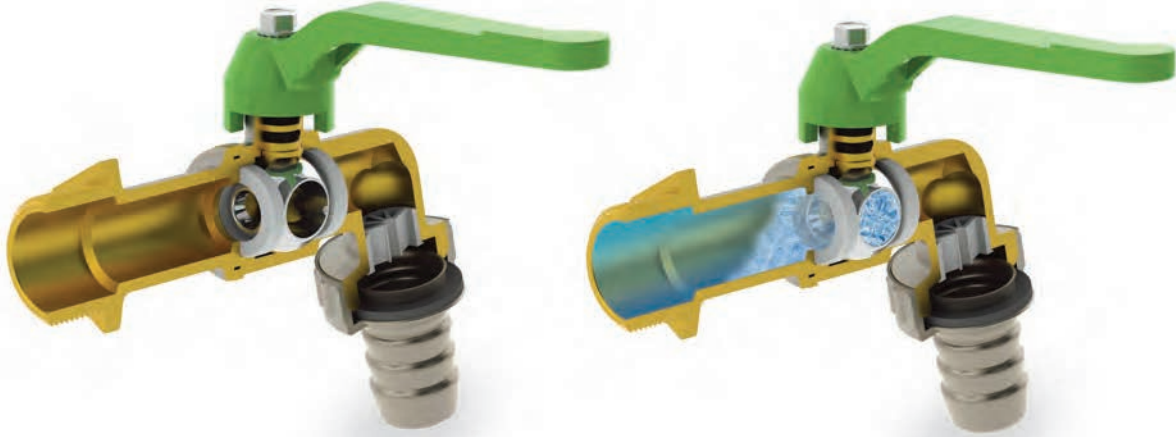
Flow direction: Both ways.
 Minimum and maximum operating temperature: -20 °C/+90 °C **
 Maximum pressure (T=90 °C): 10 bar
 Nominal pressure (T=20 °C): See tables below
 ** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

Valves must be used in fully open or fully closed position.

These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13). For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue.
 The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxidic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GARDEN VALVE WITH SAFETY FREEZE PREVENTION FUNCTION

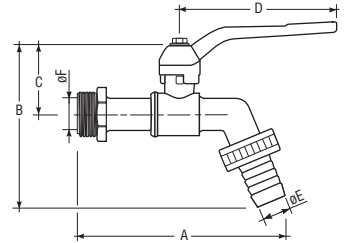
Water features a special property when it passes from the liquid to the solid state, as a matter of fact, when it solidifies, it increases its volume. To avoid damages to the mechanical part of the valve, FIV Freeze Prevention Garden valve possesses a special safety hole placed on the ball, which allows the ice to expand towards the water main when the valve is closed.



GP 2100
BIBCOCK ANTI-FREEZE



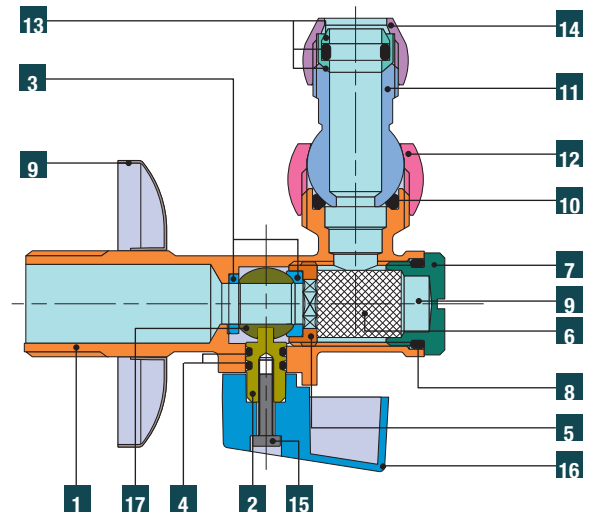
Ball bibcock with high freeze resistance, including hose end and lever handle in green aluminium.



CODE	Size	A mm	B mm	C mm	D mm	ØE mm	ØF mm	gr	PN	Pack pcs/box	Master pcs/box
6242R004	1/2" - 3/4"	108	93	40	85	15	10	260	20	20	80
6242R005	3/4" - 1"	119	98	40	85	20	12	338	20	12	48

FILTER KING

ANGLE BIBCOCK



Components

Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N - DW
2 Stem	1	UNI EN 12165 CW617N - DW
3 Ball seal seats	2	P.T.F.E.
4 Stem-ball seal O-ring	2	EPDM Peroxidic 70 Sh A (ASTM D2240)
5 Ring nut sleeve	1	UNI EN 12164 CW617N - DW
6 Filter	1	Steel AISI 304/L
7 Filter plug	1	UNI EN 12164 CW617N - DW
8 Plug seal O-ring	1	EPDM Peroxidic 70 Sh A (ASTM D2240)
9 Rosette	1	Steel inox
10 Swivel joint seal O-ring	1	EPDM Peroxidic 70 Sh A (ASTM D2240)
11 Swivel joint	1	UNI EN 12164 CW617N - DW
12 Swivel nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
13 3-piece cartridge seal	1	Brass + Daplen + EPDM
14 Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
15 Screw	1	Zinc-plated Steel
16 Lever	1	Chromed-plated ABS
17 Ball	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW

EN GENERAL CHARACTERISTICS

Range: From 3/8" to 1/2"
 Male fitting: Threading UNI EN ISO 228/1 (DIN 259)
 Functioning: 90° degrees rotation of operating device.
 Operating device: Gloss chromed ABS lever.

OPERATING CONDITIONS

Flow direction: Both ways.
 Minimum and maximum operating temperature: -20 °C/+90 °C **
 Maximum pressure (T=90 °C): 10 bar
 Nominal pressure (T=20 °C): 10 bar
 ** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

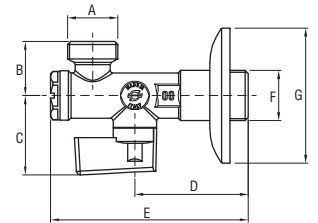
Valves must be used in fully open or fully closed position.

These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13). For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue.

The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxidic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2150
FILTER KING

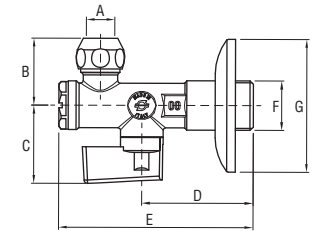
Chromed ball-valve bibcock under sink with male-male filter, lever, rosette and flat seal.



CODE	Size	A	B	C	D	E	F	G	gr	DN	Pack pcs/box	Master pcs/box
		mm	mm	mm	mm	mm		mm				
8914C023	1/2"x3/8"	G3/8"B	22,5	33	47	82	G1/2"B	56	128	15	24	96
8914C025	1/2"x1/2"	G1/2"B	22,5	33	47	82	G1/2"B	56	135	15	24	96

GP 2150
FILTER KING

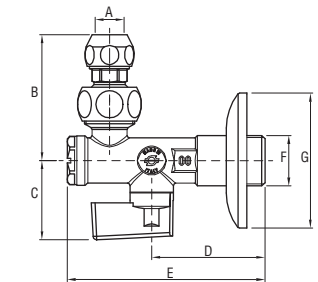
Chromed ball-valve bibcock under sink with male filter, lever, rosette, nut and seal cartridge.



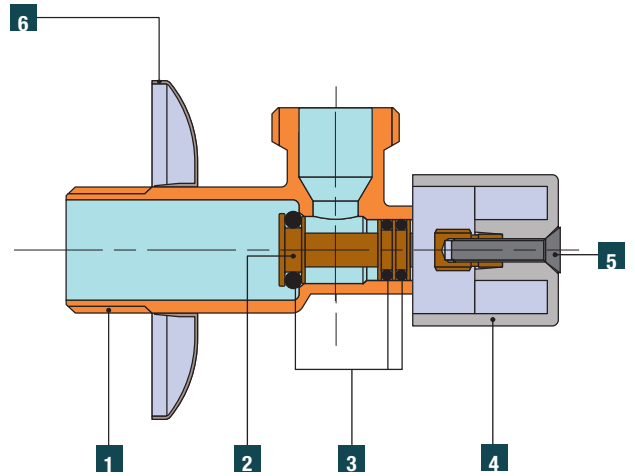
CODE	Size	A	B	C	D	E	F	G	gr	DN	Pack pcs/box	Master pcs/box
		mm	mm	mm	mm	mm		mm				
8915C310	1/2" x 10	10	31,5	33	47	82	G1/2"B	56	138	15	24	96

GP 2150
FILTER KING

Chromed ball-valve bibcock under sink with male filter with swivel joint, lever, rosette, nut and seal cartridge.



CODE	Size	A	B	C	D	E	F	G	gr	DN	Pack pcs/box	Master pcs/box
		mm	mm	mm	mm	mm		mm				
8916C310	1/2" x 10	10	56	33	47	82	G1/2"B	56	190	15	24	96



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N - DW
2 Stem	1	UNI EN 12164 CW617N - DW
3 Stem seal O-Ring	3	EPDM Peroxidic 70 Sh A (ASTM D2240)
4 Lever	1	ABS, chromed
5 screw	1	Zinc-plated Steel
6 Rosette	1	Steel
* Ogive seal cartridge	1	Brass + Daplen + NBR
* Nut	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW

EN GENERAL CHARACTERISTICS

Range: From 3/8" to 1/2"

Male fitting: Threading UNI EN ISO 228/1 (DIN 259)

Functioning: rotation of lever all the way down.

Operating device: Lever in chromed ABS with open/closed indicators.

OPERATING CONDITIONS

Flow direction: Both ways.

Minimum and maximum operating temperature: -20 °C/+90 °C **

Maximum pressure (T=90 °C): 10 bar

Nominal pressure (T=20 °C): 10 bar

** In absence of steam; for temperatures below 0 °C use mixes of water and glycol.

Valves must be used in fully open or fully closed position.

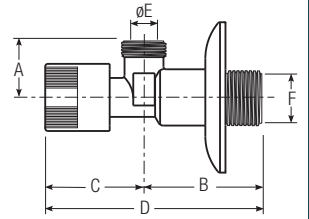
These valves must be used with the pressure set forth in the catalogue and are suitable for domestic hot and cold water distribution systems (Ref. Directive 2014/68/EU, art. 13). For special uses (in compliance with the pressures set out for these valves and the compatibility of the different fluids with the materials making up the valve) see chemical compatibility chart in the technical annexes of the current catalogue.

The CW617N-DW brass, the Teflon (P.T.F.E.), and the O-Rings in EPDM Peroxidic in contact with the fluid, are in compliance with the Italian Ministerial Decree n. 174 (dated 06/04/2004).

GP 2150
TWISTER

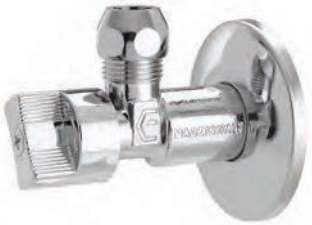


Chromed angle bibcock under sink, male-male, with lever, rosette and flat seal.

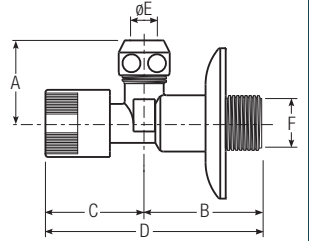


CODE	Size	A mm	B mm	C mm	D mm	øE mm	F	gr	Pack pcs/box	Master pcs/box
08100010	3/8" - 1/2"	22	44,5	37	81,5	10	1/2"	105	30	120
08100020	1/2" - 1/2"	25	44,5	37	81,5	12	1/2"	116	30	120

GP 2150
TWISTER



Chromed angle bibcock under sink, male, with lever, rosette and flat seal.



CODE	Size	A mm	B mm	C mm	D mm	øE mm	F	gr	Pack pcs/box	Master pcs/box
08100012	1/2"x10	31	44,5	37	81,5	10	1/2"	112	30	120



Components

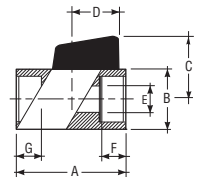
Material

Body	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
Ball pressure ring	UNI EN 12164 CW617N - DW
Ball	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
Ball seal gasket	P.T.F.E.
Stem seal O-Ring	NBR 70 Sh A (ASTM D 2240)
Stem	UNI EN 12164 CW617N - DW
Handle	Fibreglass-reinforced 66 nylon
Screw	Zinc-plated steel
Temperature limit	from -10 °C to +90 °C
Max. working pressure	10 bar to 70 °C
Thread	UNI EN ISO 228/1 (DIN 259)

EN These valves are suitable for hot and cold water domestic distribution plants (Ref. Directive 2014/68/EU Art. 13) for special uses (in accordance with the pressures set out for these items and the compatibility of the different fluids with the materials making up the specific item) see chemical compatibility chart in the technical annexes.

GP 2020
MIGNON

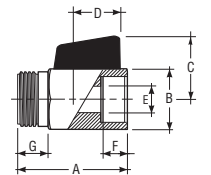
Chrome-plated ball valves with Female-Female fittings, with black lever.



CODE	Size	A mm	B mm	C mm	D mm	øE mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
08012018	1/8"	39	21	27	22	6	9	9	90	35	280
08012014	1/4"	39	21	27	22	8	9	9	93	35	280
08012038	3/8"	42	21	27	22	8	9	10	86	35	280
08012012	1/2"	47	25	29	22	10	10,5	10,5	130	35	280
08012034	3/4"	54	30	31,5	22	12	13,5	13,5	20	20	160

GP 2020
MIGNON

Chrome-plated ball valves with Male-Female fittings, with black lever.

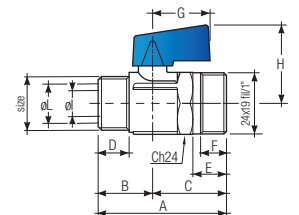


THE VALVE CAN BE FITTED WITH A BOLT AND CAP.

CODE	Size	A mm	B mm	C mm	D mm	øE mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
08013018	1/8"(x6)	39	21	27	22	6	9	9	77	35	280
08013014	1/4"(x8)	39	21	27	22	8	9	9	75	35	280
08013038	3/8"(x12)	40	21	27	22	8	9	9	76	35	280
08013012	1/2"(x15)	45	25	29	22	10	10,5	10,5	115	35	280
08013034	3/4"(x18)	51	30	31,5	22	12	13,5	13,5	178	20	160

GP 2020
MIGNON

Ball valve with Male-Male fittings, M (gas) x M (24x19) version with blue lever.

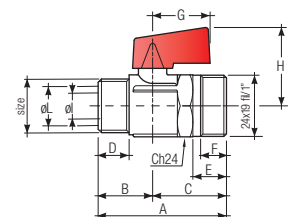


NB - Suitable for Monoblocco seals (see section Heating Fittings).

CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	øl mm	øL mm	gr	Pack pcs/box	Master pcs/box
7903C954	1/2"	48	21	27	12	13	11,5	22	30	10	15,2	102	35	280

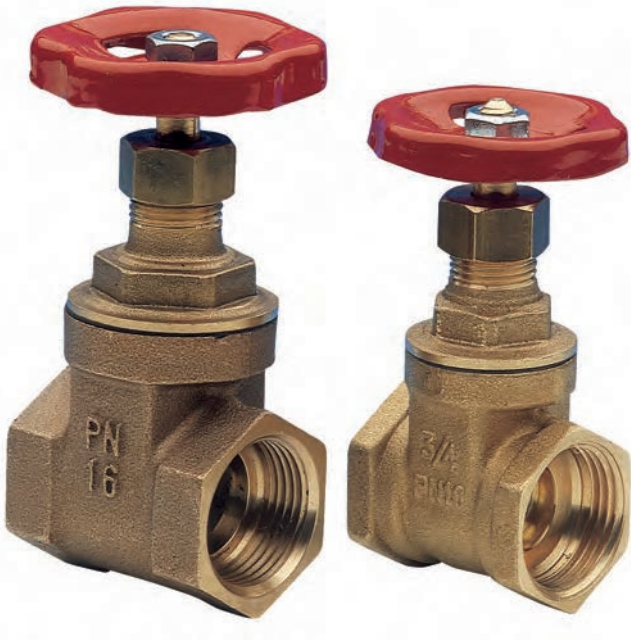
GP 2020
MIGNON

Ball valve with Male-Male fittings, M (gas) x M (24x19) version with red lever.



NB - Suitable for Monoblocco seal (see section Heating Fittings).

CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	øl mm	øL mm	gr	Pack pcs/box	Master pcs/box
7904C954	1/2"	48	21	27	12	13	11,5	22	30	10	15,2	102	35	280



Components

Body - Disk - Stem support

Body for BRONZE VERSION

Stem - Gland packing

Gasket for Stem support and Body

Stem seal gland

Handwheel

Nut

Threads

Max. working pressure

Temperature limits

Material

UNI EN 12165 CW617N - DW

UNI EN 12164 CW617N - DW

UNI EN 1982

UNI EN 12165 CW617N - DW

UNI EN 12164 CW617N - DW

Fibre GUARNITAL

EPDM 90

Painted steel

Galvanised steel

UNI EN ISO 228/1

See PN in the dimensional tables

From -10 °C to +90 °C

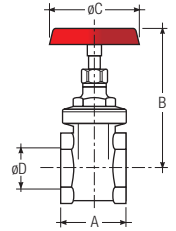
EN OPERATING CONDITIONS

These shutters are suitable for hot and cold water domestic distribution plants (Ref. Directive 2014/68/EU Art. 13) for special uses (in accordance with the pressures set out for these items and the compatibility of the different fluids with the materials making up the specific item) see chemical compatibility chart in the technical annexes.

GP 2025
GATE VALVE



Brass gate valves, female-female, sandblasted, with handwheel.



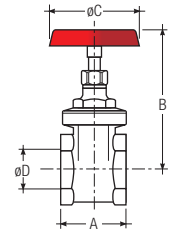
CODE	Size	A mm	B mm	øC mm	øD mm	gr	PN	Pack pcs/box	Master pcs/box
08016038	3/8"	33	67	45	13	160	16	20	120
08016012	1/2"	35	68	45	13,5	160	10	20	120
08016034	3/4"	39	68	45	15,5	190	10	20	120
08016100	1"	43	80	50	19	270	10	20	60
08016114	1"1/4	48	86	55	27	415	10	10	40
08016112	1"1/2	54	107	60	33	545	10	10	30
08016200	2"	58	134	70	45	830	10	5	20
08016212	2"1/2	64	175	100	60	1680	16	1	12
08016300	3"	74	200	100	72	2350	16	1	8
08016400	4"	84	235	120	93	4150	16	1	4
08016500	5"	107	300	140	117	8500	16	1	2
08016600	6"	113	350	170	143	13000	16	1	2

GP 2025
GATE VALVE

NPT



NPT brass gate valves, female-female, sandblasted, with handwheel.



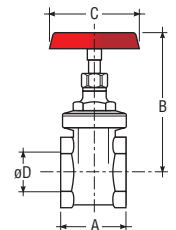
Available only on request.

CODE	Size	A mm	B mm	øC mm	øD mm	gr	PN	Pack pcs/box	Master pcs/box
08116012	1/2"	35	68	45	13,5	160	10	20	120
08116034	3/4"	39	68	45	15,5	190	10	20	120
08116100	1"	43	80	50	19	270	10	20	60
08116114	1"1/4	48	86	55	27	410	10	10	40
08116200	2"	58	134	70	45	840	10	5	20
08116112	1"1/2	54	107	60	33	530	10	10	30
08116212	2"1/2	64	175	100	60	1680	16	1	12
08116300	3"	74	200	100	72	2300	16	1	8
08116400	4"	84	235	120	93	4150	16	1	4

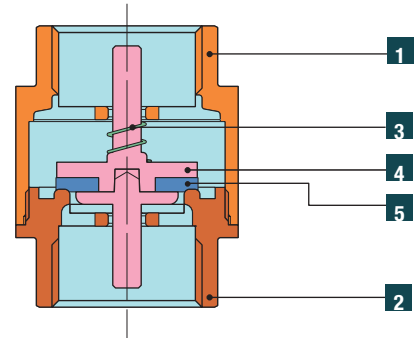
GP 2025
GATE VALVE



Bronze gate valves, female-female, sandblasted, with handwheel.



CODE	Size	A mm	B mm	øC mm	øD mm	gr	PN	Pack pcs/box	Master pcs/box
08017038	3/8"	38	66	45	13	160	16	20	120
08017012	1/2"	38	68	45	15	200	16	20	120
08017034	3/4"	45	78	50	19	290	16	20	120
08017100	1"	48	92	55	24	380	16	10	60
08017114	1"1/4	51	108	60	32	570	16	10	40
08017112	1"1/2	58	125	70	37	810	16	5	30
08017200	2"	62	145	80	47	1210	16	5	20
08017212	2"1/2	76	175	100	60	2100	16	1	12
08017300	3"	80	200	100	72	2700	16	1	8
08017400	4"	96	240	120	93	4800	16	1	4



Components

	Components	Pcs	Material
1	Body	1	UNI EN 12165 CW617N - DW
2	End sleeve	1	UNI EN 12165 CW617N - DW
3	Spring	1	Plated Steel INOX AISI 302
4	Shutter	1	Acetal copolymer
5	Seal gasket	1	NBR 70 Sh A (ASTM 2240)

EN GENERAL CHARACTERISTICS

Passage: Total
 Range: From 3/8" to 4"
 Female fitting: Thread UNI EN ISO 228/1 (DIN 259)
 Male fitting: Thread UNI EN ISO 228/1 (DIN 259)
 Open pressure: 0.02 bar

OPERATING CONDITIONS

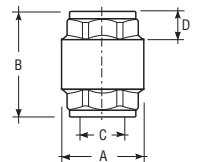
Flow direction: In the direction of the arrow.
 Max. operating temperature: 90 °C, continuous use. 110 °C peak.
 Max. operating pressure: see following tables.
 Can be installed in any position: horizontal, vertical or diagonal.

These valves are suitable for hot and cold water domestic distribution plants (Ref. Directive 2014/68/EU Art. 13) for special uses (in accordance with the pressures set out for these items and the compatibility of the different fluids with the materials making up the specific item) see chemical compatibility chart in the technical annexes.

GP 2500
 EURA EXPORT



No-return valve, female-female, sandblasted.

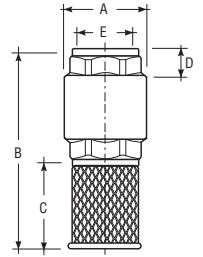


CODE	Size	øA mm	B mm	øC mm	D mm	gr	PN	Pack pcs/box	Master pcs/box
08030038	3/8"	28	44	15	10	100	10	30	180
08030012	1/2"	32	44	15	10	110	10	20	160
08030034	3/4"	39	49	20	11	193	10	12	96
08030100	1"	46	57	26	13	262	10	8	64
08030114	1"1/4	56	66	33	16	405	10	8	64
08030112	1"1/2	66	70	40	15	590	10	5	40
08030200	2"	83	77	50	16	875	10	2	16
08030212	2"1/2	100	90	68	20	1295	10	1	20
08030300	3"	110	105	75	25	1510	10	1	16
08030400	4"	140	110	100	25	2750	10	1	10

GP 2052
FOOT VALVE



Female foot valve with filter, sandblasted (1000-micron filtering).

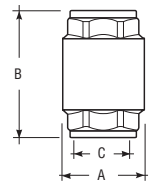


CODE	Size	øA mm	B mm	C mm	D mm	øE mm	gr	Pack pcs/box	Master pcs/box
08031012	1/2"	32	80	35	10	15	80	50	200
08031034	3/4"	39	87	40	10	20	127	48	192
08031100	1"	46	95	41	14	26	200	24	96
08031114	1 1/4"	56	107	50	15	33	285	15	60
08031112	1 1/2"	69	124	62	16	40	375	6	24
08031200	2"	84	140	71	18	50	610	4	16

GP 2055
EURA HEAVY



No-return valve, female-female, sandblasted.

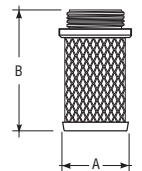


CODE	Size	øA mm	B mm	øC mm	gr	PN	Pack pcs/box	Master pcs/box
08018038	3/8"	29	52	15	110	15	24	240
08018012	1/2"	32	58	15	151	15	20	200
08018034	3/4"	39	65	20	225	15	12	120
08018100	1"	48	75	26	335	15	8	80
08018114	1 1/4"	60	80	33	550	15	8	32
08018112	1 1/2"	67	85	40	695	15	6	24
08018200	2"	84	94	50	1015	15	5	20
08018212	2 1/2"	103	93	68	1225	8	1	15
08018300	3"	121	102	75	1830	8	1	12
08018400	4"	155	119	100	3175	8	1	5

GP 2058
FILTER



Male filter in steel for no-return valves (1000-micron filtering).



CODE	Size	øA mm	B mm	gr	Pack pcs/box	Master pcs/box
08019038	3/8"	19	49	9	50	400
08019012	1/2"	22	51	11	50	400
08019034	3/4"	28	57	17	30	240
08019100	1"	36	58,5	25	20	160
08019114	1 1/4"	43	68	34	20	80
08019112	1 1/2"	49	79	46	15	60
08019200	2"	61	95	67	10	40
08019212	2 1/2"	80	99	98	1	24
08019300	3"	91	114	122	1	18
08019400	4"	110	130	188	1	10

CLAPET CHECK VALVE SIFT FILTER FOOT VALVE



Components	Pcs	Material
Body	1	UNI EN 12165 CW617N - DW
Plug	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
Shutter	1	UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
Sift filter		Steel Inox
Filter for foot valve		UNI EN 12165 CW617N - DW UNI EN 12164 CW617N - DW
Seal		NBR 70 Sh A (ASTM D 2240)
Female thread		UNI EN ISO 228/1 (DIN 259)
Max. working temperature		90 °C
Pressure (see item table)		
Compliant fluids		Air / Water

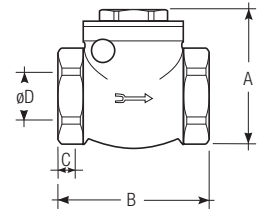
EN OPERATING CONDITIONS

These valves are suitable for hot and cold water domestic distribution plants (Ref. Directive 2014/68/EU Art. 13) for special uses (in accordance with the pressures set out for these items and the compatibility of the different fluids with the materials making up the specific item) see chemical compatibility chart in the technical annexes.

GP 2056
CHECK VALVE



Clapet check valve, female-female, sandblasted, with rubber seal.

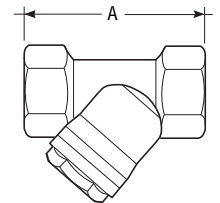


CODE	Size	øA mm	B mm	C mm	øD mm	gr	PN	Pack pcs/box	Master pcs/box
08028012	1/2"	46	47	8	15	166	10	60	180
08028034	3/4"	51	53	8	20	230	10	40	120
08028100	1"	61	63	10	25	350	10	20	80
08028114	1"1/4	78	70	10	33	445	10	16	64
08028112	1"1/2	93	88	10	57	730	10	8	32
08028200	2"	102	97	11	47	1045	10	4	16
08028212	2"1/2	110	120	16	55	1460	6	1	20
08028300	3"	128	135	16	70	2375	6	1	10
08028400	4"	180	180	20	90	3915	6	1	4

GP 2042
SIFT FILTER



Sift filter in stainless steel, female-female, sandblasted.

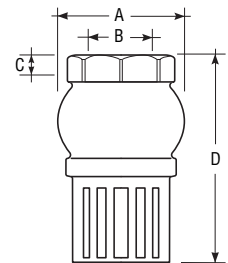


CODE	Size	A mm	gr	PN	Pack pcs/box	Master pcs/box
08029012	1/2"	57	148	20	20	160
08029034	3/4"	66	245	20	20	80
08029100	1"	80	330	20	12	72
08029114	1"1/4	92	610	20	10	40
08029112	1"1/2	101	793	20	5	25
08029200	2"	123	1370	20	2	14

GP 2052
CLASSIC FOOT VALVE



Female classic foot valve, brass filter, sandblasted.



CODE	Size	øA mm	øB mm	C mm	D mm	gr	PN	Pack pcs/box	Master pcs/box
08032034	3/4"	45	24	9	72	195	10	30	120
08032100	1"	51	28	11	80	235	10	20	80
08032114	1"1/4	61	35	13	91	385	8	12	48
08032112	1"1/2	68	40	14	108	505	8	12	48
08032200	2"	80	50	16	120	770	8	6	24
08032212	2"1/2	102	62	16	141	1330	6	1	48
08032300	3"	117	73	16	150	1615	6	1	24
08032400	4"	146	110	16	185	3195	6	1	5



Ball valves **8**

FOR GAS



page 302

**Futurgas
ball valves**



page 318

**Gas-Box 2.0
recessed ball
valves for gas**



page 309

**Futurgas
ball valves with
safety locks**



page 322

**Low pressure
regulator**



page 311

**Futurgas
first inlet
manifold**



page 323

**AISI 304
stainless steel
gas hoses**



page 312

**Norm-Gas
ball valves**



page 324

**Covered hoses
in AISI stainless
steel for gas**



ball valve for gas



Ball valve with safety lock



Covered flexible pipes in AISI stainless steel



First inlet manifold with built-in shut-off valve



Extensible flexible pipe in AISI stainless steel



reliability and safety, essential requirements in gas distribution

FIELDS OF APPLICATION

Gas distribution, in particular in residential areas, requires the utmost care for an installation where safety is a must. For years, FIV has produced a complete range of ball valves for gas, 100% tested internally and certified according to European standards.

Added to this are the gas manifolds and flush valves for gas, required for the new installations. Today, the latest regulations allow us to use a multilayer pipe and press fittings for gas, which are both produced by FIV with the utmost care.

BALL VALVES FOR GAS, TAPS FOR GAS, MANIFOLDS FOR GAS

Futurgas ball valves for gas represent for FIV the product in which it is essential to guarantee excellence in quality. This occurs thanks to the fully automated production and rigorous tests performed on 100% of the components during the preliminary stage and on 100% of the assembled finished products. The same goes for NormGas taps for gas, for which the DVGW certification represents another business card. Both products can be used with methane gas, town gas and LPG, both at low and medium pressure.

BALL VALVES FOR GAS WITH SAFETY LOCK

These valves, normally applied to the meter, are equipped with a safety lock with keys for the exclusive use of the user as required by Italian standard UNI 7129/2008 Paragraph 4.1 and a key (sold separately) to be used by the manager/administrator.

It is possible, in case of an emergency, to close the gas flow without using the key, ensuring locking when closing. It is also possible, with the key of the manager/administrator, to prevent all actions by the user

FLUSH BALL VALVE FOR GAS WITH RETRACTABLE KNOB GAS-BOX ACCORDING TO UNI CIG 7129-92 AND UNI EN 331

The new retractable system and new design adopted for the GAS-BOX valve, ensure a perfect balance of practicality and aesthetics, while maintaining a high degree of safety in the general closure of the GAS. A solution in perfect harmony with any type of furniture.

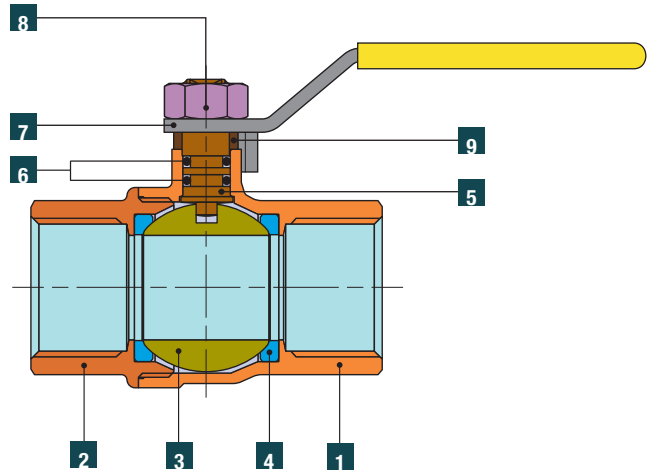
The valve is supplied with a chrome-plated door, while another two colours are available on request: White and Anthracite.

For installation, testing and maintenance of the pipes or the other equipment connected, refer to the specific instructions of these products, to Italian standard UNI CIG 7129 or other applicable regulations.

quality assurance of production

The highly automated system of all gas valves allows to achieve a high quality standard, ensuring the constancy of the construction and fluid-dynamic characteristics of an entire production lot, in accordance with the regulations in force.

In fact, to safeguard the elimination and prevention of danger, damage and risks, the law imposes very strict obligations, to ensure safety, respect for the environment and reliable performance.



Components

	Components	Pcs	Material
1	Body	1	UNI EN 12165 CW617N
2	End sleeve	1	UNI EN 12165 CW617N
3	Ball	1	UNI EN 12165 CW617N UNI EN 12164 CW617N
4	Ball seal seats	2	P.T.F.E.
5	Stem	1	UNI EN 12164 CW617N
6	Stem seal O-Ring	2	NBR 70 Sh A (ASTM D 2240)
7	Steel lever handle	1	Steel ZN, plastic-covered
	Butterfly	1	AL, painted
	Cap	1	UNI EN 12165 CW617N UNI EN 12164 CW617N
8	Nut	1	Zinc-plated Steel
	Screw	1	Zinc-plated Steel
9	Anti-friction ring	1	P.T.F.E.

EN GENERAL CHARACTERISTICS

Bore: Full
 Range: From 1/4" to 2"
 Female fitting: Thread UNI EN 10226 (UNI EN ISO 7/1 Rp) (DIN2999)
 Male fitting: Thread UNI EN 10226 (UNI EN ISO 7/1 R) (DIN2999)
 Tang and nut: Thread UNI EN ISO 228/1 (DIN 259)
 Functioning: 90° degrees rotation of operating device.
 Operating device: Plastified steel Lever handle, aluminium Butterfly, Cap.

OPERATING CONDITIONS

Operating temperature: from -20 °C to +60 °C
 Operating pressure: MOP 5 Classe B0,1

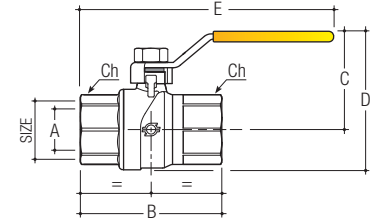
Valves must be used in fully open or fully closed position.

These valves are suitable for use with the three classes of gases (methane, gas mains, GPL), for low and medium pressure distribution mains and plants; for special uses (in compliance with the pressures set out for these valves) see chemical compatibility chart in the technical annexes of the applicable catalogue. Items included in the CE marking, as per Art. 4 Paragraph 3 of the Directive 2014/68/EU.

GP 2235
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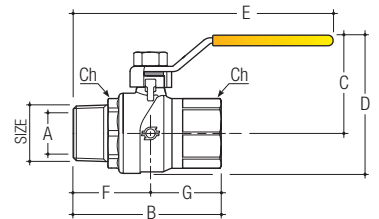
Ball valve for gas nickel-plated, Female-Female fitting, with yellow plastified steel Lever handle.



CODE	Size	A mm	B mm	C mm	D mm	E mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8200R002	1/4"	10	45,6	39,6	52,4	107,3	8	20	154	36	144
8200R003	3/8"	10	47,2	39,6	52,4	108,2	10	20	158	36	144
8200R004	1/2"	15	56,7	43,2	58,6	112,9	15	25	195	36	144
8200R005	3/4"	20	66,9	47	66	118	20	31	297	24	96
8200R006	1"	25	81,3	57,6	80,4	151	25	38	495	12	48
8200R007	1"1/4	32	96	63,1	91,6	158,2	32	47	700	8	32
8200R008	1"1/2	40	104	74,2	108,3	192,4	40	53	1070	4	16
8200R009	2"	50	127	82,3	124,6	203,9	50	66	1755	4	16

GP 2235

Ball valve for gas nickel-plated, Male-Female fitting, with yellow plastified steel Lever handle.

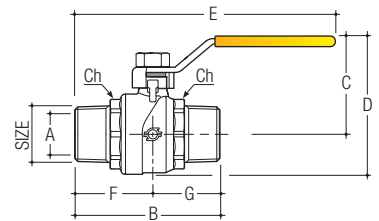


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8201R002	1/4"	10	51,4	39,6	52,4	113,2	28,6	22,8	8	20	154	36	144
8201R003	3/8"	10	52,7	39,6	52,4	113,7	29,1	23,6	10	20	158	36	144
8201R004	1/2"	15	60,4	43,2	58,6	116,6	32,1	28,4	15	25	195	36	144
8201R005	3/4"	20	70,3	47,0	66,0	121,4	36,8	33,5	20	31	297	24	96
8201R006	1"	25	83,7	57,6	80,4	153,4	43,2	40,5	25	38	495	12	48
8201R007	1"1/4	32	98,2	63,1	91,6	160,4	50,2	48,0	32	47	700	8	32
8201R008	1"1/2	40	110,6	74,2	108,3	199,0	58,6	52,0	40	53	1070	4	16
8201R009	2"	50	135,1	82,3	124,6	212,0	71,6	63,5	50	66	1755	4	16

GP 2235
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Ball valve for gas nickel-plated, Male-Male fitting, with yellow plastified steel Lever handle.

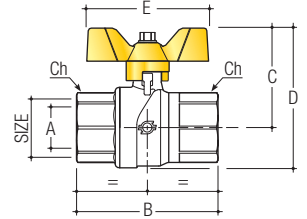


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8202R004	1/2"	15	60,9	43,2	58,6	116,6	32,1	28,8	15	25	194	36	144
8202R005	3/4"	20	71,3	47,0	66,0	121,4	36,8	34,5	20	31	288	24	96
8202R006	1"	25	83,2	57,6	80,4	153,4	43,2	40,0	25	38	467	12	48

GP 2235
FUTURGAS



Ball valve for gas nickel-plated, Female-Female fitting, with yellow painted aluminium Butterfly handle.

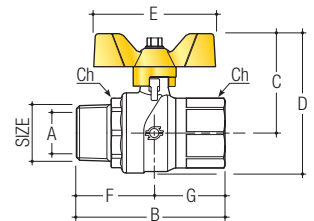


CODE	Size	A mm	B mm	C mm	D mm	E mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8203R002	1/4"	10	45,6	42,3	55,1	60,2	8	20	159	36	144
8203R003	3/8"	10	47,2	42,3	55,1	60,2	10	20	152	36	144
8203R004	1/2"	15	56,7	44,8	60,2	60,2	15	25	175	36	144
8203R005	3/4"	20	66,9	48,6	67,7	60,2	20	31	275	24	96
8203R006	1"	25	81,3	54,5	77,3	65,0	25	38	470	12	48
8203R007	1"1/4	32	96,0	60,0	88,5	65,0	32	47	685	8	32

GP 2235
FUTURGAS



Ball valve for gas nickel-plated, Male-Female fitting, with yellow painted aluminium Butterfly handle.

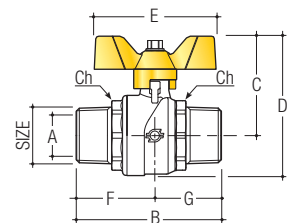


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8204R002	1/4"	10	51,4	42,3	55,1	60,2	28,6	22,8	10	20	159	36	144
8204R003	3/8"	10	52,7	42,3	55,1	60,2	29,1	23,6	10	20	152	36	144
8204R004	1/2"	15	60,4	44,8	60,2	60,2	32,0	28,4	15	25	190	36	144
8204R005	3/4"	20	70,3	48,6	67,7	60,2	36,8	33,5	20	31	285	24	96
8204R006	1"	25	83,7	54,5	77,3	65,0	43,2	40,5	25	38	495	12	48
8204R007	1"1/4	32	98,2	60,0	88,5	65,0	50,2	48,0	32	47	710	8	32

GP 2235
FUTURGAS



Ball valve for gas nickel-plated, Male-Male fitting, with yellow painted aluminium Butterfly handle.

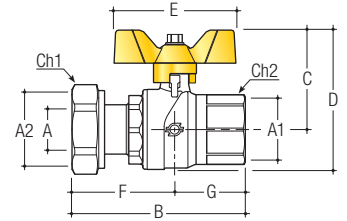


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8205R004	1/2"	15	60,9	44,8	60,2	60,2	32,1	28,8	15	25	185	36	144
8205R005	3/4"	20	71,3	48,6	67,7	60,2	36,8	34,5	20	31	295	24	96
8205R006	1"	25	83,2	54,5	77,3	65,0	43,2	40,0	25	38	475	12	48

GP 2235
FUTURGAS



Ball valve for gas nickel-plated, Female-Revolving nut fitting, with yellow painted aluminium Butterfly handle.

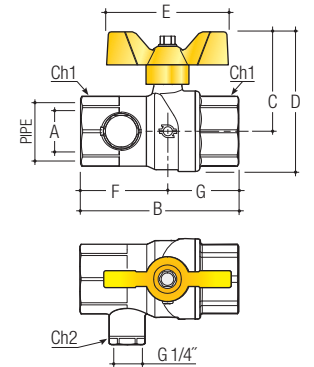


CODE	Size	A mm	A1	A2	B mm	C mm	D mm	E mm	F mm	G mm	DN mm	Ch1/2 mm	gr	Pack pcs/box	Master pcs/box
8206R004	1/2"x3/4"	15	1/2"	3/4"	73,0	44,8	60,2	60,2	44,7	28,4	15	32/25	230	30	120
8206R105	3/4"x3/4"	20	3/4"	3/4"	81,8	48,6	67,7	60,2	48,3	33,5	20	32/31	327	18	72
8206R005	3/4"x1"	20	3/4"	1"	82,3	48,6	67,7	60,2	48,8	33,5	20	38/31	340	18	72
8206R006	1"x1"1/4	25	1"	1"1/4	94,0	54,5	77,3	65,0	53,5	40,5	25	47/38	535	12	48

GP 2235
FUTURGAS



Ball valve for gas nickel-plated, Female-Female fitting, with pressure fittings, with yellow painted aluminium Butterfly handle.

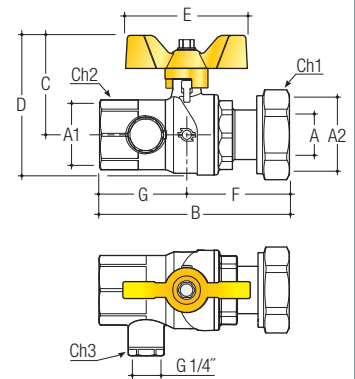


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	DN mm	Ch1/2 mm	gr	Pack pcs/box	Master pcs/box
8207R004	1/2"	15	63,9	44,8	60,2	60,2	28,4	35,5	15	25/15	241	30	120
8207R005	3/4"	20	75,0	48,6	65,1	60,2	33,5	41,5	20	31/15	362	18	72
8207R006	1"	25	89,8	54,5	77,3	65,0	40,8	49,0	25	38/15	554	12	48

GP 2235
FUTURGAS



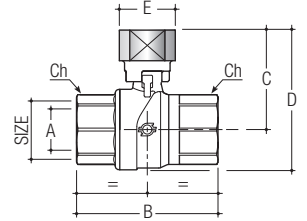
Ball valve for gas nickel-plated, Female-Revolving nut fitting, with pressure fittings, with yellow painted aluminium Butterfly handle.



CODE	Size	A mm	A1 / A2	B mm	C mm	D mm	E mm	F mm	G mm	DN mm	Ch1/2/3 mm	gr	Pack pcs/box	Master pcs/box
8208R005	3/4" x 1"	20	3/4" / 1"	90,3	48,6	67,7	60,2	48,8	41,5	20	38/31/15	410	18	72
8208R006	1" x 1"1/4	25	1" / 1"1/4	102,5	54,5	77,3	65	53,5	49,0	25	47/38/15	628	10	40

GP 2235
FUTURGAS

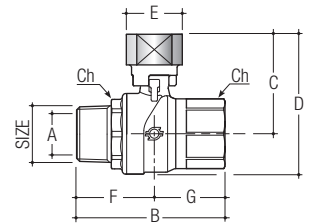
Ball valve for gas nickel-plated, Female-Female fitting,
with safety cap and sealable closing.



CODE	Size	A mm	B mm	C mm	D mm	E mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8209R004	1/2"	15	56,7	39,9	55,3	26,0	15	25	209	36	144
8209R005	3/4"	20	66,9	43,7	62,8	26,0	20	31	311	24	96
8209R006	1"	25	81,3	53,4	76,2	26,0	25	38	490	12	48
8209R007	1"1/4	32	96,0	58,9	87,4	26,0	32	47	695	8	32

GP 2235
FUTURGAS

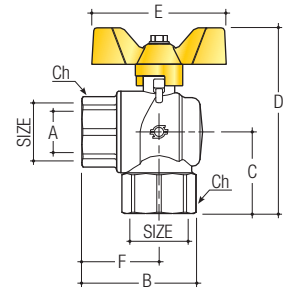
Ball valve for gas nickel-plated, Male-Female fitting,
with safety cap and sealable closing.



CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8210R004	1/2"	15	60,4	39,9	55,3	26,0	32,1	28,4	15	25	204	36	144
8210R005	3/4"	20	70,3	43,7	62,8	26,0	36,8	33,5	20	31	309	24	96
8210R006	1"	25	83,7	53,4	76,2	26,0	43,2	40,5	25	38	505	12	48
8210R007	1"1/4	32	98,2	58,9	87,4	26,0	50,2	48,0	32	47	725	8	32

GP 2235
FUTURGAS

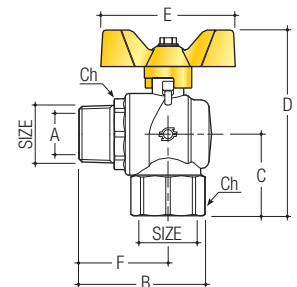
Female-Female ball angle valve for gas,
with yellow painted aluminium Butterfly handle.



CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8213R004	1/2" x 1/2"	15	42,7	32,5	77,3	60,2	29,5	15	25	196	36	144
8213R005	3/4" x 3/4"	20	50,9	38,0	86,6	60,2	34,5	20	31	307	24	96
8213R006	1" x 1"	25	61,7	45,0	99,5	65,0	41,5	25	38	505	12	48

GP 2235
FUTURGAS

Female-Male ball angle valve for gas,
with yellow-painted aluminium Butterfly handle.

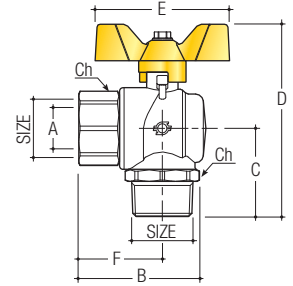


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8214R004	1/2" x 1/2"	15	50,5	32,5	77,3	60,2	37,3	15	25	208	36	144
8214R005	3/4" x 3/4"	20	57,2	38,0	85,5	60,2	40,8	20	31	319	24	96
8214R006	1" x 1"	25	68,1	45,0	99,5	65,0	47,9	25	38	535	12	48

GP 2235
FUTURGAS



Male-Female ball angle valve for gas,
with yellow-painted aluminium Butterfly handle.

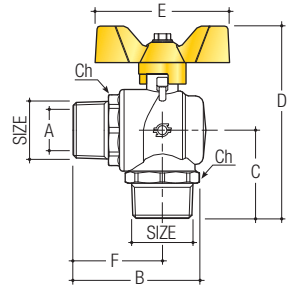


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8215R004	1/2" x 1/2"	15	42,7	35,0	79,8	60,2	29,5	15	25	198	36	144
8215R005	3/4" x 3/4"	20	50,9	41,4	90,0	60,2	34,5	20	31	309	24	96
8215R006	1" x 1"	25	61,7	47,5	102,0	65,0	41,5	25	38	513	12	48

GP 2235
FUTURGAS



Male-Male ball angle valve for gas,
with yellow-painted aluminium Butterfly handle.

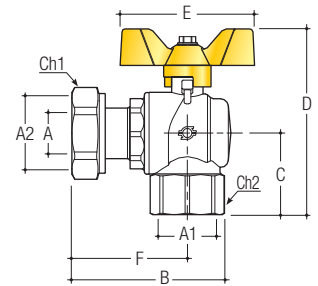


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	DN mm	Ch mm	gr	Pack pcs/box	Master pcs/box
8216R004	1/2" x 1/2"	15	50,5	35,0	79,8	60,2	37,3	15	25	210	36	144
8216R005	3/4" x 3/4"	20	57,2	41,4	90,0	60,2	40,8	20	31	321	24	96
8216R006	1" x 1"	25	68,1	47,5	102,0	65,0	47,9	25	38	543	12	48

GP 2235
FUTURGAS



Female-Revolving nut ball angle valve for gas,
with yellow-painted aluminium Butterfly handle.

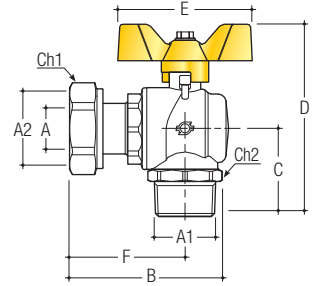


CODE	Size	A mm	A1	A2	B mm	C mm	D mm	E mm	F mm	DN mm	Ch1 mm	Ch2 mm	gr	Pack pcs/box	Master pcs/box
8217R004	1/2"Fx3/4"D	15	1/2"	3/4"	61,0	32,5	77,3	60,2	47,8	15	32	25	253	30	120
8217R105	3/4"Fx3/4"D	20	3/4"	3/4"	68,7	38,0	86,8	60,2	52,3	20	32	31	361	18	72
8217R005	3/4"Fx1"D	20	3/4"	1"	69,2	38,0	86,6	60,2	52,8	20	38	31	370	18	72
8217R006	1"Fx1"1/4D	25	1"	1"1/4"	78,4	45,0	99,5	65,0	58,2	25	47	38	580	10	40

GP 2235
FUTURGAS



Male-Revolving nut ball angle valve for gas,
with yellow-painted aluminium Butterfly handle.

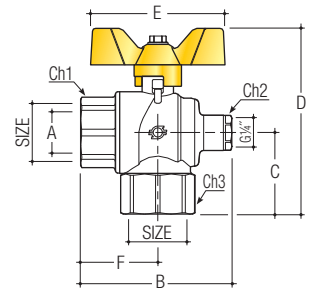


CODE	Size	A mm	A1	A2	B mm	C mm	D mm	E mm	F mm	DN mm	Ch1 mm	Ch2 mm	gr	Pack pcs/box	Master pcs/box
8218R004	1/2" Mx 3/4" D	15	1/2"	3/4"	61,0	35,0	79,8	60,2	47,8	15	32	25	253	30	120
8218R105	3/4" Mx 3/4" D	20	3/4"	3/4"	68,7	41,4	90,0	60,2	52,3	20	32	31	364	18	72
8218R005	3/4" Mx 1" D	20	3/4"	1"	69,2	41,4	90,0	60,2	53,0	20	38	31	374	18	72
8218R006	1" Mx 1 1/4" D	25	1"	1 1/4"	78,4	47,5	102,0	65,0	58,2	25	47	38	580	10	40

GP 2235
FUTURGAS



Ball angle valve for gas nickel-plated, Female-Female fitting, with
pressure attachment, with yellow-painted aluminium Butterfly handle.

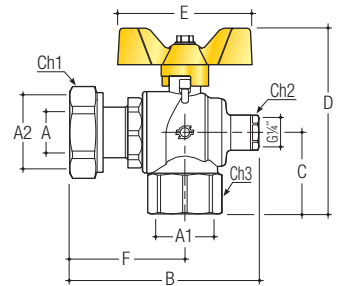


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	DN mm	Ch1/2/3 mm	gr	Pack pcs/box	Master pcs/box
8219R005	3/4"	20	68,5	38,0	86,6	60,2	34,5	20	31/15/31	440	18	72
8219R006	1"	25	80,0	45,0	99,5	65,0	41,5	25	38/15/38	540	10	40

GP 2235
FUTURGAS



Ball angle valve for gas nickel-plated, Female-Female revolving nut fitting,
with pressure attachment, with yellow-painted aluminium Butterfly handle.



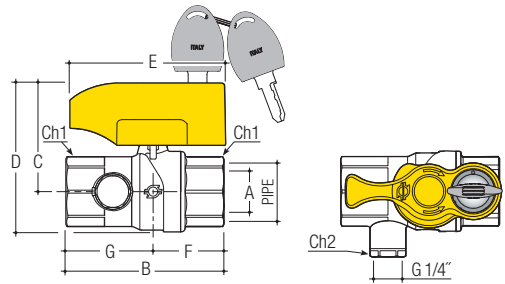
CODE	Size	A mm	A1	A2	B mm	C mm	D mm	E mm	F mm	DN mm	Ch1/2/3 mm	gr	Pack pcs/box	Master pcs/box
8220R005	3/4" x 1"	20	3/4"	1"	86,8	38,0	86,6	60,2	52,8	20	38/15/31	383	16	64
8220R006	1" x 1 1/4"	25	1"	1 1/4"	96,7	45,0	99,5	65,0	58,2	25	47/15/38	612	8	32

BALL VALVES FOR GAS WITH SAFETY LOCK

GP 2235
FUTURGAS



Ball valve for gas nickel-plated,
Female-Female fitting,
with aluminium Butterfly handle
with lock and pressure fittings.

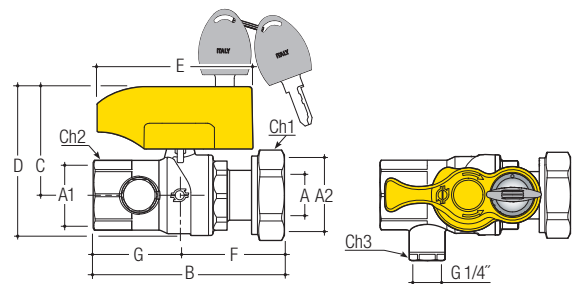


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	DN mm	Ch1/2 mm	gr	Pack pcs/box	Master pcs/box
8221R005	3/4"	20	75,0	51,1	70,2	74,4	33,5	41,5	20	31/15	454	10	40
8221R006	1"	25	89,8	57,3	80,1	74,4	40,8	49,0	25	38/15	638	8	32

GP 2235
FUTURGAS



Ball valve for gas nickel-plated,
Female-Revolving nut fitting,
with aluminium Butterfly handle
with lock and pressure fittings.

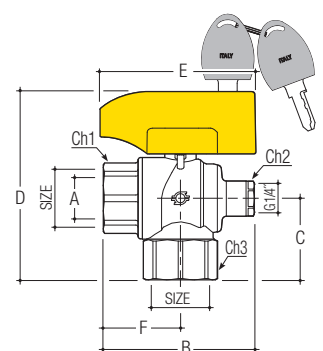


CODE	Size	A mm	A1/A2	B mm	C mm	D mm	E mm	F mm	G mm	DN mm	Ch1/2/3 mm	gr	Pack pcs/box	Master pcs/box
8222R005	3/4"x1"	20	3/4"/1"	90,3	51,1	70,2	74,4	48,8	41,5	20	38/31/15	510	10	40
8222R006	1"x1"1/4	25	1"/1"1/4	102,5	57,3	80,1	74,4	53,5	49,0	25	47/38/15	730	8	32

GP 2235
FUTURGAS



Ball angle valve for gas nickel-plated, Female-Female fitting,
with aluminium butterfly handle with lock and pressure fitting.

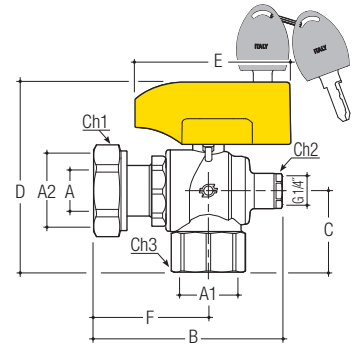


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	DN mm	Ch1/2/3 mm	gr	Pack pcs/box	Master pcs/box
8223R005	3/4"	20	68,5	38,0	89,1	74,4	34,5	20	31/15/31	414	10	40
8223R006	1"	25	80,0	45,0	102,3	74,4	41,5	25	38/15/38	584	8	32

GP 2235
FUTURGAS



Ball angle valve for gas nickel-plated, Female-Revolving nut fitting, with aluminium butterfly handle with lock and pressure fitting.

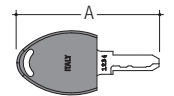


CODE	Size	A mm	A1 / A2	B mm	C mm	D mm	E mm	F mm	DN mm	Ch1/2/3 mm	gr	Pack pcs/box	Master pcs/box
8224R005	3/4" x 1"	20	3/4" / 1"	86,8	38,0	89,1	74,4	52,8	20	38/15/31	492	10	40
8224R006	1" x 1"1/4	25	1" / 1"1/4	96,7	45,0	102,3	74,4	58,2	25	47/15/38	712	8	32

GP 2000
FUTURGAS



Master key for manager / administrator.

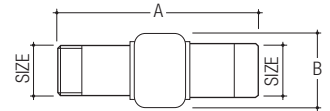


CODE	A mm	Pack pcs/box	Master pcs/box
6182X900	55	1	1

GP 2021
DIELETRIC JOINT



Dielectric joint for gas.
Electrical resistance (in dry air) ≥ 5 Mohm
Insulation voltage (in dry air) ≥ 3000 V
Operating pressure 10 bar - Operating temperature -10 - 70 °C
Certified pressure test for operating at 15 bar



CODE	Size	A mm	B mm	Pack pcs/box
5322R004	1/2"	100	42	5
5322R005	3/4"	110	49	6
5322R006	1"	120	54	3
5322R007	1"1/4	135	64	2
5322R008	1"1/2	145	70	1
5322R009	2"	150	83	1

VALVES WITH FIRST INLET MANIFOLD

GP 2233
FUTURGAS

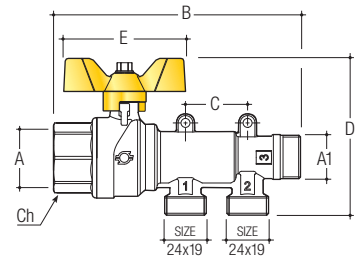


Valves with first inlet manifold.

Manifold with integrated shut-off valve with 1" F inlet / two 24x19M branches / one M28x1.5 branch, suited for creating joints inside the rooms, which can be exposed and have a shut-off, in compliance with UNI 7129.

The pack includes:

- Screws, plugs and spacers for wall-mounted installation.
- Nut M28x1.5 **3** that can be used with the brass ogive **4** supplied for connection to copper piping $\varnothing 22$ mm, or with the blind adapter D22 **2** and relative o-ring in HNBR 18x2.5 **1** provided in order to seal the outlet if not used.



Note: 24x19 fittings for copper pipe, see gas monobloc section.

CODE	Size	A	A1	B mm	C mm	D mm	E mm	DN mm	Ch mm	gr	Pack pcs/box
8225R006	1"	Rp 1"	M28x1,5	143,8	36,0	87,5	65,0	25	38	730	1

Lateral ends: 24x19 M

Head end: M 28x1.5

GP 2615
ACCESSORIES

Female plug 24x19 for gas.



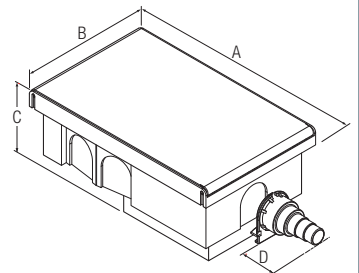
CODE	Size	Pack pcs/box
6047R524	24 x 19 F	20

Fitting to be used to plug the 24x19 male takeoffs of the valve with the first gas inlet manifold.

GP 2233
FUTURGAS

Recessed box for valve with first inlet manifold.

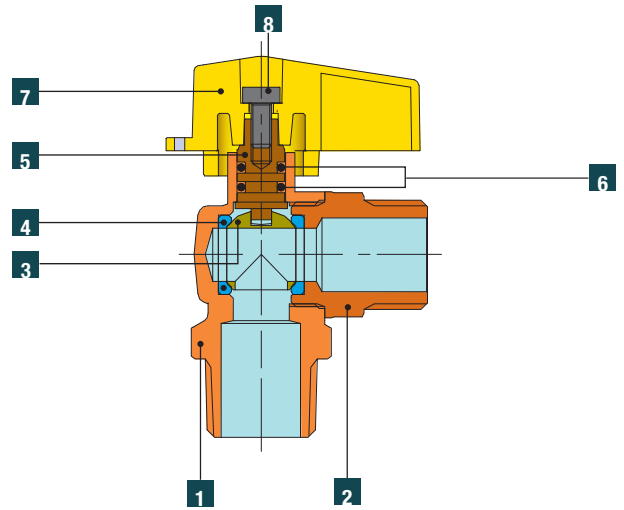
Inside the packaging there are 4 adjustable extension cables for DN16 - DN18 - DN20 - DN26 - DN32 pipes and 2 M4x50 screws with the relative washers and nuts.



CODE	Size	A mm	B mm	C mm	D mm	Pack pcs/box
13010000	264x164x111	264	164	111	68	1

NORM-GAS

BALL VALVES



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N
2 End sleeve	1	UNI EN 12165 CW617N
3 Ball	1	UNI EN 12165 CW617N UNI EN 12164 CW617N
4 Ball seal seats	2	P.T.F.E.
5 Stem	1	UNI EN 12164 CW617N
6 Stem seal O-Ring	2	NBR 70 Sh A (ASTM D 2240)
7 Lever	1	AL painted
8 Screw	1	Zinc-plated Steel

EN GENERAL CHARACTERISTICS

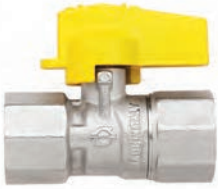
Bore: Standard
 Range: 1/2"
 Body thread: UNI EN 10226 (UNI EN ISO 7/1 Rp and R) (DIN2999)
 End sleeve thread: Male ISO 228/1 (DIN 259);
 Female thread: UNI EN 10226 (UNI EN ISO 7/1 Rp) (DIN2999)
 Functioning: 90° degrees rotation of operating device.
 Operating device: Aluminium painted lever handle, sealable in closed position.

OPERATING CONDITIONS

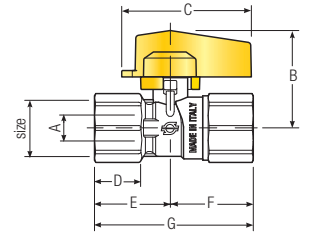
Flow direction: for the angle valves, from the bottom to the side.
 Operating Temperature: from -20 °C to +60 °C
 Operating pressure: MOP 5
 Valves must be used in fully open or fully closed position.
 Thread hose end conform UNI-CIG 7141/91 for the connection of non-metallic flexible pipes (UNI-CIG 7140/93).

These valves are suitable for use with the three classes of gases (methane, gas mains, GPL), for low and medium pressure distribution mains and plants; for special uses (in compliance with the pressures set out for these valves) see chemical compatibility chart in the technical annexes of the applicable catalogue. Items included in the CE marking, as per Art. 4 Paragraph 3 of the Directive 2014/68/EU.

GP 2140
NORM-GAS



Female-Female straight ball cock, with yellow aluminium lever handle.

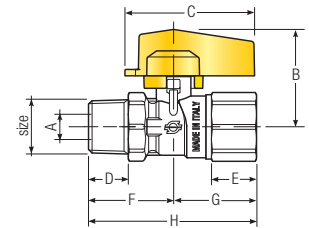


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8100R104	1/2"	10	37,6	48	17	28	30,75	58,75	141	20	160

GP 2140
NORM-GAS



Male-Female straight ball cock, with yellow aluminium lever handle.

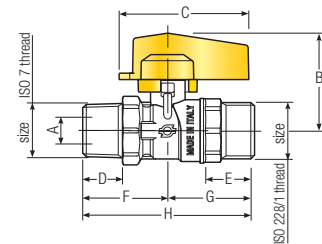


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	gr	Pack pcs/box	Master pcs/box
8101R104	1/2"	10	37,6	48	14,8	17	31,75	30,75	62,5	143	20	160

GP 2140
NORM-GAS



Male ISO 7 - Male ISO 228 straight ball cock, with yellow aluminium lever handle.

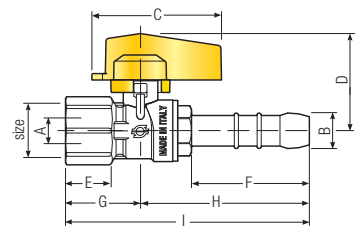


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	gr	Pack pcs/box	Master pcs/box
8103R076	1/2"	10	37,6	48	14,8	17	31,75	30,75	62,5	143	20	160

GP 2140
NORM-GAS



Female-Hose holder GAS UNI 7141 straight ball cock, with yellow aluminium lever handle.

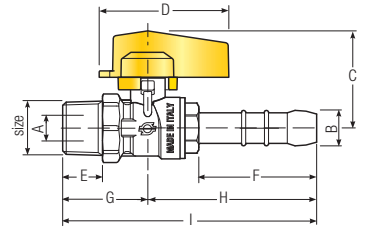


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	gr	Pack pcs/box	Master pcs/box
8104R104	1/2"	10	14	48	37,6	17	44	28	63	91	145	20	160

GP 2140
NORM-GAS

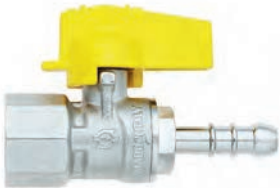


Male-Hose holder GAS UNI 7141 straight ball cock, with yellow aluminium lever handle.

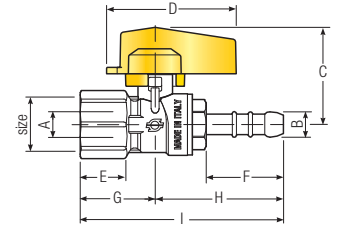


CODE	Size	øA mm	øB mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	gr	Pack pcs/box	Master pcs/box
8105R104	1/2"	10	14	37,6	48	14,8	44	31,75	63	94,75	148	20	160

GP 2140
NORM-GAS



Female-hose holder GPL UNI 7141 straight ball cock, with yellow aluminium lever handle.

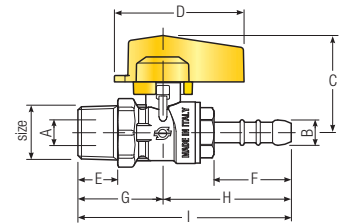


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	gr	Pack pcs/box	Master pcs/box
8106R104	1/2"	10	9,8	37,6	48	17	29	28	48	76	131	20	160

GP 2140
NORM-GAS



Male-Hose holder GPL UNI 7141 straight ball cock, with yellow aluminium lever handle.

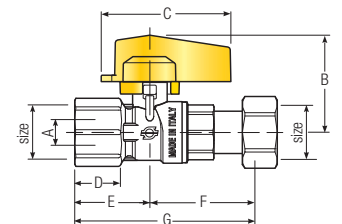


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	gr	PN	Pack pcs/box	Master pcs/box
8107R104	1/2"	10	9,8	37,6	48	14,8	29	31,75	48	79,75	136	4	20	160

GP 2140
NORM-GAS



Female-Female revolving nut straight ball cock, with yellow aluminium lever handle.

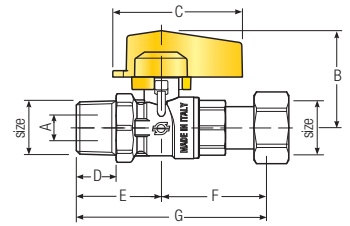


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8108R076	1/2"Fx1/2"D	10	37,6	48	17	28	39	67	167	20	160
8108R077	1/2"Fx3/4"D	10	37,6	48	17	28	39	67	171	20	160

GP 2140
NORM-GAS



Male-Female revolving nut straight ball cock,
with yellow aluminium lever handle.

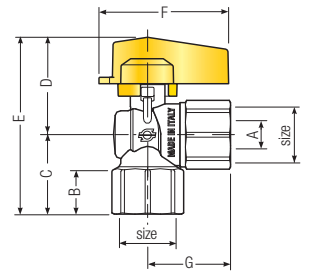


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8109R076	1/2" Mx 1/2" D	10	37,6	48	14,8	31,75	39	70,75	171	20	160
8109R077	1/2" Mx 3/4" D	10	37,6	48	14,8	31,75	39	70,75	175	20	160

GP 2140
NORM-GAS



Female-Female ISO 7 angle ball cock, with yellow aluminium lever handle.

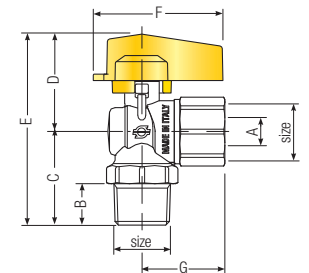


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8110R104	1/2"x1/2"	10	17	31	37,6	68,6	48	30,75	147	20	160

GP 2140
NORM-GAS



Male-Female ISO 7 angle ball cock, with yellow aluminium lever handle.

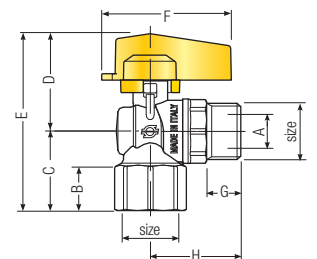


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8111R104	1/2"x1/2"	10	14,8	34,5	37,6	72,1	48	30,75	152	20	160

GP 2140
NORM-GAS



Female ISO 7-Male ISO 228 angle ball cock, with yellow aluminium lever handle.

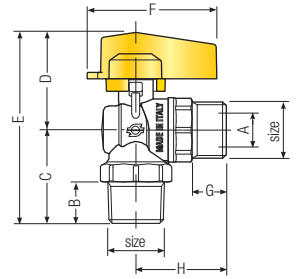


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	gr	Pack pcs/box	Master pcs/box
8112R076	1/2"x1/2"	10	17	31	37,6	68,6	48	12	31,5	145	20	160

GP 2140
NORM-GAS



Male ISO 7 - Male ISO 228 angle ball cock,
with yellow aluminium lever handle.

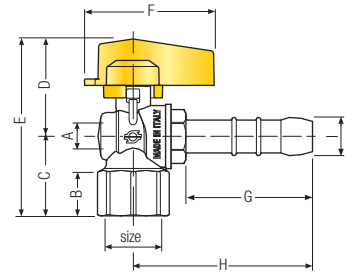


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	gr	Pack pcs/box	Master pcs/box
8113R076	1/2"x1/2"	10	14,8	34,5	37,6	72,1	48	12	31,5	149	20	160

GP 2140
NORM-GAS



Female-Hose holder GAS UNI 7141 angle ball cock,
with yellow aluminium lever handle.

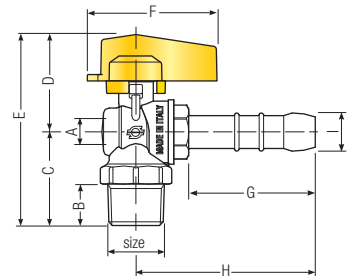


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	øI mm	gr	Pack pcs/box	Master pcs/box
8114R104	1/2"	10	17	31	37,6	68,6	48	44	63	14	152	20	160

GP 2140
NORM-GAS



Male-Hose holder GAS UNI 7141 angle ball cock,
with yellow aluminium lever handle.

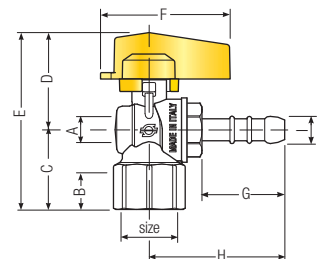


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	gr	Pack pcs/box	Master pcs/box
8115R104	1/2"	10	14,8	31	37,6	68,6	48	44	63	14	157	20	160

GP 2140
NORM-GAS



Female-Hose holder GPL UNI 7141 angle ball cock,
with yellow aluminium lever handle.

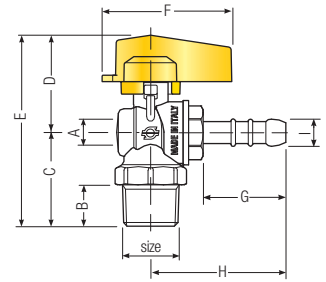


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	gr	Pack pcs/box	Master pcs/box
8116R104	1/2"	10	17	31	37,6	68,6	48	29	48	9,8	139	20	160

GP 2140
NORM-GAS



Male-Hose holder GPL UNI 7141 angle ball cock,
with yellow aluminium lever handle.

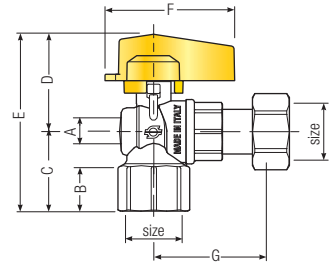


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	gr	Pack pcs/box	Master pcs/box
8117R104	1/2"	10	15	35	37,6	72,1	48	29	48	9,8	142	20	160

GP 2140
NORM-GAS



Female ISO 7-Female revolving nut ISO 228 angle ball cock,
with yellow aluminium lever handle.

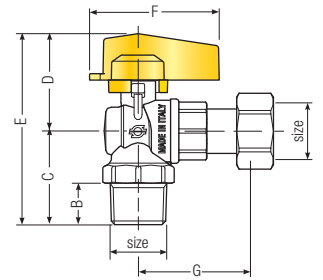


CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8118R076	1/2"Fx1/2"D	10	17	31	37,6	68,6	48	39	174	20	160
8118R077	1/2"Fx3/4"D	10	17	31	37,6	68,6	48	39	178	20	160

GP 2140
NORM-GAS



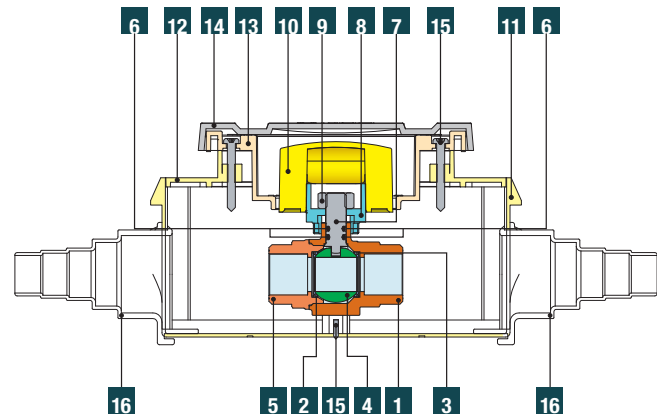
Male ISO 7-Female revolving nut ISO 228 angle ball cock,
with yellow aluminium lever handle.



CODE	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	gr	Pack pcs/box	Master pcs/box
8119R076	1/2"Mx1/2"D	10	14,8	34,5	37,6	72,1	48	39	177	20	160
8119R077	1/2"Mx3/4"D	10	14,8	34,5	37,6	72,1	48	39	181	20	160

GAS-BOX 2.0

RECESSED BALL VALVE FOR GAS



Components	Pcs	Material
1 Body	1	UNI EN 12165 CW617N UNI EN 12164 CW617N
2 Side gasket	2	P.T.F.E.
3 O-ring	2	NBR EN 549 homologated
4 Ball	1	UNI EN 12165 CW617N UNI EN 12164 CW617N
5 End sleeve	1	UNI EN 12165 CW617N UNI EN 12164 CW617N
6 O-ring	2	NBR EN 549 homologated
7 Stem	1	UNI EN 12164 CW617N
8 Cap	1	UNI EN 12165 CW617N UNI EN 12164 CW617N
9 Nut	1	Zinc-plated Steel
10 Knob	1	PS AU yellow
11 Box	1	ABS yellow
12 Cover	1	ABS yellow
13 Plate support	1	PS AU yellow
14 Plate	1	ABS chromed
15 Screw	1	Zinc-plated steel
16 Extension	2	Polyethylene

COMPLIANCE: The CE marking, according to UNI EN 331, and the DVGW certificate refer to the brass valve.

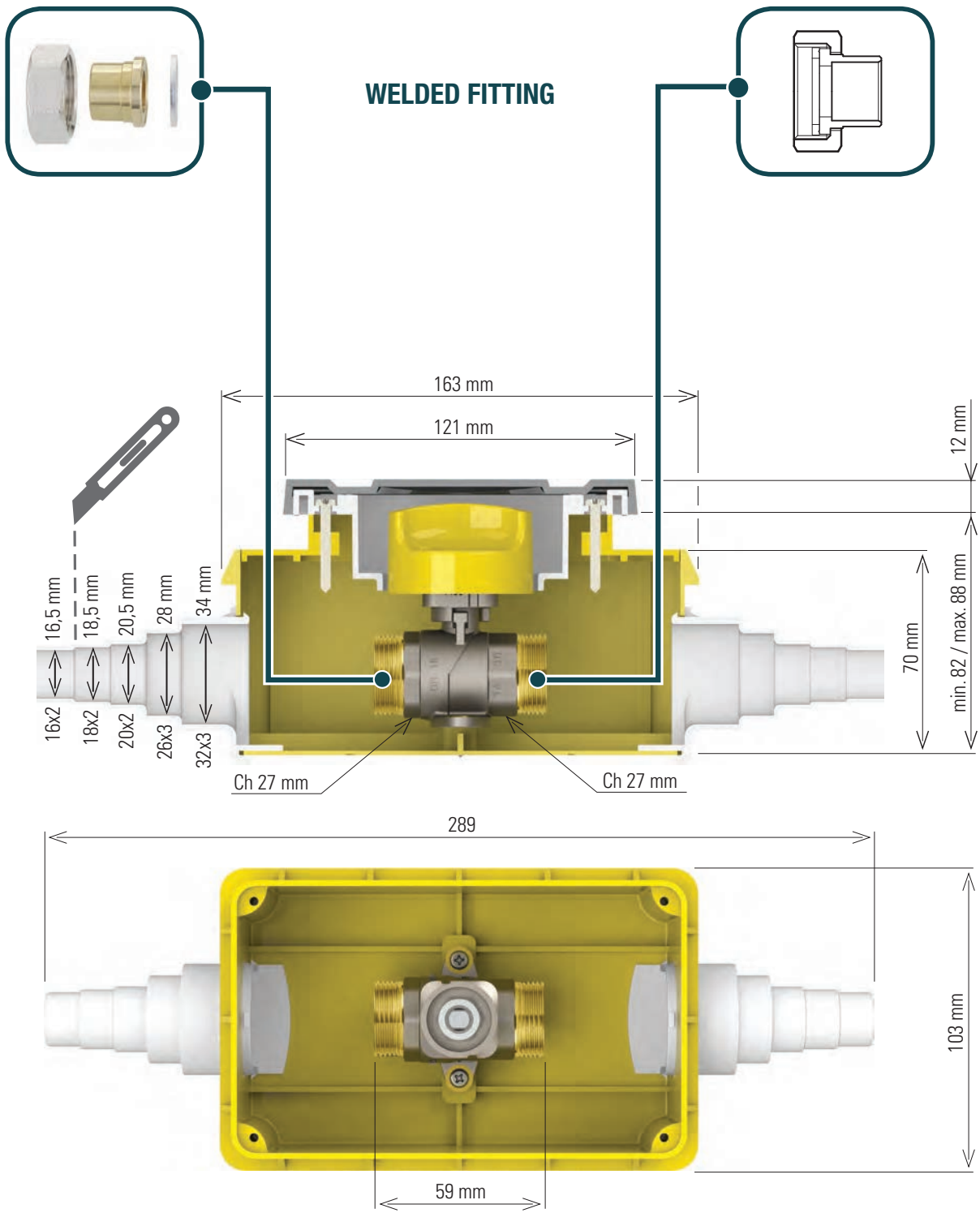
EN GENERAL CHARACTERISTICS OF BALL VALVE

Passage: \varnothing 15 mm
 Range: Gas valve of 1/2" with 3/4" fitting
 tangs \varnothing 12 - 14 - 16 - 18 mm welded,
 \varnothing 16 - 20 tightened.
 Functioning: rotation of 90°

OPERATING CONDITIONS

Operating pressure MOP Class B0,1
 Temperature limits: from -20°C to +60°C.
 Terminals suitable for capillary brazing or welding in conformity to the UNI EN 1254-1 standard.
 Suitable for use with the three gas families (methane, mains gas, LPG), for low- and medium-pressure distribution systems and networks.
 Installation instructions in the Technical Annexes section.

These valves are suitable for use with the three classes of gases (methane, gas mains, GPL), for low and medium pressure distribution mains and plants; for special uses (in compliance with the pressures set out for these valves) see chemical compatibility chart in the technical annexes of the applicable catalogue. Items included in the CE marking, as per Art. 4 Paragraph 3 of the Directive 2014/68/EU.



GP 2233
GAS-BOX 2.0

Ball valve for built-in installation, for gas, inclusive of 2 weld-on fitting kits brass, with concealed knob and chrome-plated plate.



Tangs suitable for soft brazing (temperatures below 450 °C and below the melting point of the tang material).



(*) Article available while stocks last.

CODE	Size	Connection	Pack pcs/box	Master pcs/box
8226R516	GAS-BOX Ø 16 (*)	3/4"	1	8
8226R518	GAS-BOX Ø 18 (*)	3/4"	1	8
NEW 8226R612	GAS-BOX 2.0 Ø 12	3/4"	1	8
NEW 8226R614	GAS-BOX 2.0 Ø 14	3/4"	1	8
NEW 8226R616	GAS-BOX 2.0 Ø 16	3/4"	1	8
NEW 8226R618	GAS-BOX 2.0 Ø 18	3/4"	1	8

NEW

GP 2233
GAS-BOX 2.0

Ball valve for built-in installation, for gas, with fittings MM size 3/4" without couplings and plate.



CODE	Size	Connection	Pack pcs/box	Master pcs/box
NEW 8228R004	GAS-BOX 2.0	3/4"	1	8

ACCESSORIES FOR GAS-BOX 2.0 RECESSED VALVE

GP 2000
GAS-BOX 2.0



Fitted door kit for Gas-Box 2.0 built-in valve
(5 pieces of the same colour are supplied with every pack).

CODE	Color	Pack pcs/box
6192P001	White	5
6192P002	Anthracite	5
6192P003	Chromed	5

GP 2000
GAS-BOX 2.0



Plate support kit with a knob for Gas-Box 2.0 built-in valve.

CODE	Pack pcs/box
6192P004	1

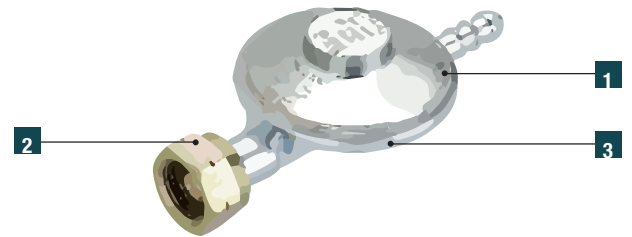
GP 2000
GAS-BOX 2.0



Welded fitting kit, composed of brass nut and tang + aluminium gasket.

CODE	Size	Connection	Pack pcs/box
7373S512	12	3/4"	10
7373S514	14	3/4"	10
7373S516	16	3/4"	10
7373S518	18	3/4"	10

LOW PRESSURE REGULATOR



Components	Pcs	Material
1 Body	1	Zama (ZL5) to EN 1774
2 Nut	1	UNI EN 12165 CW617N
3 Membrane	1	NBR (EN 549)

APPLICATION

Low pressure regulator for LPG tanks for domestic and industrial use.
Suitable for gaseous fluids, butane gas, propane, natural gases, compressed air (and their mixtures).

The Regulators can be used as Single stage:

- Single stage: the regulator is mounted directly to the cylinder or tank and reduces the pressure of the vessel directly to the pressure of the appliance.

EN GENERAL CHARACTERISTICS

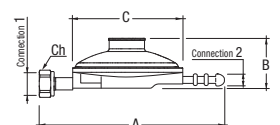
Swivel connection: CH 25 W20x1/14 Left
Flow rate: 1 Kg/h

OPERATING CONDITIONS

Flow direction: In the direction of the arrow
Guaranteed flow rate (Mg): 1,0 kg/h
Supply pressure (P): 0,3 ÷ 7,5 bar (Butane)
1 ÷ 16 bar (Propane) / 0,3 ÷ 16 bar (LPG)
Nominal outlet pressure (Pd): 29 mbar
Operating temperature: 0 °C ÷ +50 °C (Butane)
-20 °C ÷ +50 °C (Propane) / -20 °C ÷ +50 °C (LPG)
Design pressure drops: ΔP_2 (2 mbar)

GP 2029
LOW PRESSURE REGULATOR

Low pressure regulator 1 Kg/h fixed calibration 29 mbar.



CODE	Range	Calibration	Connection 1	Connection 2	A mm	B mm	C mm	Ch mm	Pack pcs/box	Master pcs/box
6146R001	1 kg/h	29 mbar	W20x1/14 Left	PTG GPL	118	34	65	25	8	64

AISI 304 STAINLESS STEEL GAS HOSES



Gas hose pipe description

Gas hose pipe description	Material
Pipe	PVC blue
Braiding	AISI 304 braid (or galvanized steel)
Hose holder	Zinc-plated steel
Nuts	Zinc-plated steel
Bushings	Aluminium
Key	Zinc-plated iron

EN GENERAL CHARACTERISTICS

Pipe 8x13 mm, blue PVC.
Braided galvanized steel hose.
Thread: W20x1/14 Left in galvanized steel.
Press-fit bushings.
Key with expiry date.

OPERATING CONDITIONS

Suitable for natural gas (methane), propane, butane, LPG.
Maximum operating temperature: from -20 to +50 °C

Compliant with directive UNI 7140:1993 + A1:1995

GP 2040
FLEXIBLE GAS

AISI 304 stainless steel flexible pipes Female-Female for GAS.



CODE	Length cm	Connections	Pack pcs/box
6150R050	50	W20x1/14 Left	10
6150R070	70	W20x1/14 Left	10
6150R100	100	W20x1/14 Left	10



COVERED HOSES IN AISI STAINLESS STEEL FOR GAS

Description	Material
Fittings	Stainless AISI 303
Internal pipe	Stainless AISI 321 (for Extensible pipe AISI 316)
Covering	Yellow PVC
Seals	NBR UNI EN 549
Nominal pressure	6 bar
Temperature limit	from -10 °C to +90 °C

EN GENERAL CHARACTERISTICS

- Flexible pipe in stainless steel AISI 321
- Stainless steel braid AISI 304
- Sheath in PVC
- It includes two sheaths in NBR (UNI EN 549).
- Female fittings: Thread UNI EN ISO 228/1 (DIN 259)
- Male fittings: Thread UNI EN 10226 (UNI EN ISO 7/1 R) (DIN 2999)

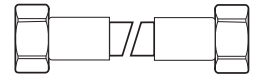
OPERATING CONDITIONS

- Suitable for natural gas (methane), propane, butane, LPG.
- Marking compliant with European directive 89/106/CE.
- Flexible pipe type-approved UNI EN 14800.
- Extensible flexible pipe type-approved UNI EN 11353.

GP 2040
FLEXIBLE GAS PIPES



Flexible pipe in stainless steel AISI 316L, for UNI EN 14800 compliant gases, Female-Female unions.

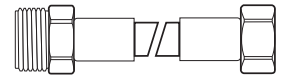


CODE	Size	Length cm	Pack pcs/box
6116P100	1/2"	100	12
6116P150	1/2"	150	12
6116P200	1/2"	200	12

GP 2040
FLEXIBLE GAS PIPES



Flexible pipe in stainless steel AISI 316L, for UNI EN 14800 compliant gases, Male-Female unions.



CODE	Size	Length cm	Pack pcs/box
6117P100	1/2"	100	12
6117P150	1/2"	150	12
6117P200	1/2"	200	12

GP 2330
FLEXIBLE GAS PIPES



Extensible flexible gas pipe, UNI 11353 compliant, Male-Female unions. Maximum operating pressure 0.5 bar.



CODE	Size	Length cm	Pack pcs/box
6118P124	1/2"	10-20	18
6118P244	1/2"	20-40	18
6118P125	3/4"	10-20	18
6118P245	3/4"	20-40	18

35 bar

20 °C

44 Nm

Technical ATTACHMENTS **9**

AUTOMATIC FILLING VALVE	Pag. 367	FUTURGAS WITH SAFETY LOCK	Pag. 374
Pressure drops and calibration		Ball valves for gas with safety lock	
BALL VALVES	Pag. 369 - 373	GAS-BOX 2.0	Pag. 375 - 376
Pressure drops and pressure/temperature graph		Recessed ball valve for gas	
BASIC - INSULATING PANEL	Pag. 340	GHIBLI	Pag. 365 - 366
Panel size and minimum system clearances for civil buildings		Manual / thermostatzable / thermostatic regulation valves	
BASIC WIRING BOX 6T	Pag. 358	HUMIDISTAT	Pag. 362
Electronic system for electro-thermal heads		Electronic humidistat	
CIRCULATION PUMPS WILO	Pag. 357	INTEGRAL FITTINGS	Pag. 338
Circulation pump hydraulic performance diagrams		Instructions for a correct fitting assembly	
COMPENSATED PRESSURE REDUCERS	Pag. 366	INTERSET	Pag. 354
Pressure drops		Steel complanar manifold - Pressure drops	
CONNECTIONS	Pag. 368	ISTANT	Pag. 354
Tightening connections for polyethylene pipes, with plastic and brass seals		Brass manifold with isolating taps - Pressure drops	
CONTROLLER	Pag. 349 - 353	KLETTJET - INSULATING PANEL	Pag. 342 - 343
Distribution Brass manifold		Panel size and minimum system clearances for civil buildings	
CONTROLLER M	Pag. 354	LOW-THICK - INSULATING PANEL	Pag. 339
Ddistribution manifold with taps - Pressure drops		Panel size and minimum system clearances for civil buildings	
CONTROLLER S	Pag. 349 - 353	MODULAR FITTINGS	Pag. 337
Distribution Steel manifold		Instructions for a correct fitting assembly	
ELECTRICAL BOXES	Pag. 359	MODULAR MIXING GROUP	Pag. 357
Application diagrams		Distribution modules	
EURA EXPORT / EURA PESANTE	Pag. 373	MONOBLOC SEALS	Pag. 337 - 338
Non-return valve - Pressure drops		Instructions for a correct seal assembly	
EXPORT / PRESSURE REDUCERS	Pag. 367	MOTORVALV	Pag. 355
Pressure drops		Motor driven ball valve - Pressure drops and wiring diagram	
FIVPERT - MULTILAYER PIPE PE-RT - AL - PE-RT	Pag. 347	OASI	Pag. 364
Pressure drops, thermal expansion, regression curves, application classes		Manual / thermostatzable / thermostatic regulation valves	
FIVPRESS - PRESS FITTINGS	Pag. 336	PE-Xa 5-LAYERS EVOH PIPE	Pag. 346 - 347
Pressure drops and instructions for a correct fitting assembly		Pressure drops, linear expansion, regression curves, application classes	
FIVPEX MULTILAYER PIPE PEX-AL-PEX	Pag. 329 - 335	PE-Xc PENTA EVOH PIPE	Pag. 344 - 345
Application classes and pressure drops		Pressure drops, linear expansion, regression curves, application classes	
FIV TOUCH WI-FI / FIV TOUCH	Pag. 360 - 361	PEXPENTA KLETT PIPE	Pag. 343
Touch-screen chronothermostats		Classes of application multilayer pipe for Klettjet system	
FIV TOUCH EVO	Pag. 360	PHONO-TERM - SOUND-ABSORBENT PANEL	Pag. 340
Touch-screen thermostat and chronothermostats		Panel size and minimum system clearances for civil buildings	
FLOOR MIXING CONTROLLER	Pag. 356	RADIOFREQUENCY THERMOREGULATION	Pag. 362
Preassembled fixed-point regulation and distribution assembly		Chronothermostat and actuator	

RCE - CLIMATIC REGULATOR KIT Pag. 363
Climatic regulator kit for mixing units

RECESSED BOX Pag. 374
For valve with first gas inlet manifold

REGOLO EVO Pag. 361
Mechanical thermostat

ROOL-PLAN - INSULATING PANEL Pag. 339
Panel size and minimum system clearances for civil buildings

SECURITY Pag. 368
Safety valves - Technical characteristics

SPECIAL - INSULATING PANEL Pag. 341
Panel size and minimum system clearances for civil buildings

TEF 08 Pag. 353
Electrothermic heads

TERMINAL KIT WITH BY-PASS Pag. 353
Overpressure valve graph

THERMODAY Pag. 354
Pressed brass manifold - Pressure drops

THREE-WAY BALL VALVE Pag. 372
Pressure drops

UFH MIXING CONTROLLER Pag. 357
Pre-assembled regulation group

WATER-BOX 2.0 Pag. 372
Recessed ball valve for water

WIND / WIND PLUS Pag. 368
Automatic air vent valve - Performance diagram

EXAMPLE OF CALCULATION DIAGRAMS Pag. 376

TABLE OF CHEMICAL RESISTANCE Pag. 377 - 378

INTERNATIONAL SYSTEM UNITS (SI) Pag. 379

CONVERSION TABLE Pag. 380

FIVPex pipe application classes

PE-X - AL - PE-X MULTILAYER PIPE

Conditions of use according to the application classes in compliance with standard UNI EN ISO 21003-1

Application class	Design temperature T_D (°C)	Time ^b at T_D (years)	T_{max} (°C)	Time at T_{max} (years)	T_{mal} (°C)	Time at T_{mal} (hours)	Typical field of application
1 ^a	60	49	80	1	95	100	Hot water (60 °C)
2 ^a	70	49	80	1	95	100	Hot water (70 °C)
4 ^b	20 +	2,5	70	2,5	100	100	Underfloor heating and low temperature radiators
	40 +	20					
	60	25					
5 ^b	20 +	14	90	1	100	100	High temperature radiators
	60 +	25					
	80	10					

Notes:

T_D design temperature
 T_{max} maximum design temperature for short periods
 T_{mal} malfunction temperature

a) A Country may select either class 1 or class 2 in conformity with its national regulations.

b) Where more than one design temperature for time and associated temperature appears for any class, the symbol "+" indicates that a sum must be made. For example, the design temperature profile for 50 years for class 5 should be read as follows: 20 °C for 14 years, followed by 60 °C for 25 years, 80 °C for 10 years, 90 °C for 1 year and 100 °C for 100 hours.

FIVPex pressure drops

FIVPEX PIPE - distributed pressure drops - Water at 10 °C

NOTE: 1 bar = 0.1 N/mm² = 100 kPa = 10 m w.c.

DN 14x2			DN 16x2			DN 20x2			DN 26x3			DN 32x3		
G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)
110	0,39	323	120	0,29	158	150	0,21	60	400	0,35	115	800	0,42	111
115	0,41	350	130	0,32	182	170	0,23	74	440	0,39	136	860	0,45	126
120	0,42	377	140	0,34	208	190	0,26	90	480	0,42	158	920	0,48	142
125	0,44	405	150	0,37	234	210	0,29	108	520	0,46	182	980	0,51	159
130	0,46	433	160	0,39	262	230	0,32	126	560	0,50	207	1040	0,54	176
135	0,48	463	170	0,42	291	250	0,35	146	600	0,53	234	1100	0,58	194
140	0,50	493	180	0,44	322	270	0,37	167	640	0,57	262	1160	0,61	213
145	0,51	525	190	0,47	354	290	0,40	189	680	0,60	291	1220	0,64	233
150	0,53	557	200	0,49	387	310	0,43	213	720	0,64	322	1280	0,67	253
155	0,55	590	210	0,52	422	330	0,46	237	760	0,67	354	1340	0,70	275
160	0,57	623	220	0,54	458	350	0,48	263	800	0,71	387	1400	0,73	296
165	0,58	658	230	0,56	495	370	0,51	290	840	0,74	422	1460	0,76	319
170	0,60	693	240	0,59	533	390	0,54	318	880	0,78	457	1520	0,80	342
175	0,62	729	250	0,61	572	410	0,57	347	920	0,81	494	1580	0,83	366
180	0,64	766	260	0,64	613	430	0,59	377	960	0,85	533	1640	0,86	391
185	0,65	803	270	0,66	655	450	0,62	408	1000	0,88	572	1700	0,89	416
190	0,67	842	280	0,69	698	470	0,65	441	1040	0,92	613	1760	0,92	443
195	0,69	881	290	0,71	742	490	0,68	474	1080	0,95	655	1820	0,95	469
200	0,71	921	300	0,74	788	510	0,70	508	1120	0,99	698	1880	0,98	497
205	0,73	962	310	0,76	834	530	0,73	544	1160	1,03	742	1940	1,01	525
210	0,74	1003	320	0,79	882	550	0,76	580	1200	1,06	787	2000	1,05	553
215	0,76	1045	330	0,81	930	570	0,79	617	1240	1,10	834	2060	1,08	583
220	0,78	1088	340	0,84	980	590	0,82	656	1280	1,13	881	2120	1,11	613
225	0,80	1132	350	0,86	1031	610	0,84	695	1320	1,17	930	2180	1,14	644
230	0,81	1176	360	0,88	1084	630	0,87	736	1360	1,20	980	2240	1,17	675
235	0,83	1221	370	0,91	1137	650	0,90	777	1400	1,24	1031	2300	1,20	707
240	0,85	1267	380	0,93	1191	670	0,93	819	1440	1,27	1083	2360	1,23	739
245	0,87	1314	390	0,96	1246	690	0,95	863	1480	1,31	1136	2420	1,27	773
250	0,88	1361	400	0,98	1303	710	0,98	907	1520	1,34	1191	2480	1,30	806
255	0,90	1409	410	1,01	1360	730	1,01	952	1560	1,38	1246	2540	1,33	841
260	0,92	1458	420	1,03	1419	750	1,04	998	1600	1,41	1302	2600	1,36	876
265	0,94	1507	430	1,06	1479	770	1,06	1045	1640	1,45	1360	2660	1,39	912
270	0,95	1557	440	1,08	1539	790	1,09	1093	1680	1,49	1418	2720	1,42	948
275	0,97	1608	450	1,11	1601	810	1,12	1142	1720	1,52	1478	2780	1,45	985
280	0,99	1659	460	1,13	1664	830	1,15	1192	1760	1,56	1539	2840	1,49	1022
285	1,01	1712	470	1,15	1728	850	1,17	1243	1800	1,59	1600	2900	1,52	1060
290	1,03	1764	480	1,18	1793	870	1,20	1294	1840	1,63	1663	2960	1,55	1099
295	1,04	1818	490	1,20	1858	890	1,23	1347	1880	1,66	1727	3020	1,58	1138
300	1,06	1872	500	1,23	1925	910	1,26	1400	1920	1,70	1792	3080	1,61	1178
305	1,08	1927	510	1,25	1993	930	1,28	1454	1960	1,73	1858	3140	1,64	1219
310	1,10	1983	520	1,28	2062	950	1,31	1510	2000	1,77	1925	3200	1,67	1260
315	1,11	2039	530	1,30	2132	970	1,34	1566	2040	1,80	1992	3260	1,71	1301
320	1,13	2096	540	1,33	2203	990	1,37	1623	2080	1,84	2061	3320	1,74	1344
325	1,15	2154	550	1,35	2275	1010	1,40	1680	2120	1,87	2131	3380	1,77	1386
330	1,17	2212	560	1,38	2348	1030	1,42	1739	2160	1,91	2202	3440	1,80	1430
335	1,18	2271	570	1,40	2422	1050	1,45	1799	2200	1,95	2274	3500	1,83	1474
340	1,20	2331	580	1,42	2496	1070	1,48	1859	2240	1,98	2347	3560	1,86	1518
345	1,22	2391	590	1,45	2572	1090	1,51	1920	2280	2,02	2421	3620	1,89	1563
350	1,24	2452	600	1,47	2649	1110	1,53	1982	2320	2,05	2495	3680	1,93	1609
355	1,26	2514	610	1,50	2727	1130	1,56	2045	2360	2,09	2571	3740	1,96	1655
360	1,27	2576	620	1,52	2805	1150	1,59	2109	2400	2,12	2648	3800	1,99	1702

FIVPex pressure drops

FIVPEX PIPE - distributed pressure drops - Water at 10 °C

NOTE: 1 bar = 0.1 N/mm² = 100 kPa = 10 m w.c.

DN 40x3,5			DN 50x4			DN 63x4,5			DN 75x5		
G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)
1000	0,32	53	2000	0,40	57	3000	0,36	35	5000	0,42	35
1100	0,36	63	2200	0,44	67	3500	0,42	46	5500	0,46	42
1200	0,39	73	2400	0,48	78	4000	0,49	58	6000	0,50	49
1300	0,42	84	2600	0,52	90	4500	0,55	71	6500	0,54	56
1400	0,45	96	2800	0,56	102	5000	0,61	85	7000	0,59	64
1500	0,49	108	3000	0,60	115	5500	0,67	101	7500	0,63	72
1600	0,52	121	3200	0,64	129	6000	0,73	118	8000	0,67	81
1700	0,55	134	3400	0,68	144	6500	0,79	135	8500	0,71	90
1800	0,58	148	3600	0,72	159	7000	0,85	154	9000	0,75	99
1900	0,62	163	3800	0,76	174	7500	0,91	174	9500	0,80	109
2000	0,65	178	4000	0,80	191	8000	0,97	195	10000	0,84	119
2100	0,68	194	4200	0,84	208	8500	1,03	216	10500	0,88	130
2200	0,71	211	4400	0,88	225	9000	1,09	239	11000	0,92	141
2300	0,75	228	4600	0,92	244	9500	1,15	263	11500	0,96	152
2400	0,78	245	4800	0,96	263	10000	1,21	287	12000	1,00	164
2500	0,81	264	5000	1,00	282	10500	1,27	313	12500	1,05	176
2600	0,84	282	5200	1,04	302	11000	1,33	340	13000	1,09	189
2700	0,88	302	5400	1,08	323	11500	1,39	367	13500	1,13	201
2800	0,91	321	5600	1,12	344	12000	1,46	395	14000	1,17	215
2900	0,94	342	5800	1,16	366	12500	1,52	425	14500	1,21	228
3000	0,97	363	6000	1,20	388	13000	1,58	455	15000	1,26	242
3100	1,01	384	6200	1,24	411	13500	1,64	486	15500	1,30	257
3200	1,04	406	6400	1,28	434	14000	1,70	518	16000	1,34	271
3300	1,07	428	6600	1,32	458	14500	1,76	551	16500	1,38	286
3400	1,10	451	6800	1,36	483	15000	1,82	584	17000	1,42	302
3500	1,14	475	7000	1,40	508	15500	1,88	619	17500	1,46	317
3600	1,17	499	7200	1,44	534	16000	1,94	654	18000	1,51	333
3700	1,20	523	7400	1,48	560	16500	2,00	690	18500	1,55	350
3800	1,23	548	7600	1,52	587	17000	2,06	727	19000	1,59	366
3900	1,27	574	7800	1,56	614	17500	2,12	765	19500	1,63	383
4000	1,30	600	8000	1,60	642	18000	2,18	804	20000	1,67	401
4100	1,33	626	8200	1,64	670	18500	2,24	844	20500	1,72	418
4200	1,36	653	8400	1,68	699	19000	2,30	884	21000	1,76	436
4300	1,40	681	8600	1,72	728	19500	2,37	925	21500	1,80	455
4400	1,43	709	8800	1,76	758	20000	2,43	967	22000	1,84	473
4500	1,46	737	9000	1,80	789	20500	2,49	1010	22500	1,88	492
4600	1,49	766	9200	1,84	820	21000	2,55	1053	23000	1,93	512
4700	1,53	796	9400	1,88	851	21500	2,61	1097	23500	1,97	531
4800	1,56	825	9600	1,92	883	22000	2,67	1142	24000	2,01	551
4900	1,59	856	9800	1,96	915	22500	2,73	1188	24500	2,05	572
5000	1,62	886	10000	2,00	948	23000	2,79	1235	25000	2,09	592
5100	1,66	918	10200	2,05	982	23500	2,85	1282	25500	2,13	613
5200	1,69	949	10400	2,09	1016	24000	2,91	1330	26000	2,18	634
5300	1,72	982	10600	2,13	1050	24500	2,97	1379	26500	2,22	656
5400	1,75	1014	10800	2,17	1085	25000	3,03	1429	27000	2,26	678
5500	1,79	1047	11000	2,21	1121	25500	3,09	1479	27500	2,30	700
5600	1,82	1081	11200	2,25	1156	26000	3,15	1530	28000	2,34	722
5700	1,85	1115	11400	2,29	1193	26500	3,21	1582	28500	2,39	745
5800	1,88	1149	11600	2,33	1230	27000	3,27	1635	29000	2,43	768
5900	1,92	1184	11800	2,37	1267	27500	3,34	1688	29500	2,47	791
6000	1,95	1220	11950	2,40	1295	28000	3,40	1742	30000	2,51	815

FIVPex pressure drops

FIVPEX PIPE - distributed pressure drops - Water at 50 °C

NOTE: 1 bar = 0.1 N/mm² = 100 kPa = 10 m w.c.

DN 14x2			DN 16x2			DN 20x2			DN 26x3			DN 32x3		
G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)
110	0,39	257	120	0,29	126	150	0,21	47	400	0,35	91	800	0,42	88
115	0,41	278	130	0,32	145	170	0,23	59	440	0,39	108	860	0,45	100
120	0,42	299	140	0,34	165	190	0,26	72	480	0,42	126	920	0,48	113
125	0,44	321	150	0,37	186	210	0,29	85	520	0,46	145	980	0,51	126
130	0,46	344	160	0,39	208	230	0,32	100	560	0,50	165	1040	0,54	140
135	0,48	368	170	0,42	231	250	0,35	116	600	0,53	186	1100	0,58	154
140	0,50	392	180	0,44	256	270	0,37	133	640	0,57	208	1160	0,61	169
145	0,51	417	190	0,47	281	290	0,40	150	680	0,60	231	1220	0,64	185
150	0,53	442	200	0,49	308	310	0,43	169	720	0,64	256	1280	0,67	201
155	0,55	468	210	0,52	335	330	0,46	188	760	0,67	281	1340	0,70	218
160	0,57	495	220	0,54	363	350	0,48	209	800	0,71	307	1400	0,73	235
165	0,58	522	230	0,56	393	370	0,51	230	840	0,74	335	1460	0,76	253
170	0,60	550	240	0,59	423	390	0,54	252	880	0,78	363	1520	0,80	272
175	0,62	579	250	0,61	454	410	0,57	275	920	0,81	393	1580	0,83	291
180	0,64	608	260	0,64	487	430	0,59	299	960	0,85	423	1640	0,86	311
185	0,65	638	270	0,66	520	450	0,62	324	1000	0,88	454	1700	0,89	331
190	0,67	668	280	0,69	554	470	0,65	350	1040	0,92	487	1760	0,92	351
195	0,69	700	290	0,71	589	490	0,68	376	1080	0,95	520	1820	0,95	373
200	0,71	731	300	0,74	625	510	0,70	404	1120	0,99	554	1880	0,98	394
205	0,73	764	310	0,76	662	530	0,73	432	1160	1,03	589	1940	1,01	417
210	0,74	796	320	0,79	700	550	0,76	461	1200	1,06	625	2000	1,05	439
215	0,76	830	330	0,81	739	570	0,79	490	1240	1,10	662	2060	1,08	463
220	0,78	864	340	0,84	778	590	0,82	521	1280	1,13	700	2120	1,11	487
225	0,80	899	350	0,86	819	610	0,84	552	1320	1,17	739	2180	1,14	511
230	0,81	934	360	0,88	860	630	0,87	584	1360	1,20	778	2240	1,17	536
235	0,83	970	370	0,91	903	650	0,90	617	1400	1,24	819	2300	1,20	561
240	0,85	1006	380	0,93	946	670	0,93	651	1440	1,27	860	2360	1,23	587
245	0,87	1043	390	0,96	990	690	0,95	685	1480	1,31	902	2420	1,27	613
250	0,88	1081	400	0,98	1035	710	0,98	720	1520	1,34	945	2480	1,30	640
255	0,90	1119	410	1,01	1080	730	1,01	756	1560	1,38	989	2540	1,33	668
260	0,92	1157	420	1,03	1127	750	1,04	793	1600	1,41	1034	2600	1,36	696
265	0,94	1197	430	1,06	1174	770	1,06	830	1640	1,45	1080	2660	1,39	724
270	0,95	1236	440	1,08	1222	790	1,09	868	1680	1,49	1126	2720	1,42	753
275	0,97	1277	450	1,11	1271	810	1,12	907	1720	1,52	1174	2780	1,45	782
280	0,99	1318	460	1,13	1321	830	1,15	946	1760	1,56	1222	2840	1,49	812
285	1,01	1359	470	1,15	1372	850	1,17	987	1800	1,59	1271	2900	1,52	842
290	1,03	1401	480	1,18	1423	870	1,20	1028	1840	1,63	1321	2960	1,55	873
295	1,04	1444	490	1,20	1476	890	1,23	1069	1880	1,66	1371	3020	1,58	904
300	1,06	1487	500	1,23	1529	910	1,26	1112	1920	1,70	1423	3080	1,61	936
305	1,08	1530	510	1,25	1583	930	1,28	1155	1960	1,73	1475	3140	1,64	968
310	1,10	1574	520	1,28	1637	950	1,31	1199	2000	1,77	1528	3200	1,67	1000
315	1,11	1619	530	1,30	1693	970	1,34	1243	2040	1,80	1582	3260	1,71	1033
320	1,13	1664	540	1,33	1749	990	1,37	1288	2080	1,84	1637	3320	1,74	1067
325	1,15	1710	550	1,35	1806	1010	1,40	1334	2120	1,87	1692	3380	1,77	1101
330	1,17	1756	560	1,38	1864	1030	1,42	1381	2160	1,91	1748	3440	1,80	1135
335	1,18	1803	570	1,40	1923	1050	1,45	1428	2200	1,95	1805	3500	1,83	1170
340	1,20	1851	580	1,42	1982	1070	1,48	1476	2240	1,98	1863	3560	1,86	1205
345	1,22	1899	590	1,45	2042	1090	1,51	1525	2280	2,02	1922	3620	1,89	1241
350	1,24	1947	600	1,47	2103	1110	1,53	1574	2320	2,05	1981	3680	1,93	1277
355	1,26	1996	610	1,50	2165	1130	1,56	1624	2360	2,09	2041	3740	1,96	1314
360	1,27	2045	620	1,52	2227	1150	1,59	1675	2400	2,12	2102	3800	1,99	1351

FIVPex pressure drops

FIVPEX PIPE - distributed pressure drops - Water at 50 °C

NOTE: 1 bar = 0.1 N/mm² = 100 kPa = 10 m w.c.

DN 40x3,5			DN 50x4			DN 63x4,5			DN 75x5		
G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)
1000	0,32	42	2000	0,40	45	3000	0,36	28	5000	0,42	28
1100	0,36	50	2200	0,44	53	3500	0,42	36	5500	0,46	33
1200	0,39	58	2400	0,48	62	4000	0,49	46	6000	0,50	39
1300	0,42	67	2600	0,52	71	4500	0,55	56	6500	0,54	45
1400	0,45	76	2800	0,56	81	5000	0,61	68	7000	0,59	51
1500	0,49	86	3000	0,60	92	5500	0,67	80	7500	0,63	57
1600	0,52	96	3200	0,64	103	6000	0,73	93	8000	0,67	64
1700	0,55	107	3400	0,68	114	6500	0,79	107	8500	0,71	71
1800	0,58	118	3600	0,72	126	7000	0,85	122	9000	0,75	79
1900	0,62	129	3800	0,76	138	7500	0,91	138	9500	0,80	86
2000	0,65	142	4000	0,80	152	8000	0,97	154	10000	0,84	95
2100	0,68	154	4200	0,84	165	8500	1,03	172	10500	0,88	103
2200	0,71	167	4400	0,88	179	9000	1,09	190	11000	0,92	112
2300	0,75	181	4600	0,92	193	9500	1,15	209	11500	0,96	121
2400	0,78	195	4800	0,96	208	10000	1,21	228	12000	1,00	130
2500	0,81	209	5000	1,00	224	10500	1,27	249	12500	1,05	140
2600	0,84	224	5200	1,04	240	11000	1,33	270	13000	1,09	150
2700	0,88	239	5400	1,08	256	11500	1,39	291	13500	1,13	160
2800	0,91	255	5600	1,12	273	12000	1,46	314	14000	1,17	170
2900	0,94	271	5800	1,16	290	12500	1,52	337	14500	1,21	181
3000	0,97	288	6000	1,20	308	13000	1,58	361	15000	1,26	192
3100	1,01	305	6200	1,24	326	13500	1,64	386	15500	1,30	204
3200	1,04	322	6400	1,28	345	14000	1,70	411	16000	1,34	215
3300	1,07	340	6600	1,32	364	14500	1,76	437	16500	1,38	227
3400	1,10	358	6800	1,36	383	15000	1,82	464	17000	1,42	239
3500	1,14	377	7000	1,40	403	15500	1,88	491	17500	1,46	252
3600	1,17	396	7200	1,44	424	16000	1,94	519	18000	1,51	265
3700	1,20	416	7400	1,48	445	16500	2,00	548	18500	1,55	278
3800	1,23	435	7600	1,52	466	17000	2,06	578	19000	1,59	291
3900	1,27	456	7800	1,56	487	17500	2,12	608	19500	1,63	304
4000	1,30	476	8000	1,60	510	18000	2,18	638	20000	1,67	318
4100	1,33	497	8200	1,64	532	18500	2,24	670	20500	1,72	332
4200	1,36	519	8400	1,68	555	19000	2,30	702	21000	1,76	347
4300	1,40	541	8600	1,72	578	19500	2,37	734	21500	1,80	361
4400	1,43	563	8800	1,76	602	20000	2,43	768	22000	1,84	376
4500	1,46	585	9000	1,80	626	20500	2,49	802	22500	1,88	391
4600	1,49	608	9200	1,84	651	21000	2,55	836	23000	1,93	406
4700	1,53	632	9400	1,88	676	21500	2,61	871	23500	1,97	422
4800	1,56	655	9600	1,92	701	22000	2,67	907	24000	2,01	438
4900	1,59	679	9800	1,96	727	22500	2,73	943	24500	2,05	454
5000	1,62	704	10000	2,00	753	23000	2,79	980	25000	2,09	470
5100	1,66	729	10200	2,05	780	23500	2,85	1018	25500	2,13	487
5200	1,69	754	10400	2,09	807	24000	2,91	1056	26000	2,18	504
5300	1,72	779	10600	2,13	834	24500	2,97	1095	26500	2,22	521
5400	1,75	805	10800	2,17	862	25000	3,03	1134	27000	2,26	538
5500	1,79	832	11000	2,21	890	25500	3,09	1174	27500	2,30	556
5600	1,82	858	11200	2,25	918	26000	3,15	1215	28000	2,34	573
5700	1,85	885	11400	2,29	947	26500	3,21	1256	28500	2,39	591
5800	1,88	913	11600	2,33	976	27000	3,27	1298	29000	2,43	610
5900	1,92	940	11800	2,37	1006	27500	3,34	1340	29500	2,47	628
6000	1,95	968	12000	2,41	1036	28000	3,40	1383	30000	2,51	647

FIVPex pressure drops

FIVPEX PIPE - distributed pressure drops - Water at 80 °C

NOTE: 1 bar = 0.1 N/mm² = 100 kPa = 10 m w.c.

DN 14x2			DN 16x2			DN 20x2			DN 26x3			DN 32x3		
G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)
110	0,39	239	120	0,29	117	150	0,21	44	400	0,35	85	800	0,42	82
115	0,41	259	130	0,32	135	170	0,23	55	440	0,39	101	860	0,45	94
120	0,42	279	140	0,34	154	190	0,26	67	480	0,42	117	920	0,48	105
125	0,44	299	150	0,37	173	210	0,29	80	520	0,46	135	980	0,51	118
130	0,46	321	160	0,39	194	230	0,32	93	560	0,50	154	1040	0,54	130
135	0,48	343	170	0,42	216	250	0,35	108	600	0,53	173	1100	0,58	144
140	0,50	365	180	0,44	238	270	0,37	124	640	0,57	194	1160	0,61	158
145	0,51	388	190	0,47	262	290	0,40	140	680	0,60	216	1220	0,64	172
150	0,53	412	200	0,49	287	310	0,43	157	720	0,64	238	1280	0,67	188
155	0,55	436	210	0,52	312	330	0,46	176	760	0,67	262	1340	0,70	203
160	0,57	461	220	0,54	339	350	0,48	195	800	0,71	287	1400	0,73	219
165	0,58	487	230	0,56	366	370	0,51	215	840	0,74	312	1460	0,76	236
170	0,60	513	240	0,59	394	390	0,54	235	880	0,78	339	1520	0,80	253
175	0,62	540	250	0,61	424	410	0,57	257	920	0,81	366	1580	0,83	271
180	0,64	567	260	0,64	454	430	0,59	279	960	0,85	394	1640	0,86	289
185	0,65	595	270	0,66	485	450	0,62	302	1000	0,88	423	1700	0,89	308
190	0,67	623	280	0,69	517	470	0,65	326	1040	0,92	454	1760	0,92	328
195	0,69	652	290	0,71	549	490	0,68	351	1080	0,95	485	1820	0,95	347
200	0,71	682	300	0,74	583	510	0,70	376	1120	0,99	516	1880	0,98	368
205	0,73	712	310	0,76	617	530	0,73	402	1160	1,03	549	1940	1,01	388
210	0,74	742	320	0,79	653	550	0,76	429	1200	1,06	583	2000	1,05	410
215	0,76	774	330	0,81	689	570	0,79	457	1240	1,10	617	2060	1,08	431
220	0,78	805	340	0,84	726	590	0,82	485	1280	1,13	652	2120	1,11	454
225	0,80	838	350	0,86	763	610	0,84	515	1320	1,17	688	2180	1,14	476
230	0,81	870	360	0,88	802	630	0,87	544	1360	1,20	725	2240	1,17	499
235	0,83	904	370	0,91	841	650	0,90	575	1400	1,24	763	2300	1,20	523
240	0,85	938	380	0,93	881	670	0,93	606	1440	1,27	802	2360	1,23	547
245	0,87	972	390	0,96	922	690	0,95	638	1480	1,31	841	2420	1,27	572
250	0,88	1007	400	0,98	964	710	0,98	671	1520	1,34	881	2480	1,30	597
255	0,90	1043	410	1,01	1007	730	1,01	705	1560	1,38	922	2540	1,33	622
260	0,92	1079	420	1,03	1050	750	1,04	739	1600	1,41	964	2600	1,36	648
265	0,94	1115	430	1,06	1094	770	1,06	774	1640	1,45	1006	2660	1,39	675
270	0,95	1152	440	1,08	1139	790	1,09	809	1680	1,49	1050	2720	1,42	702
275	0,97	1190	450	1,11	1185	810	1,12	845	1720	1,52	1094	2780	1,45	729
280	0,99	1228	460	1,13	1231	830	1,15	882	1760	1,56	1139	2840	1,49	757
285	1,01	1267	470	1,15	1279	850	1,17	920	1800	1,59	1185	2900	1,52	785
290	1,03	1306	480	1,18	1327	870	1,20	958	1840	1,63	1231	2960	1,55	813
295	1,04	1346	490	1,20	1375	890	1,23	997	1880	1,66	1278	3020	1,58	843
300	1,06	1386	500	1,23	1425	910	1,26	1036	1920	1,70	1326	3080	1,61	872
305	1,08	1426	510	1,25	1475	930	1,28	1076	1960	1,73	1375	3140	1,64	902
310	1,10	1468	520	1,28	1526	950	1,31	1117	2000	1,77	1424	3200	1,67	932
315	1,11	1509	530	1,30	1578	970	1,34	1159	2040	1,80	1475	3260	1,71	963
320	1,13	1551	540	1,33	1630	990	1,37	1201	2080	1,84	1526	3320	1,74	994
325	1,15	1594	550	1,35	1684	1010	1,40	1244	2120	1,87	1577	3380	1,77	1026
330	1,17	1637	560	1,38	1737	1030	1,42	1287	2160	1,91	1630	3440	1,80	1058
335	1,18	1681	570	1,40	1792	1050	1,45	1331	2200	1,95	1683	3500	1,83	1091
340	1,20	1725	580	1,42	1848	1070	1,48	1376	2240	1,98	1737	3560	1,86	1124
345	1,22	1770	590	1,45	1904	1090	1,51	1421	2280	2,02	1791	3620	1,89	1157
350	1,24	1815	600	1,47	1960	1110	1,53	1467	2320	2,05	1847	3680	1,93	1191
355	1,26	1860	610	1,50	2018	1130	1,56	1514	2360	2,09	1903	3740	1,96	1225
360	1,27	1906	620	1,52	2076	1150	1,59	1561	2400	2,12	1960	3800	1,99	1260

FIVPex pressure drops

FIVPEX PIPE - distributed pressure drops - Water at 80 °C

NOTE: 1 bar = 0.1 N/mm² = 100 kPa = 10 m w.c.

DN 40x3,5			DN 50x4			DN 63x4,5			DN 75x5		
G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)	G (ℓ/h)	V (m/s)	Δp/m (Pa/m)
1000	0,32	39	2000	0,40	42	3000	0,36	26	5000	0,42	26
1100	0,36	46	2200	0,44	50	3500	0,42	34	5500	0,46	31
1200	0,39	54	2400	0,48	58	4000	0,49	43	6000	0,50	36
1300	0,42	62	2600	0,52	66	4500	0,55	53	6500	0,54	41
1400	0,45	71	2800	0,56	76	5000	0,61	63	7000	0,59	47
1500	0,49	80	3000	0,60	85	5500	0,67	75	7500	0,63	53
1600	0,52	89	3200	0,64	96	6000	0,73	87	8000	0,67	60
1700	0,55	99	3400	0,68	106	6500	0,79	100	8500	0,71	66
1800	0,58	110	3600	0,72	117	7000	0,85	114	9000	0,75	73
1900	0,62	121	3800	0,76	129	7500	0,91	129	9500	0,80	81
2000	0,65	132	4000	0,80	141	8000	0,97	144	10000	0,84	88
2100	0,68	144	4200	0,84	154	8500	1,03	160	10500	0,88	96
2200	0,71	156	4400	0,88	167	9000	1,09	177	11000	0,92	104
2300	0,75	169	4600	0,92	180	9500	1,15	194	11500	0,96	113
2400	0,78	182	4800	0,96	194	10000	1,21	213	12000	1,00	121
2500	0,81	195	5000	1,00	209	10500	1,27	232	12500	1,05	130
2600	0,84	209	5200	1,04	223	11000	1,33	251	13000	1,09	140
2700	0,88	223	5400	1,08	239	11500	1,39	272	13500	1,13	149
2800	0,91	238	5600	1,12	254	12000	1,46	293	14000	1,17	159
2900	0,94	253	5800	1,16	271	12500	1,52	314	14500	1,21	169
3000	0,97	268	6000	1,20	287	13000	1,58	337	15000	1,26	179
3100	1,01	284	6200	1,24	304	13500	1,64	360	15500	1,30	190
3200	1,04	300	6400	1,28	321	14000	1,70	383	16000	1,34	201
3300	1,07	317	6600	1,32	339	14500	1,76	408	16500	1,38	212
3400	1,10	334	6800	1,36	357	15000	1,82	433	17000	1,42	223
3500	1,14	351	7000	1,40	376	15500	1,88	458	17500	1,46	235
3600	1,17	369	7200	1,44	395	16000	1,94	484	18000	1,51	247
3700	1,20	387	7400	1,48	414	16500	2,00	511	18500	1,55	259
3800	1,23	406	7600	1,52	434	17000	2,06	538	19000	1,59	271
3900	1,27	425	7800	1,56	454	17500	2,12	566	19500	1,63	284
4000	1,30	444	8000	1,60	475	18000	2,18	595	20000	1,67	297
4100	1,33	464	8200	1,64	496	18500	2,24	624	20500	1,72	310
4200	1,36	484	8400	1,68	517	19000	2,30	654	21000	1,76	323
4300	1,40	504	8600	1,72	539	19500	2,37	685	21500	1,80	337
4400	1,43	525	8800	1,76	561	20000	2,43	716	22000	1,84	350
4500	1,46	546	9000	1,80	584	20500	2,49	747	22500	1,88	364
4600	1,49	567	9200	1,84	607	21000	2,55	779	23000	1,93	379
4700	1,53	589	9400	1,88	630	21500	2,61	812	23500	1,97	393
4800	1,56	611	9600	1,92	653	22000	2,67	845	24000	2,01	408
4900	1,59	633	9800	1,96	678	22500	2,73	879	24500	2,05	423
5000	1,62	656	10000	2,00	702	23000	2,79	914	25000	2,09	438
5100	1,66	679	10200	2,05	727	23500	2,85	949	25500	2,13	454
5200	1,69	703	10400	2,09	752	24000	2,91	984	26000	2,18	469
5300	1,72	727	10600	2,13	777	24500	2,97	1021	26500	2,22	485
5400	1,75	751	10800	2,17	803	25000	3,03	1057	27000	2,26	501
5500	1,79	775	11000	2,21	829	25500	3,09	1095	27500	2,30	518
5600	1,82	800	11200	2,25	856	26000	3,15	1132	28000	2,34	534
5700	1,85	825	11400	2,29	883	26500	3,21	1171	28500	2,39	551
5800	1,88	851	11600	2,33	910	27000	3,27	1210	29000	2,43	568
5900	1,92	877	11800	2,37	938	27500	3,34	1249	29500	2,47	586
6000	1,95	903	12000	2,41	966	28000	3,40	1289	30000	2,51	603

Localised pressure drops of the fittings

$$\Delta p = \zeta \frac{\rho v^2}{2}$$

Δp = pressure drop (Pa)

ζ = loss coefficient

ρ = volume mass of the fluid (kg/m³)
for water:

$\rho_{20\text{ °C}} = 0.9982$;

$\rho_{40\text{ °C}} = 0.9922$;

$\rho_{60\text{ °C}} = 0.99832$;

$\rho_{80\text{ °C}} = 0.9718$

v = fluid speed (m/s)

FIVPRESS FITTINGS

To determine localised pressure drops of plants with FIVPRESS fittings, it is possible to refer to the following values for the loss coefficient (ζ), which can be obtained from technical literature.

Fitting figure	ξ
	1,8
	1,6
	2,4
	2,2
	2,4

Fitting figure	ξ
	2,2
	1,8
	3,2
	3,0

Instructions for correct fitting assembly

PRESS FITTINGS FOR WATER AND GAS

1 CUTTING

Cut the multilayer pipe with a pipe cutter or shears, verifying that the cut is perpendicular to the pipe axis.

2 CALIBRATION - FLARING

Calibrate the cut end using the relevant calibrator, which allows to calibrate and flare the ends of the pipe. The operation is essential, as it determines the correct internal diameter of the pipe and creates the rounded end that eases introduction of the fitting.

Insert the fitting into the pipe fully home; the transparent plastic ring allows to verify correct positioning.

3 PRESSING

With Pincers/Matrices profile TH - KSP 11 and B - KSP 1: Position the pincer/matrix around the bush (Fig. 3A) matching the plastic ring collar with the groove in the jaws (Fig. 3B).

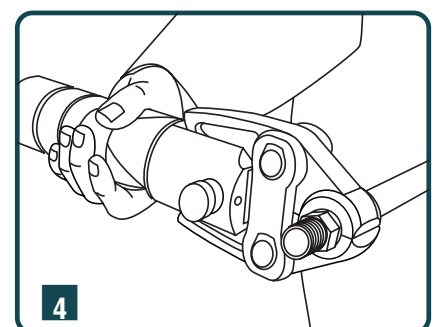
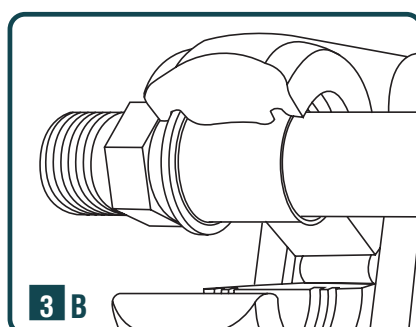
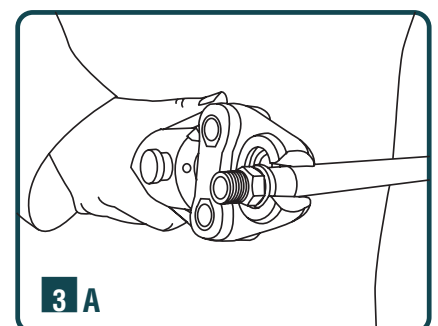
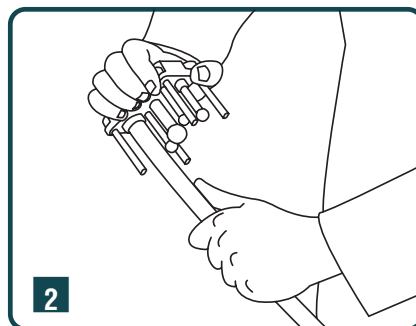
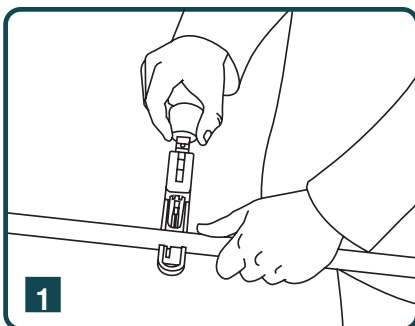
With Pincers/U profile matrices - KSP 5 and H - KSP 7 and F - KSP 2: Position the pincer/matrix by resting it laterally to the plastic ring collar.

N.B.: Check the type of pressing suitable for each system at the beginning of the FIVPress or FIVPressGAS chapter.

Start the pressing device until the pressing completion signal is given. (Fig. 4).

4 COMPLETION OF PRESSING

Start the pressing device until the pressing completion signal is given. Remove the pressing device and open the jaws again.



Instructions for correct fitting assembly

MODULAR FITTINGS TO TIGHTEN

1 CUTTING

Cut the multilayer pipe with a pipe cutter or shears, verifying that the cut is perpendicular to the pipe axis.

2 CALIBRATION - FLARING

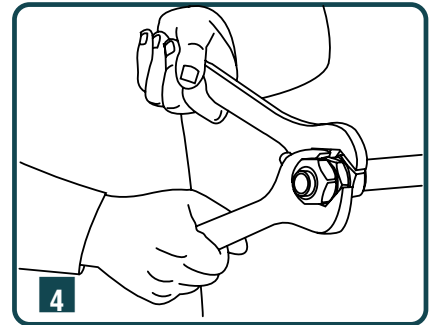
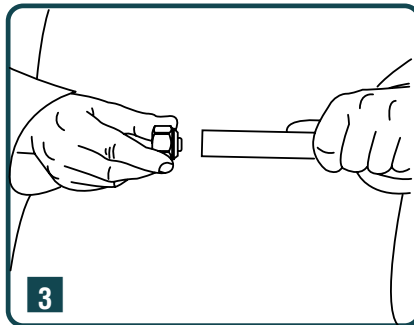
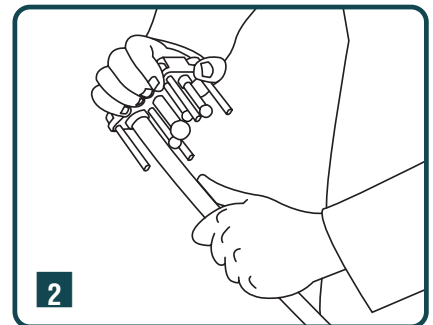
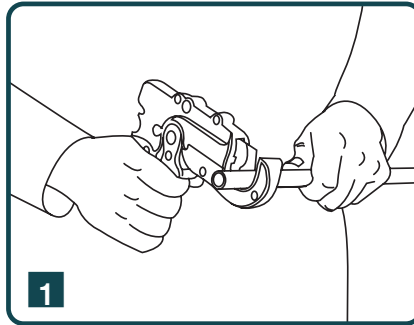
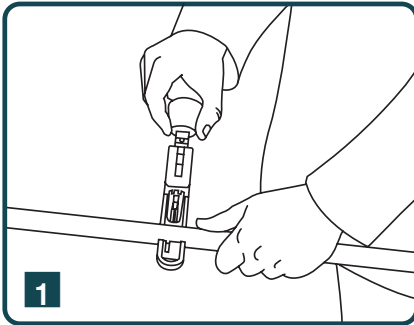
Calibrate the cut end using the relevant calibrator, which allows to calibrate and flare the ends of the pipe. The operation is essential, as it determines the correct internal diameter of the pipe and creates the rounded end that eases introduction of the fitting.

3 INSERTING THE FITTING

Insert the pipe into the monobloc seal, checking correct introduction through the slot in the nut (fig. 3).

4 SCREWING

Screw the nut and tighten using a hex wrench (fig. 4), without excessive force.



Instructions for a correct seal assembly

COPPER MONOBLOC SEAL

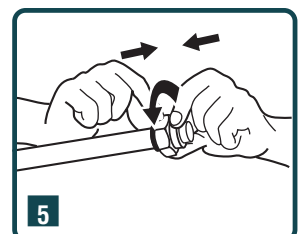
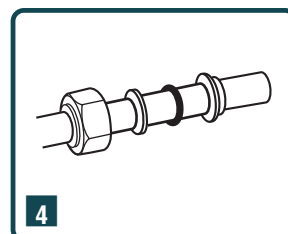
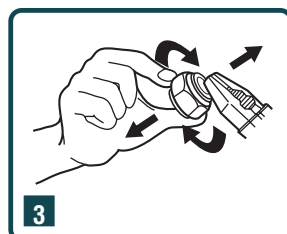
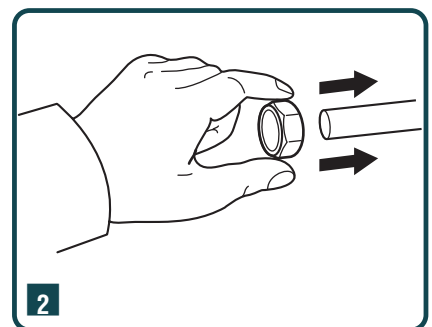
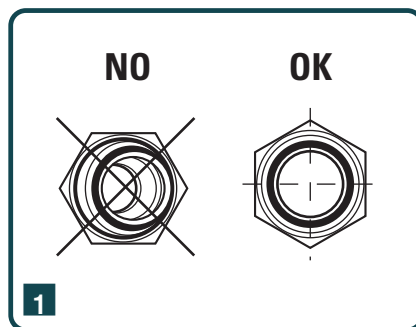
For easy and secure connection of the copper piping via the monobloc seal, it is recommended to check that the end of the pipe has no burrs or sharp edges, which can be eliminated using the relevant deburring tool.

Successively, before connection, make sure that all components are in axis with the hole (Fig. 1).

In this case, slight pressure is required to apply the seal (Fig. 2).

In the few cases where it has not been possible to cut the pipe without burrs or deburring it, just:

- Extract the seal from the nut by unscrewing (Fig. 3).
- Fit the various components onto the pipe separately (Fig. 4).
- Screw everything again (Fig. 5).



Instructions for a correct seal assembly

MULTILAYER, PEX, PP AND UNIVERSAL MONOBLOC SEAL

Before installation, check that the nut turns freely with respect to the adapter (see seal construction on the previous page). Cut the pipe (Fig. 1) at 90° with respect to the shears blade (Fig. 2).

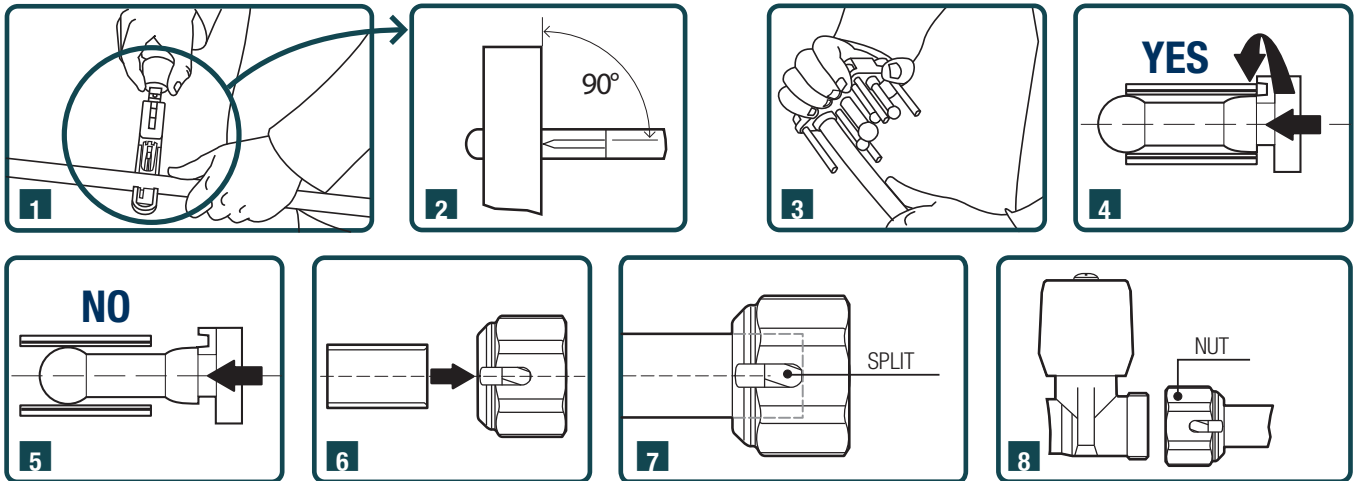
Calibration and bevelling of the pipe is only essential for the multilayer pipe to prevent damage to the O-rings during insertion of the pipes into the monobloc seal.

Correct calibration is carried out by simultaneously inserting and rotating the calibrator - flaring tool (Fig. 3, 4 and 5) until the aluminium part of the pipe is reached by the mill, completing bevelling of the internal edge.

Insert the pipe into the seal until it is fully home (Fig. 6) and then turn the nut so that the inspection gap coincides with the ogive gap and check that the pipe is inserted completely (Fig. 7).

To ease insertion, wet the end of the pipe and/or fitting using clean water. Lubrication with oils and greases irretrievably damages the fitting O-ring.

Screw the nut (Fig. 8) to the component (valve, manifold) and tighten using the relevant spanner without excessive force.



Instructions for correct fitting assembly

INTEGRATED FITTINGS TO TIGHTEN INTEGRAL

1 CUTTING

Cut the multilayer pipe with a pipe cutter or shears, verifying that the cut is perpendicular to the pipe axis.

2 CALIBRATION - FLARING

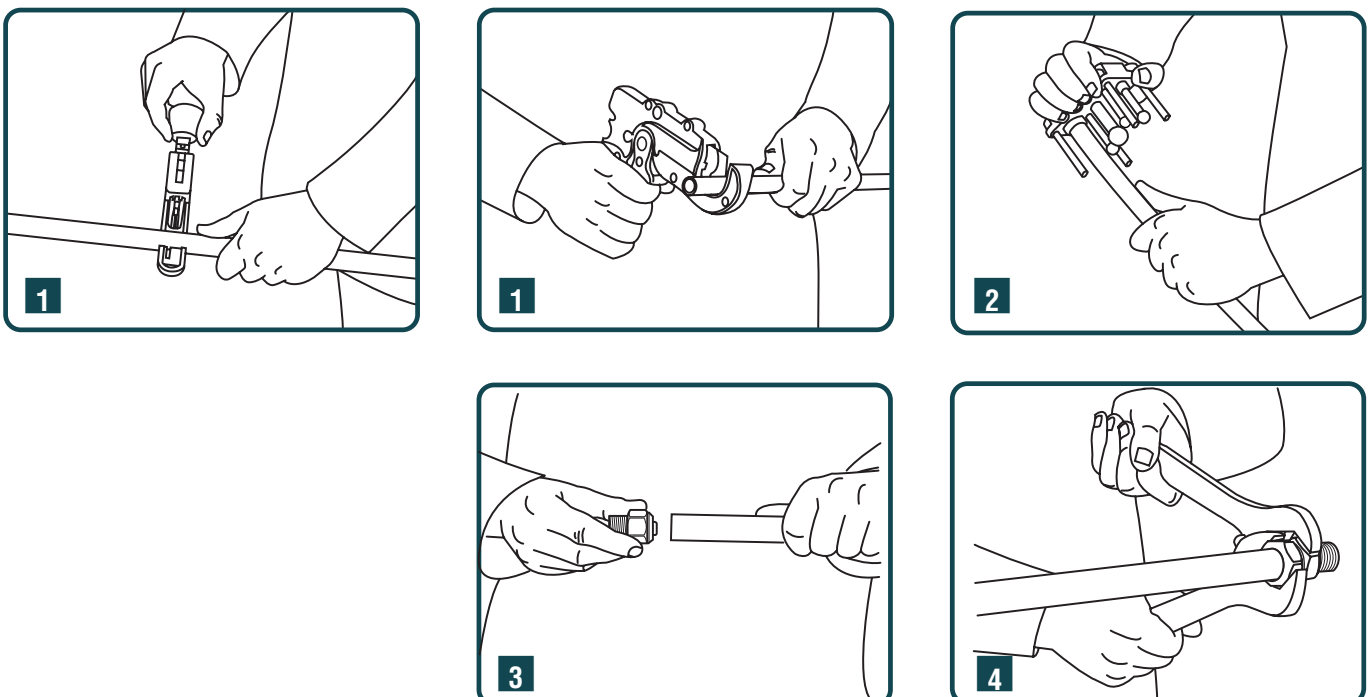
Calibrate the cut end using the relevant calibrator, which allows to calibrate and flare the ends of the pipe. The operation is essential, as it determines the correct internal diameter of the pipe and creates the rounded end that eases introduction of the fitting.

3 INSERTING THE FITTING

Insert the pipe into the nut of the fitting making sure to reach the fitting fully home (fig. 3).

4 SCREWING

Screw the nut and tighten using a hex wrench (fig. 4), without excessive force.



Roll-plan panel

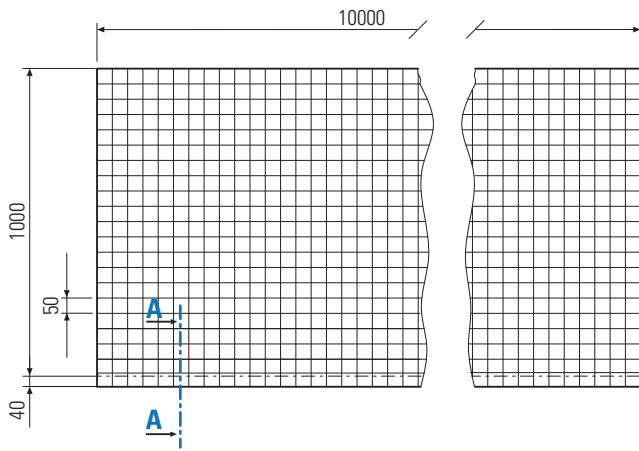
Smooth coated insulation panel

Panel size and minimum system clearances for civil buildings (mm)

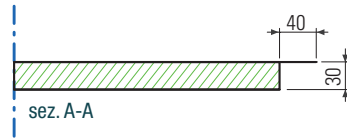
(*) Traditional cement screed

(**) Self-levelling screed or reinforced screed

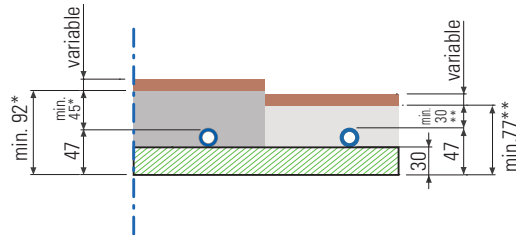
Dimensions (mm) Panel H 30 mm



Sections (mm) Panel H 30 mm



Minimum clearances (mm) Panel H 30 mm



Note: screeds are not supplied by FIV.

The actual thickness of the screed and the implementation mode of the same are to be defined with the manufacturer/supplier of the same according to its specifications, depending on installation conditions (size and type of laying surface, floor type, etc.) and the type of screed chosen.

Low-Thick panel

Insulating panel with graphite interval 100 mm

Panel size and minimum system clearances for civil buildings (mm)

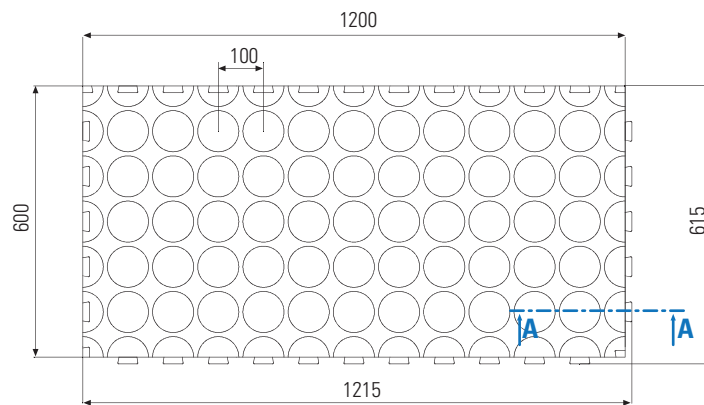
(*) Self-levelling screed or reinforced screed

(**) Low thickness fluid screed (example: Knauf Autolivellina NE425)

Note: screeds are not supplied by FIV.

The actual thickness of the screed and the implementation mode of the same are to be defined with the manufacturer/supplier of the same according to its specifications, depending on installation conditions (size and type of laying surface, floor type, etc.) and the type of screed chosen.

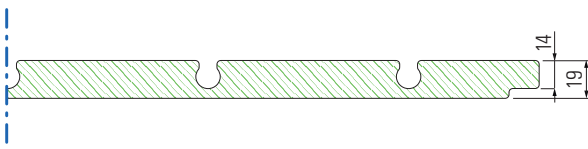
Dimensions (mm) Panel h 5 mm



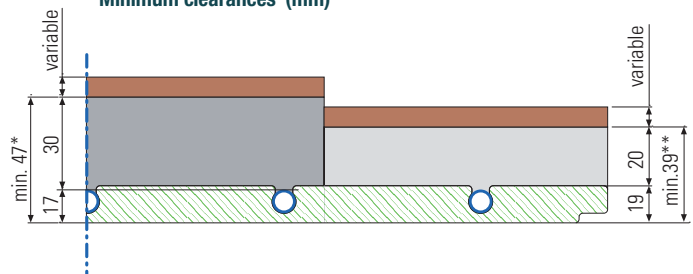
Sections (mm)

Panel H 5 mm

section A-A



Minimum clearances (mm)



Basic panel

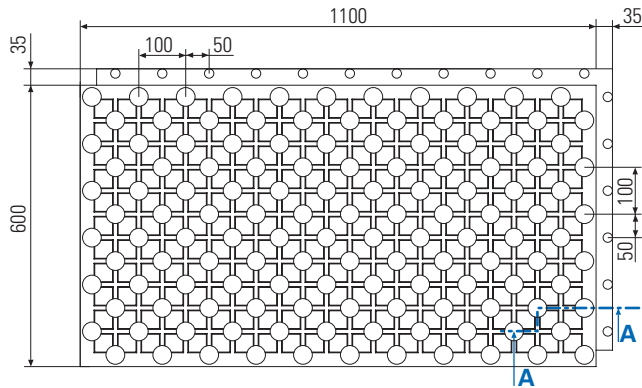
Insulating covered panel interval 50 mm

Panel size and minimum system clearances for civil buildings (mm)

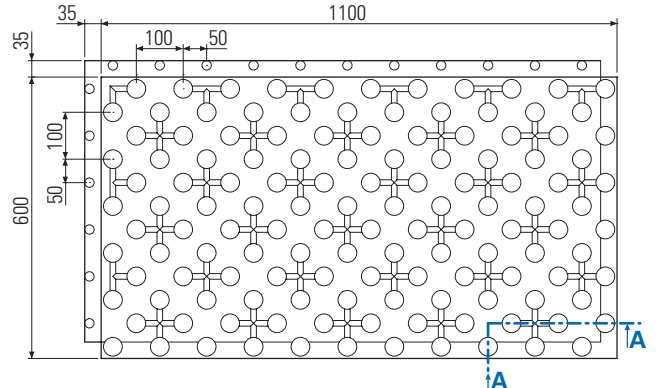
(*) Traditional cement screed

(**) Self-levelling screed or reinforced screed

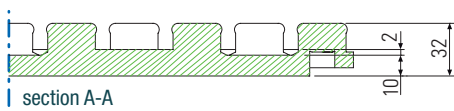
Dimensions (mm) Panel H 10 mm



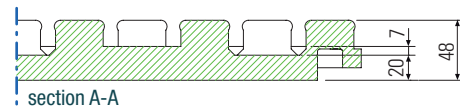
Dimensions (mm) Panel H 20 mm



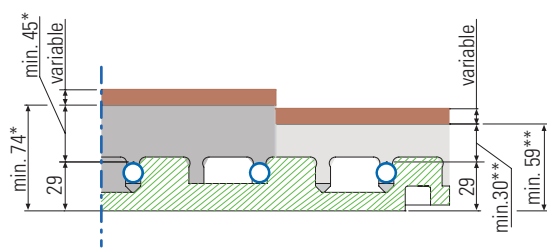
Sections (mm) Panel H 10 mm



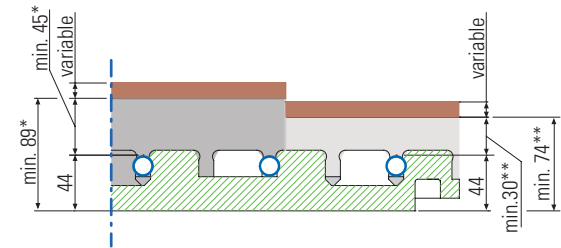
Sections (mm) Panel H 20 mm



Minimum clearances (mm) Panel H 10 mm



Minimum clearances (mm) Panel H 20 mm



Note: screeds are not supplied by FIV.

The actual thickness of the screed and the implementation mode of the same are to be defined with the manufacturer/supplier of the same according to its specifications, depending on installation conditions (size and type of laying surface, floor type, etc.) and the type of screed chosen.

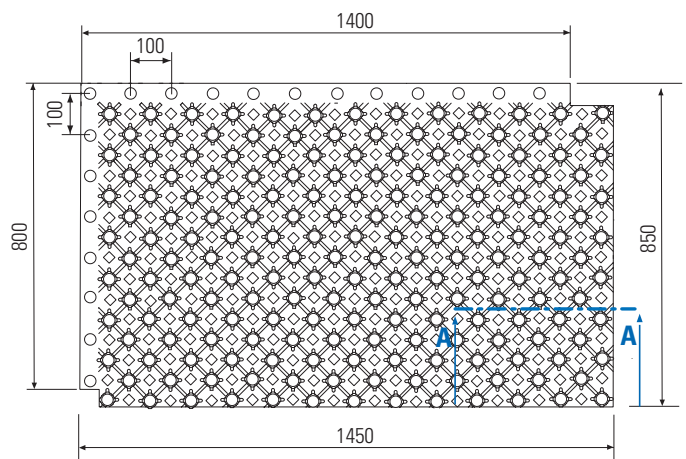
Phono-Term panel

Sound-absorbent panel interval 50 mm

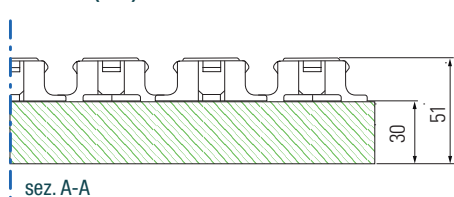
Panel size and minimum system clearances for civil buildings (mm)

(*) Traditional cement screed

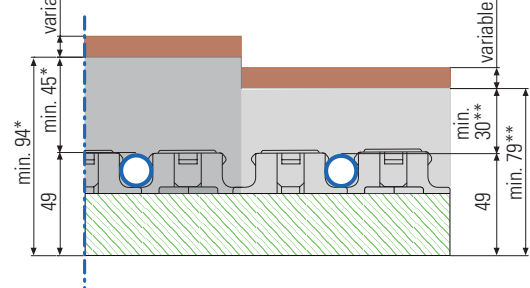
(**) Self-levelling screed or reinforced screed



Sections (mm) Panel H 30 mm



Minimum clearances (mm) Panel H 30 mm



Note: screeds are not supplied by FIV.

The actual thickness of the screed and the implementation mode of the same are to be defined with the manufacturer/supplier of the same according to its specifications, depending on installation conditions (size and type of laying surface, floor type, etc.) and the type of screed chosen.

Special panel

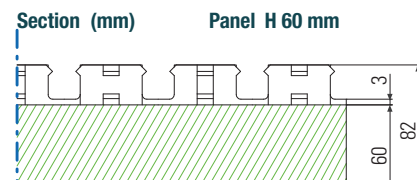
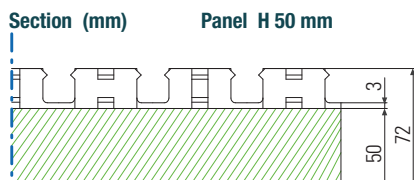
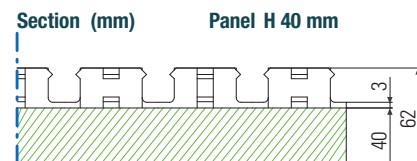
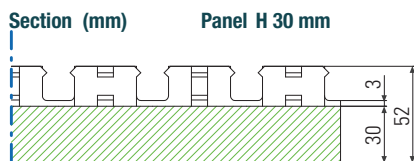
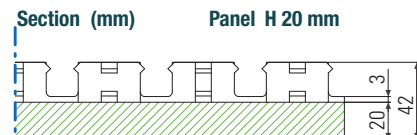
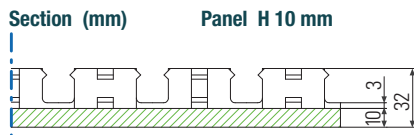
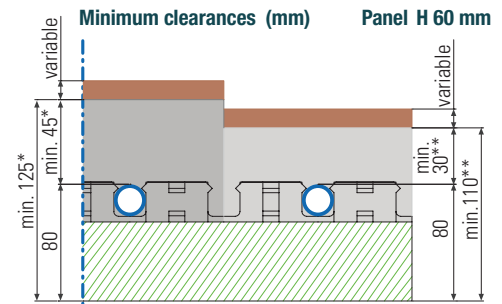
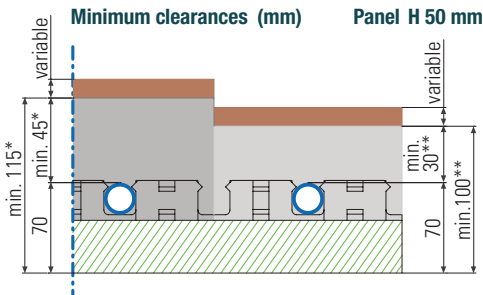
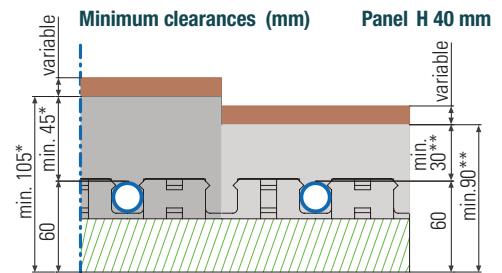
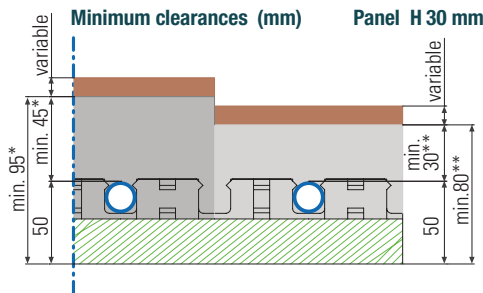
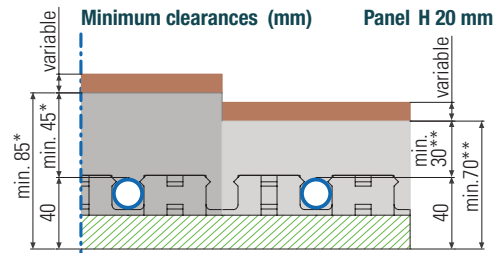
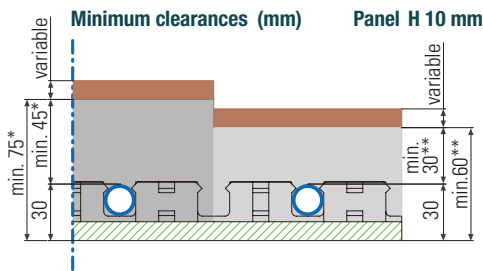
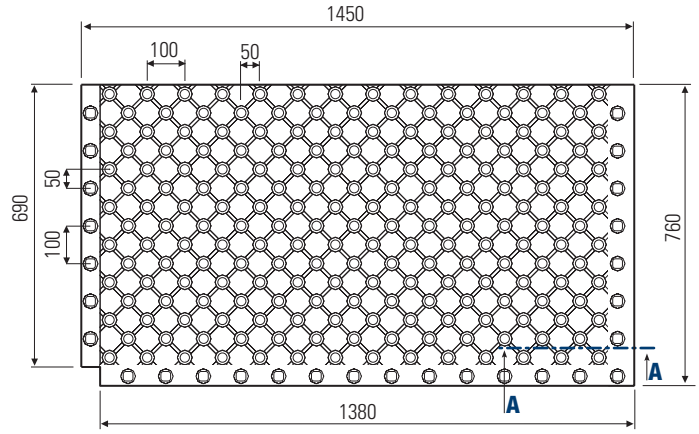
Insulation panel interval 50 mm

Panel size and minimum system clearances for civil buildings (mm)

- (*) Traditional cement screed
- (**) Self-levelling screed or reinforced screed

Note: screeds are not supplied by FIV.

The actual thickness of the screed and the implementation mode of the same are to be defined with the manufacturer/supplier of the same according to its specifications, depending on installation conditions (size and type of laying surface, floor type, etc.) and the type of screed chosen.



Klettjet panel

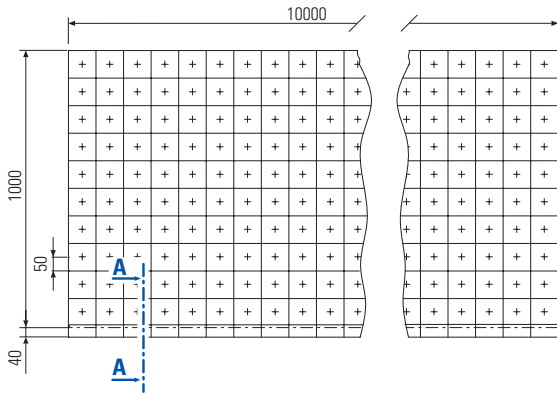
Insulating panel interval 50 mm

Panel size and minimum system clearances for civil buildings (mm)

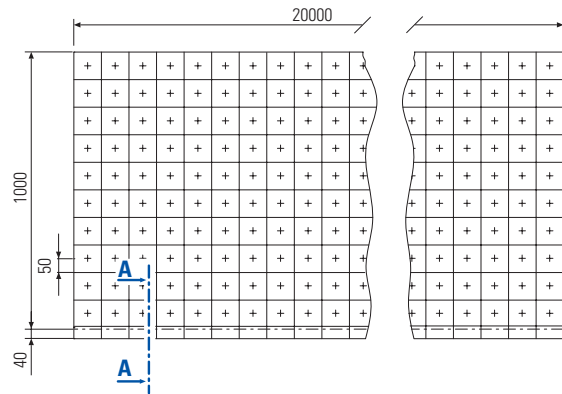
(*) Traditional cement screed

(**) Self-levelling screed or reinforced screed

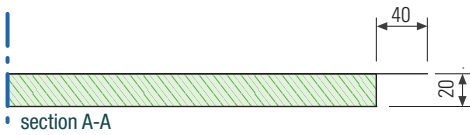
Klettjet EPS-150 insulating panel H = 20, H = 30 models



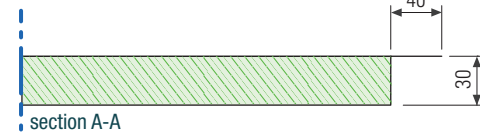
PE Klettjet R insulating panel H = 6 model



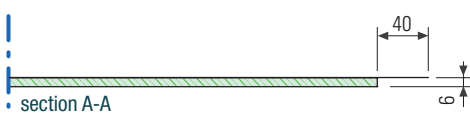
Sections (mm) Panel H 20 mm



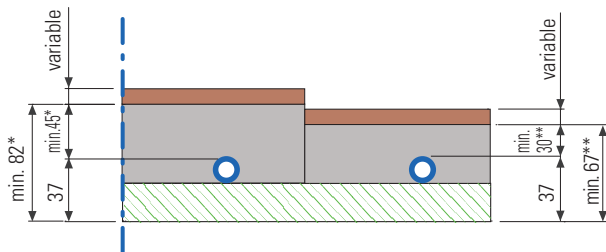
Sections (mm) Panel H 30 mm



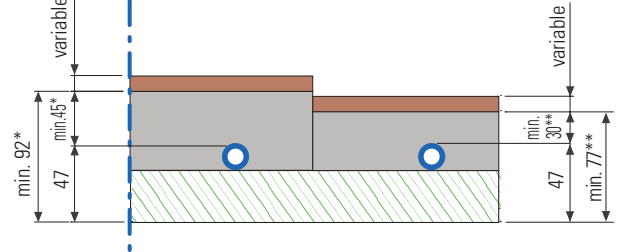
Sections (mm) Panel H 6 mm



Panel 10000 x 1000 H 20



Panel 12000 x 1000 H 30



Note: screeds are not supplied by FIV.

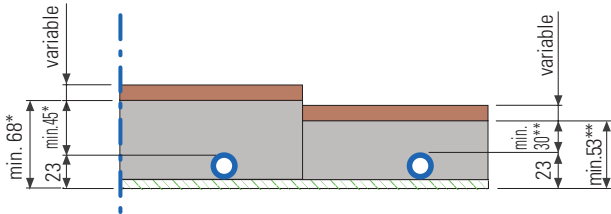
The actual thickness of the screed and the implementation mode of the same are to be defined with the manufacturer/supplier of the same according to its specifications, depending on installation conditions (size and type of laying surface, floor type, etc.) and the type of screed chosen.

Klettjet panel

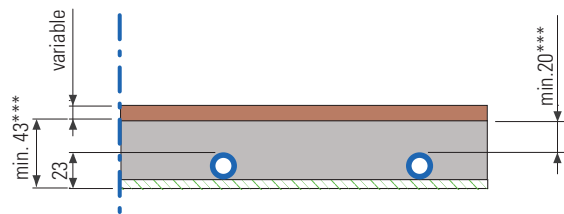
Panel size and minimum system clearances for civil buildings (mm)

- (*) Traditional cement screed
- (**) Self-levelling screed
- (***) Low thickness fluid screed Knauf Autolivellina NE425
- (****) Low thickness fluid screed Knauf Superlivellina NE499

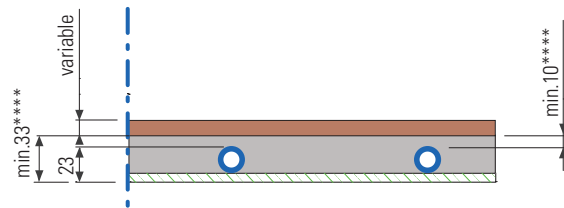
Panel 20000 x 1000 H 6



Panel 20000 x 1000 H 6 - With Knauf screed NE425



Panel 20000 x 1000 H 6 - With Knauf screed NE499



Note: screeds are not supplied by FIV.

The actual thickness of the screed and the implementation mode of the same are to be defined with the manufacturer/supplier of the same according to its specifications, depending on installation conditions (size and type of laying surface, floor type, etc.) and the type of screed chosen.

PEXPENTA Klett pipe application classes

Classification of conditions of use (UNI EN ISO 21003-1)

Application class	Design temperature T_D (°C)	Time ^b at T_D (years)	T_{max} (°C)	Time at T_{max} (years)	T_{mal} (°C)	Time at T_{mal} (hours)	Typical field of application
1 ^a	60	49	80	1	95	100	Hot water (60 °C)
2 ^a	70	49	80	1	95	100	Hot water (70 °C)
4 ^b	20 +	2,5	70	2,5	100	100	Underfloor heating and low temperature radiators
	40 +	20					
	60	25					
5 ^b	20 +	14	90	1	100	100	High temperature radiators
	60 +	25					
	80	10					

Notes:

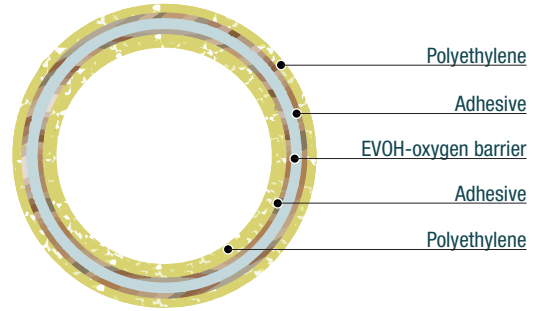
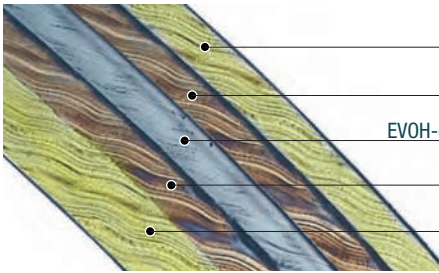
- T_D design temperature
- T_{max} maximum design temperature for short periods
- T_{mal} malfunction temperature

- a) A Country may select either class 1 or class 2 in conformity with its national regulations.
- b) Where more than one design temperature for time and associated temperature appears for any class, the symbol "+" indicates that a sum must be made. For example, the design temperature profile for 50 years for class 5 should be read as follows: 20 °C for 14 years, followed by 60 °C for 25 years, 80 °C for 10 years, 90 °C for 1 year and 100 °C for 100 hours.

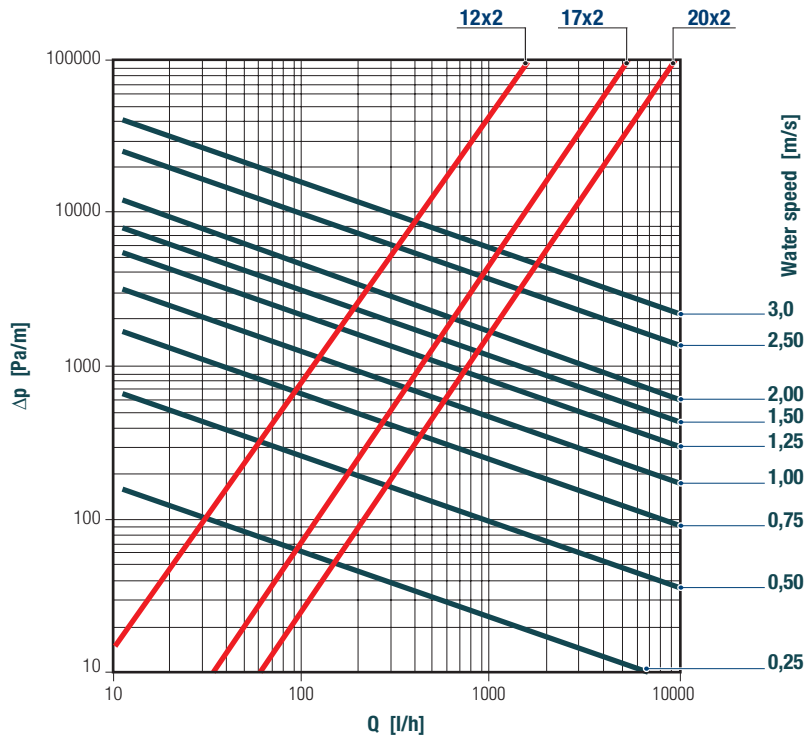
PE-Xc PENTA EVOH oxygen barrier pipe

OXYGEN PERMEABILITY OF PE-Xc PENTA PIPES

Oxygen barrier: to prevent the diffusion of oxygen through the PE-X molecules, which would increase the aggressiveness of the water towards the metal components of the system (e.g. boiler), the PE-Xc FIV pipe is made up of five layers in which the oxygen barrier is protected from mechanical damage and at the same time the thickness of the inner PE-X layer is always equal to that of a 3-layer pipe of equivalent size.



Pressure drops with water at 20 °C



Linear expansion

The diagram shows the linear expansion of 1 m of pipe, due to the difference between the temperature of installation and that of use.

The linear expansion is calculated by the formula:

$$\Delta L = \alpha \times L_{inst} \times (T_{oper} - T_{inst})$$

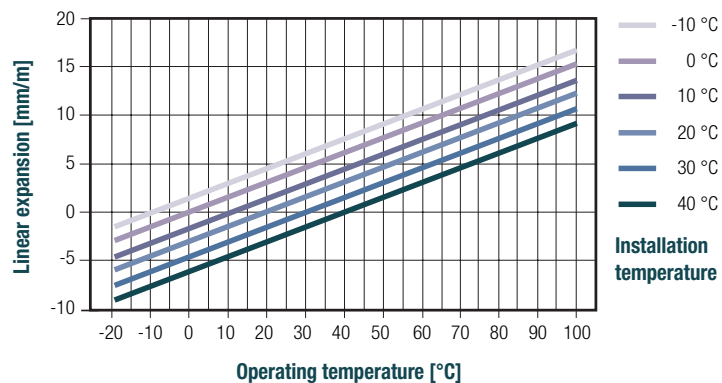
where:

α : coefficient of linear expansion, equal to 0.15 mm/(m °C)

L_{inst} : pipe length at the installation temperature [m]

T_{inst} : temperature at which the pipe is installed [°C]

T_{oper} : temperature at which the pipe is used [°C]



PE-Xc PENTA pipe regression curves

DIAGRAM READING

The maximum stress admitted (σ_{max}) for a duration of 50 years at a certain temperature is identified by intersecting the straight line (vertical) pertaining to the 50 years with the straight line pertaining to the temperature. The equivalent pressure value is obtained through:

$$p_{max} \text{ (bar)} = \frac{20 \times \sigma_{max} \times S_p}{D - S_p}$$

where:
 σ_{max} = max stress admitted (MPa)
 S_p = pipe thickness (mm)
 D = external pipe \varnothing (mm)

Once the operating pressure (p_{es}) is known, the safety coefficient will be equal to

$$Ks = p_{max} / p_{es}$$

Example:

Fluid temperature = 60 °C
 $D = 17 \text{ mm}$
 $S_p = 2 \text{ mm}$
 Duration = 50 years

$$p_{max} \text{ (bar)} = \frac{20 \times 6 \times 2}{17 - 2} = \frac{240}{15} = 16 \text{ bar}$$

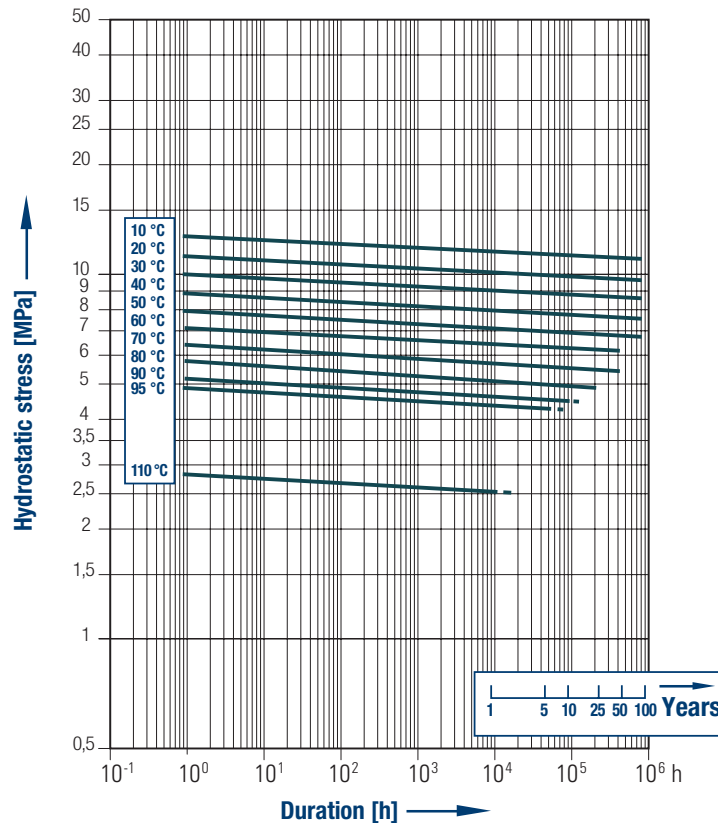


Diagram made according to UNI EN ISO 21003-2

PE-Xc PENTA pipe application classes

5-LAYER PE-XC / EVOH / PE-XC PIPE

Classification of conditions of use (UNI EN ISO 21003-1)

Application class	Design temperature T_D (°C)	Time ^b at T_D (years)	T_{max} (°C)	Time at T_{max} (years)	T_{mal} (°C)	Time at T_{mal} (hours)	Typical field of application
1 ^a	60	49	80	1	95	100	Hot water (60 °C)
2 ^a	70	49	80	1	95	100	Hot water (70 °C)
4 ^b	20	2,5	70	2,5	100	100	Underfloor heating and low temperature radiators
	40	20					
	60	25					
5 ^b	20	14	90	1	100	100	High temperature radiators
	60	25					
	80	10					

Notes:

T_D design temperature
 T_{max} maximum design temperature for short periods
 T_{mal} malfunction temperature

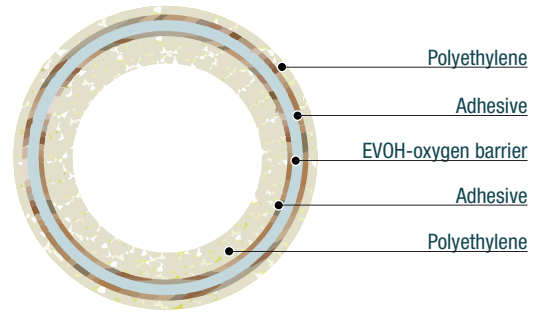
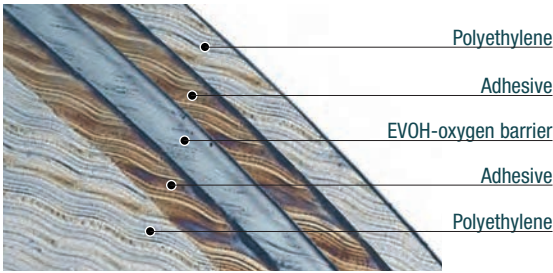
a) A Country may select either class 1 or class 2 in conformity with its national regulations.

b) Where more than one design temperature for time and associated temperature appears for any class, the symbol "+" indicates that a sum must be made. For example, the design temperature profile for 50 years for class 5 should be read as follows: 20 °C for 14 years, followed by 60 °C for 25 years, 80 °C for 10 years, 90 °C for 1 year and 100 °C for 100 hours.

PE-Xa 5 layers EVOH oxygen barrier pipe

OXYGEN PERMEABILITY OF PE-XA 5 LAYERS PIPES

Oxygen barrier: to prevent the diffusion of oxygen through the PE-X molecules, which would increase the aggressiveness of the water towards the metal components of the system (e.g. boiler), a layer of ethylene-vinyl alcohol (EVOH) is applied externally to the pipe which makes it watertight, as required by the DIN 4726 standard.



PE-Xa 5 layers regression curves

DIAGRAM READING

The maximum stress admitted (σ_{max}) for a duration of 50 years at a certain temperature is identified by intersecting the straight line (vertical) pertaining to the 50 years with the straight line pertaining to the temperature. The equivalent pressure value is obtained through:

$$p_{max} \text{ (bar)} = \frac{20 \times \sigma_{max} \times S_p}{D - S_p}$$

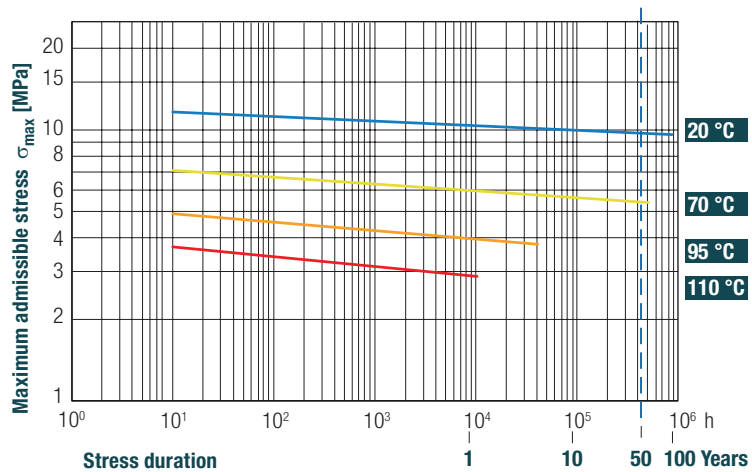
where:

- σ_{max} = max stress admitted (MPa)
- S_p = pipe thickness (mm)
- D = external pipe \varnothing (mm)

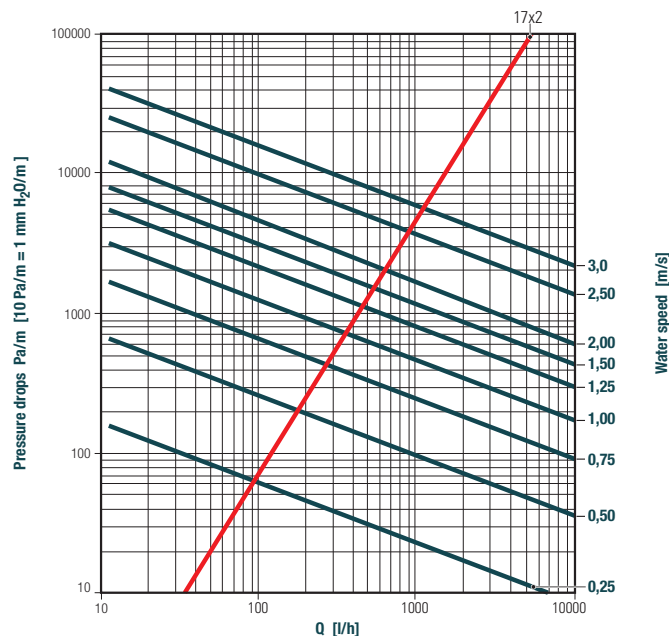
Once the operating pressure (p_{es}) is known, the safety coefficient will be equal to $K_s = p_{max}/p_{es}$

Example:
 Fluid temperature = 60 °C
 D = 17 mm
 S_p = 2 mm
 Duration = 50 years

$$p_{max} \text{ (bar)} = \frac{20 \times 6 \times 2}{17 - 2} = \frac{240}{15} = 16 \text{ bar}$$



Pressure drops with water at 20 °C



PE-Xa 5 layers pipe application classes

Classification of conditions of use (UNI EN ISO 15875-2)

Application class	Design temperature T_D (°C)	Time ^b at T_D (years)	T_{max} (°C)	Time at T_{max} (years)	T_{mal} (°C)	Time at T_{mal} (hours)	Typical field of application
1 ^a	60	49	80	1	95	100	Hot water (60 °C)
2 ^a	70	49	80	1	95	100	Hot water (70 °C)
4 ^b	20 +	2,5	70	2,5	100	100	Underfloor heating and low temperature radiators
	40 +	20					
	60	25					
5 ^b	20 +	14	90	1	100	100	High temperature radiators
	60 +	25					
	80	10					

Notes:

T_D design temperature
 T_{max} maximum design temperature for short periods
 T_{mal} malfunction temperature

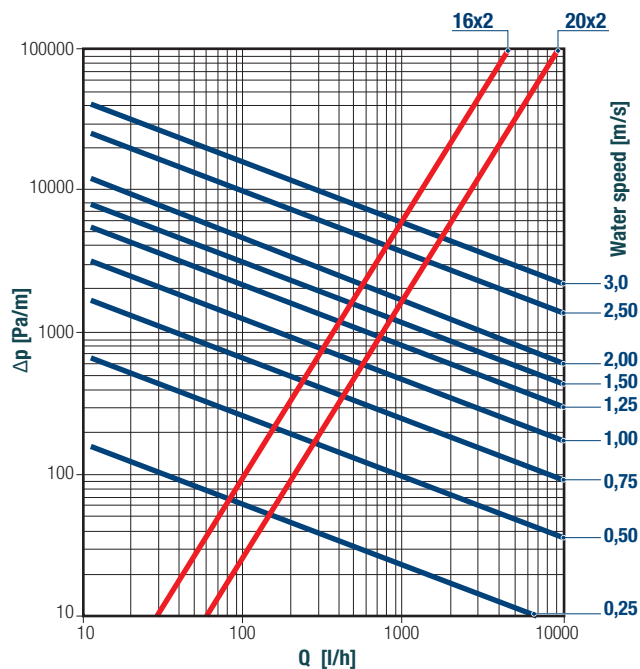
a) A Country may select either class 1 or class 2 in conformity with its national regulations.

b) Where more than one design temperature for time and associated temperature appears for any class, the symbol "+" indicates that a sum must be made. For example, the design temperature profile for 50 years for class 5 should be read as follows: 20 °C for 14 years, followed by 60 °C for 25 years, 80 °C for 10 years, 90 °C for 1 year and 100 °C for 100 hours.

FIVPert multilayer pipe

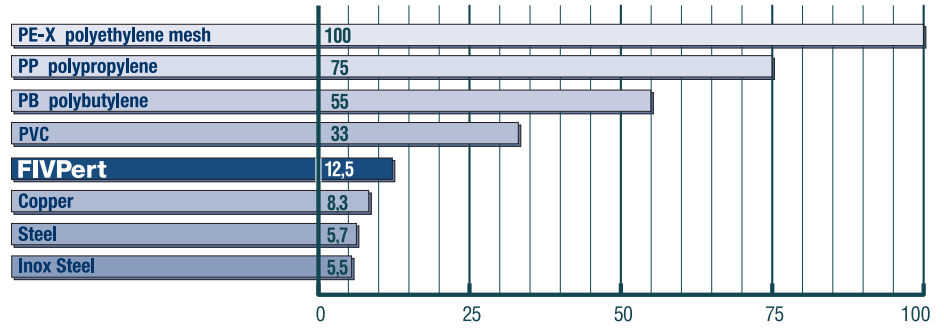
PE-RT / AL / PE-RT MULTILAYER PIPE
 Multilayer pipe for plumbing systems.

PRESSURE DROPS IN FIVPERT PIPES WITH WATER AT 20°C



Thermal expansion

LINEAR THERMAL EXPANSION FOR 10 M PIPES IN DIFFERENT MATERIALS ΔT 50 °C (VALUES EXPRESSED IN MM)

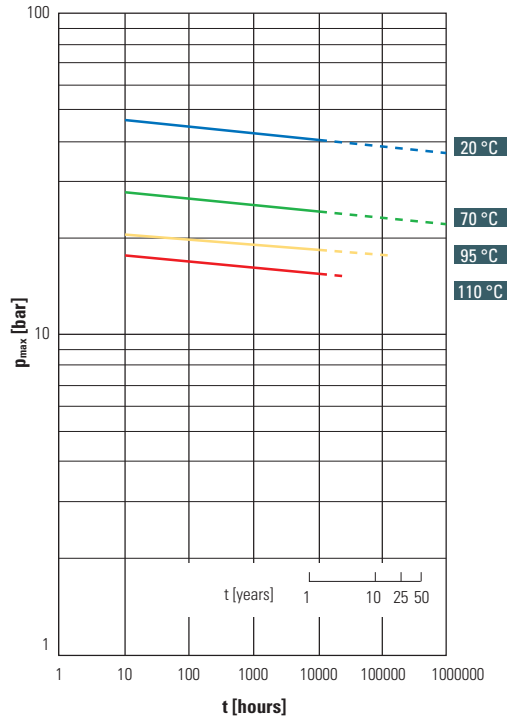


FIVPert pipe(Ø 16x2) regression curves

Example of reading regression curves

The maximum pressure (p_{max}) for a duration of 50 years at a given temperature is identified by intersecting the vertical line for 50 years with the coloured line for said temperature.

Once the expected operating pressure is known (p_{es}), the safety coefficient will be equal to $ks = p_{max} / p_{es}$



FIVPert pipe application classes

PE-RT / AL / PE-RT MULTILAYER PIPE Classification of conditions of use (UNI EN ISO 21003-2)

Application class	Design temperature T_D (°C)	Time ^b at T_D (years)	T_{max} (°C)	Time at T_{max} (years)	T_{mal} (°C)	Time at T_{mal} (hours)	Typical field of application
1 ^a	60	49	80	1	95	100	Hot water (60 °C)
2 ^a	70	49	80	1	95	100	Hot water (70 °C)
4 ^b	20	2,5	70	2,5	100	100	Underfloor heating and low temperature radiators
	+						
	40	20					
5 ^b	+	14	90	1	100	100	High temperature radiators
	60	25					
	+						
	80	10					

Notes:

T_D design temperature
 T_{max} maximum design temperature for short periods
 T_{mal} malfunction temperature

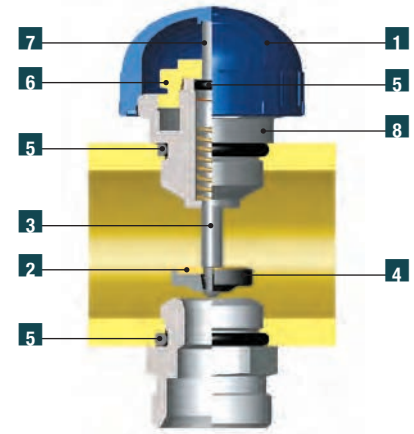
a) A Country may select either class 1 or class 2 in conformity with its national regulations.

b) Where more than one design temperature for time and associated temperature appears for any class, the symbol "+" indicates that a sum must be made. For example, the design temperature profile for 50 years for class 5 should be read as follows: 20 °C for 14 years, followed by 60 °C for 25 years, 80 °C for 10 years, 90 °C for 1 year and 100 °C for 100 hours.

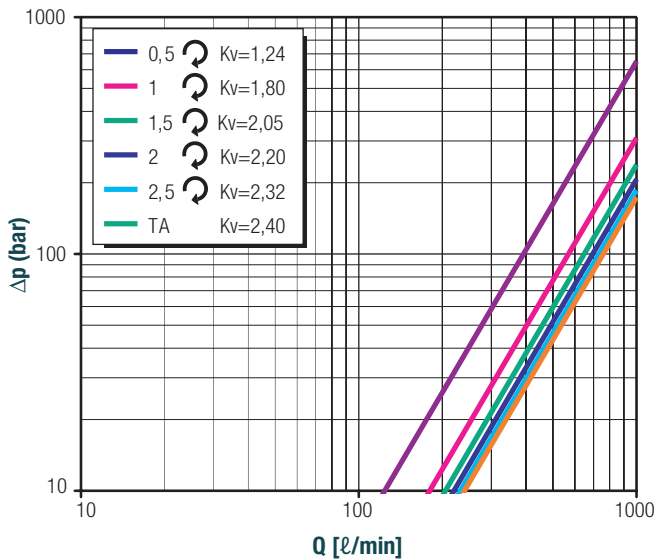
Manual valve

CONSTRUCTION MANUAL VALVE for electrothermal heads

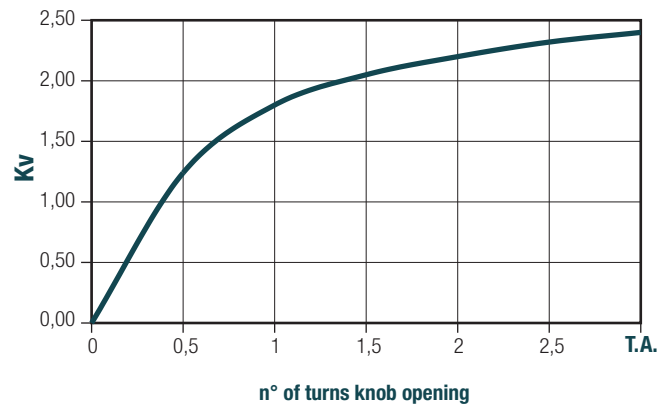
- 1** Blue ABS cap
- 2** Nickel-plated brass gasket plate, UNI EN 12164 CW614N
- 3** Nickel-plated brass stopper stem, UNI EN 12164 CW614N
- 4** NBR stopper seal
- 5** O-ring in EPDM 70
- 6** Nickel-plated brass nut, UNI EN 12164 CW614N
- 7** AISI 304 steel propulsion stem
- 8** Nickel-plated brass body, UNI EN 12164 CW614N



PRESSURE DROPS (VALVE WITH MANUAL CONTROL HANDWHEEL)



KV VALUES (VALVE WITH MANUAL CONTROL HANDWHEEL)



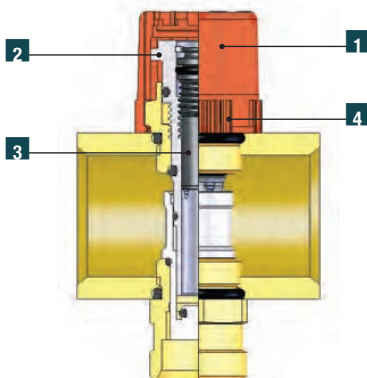
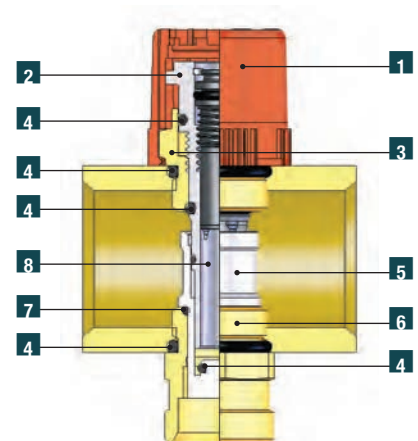
TA: All open. The values shown refer to water temperature at 15 °C

= No. of turns for opening adjustment device **3**

Transformable lockshield

LOCKSHIELD CONSTRUCTION

- 1** Cap in red ABS
- 2** Regulator in PPO
- 3** Nickel-plated brass pipe union, UNI EN 12164 CW614N
- 4** O-ring in EPDM 70
- 5** Flow meter shutter seat in PPO
- 6** Nickel-plated brass branch, UNI EN 12164 CW614N
- 7** O-ring in NBR 70
- 8** Shutter in PPO



LOCKSHIELD ADJUSTMENT

The lockshield is delivered in partially OPEN position.

To carry out the adjustment:

- 1 - Remove the cap **1**;
- 2 - Overturn the cap **1** and use the imprint on it to manually rotate the lockshield **2** anticlockwise until you feel resistance to rotation;
- 3 - With a CH4 Allen key, screw the regulator completely **3**;

The lockshield is now ready to be set:

- 4 - Unscrew the regulator **3** by the number of required turns, see diagram;
- 5 - Reinsert the cap.

It is also possible to seal, by plumbing, the cap in the position reached using the holes in the flaps **4** to secure it directly to the manifold, thereby preventing any tampering.

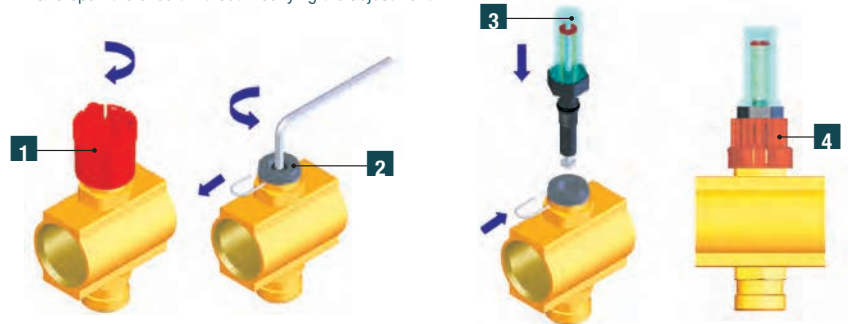
Replacement with flow meter cartridge

REPLACEMENT OF THE REGULATOR WITH A FLOW METER CARTRIDGE (FIG. B)

The FIV transformable lockshield allows to integrate to it a flow meter:

- with system running;
- without any water loss;
- with a simple and quick operation.

- 1 - Close the lockshield using the cap **1**;
- 2 - Remove the regulator **2** using an Allen key and a screwdriver;
- 3 - Insert the measuring cartridge **3** and the relative ring nut **4**;
- 4 - Manually turn the ring nut **4** anticlockwise until you feel resistance to rotation;
- 5 - Calibrate using the measuring cartridge **3** until the desired flow rate is reached (directly shown on the flow meter).
- 6 - Raise the ring nut **4** until it click indicating that it is in the correct position: it is now possible to close and open the circuit without modifying the adjustment.

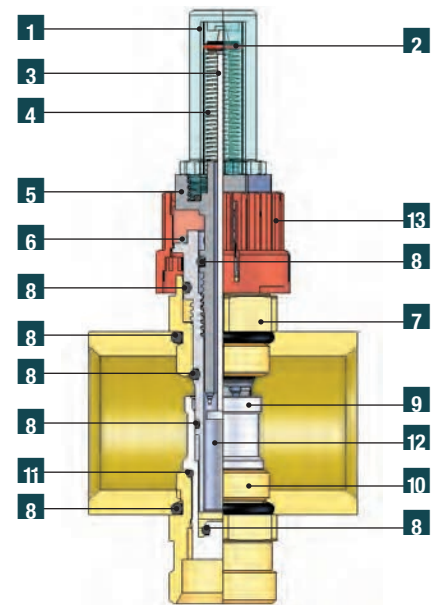


Lockshield with flow meter

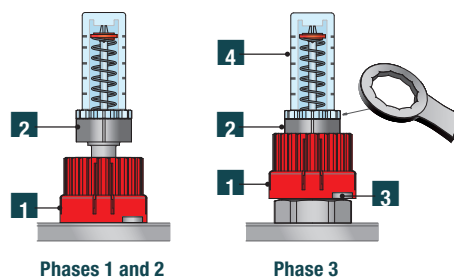
Operating range	0÷4 l/min
Max. operating pressure	6 bar
Max. operating temperature	90 °C
Pressure drops $K_v = 0,15 (1 \text{ l/min}) \div 0,55 (4 \text{ l/min})$	
K_v max (out of scale)	$K_v = 0,9$
Precision	±10% end of scale
Test pressure (25 °C max)	10 bar

LOCKSHIELD CONSTRUCTION with incorporated flow meter

- 1 Flow meter glass in NYLON
- 2 Flow indicator in NYLON
- 3 Flow meter stem in NYLON
- 4 Flow meter spring in AISI 304 steel
- 5 Flow meter regulator in PPO
- 6 Split pin for lockshield/flow meter in steel
- 7 Nickel-plated brass pipe union, UNI EN 12164 CW614N
- 8 O-ring in EPDM 70
- 9 Flow meter shutter seat in PPO
- 10 Nickel-plated brass branch, TN UNI EN 12164 CW614N
- 11 O-ring in NBR 70
- 12 Shutter in PPO
- 13 Adjustment ring nut in red ABS



Lockshield adjustment



FLOW RATE ADJUSTMENT (DO NOT USE TOOLS)

The flow meter is delivered in a partially OPEN position.

To carry out the adjustment:

- Phase 1 Manually rotate the ring nut **1** anticlockwise until you feel resistance to rotation.
- Phase 2 Calibrate using the regulator **2** until the desired flow rate is reached (directly shown on the flow meter).
- Phase 3 Raise the ring nut **1** until it click indicating that it is in the correct position: it is now possible to close and open the circuit without modifying the adjustment.

Note: All the above operations must be performed manually.

It is also possible to seal, by plumbing, the ring nut in the position reached using the holes in the flaps **3** to secure it:

- directly to the manifold, preventing any tampering;
- to the flow meter, making it possible to close the flow without modifying the set maximum opening calibration.

GLASS CLEANING


- Turn the ring nut **1**, clockwise until the lockshield is completely closed.
- Remove the glass **4** by unscrewing it from the regulator **2** with a 17 mm polygonal key.
- Clean the glass and screw it back on the regulator **2**.
- Turn the ring nut **1** manually anticlockwise until you feel resistance to rotation.

Controller / Controller S manifold diagrams

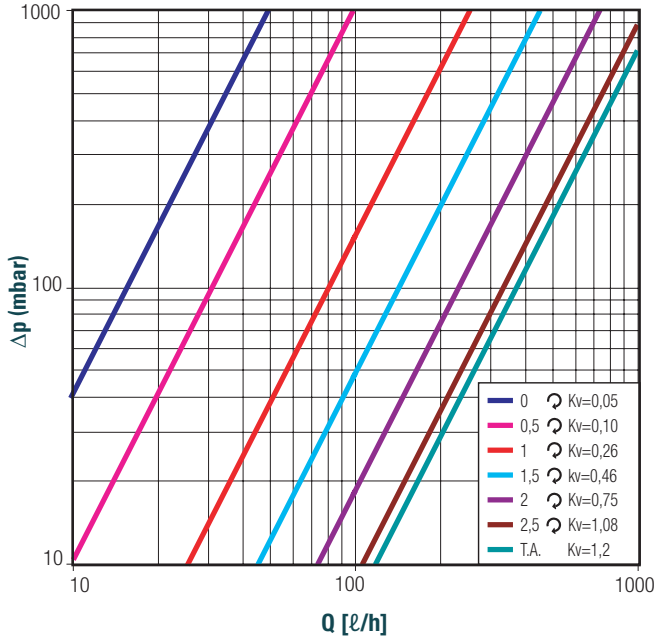
LOCKSHIELD AND FLOW METER PRESSURE DROPS

TA = All open. The values shown refer to water temperature at 15 °C

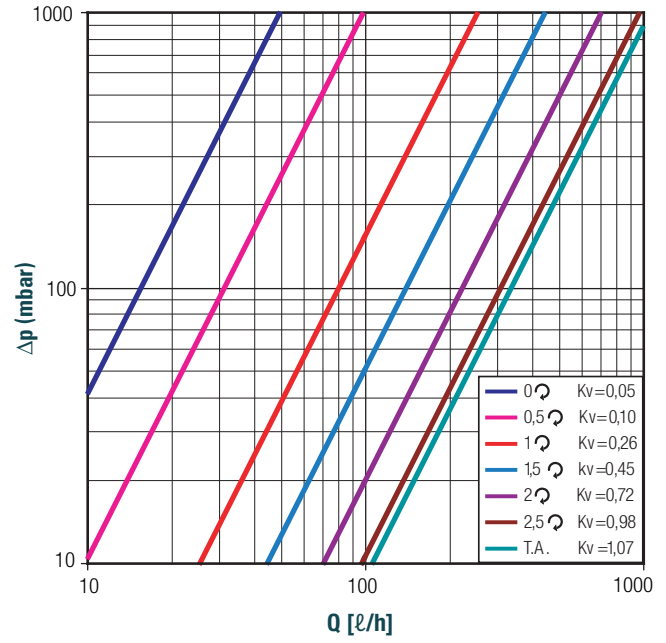
$\Delta p = \Delta p_{\text{delivery}} + \Delta p_{\text{return}}$

 = No. of turns for opening adjustment device

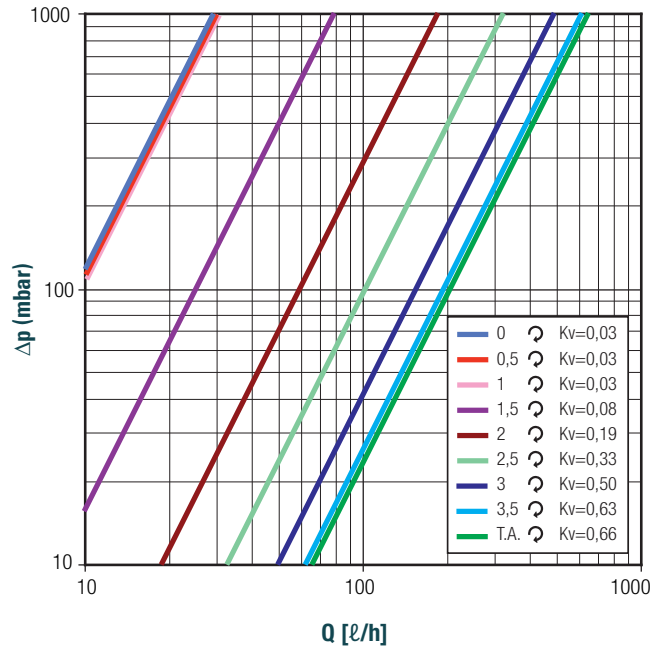
PRESSURE DROPS (LOCKSHIELD)



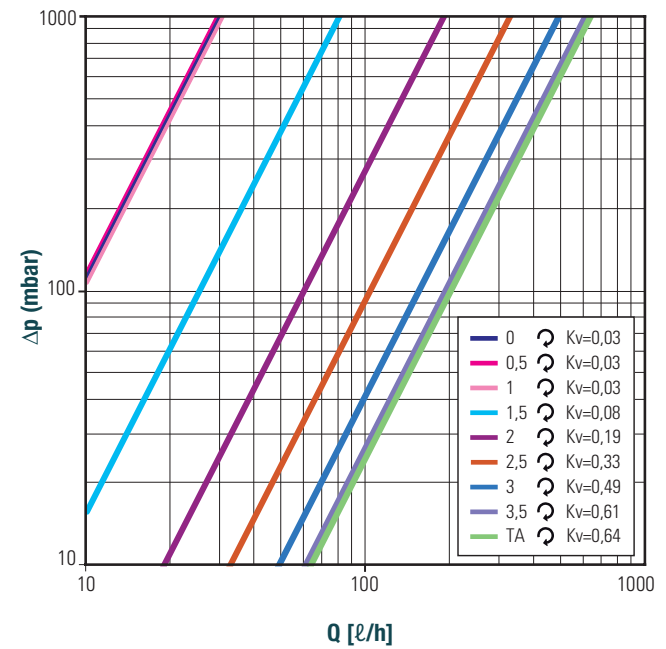
PRESSURE DROPS (LOCKSHIELD + VALVE FULLY OPEN)



PRESSURE DROPS (FLOW METER)



PRESSURE DROPS (FLOW METER + VALVE FULLY OPEN)




Controller / Controller S manifold diagrams

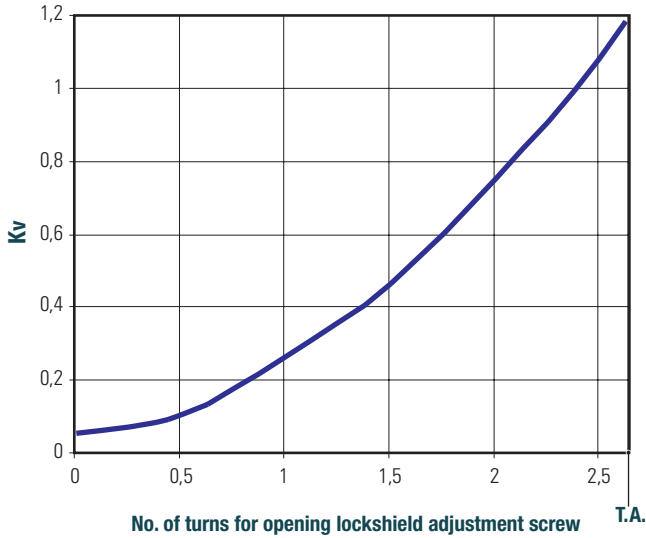
LOCKSHIELD AND FLOW METER PRESSURE DROPS

TA = All open. The values shown refer to water temperature at 15 °C

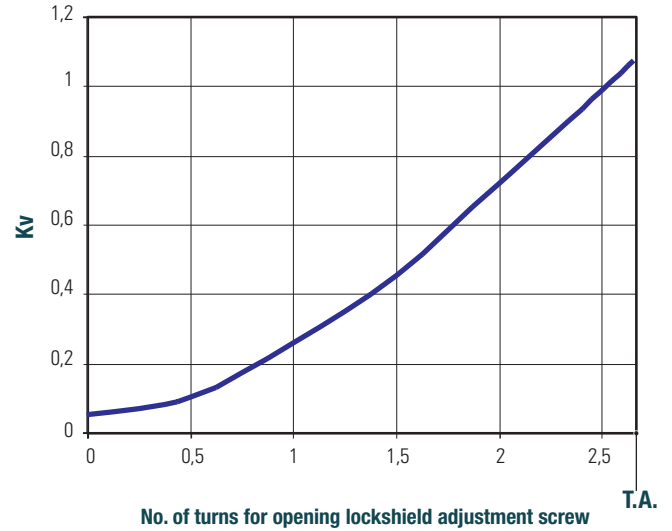
$\Delta p = \Delta p_{\text{delivery}} + \Delta p_{\text{return}}$

 = No. of turns for opening adjustment device

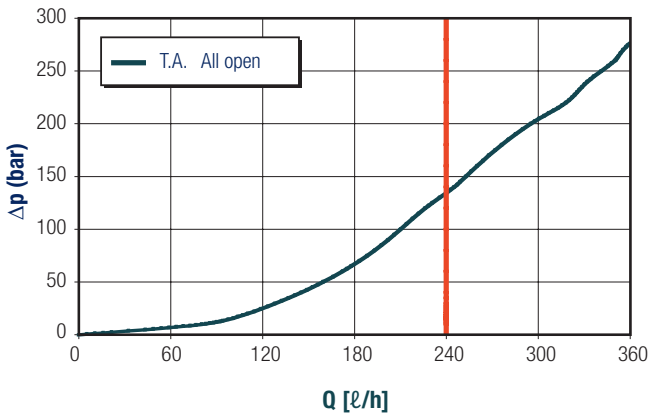
Kv VALUES (LOCKSHIELD)



KV VALUES ACCORDING TO DIFFERENT OPENINGS (LOCKSHIELD + VALVE FULLY OPEN)

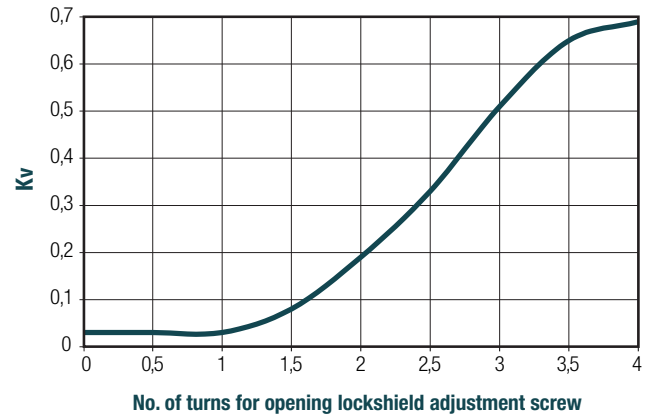


FLOW METER PRESSURE DROPS

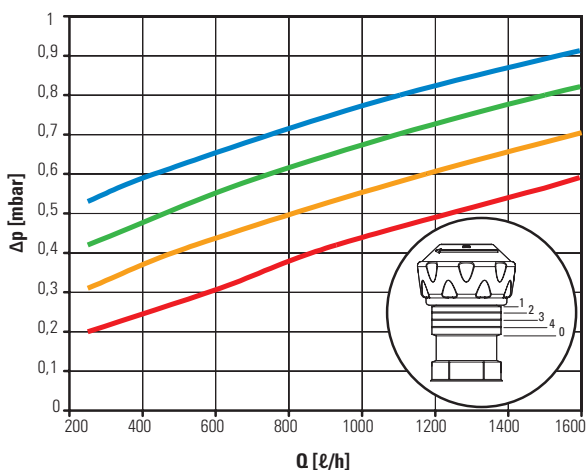


 Flow rate limit indicated by standard flow meter 4 l/min

FLOW METER Kv VALUES 4 l/min



ADJUSTMENT DIAGRAM TERMINAL KIT WITH BY-PASS



EXAMPLE OF CALCULATION

Calculation of the pressure drop Δp with a water flow rate Q of 200 l/h determined by valve and lockshield with an opening of 2.5 turns of the lockshield adjustment screw.

1° Method

Use of pressure drops diagram - $Q = 200 \text{ l/h}$ - $\Delta p = 60 \text{ mbar}$

K_v represents the flow rate Q in m^3/h according to a Δp equal to 1 bar: $K_v = Q / \sqrt{\Delta p}$. The relation linking the Δp [ba] to the flow rate Q [m^3/h] is the following: $\Delta p = Q^2 / K_v^2$

2° Method

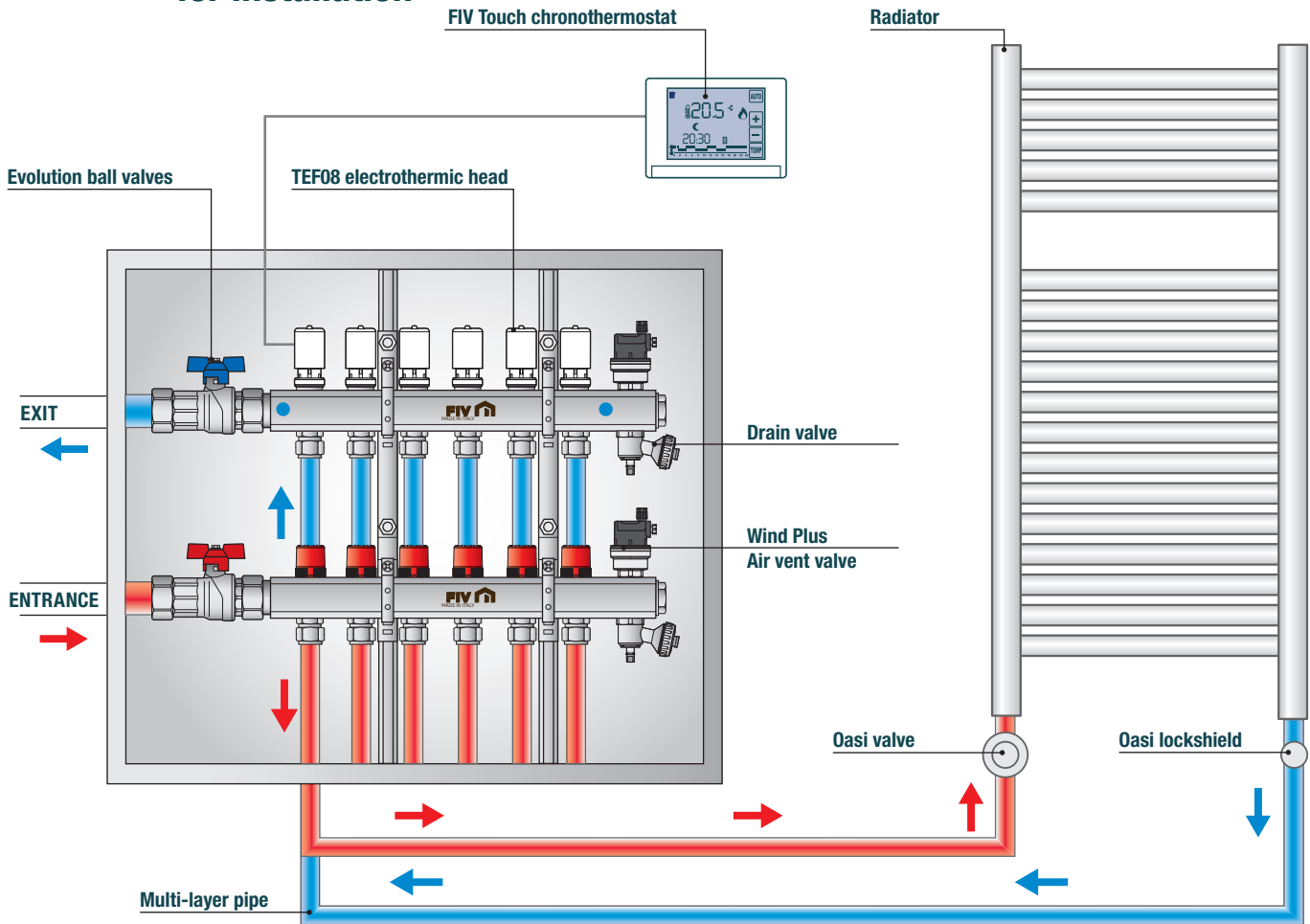
Use of K_v diagram

$K_v = 0,82$ - $Q = 0,2 \text{ m}^3/\text{h}$

$\Delta p = 0,2^2 / 0,82^2 = 0,06 \text{ bar}$

Example for installation

Installation of Controller manifolds in a Box System Plus metal cabinet or in a Plastibox plastic box, complete with TEF 08 electrothermic heads activated by the FIV Touch chronothermostat.

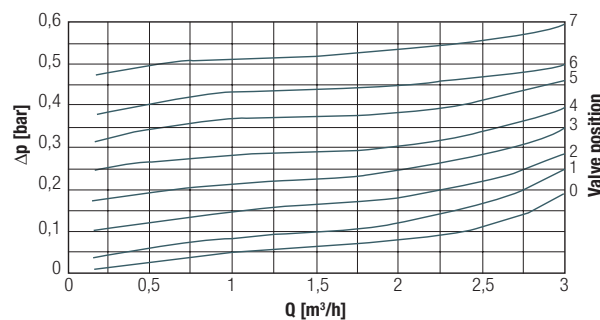


NOTE

- It is advisable to fit the overpressure valve to avoid hydraulic imbalances which can occur if one or more zones are excluded.
- Check the current flow across the thermostat contacts in relation to the starting current absorbed by the thermo-electric valve-heads. In the event of overload, use a relay.
- Thermo-electric valve-heads with auxiliary microswitches can be used for switching off the pump when the valves are closed (if the current absorption of the pump exceeds the current flow across the contacts, use an intermediate relay).

Terminal kit with by-pass

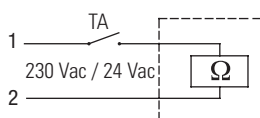
OVERPRESSURE VALVE GRAPH



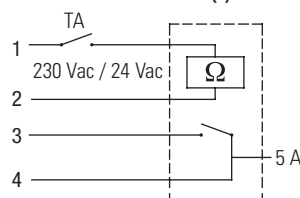
Tef 08 electrothermic heads

ELECTRICAL CONNECTIONS

NC 24 V/230 V
NO 24 V/230 V



NC 24V/230V - c/micro (*)



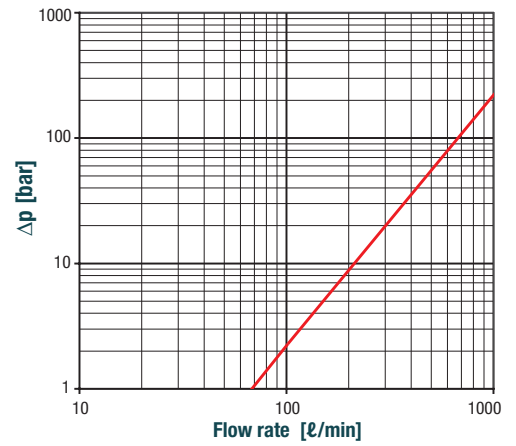
(*) with micro-switch

TA Room thermostat

- 1 Brown
- 2 Blue
- 3 Black
- 4 Black

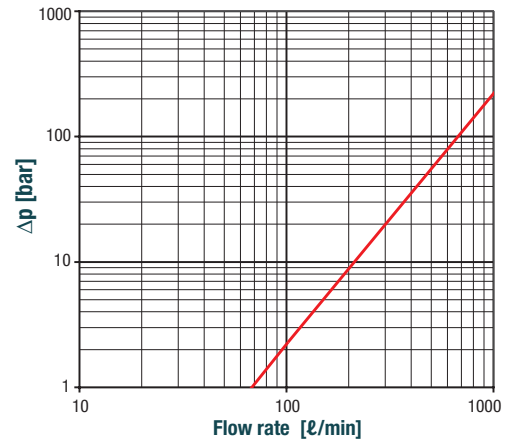
Istant and Controller M manifolds with taps

PRESSURE DROPS of a single way with the tap open
(Kv = 2,064)



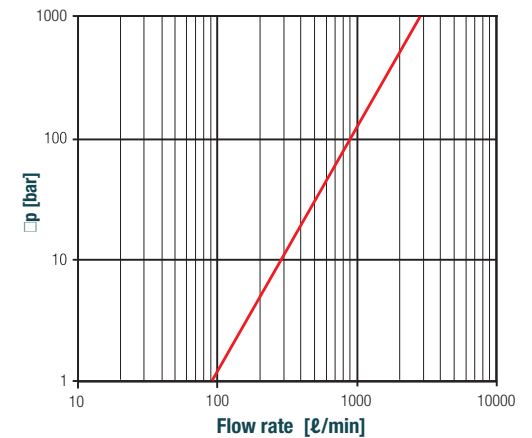
Thermoday pressed manifold

PRESSURE DROPS of a single way
(Kv = 2,064)

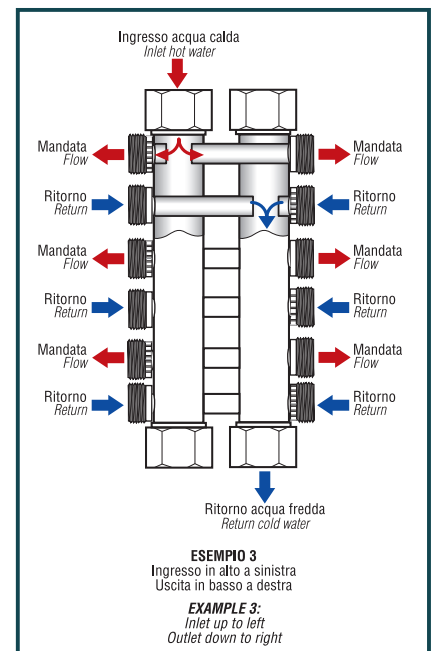
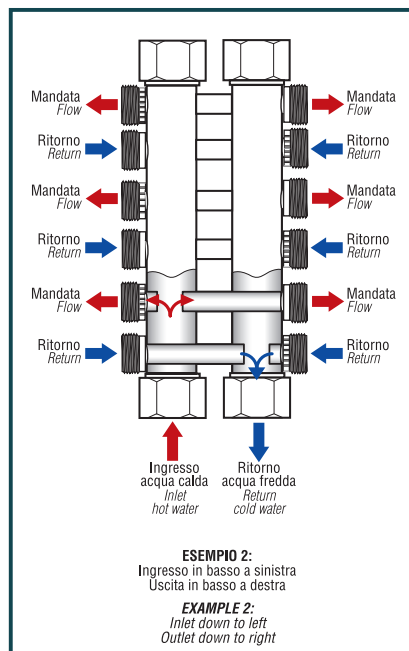
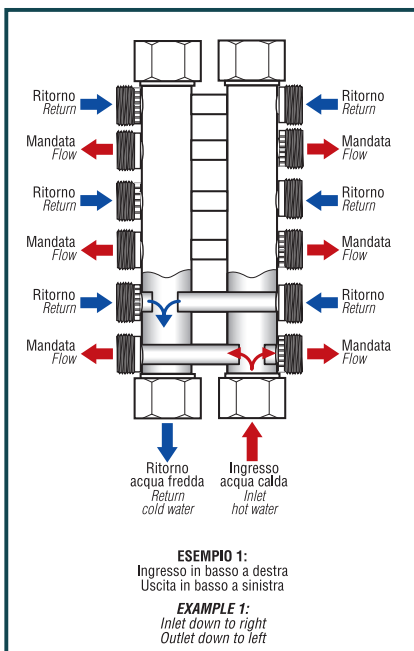


Interaset complanar manifold

PRESSURE DROPS of a couple of branches (inlet + outlet)
(Kv = 2,91)

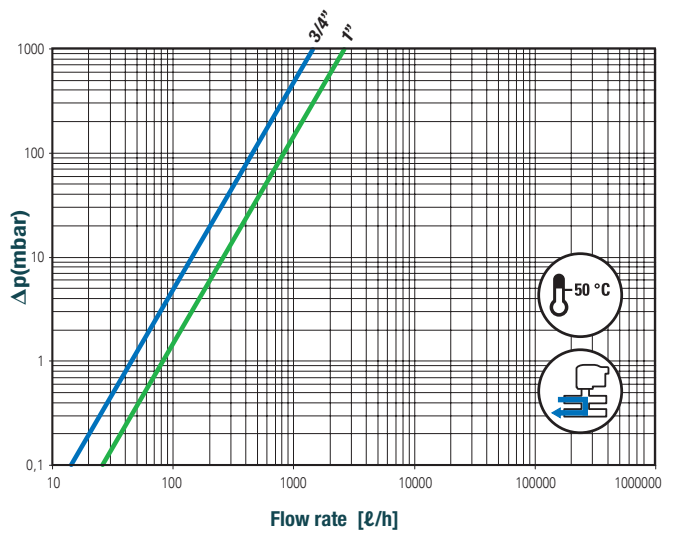
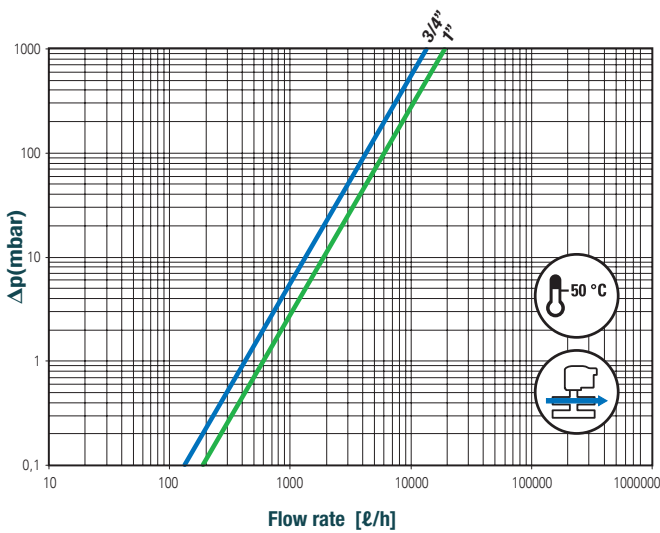
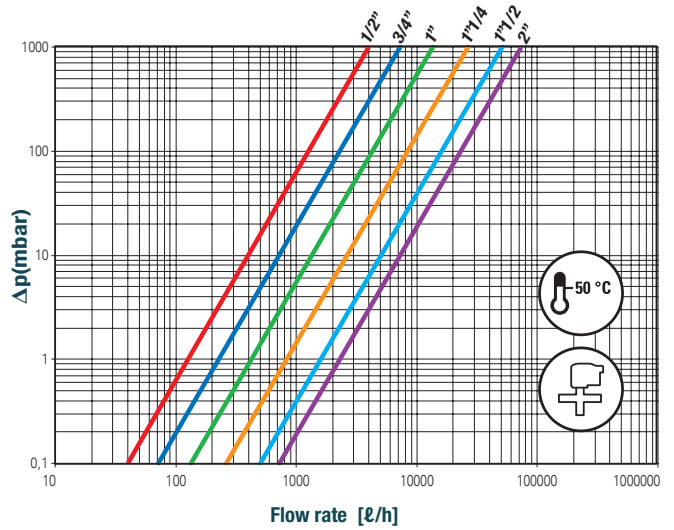
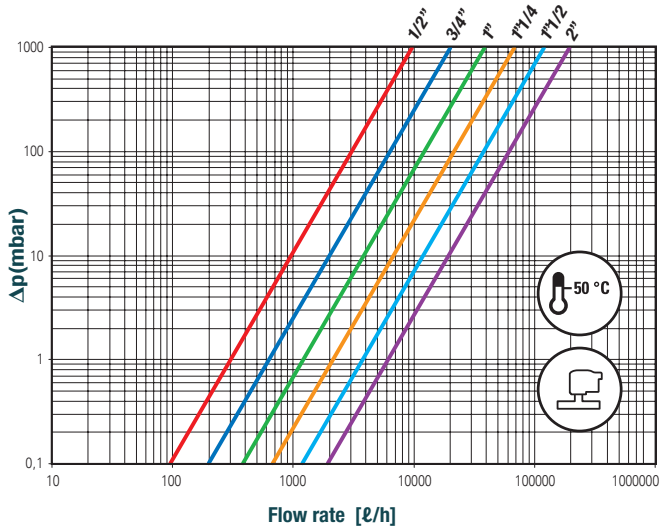


DIAGRAMS OF USE OF THE INTERASET COPLANAR MANIFOLD

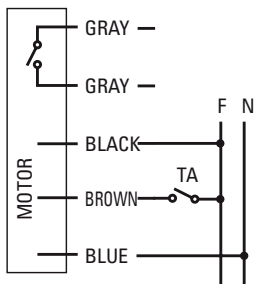


Motorvalv

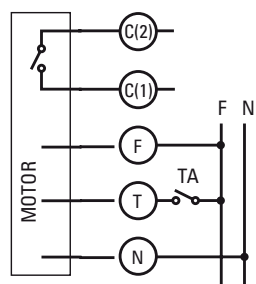
MOTOR DRIVEN BALL VALVE PRESSURE DROPS



WIRING DIAGRAM

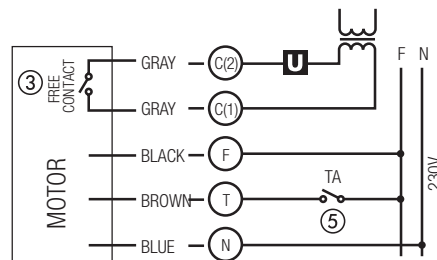
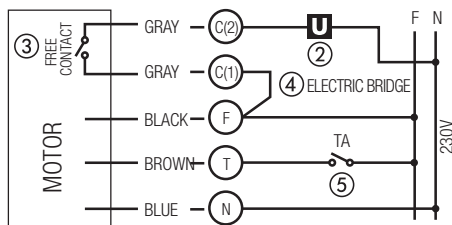


Model
1/2" - 3/4" - 1"



Model
1 1/4" - 1 1/2" - 2"

User power supply at 230 V
(5 A max)



② User at 230 V

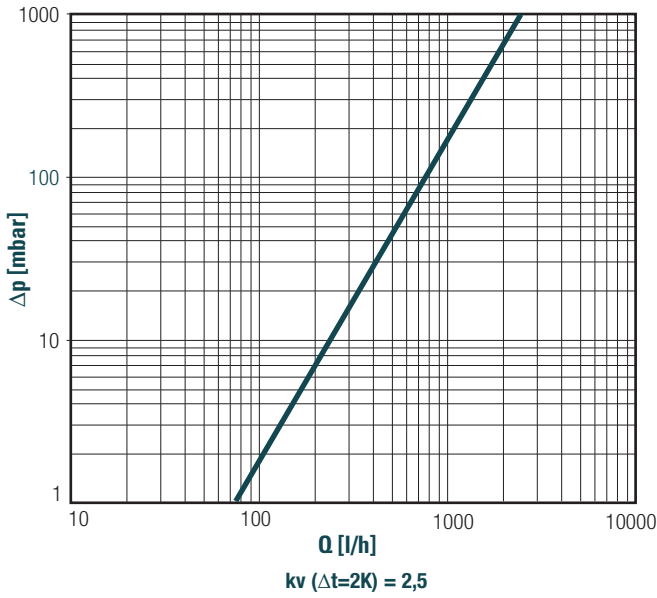
⑤ Ambient thermostat or other control switch for the motorized valve (230 V)

Floor Mixing Controller

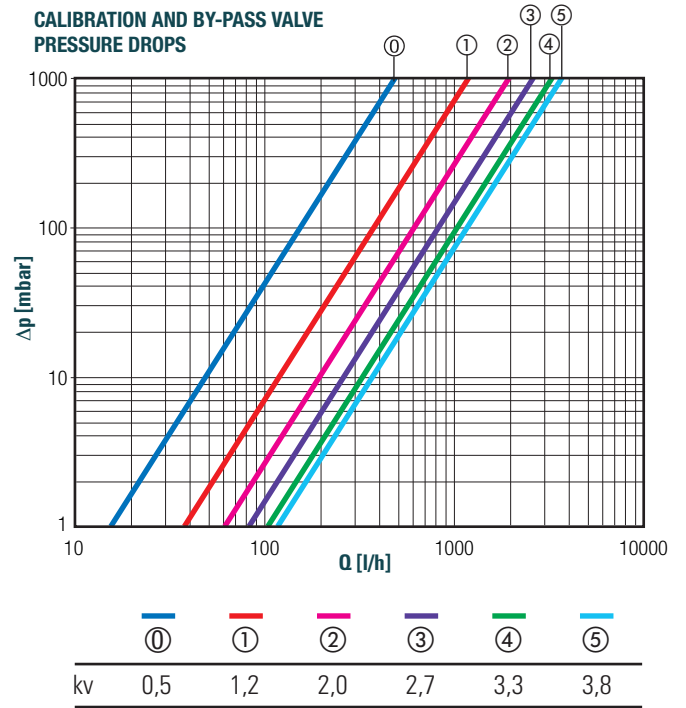
PREASSEMBLED REGULATION GROUP (FIXED-POINT OR CLIMATIC ELECTRONIC)

for low temperature heating and/or cooling systems and mixed systems with two temperature levels (radiators/fan coils + radiant panels).

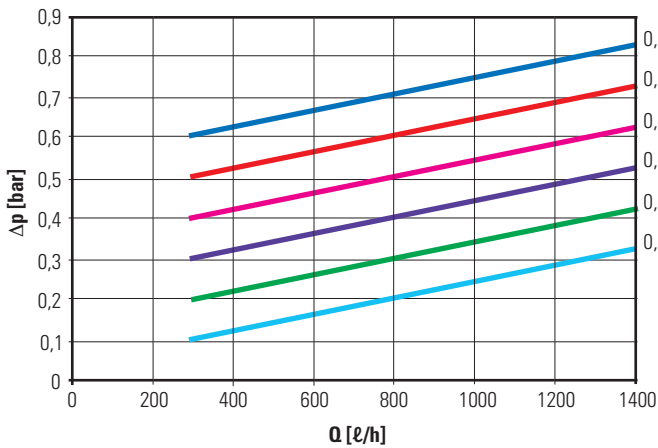
MIXING VALVE PRESSURE DROPS



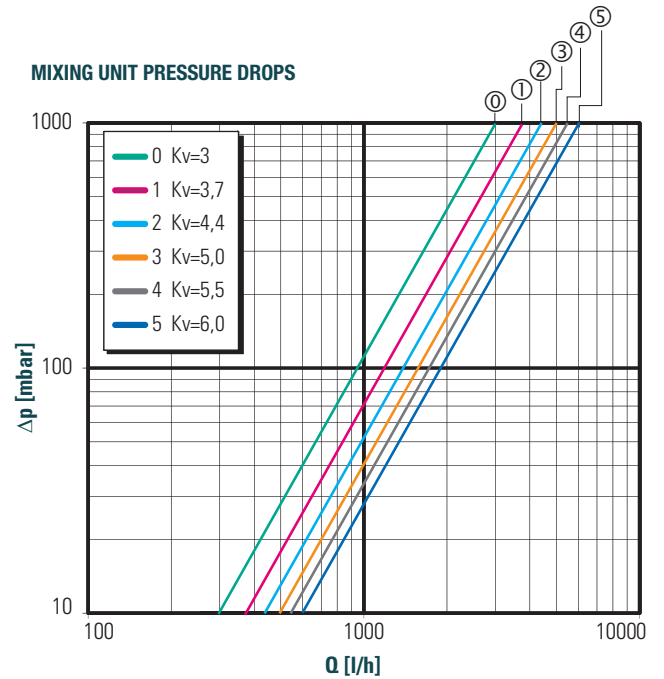
CALIBRATION AND BY-PASS VALVE PRESSURE DROPS



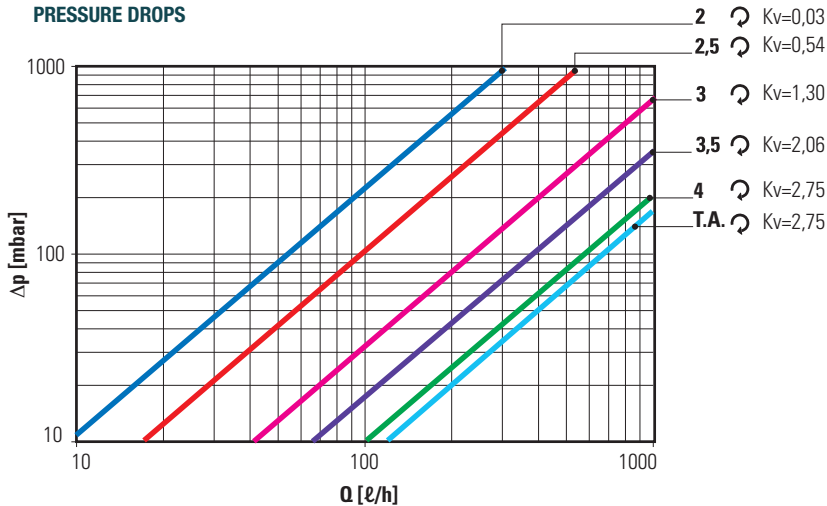
HIGH TEMPERATURE OVERPRESSURE VALVE PRESSURE DROP



MIXING UNIT PRESSURE DROPS



INTERCEPTION AND BALANCING LOCKSHIELD PRESSURE DROPS



①...⑤
Calibration and by-pass valve position

↻ = No. of turns for opening adjustment device

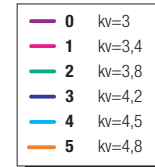
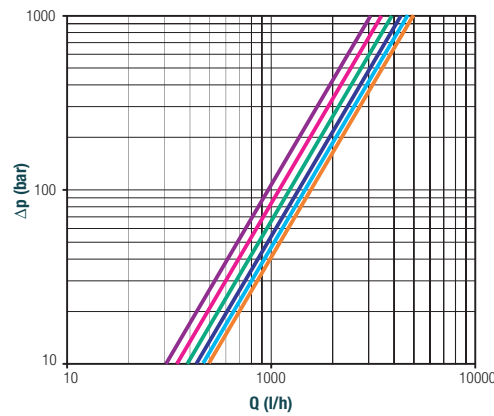
UFH Mixing Controller Modular Mixing Group

DISTRIBUTION MODULES FOR HIGH AND LOW TEMPERATURE SYSTEMS
(FIXED POINT OR CLIMATIC ELECTRONIC) for heating systems

MIXING UNIT PRESSURE DROPS

Thermal power exchangeable with $\Delta T=7\text{ }^{\circ}\text{C}$ and $\Delta p=0,25\text{ bar}$ on the secondary circuit:

- 10 kW with by-pass in position 0 (by-pass completely closed)
- 12,5 kW with by-pass in position 5 (by-pass completely open)



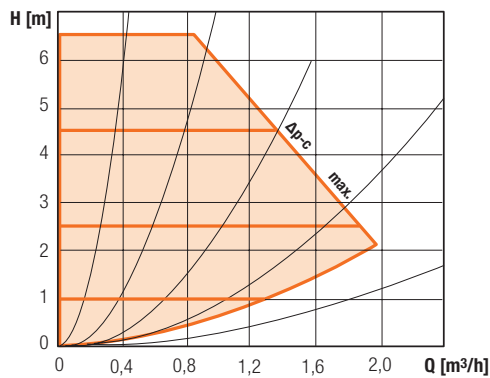
0...5 Knob positions

circulators diagrams

WILO CIRCULATION PUMP HYDRAULIC PERFORMANCE DIAGRAMS

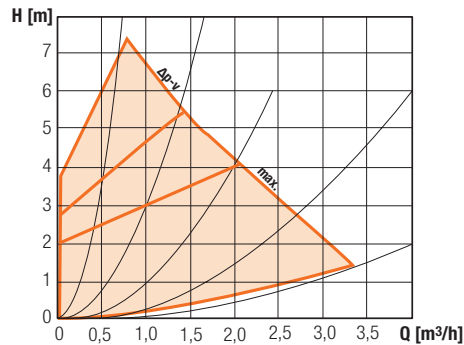
WILO PARA HU 15/7
ELECTRONIC CIRCULATION PUMP

Δp -c Constant

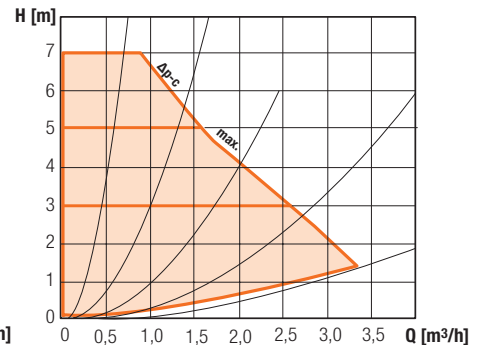


WILO PARA 25/7
ELECTRONIC CIRCULATION PUMP

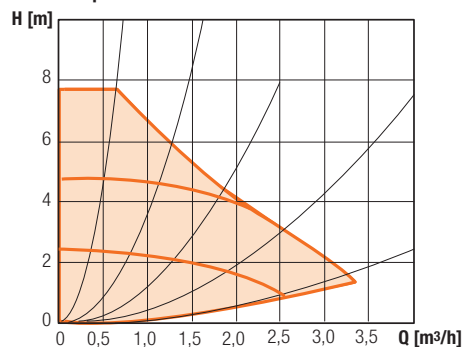
Δp -v Variable



Δp -c Constant



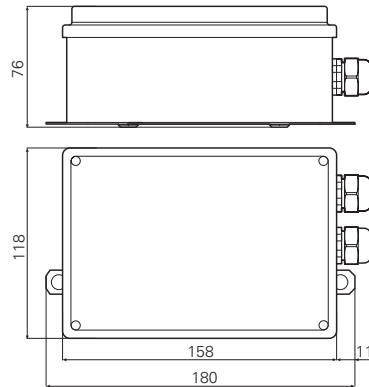
Constant speed



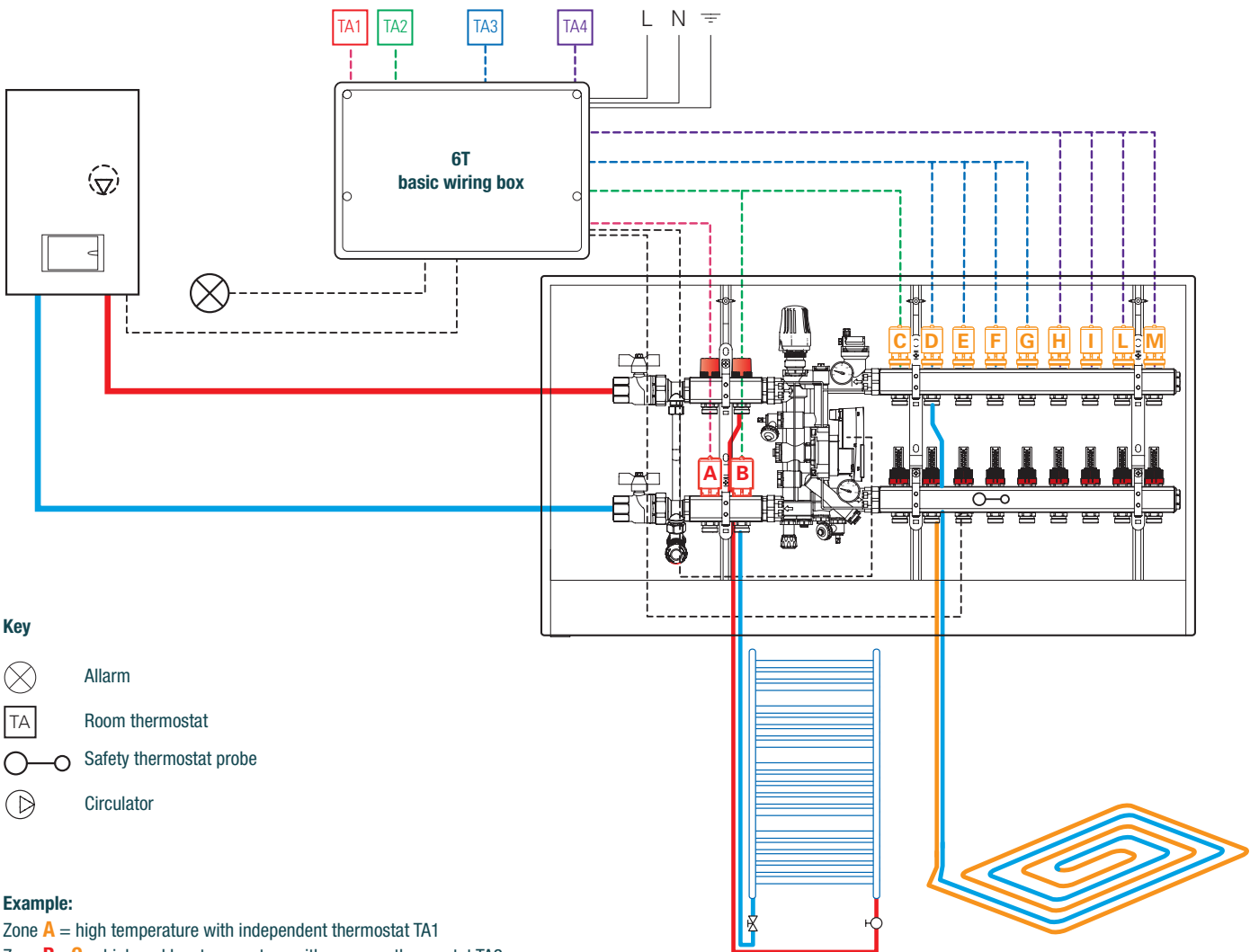
6T basic wiring box

ELECTRONIC SYSTEM FOR ELECTROTHERMIC HEADS
for heating systems with two temperature levels

6T BASIC WIRING BOX



APPLICATION DIAGRAM FOR ELECTROTHERMIC HEADS



Key

- Alarm
- Room thermostat
- Safety thermostat probe
- Circulator

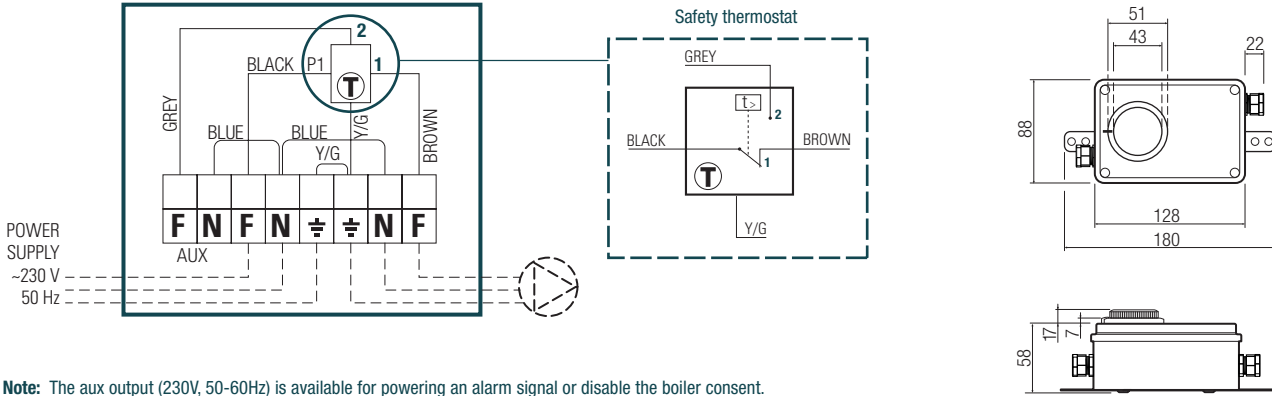
Example:

- Zone A = high temperature with independent thermostat TA1
- Zone B - C = high and low temperature with common thermostat TA2
- Zone D - E - F - G = low temperature with common thermostat TA3
- Zone H - I - L - M = low temperature with common thermostat TA4

Electrical boxes

ELECTRICAL BOX WITH CAPILLARY SAFETY THERMOSTAT
for low temperature circulator wiring

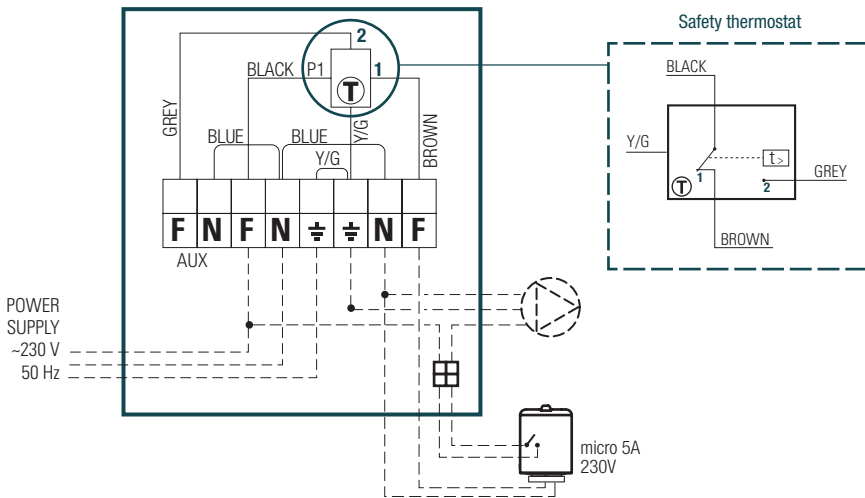
FLOOR MIXING CONTROLLER / UFH MIXING CONTROLLER APPLICATION DIAGRAM



Electrical boxes

LOW TEMPERATURE MODULAR MIXING GROUP
with electrothermic shut-off head on the delivery

MODULAR MIXING GROUP APPLICATION DIAGRAM

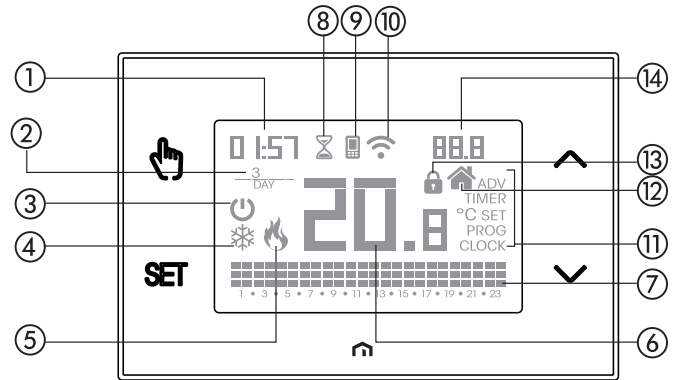


Fiv Touch Wi-Fi chronothermostat

TOUCH SCREEN CHRONOTHERMOSTAT

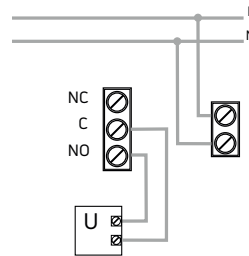
Key

- 1** Clock
- 2** Day of the week
- 3** Operation disabled
- 4** Active load (air conditioning mode)
- 5** Active load (heating mode)
- 6** Measured temperature
- 7** Running daily program divided into 24 histograms, one for each hour of the day. Each hour is associated with one of 3 temperatures: Temperature **T1** Temperature **T2** Temperature **T3**
- 8** Timed operation active
- 9** Connection to the FIV Cloud in progress
- 10** Connection to the active Wi-Fi network
- 11** Configuration menu
- 12** Local operation active. In this state, the device is disconnected from the FIV Cloud and any change in operation must be made using the keys on the chronothermostat. Local operation can only be disabled from the app
- 13** Keypad lock active
- 14** Connection error information

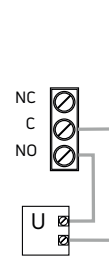


WIRING DIAGRAMS

230 V power supply



Battery power supply

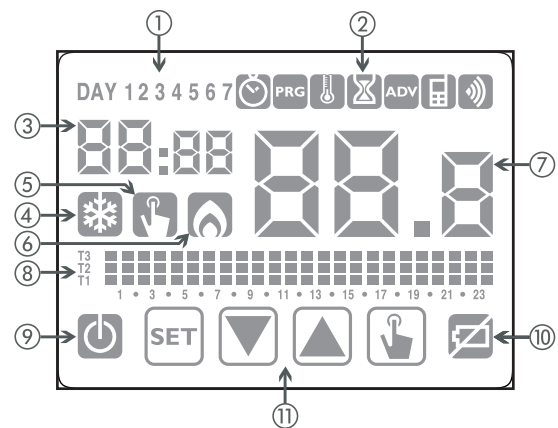


FIV Touch Evo thermostat and chronothermostat

THERMOSTAT AND CHRONOTHERMOSTAT TOUCH SCREEN

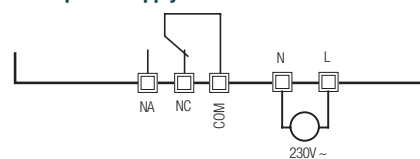
Key

- 1** Day of the week (DAY 1 = Monday)
- 2** Programming menu
- 3** Hour and minutes
- 4** Active load in summer/air conditioning mode
- 5** Manual operation active
- 6** Active load in winter/heating mode
- 7** Measured ambient temperature
- 8** Graph of the active program for the current day (in automatic mode)
- 9** Operation disabled
- 10** Low battery indication (battery-operated models only)
- 11** Keypad (only active if the device is attached to the wall-mounted support)

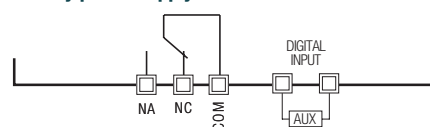


WIRING DIAGRAMS

230 V power supply

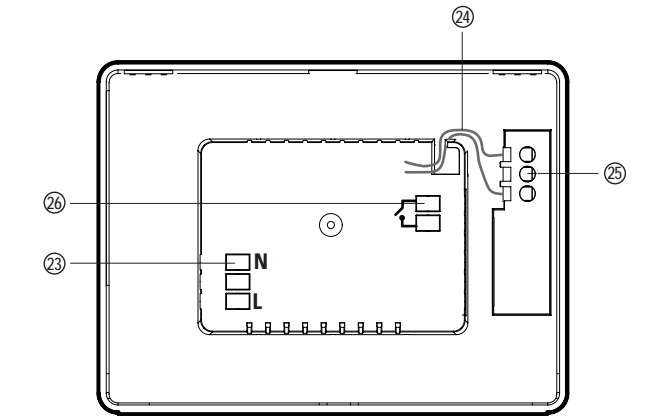
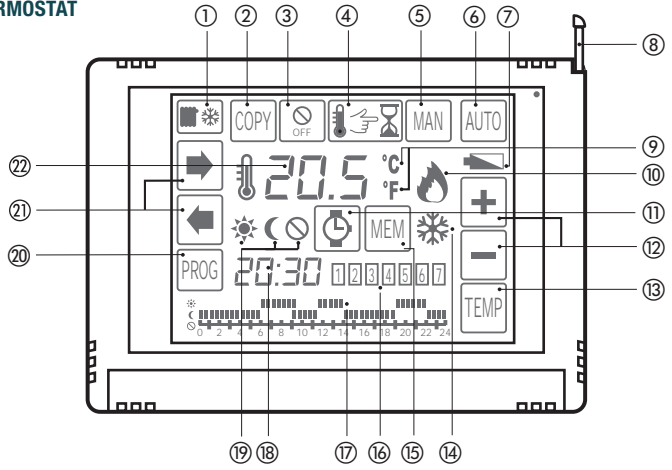


Battery power supply



Fiv Touch chronothermostat

TOUCH SCREEN CHRONOTHERMOSTAT



Key

- 1** Winter / Summer functioning selection key
- 2** Copy function key of the time programming
- 3** System switch-off key with eventual antifreeze function
- 4** Temporary manual functioning selection key
- 5** Permanent manual functioning selection key
- 6** Automatic functioning selection key according to the programmed time bands
- 7** Indication of flat batteries to be replaced (only for battery powered model)
- 8** Stylus for touch screen use
- 9** Indication of the temperatures unit of measure (Centigrades/Fahrenheit)
- 10** Winter system switch-on indications
- 11** Key for adjusting current time
- 12** Keys for adjusting the ambient temperatures
- 13** Selection key of the temperature levels to adjust, for the automatic functioning
- 14** Summer system switch-on indications
- 15** Key for memorising the executed settings
- 16** Indication of current day in the week
- 17** Indication of the program for automatic functioning (periods and temperature levels)
- 18** Indication of current time and adjustment temperature active at current time (alternate display)
- 19** Indication of the temperature level active at current time
- 20** Access key to automatic functioning programming
- 21** Shift keys
- 22** Indication of the detected ambient temperature
- 23** 230V Electrical power supply (only for version with 230 V power supply)
- 24** Cable tie (only for version with 230 V power supply)
- 25** Connection clamps to relay for system actuator
- 26** Contacts for telephone activator (only for version with 230 V power supply)

ELECTRICAL CONNECTIONS FOR TELEPHONE SYSTEM ACTIVATION

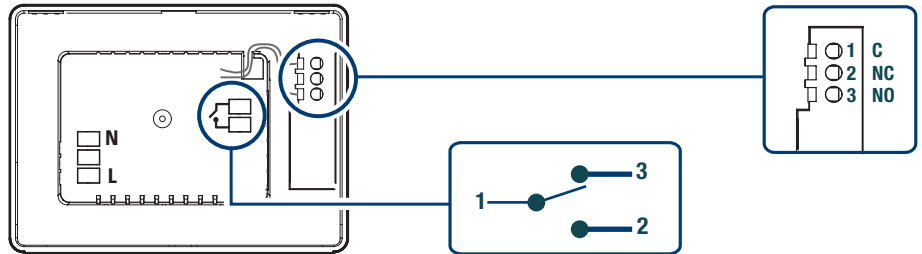
Terminals 1-3: Closed contact upon system switch-on request

Terminals 1-2: Open contact upon system switch-on request

With the chronothermostat in the OFF position, contact 1-2 is closed

In the event of activation via FIV TOUCH of a zone valve:

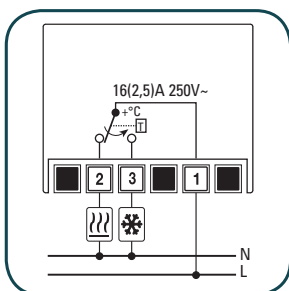
- Terminals 1-3: opening valve
- Terminals 1-2: closing valve



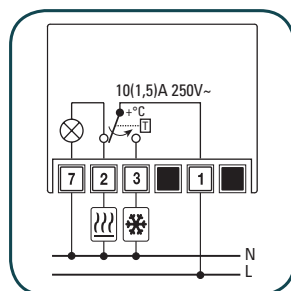
Regolo Evo Mechanical thermostat

WIRING DIAGRAMS REGOLO EVO MECHANICAL THERMOSTAT

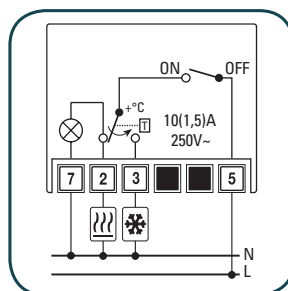
3 contacts



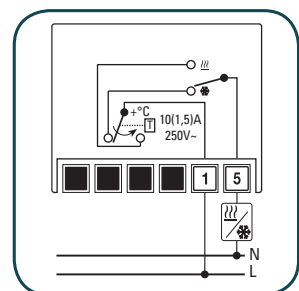
3 contacts with pilot light



3 contacts with pilot light + ON/OFF switch

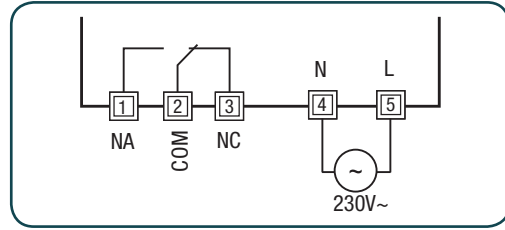


2 contacts with pilot light + SUMMER/WINTER switch



Electronic humidistat

WIRING DIAGRAMS RECESSED ELECTRONIC HUMIDISTAT

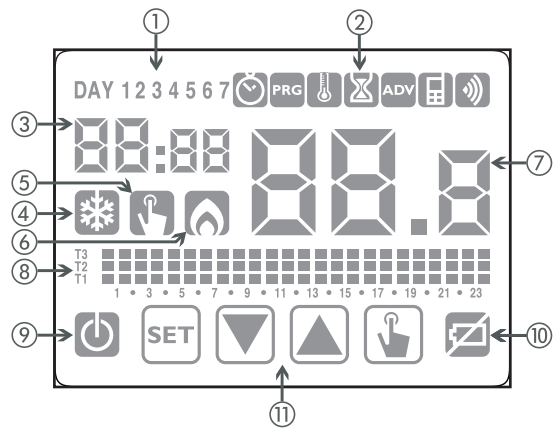


Radio frequency chronothermostat

TOUCH SCREEN CHRONOTHERMOSTAT

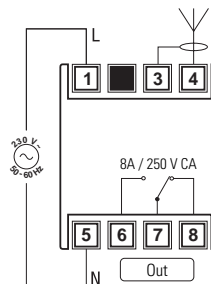
Key

- 1** Day of the week (DAY 1 = Monday)
- 2** Programming menu
- 3** Hour and minutes
- 4** Active load in summer/air conditioning mode
- 5** Manual operation active
- 6** Active load in winter/heating mode
- 7** Measured ambient temperature
- 8** Graph of the active program for the current day (in automatic mode)
- 9** Operation disabled
- 10** Low battery indication
- 11** Keypad (only active if the device is attached to the wall-mounted support)



Radio frequency actuator

WIRING DIAGRAM

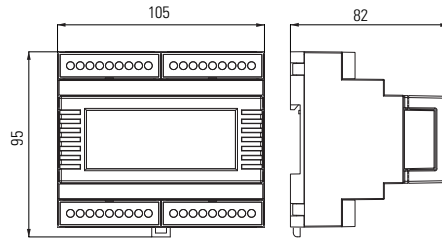


RCE climatic regulator kit

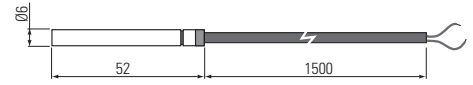
CLIMATIC REGULATOR KIT FOR MIXING UNITS

COMPOSED OF n. 1 RCE Climatic Regulator / n. 2 NTC temperature probes (*)
 n. 1 probe holder kit / n. 1 wall plate for display
 n. 1 male/female connector kit for display extension (4-pole MSTB PCB connectors)

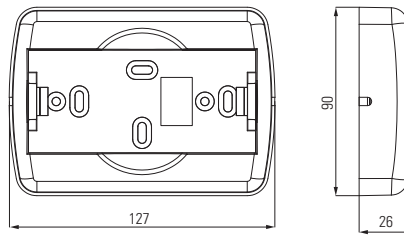
RCE REGULATOR DIMENSIONS



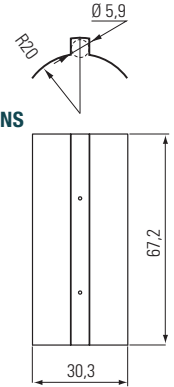
TEMPERATURE PROBES DIMENSIONS



WALL PLATE DIMENSIONS



PROBE HOLDER DIMENSIONS

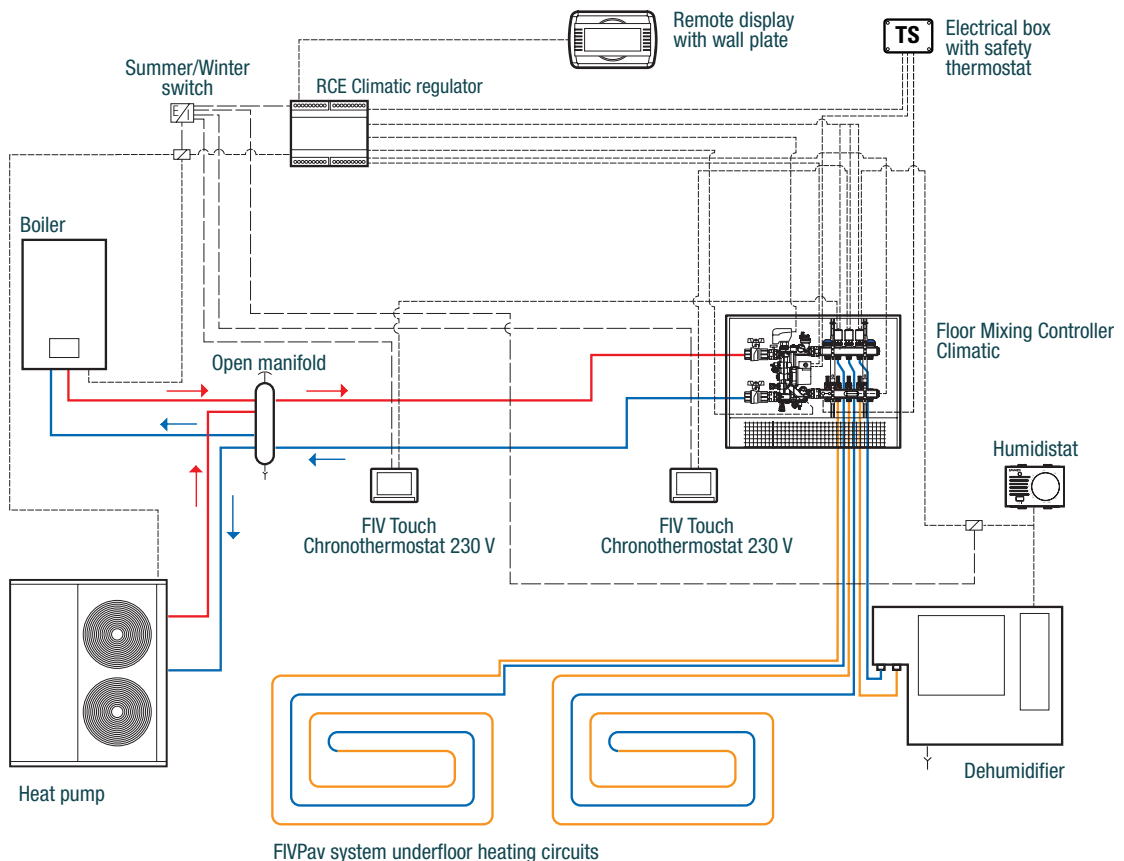


Application diagram

EXAMPLE OF INSTALLATION IN A SINGLE SYSTEM, OPERATING IN HEATING AND COOLING MODE, WITH FIXED POINT REGULATION

Warning!


- The volume of the open manifold/storage is defined in function of the potentiality of the chiller.
- The E/W summer/winter switch diverts the generator consensus in winter towards the boiler and in summer towards the chiller.
- Using the E/W Summer/Winter switch, it is possible to switch the season of all ambient thermostats (if equipped with an input contact for season change, e.g. FIV Touch with 230 Vac power supply).
- By additionally installing the external temperature probe, it is possible to perform a climatic regulation.
- By additionally installing a temperature probe placed on the return manifold, it is possible to perform a modulating regulation.



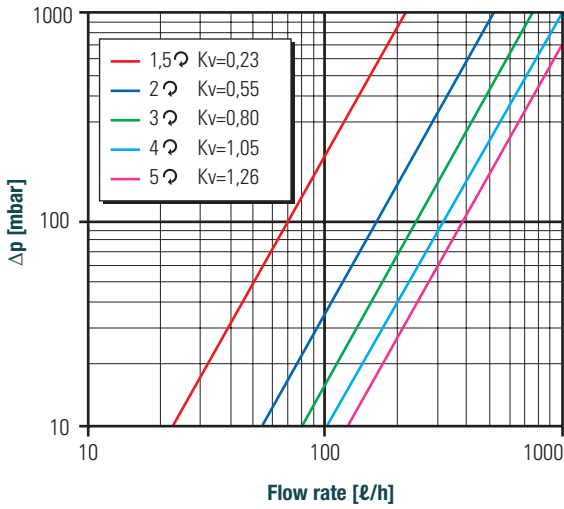
FIVPav system underfloor heating circuits

Oasi manual valve

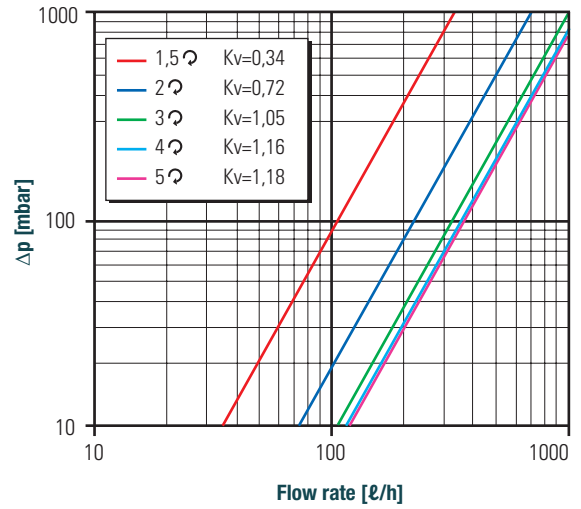
PRESSURE DROPS MANUAL REGULATION VALVE

 = No. of turns for opening adjustment device

3/8" AND 1/2" RIGH-ANGLE VALVE AND LOCKSHIELD



3/8" AND 1/2" STRAIGHT VALVE AND LOCKSHIELD

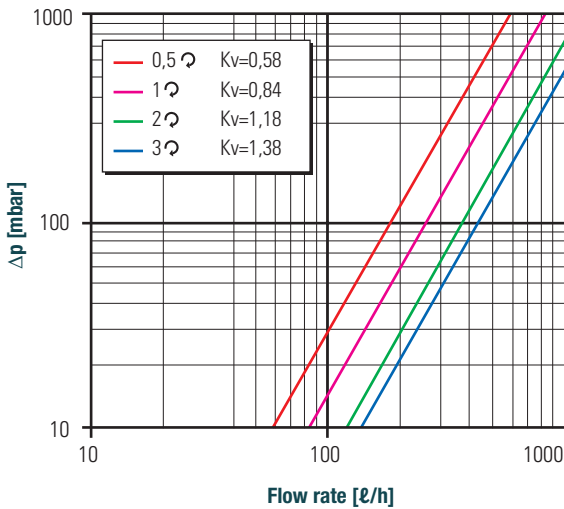


Oasi thermostatzable

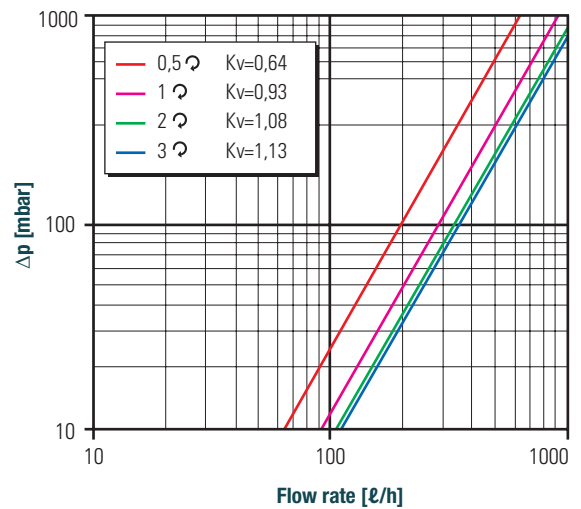
PRESSURE DROPS THERMOSTATIZABLE VALVE

 = No. of turns for opening adjustment device

3/8" AND 1/2" THERMOSTATIZABLE RIGH-ANGLE VALVE



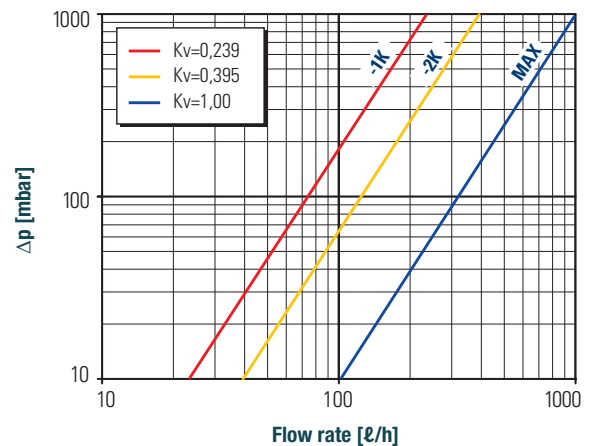
3/8" AND 1/2" THERMOSTATIZABLE STRAIGHT VALVE



Oasi thermostatic

PRESSURE DROPS 3/8" AND 1/2" THERMOSTATIC VALVE WITH THERMOSTATIC HEAD

 = No. of turns for opening adjustment device

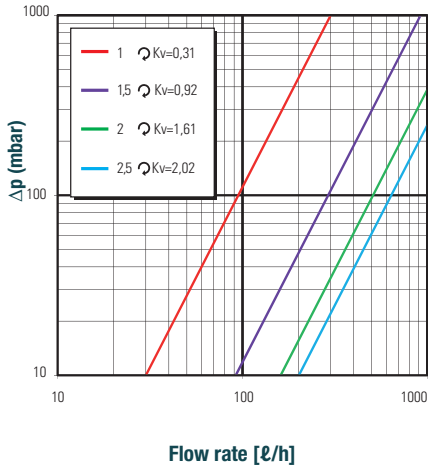


Ghibli manual valve

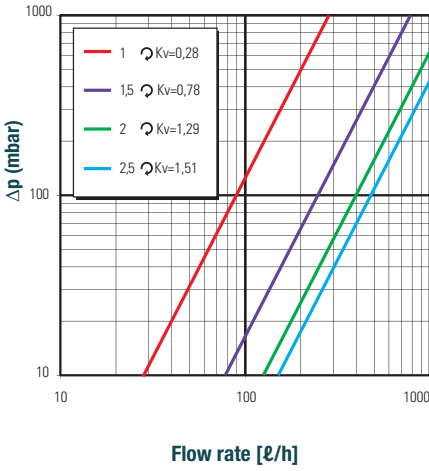
PRESSURE DROPS MANUAL REGULATION VALVE

= No. of turns for opening adjustment device

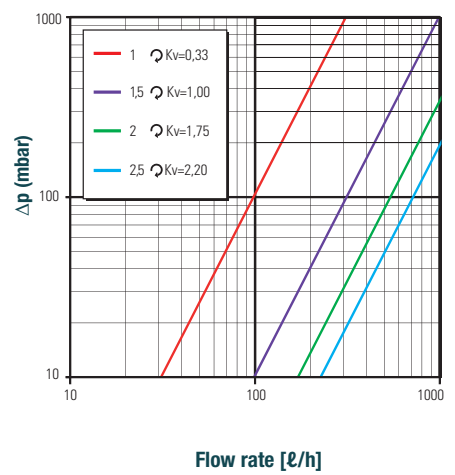
3/8" AND 1/2" RIGHT-ANGLE VALVE AND LOCKSHIELD



1/2" STRAIGHT VALVE AND LOCKSHIELD



3/4" RIGHT-ANGLE VALVE AND LOCKSHIELD

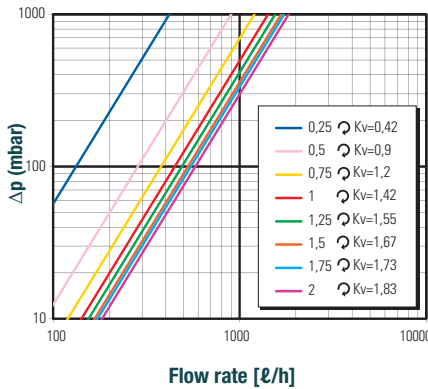


Ghibli thermostatable

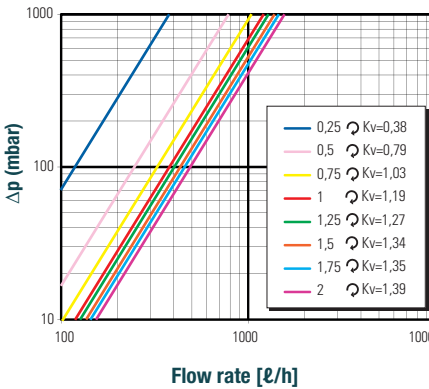
PRESSURE DROPS THERMOSTATIZABLE VALVE

= No. of turns for opening adjustment device

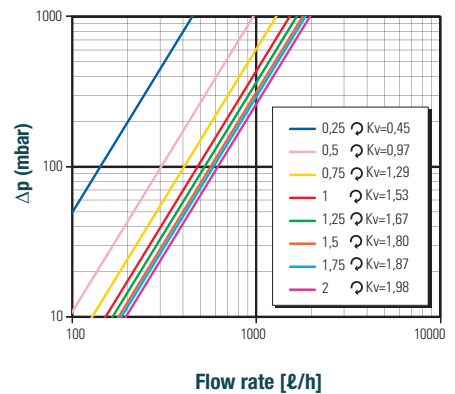
3/8" AND 1/2" THERMOSTATIZABLE RIGHT-ANGLE VALVE



1/2" THERMOSTATIZABLE STRAIGHT VALVE



3/4" THERMOSTATIZABLE RIGHT-ANGLE VALVE

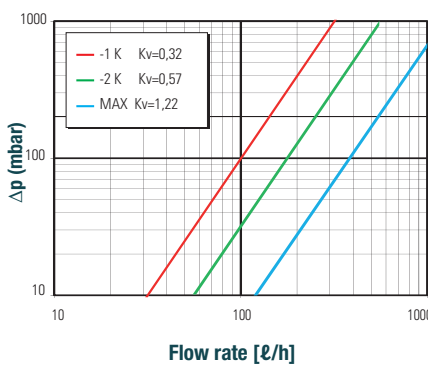


Ghibli Thermostatic

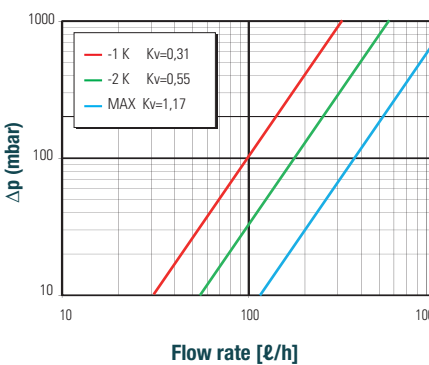
PRESSURE DROPS THERMOSTATIC VALVE WITH THERMOSTATIC HEAD

= No. of turns for opening adjustment device

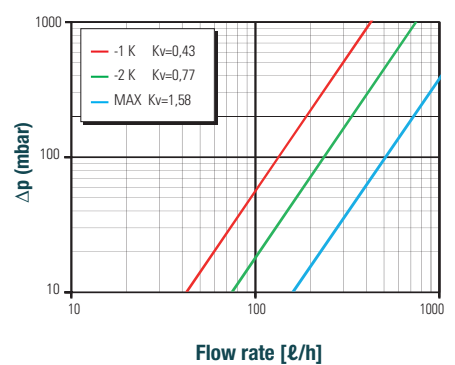
3/8" AND 1/2" THERMOSTATIC RIGHT-ANGLE VALVE



1/2" THERMOSTATIC STRAIGHT VALVE

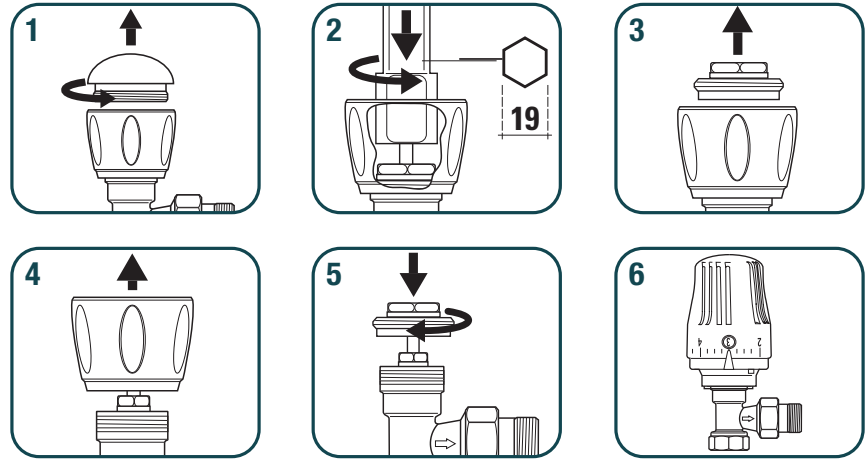


3/4" THERMOSTATIC RIGHT-ANGLE VALVE WITH THERMOSTATIC HEAD



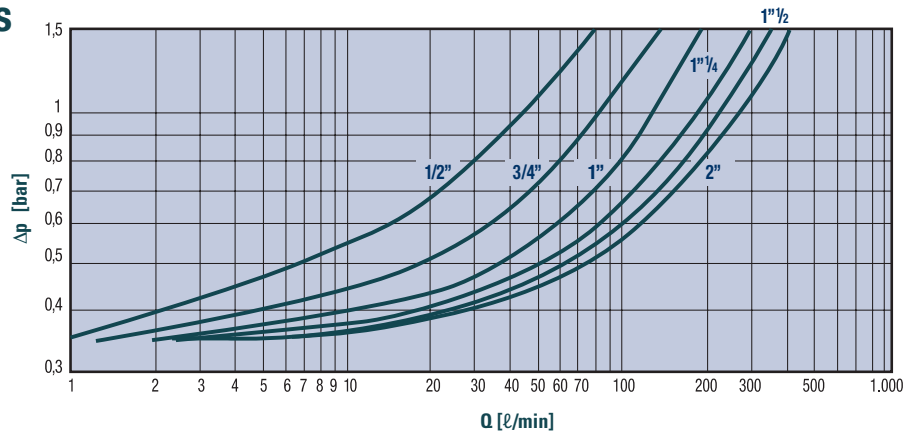
Oasi and Ghibli

TRANSFORMATION OF OASI AND GHIBLI VALVES FROM THERMOSTATIZABLES TO THERMOSTATICS
(3/8" AND 1/2" MODELS ONLY, NOT APPLICABLE TO 3/4" MODELS)

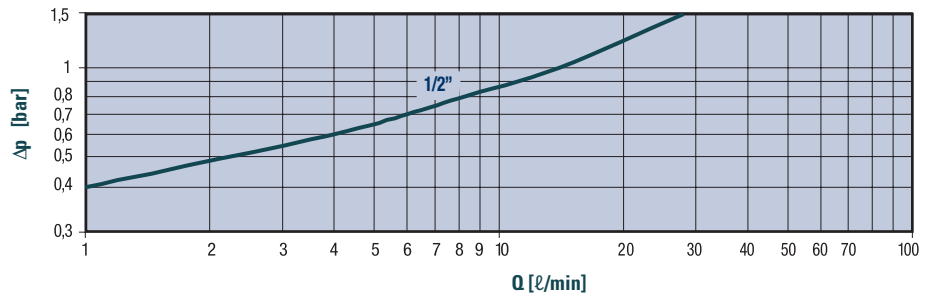


Compensated pressure reducers

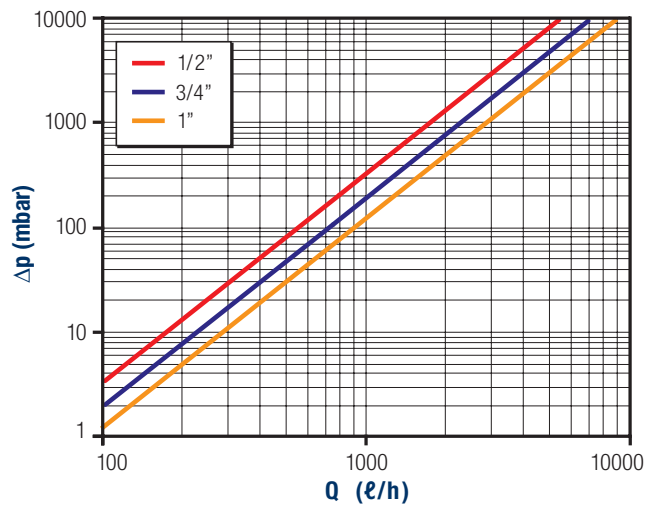
PRESSURE DROPS COMPENSATED PRESSURE REDUCERS



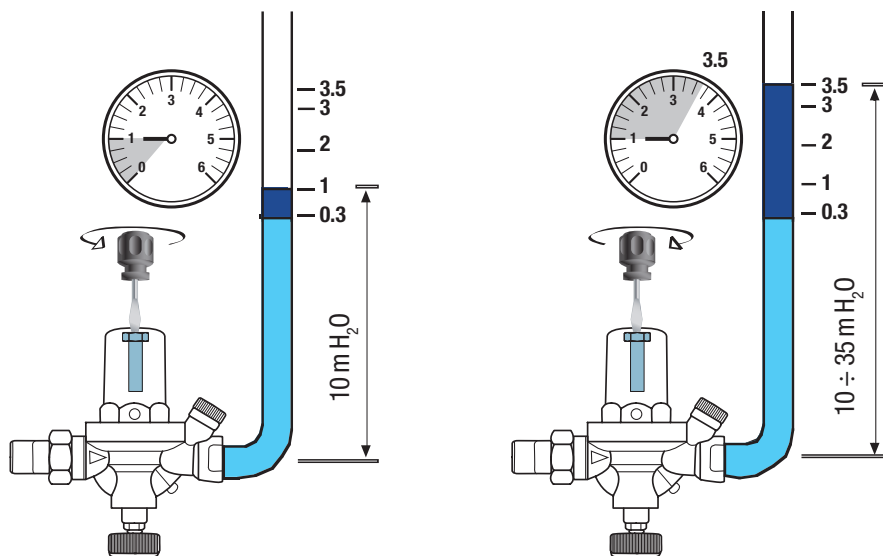
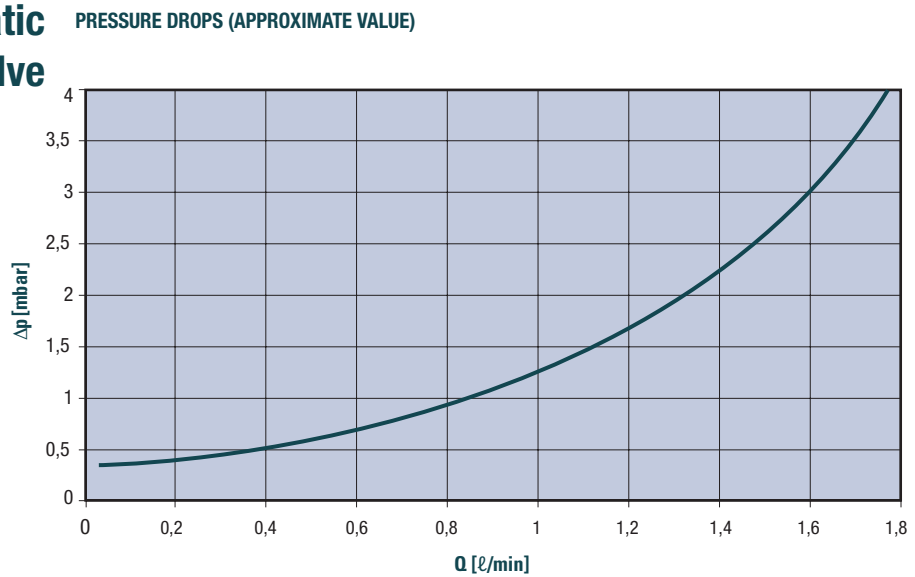
PRESSURE DROPS 1/2" PRESSURE REDUCERS



Export pressure reducer



Automatic filling valve



CALIBRATION

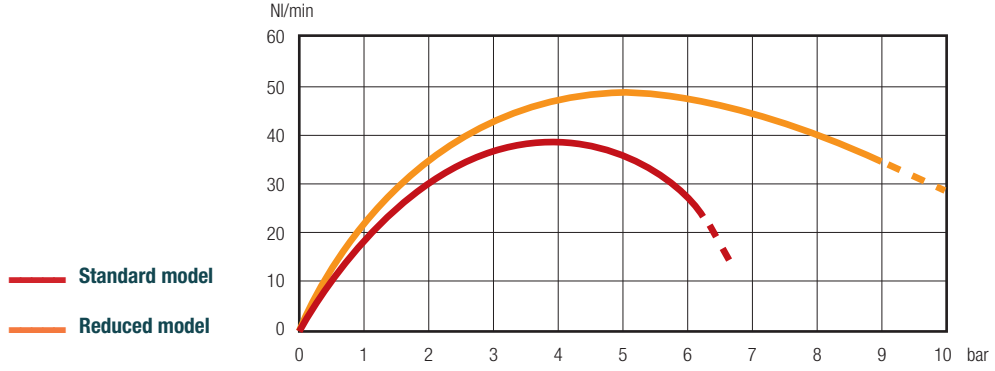
The calibration of the automatic feeder is obtained by turning the screw

- + (clockwise) = increase in pressure
- (anticlockwise) = decrease in pressure

The system pressure value can be checked on the pressure gauge.

Wind and Wind Plus air vent valves

PERFORMANCE DIAGRAM OF AUTOMATIC AIR VENT VALVES



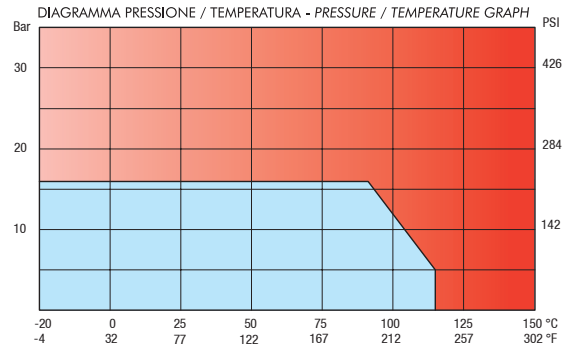
Security safety valves

TECHNICAL CHARACTERISTICS

Size	Ø Mouth (mm)	Transit section area (cm ²)	Calibration pressure (bar)	Nominal discharge pressure (bar)	Closure pressure (bar)	Discharge coefficient K	Discharge capacity (kg/h)	Maximum generator power	
								(kW)	(kcal/h)
1/2"	14	1,54	3,0	3,3	2,4	0,58	180,57	104,7	90287
1/2"	14	1,54	6,0	6,6	4,8	0,58	315,12	182,8	157559

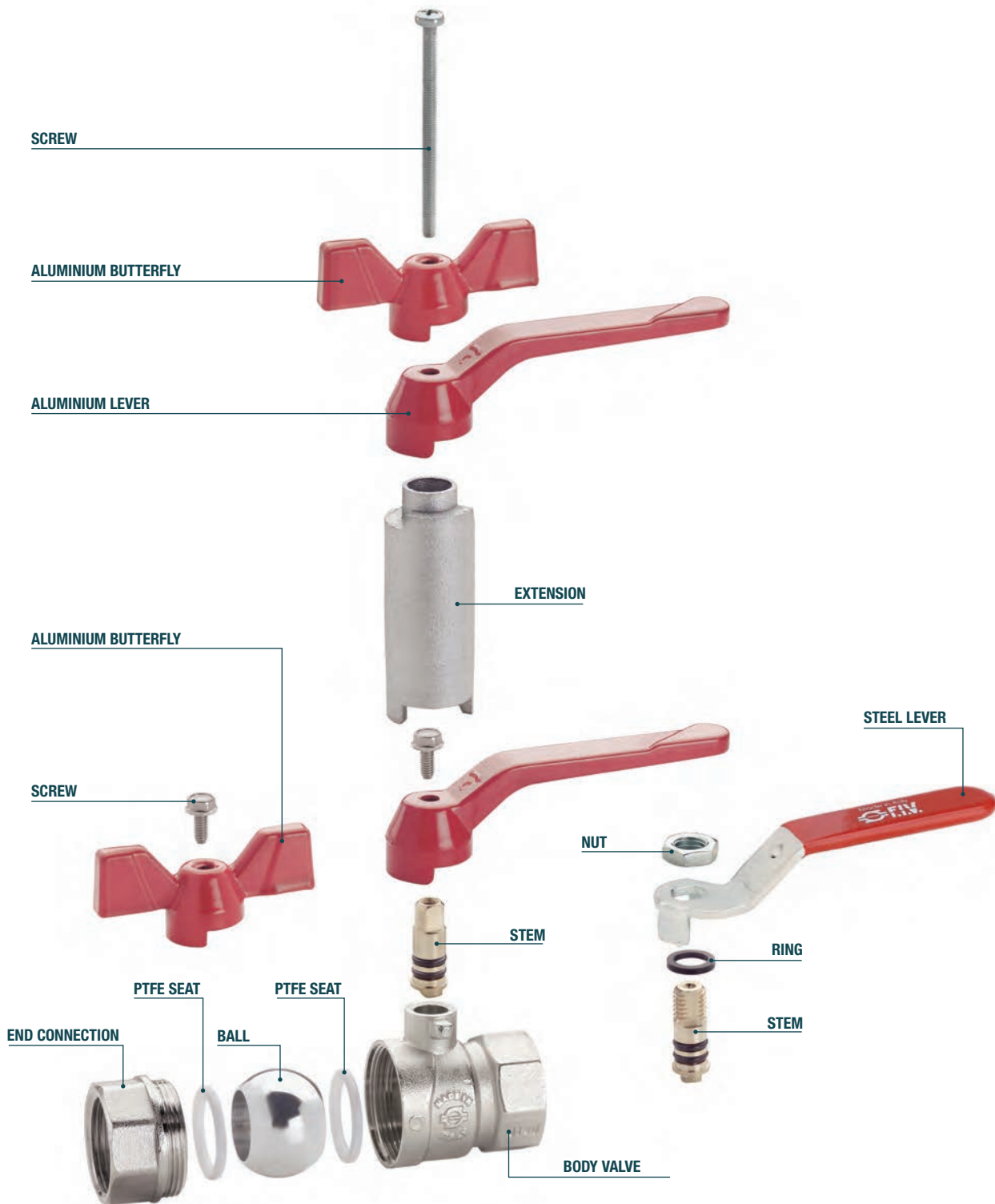
CONNECTIONS

Connections for polyethylene pipe with plastic and brass seal



Ball valves

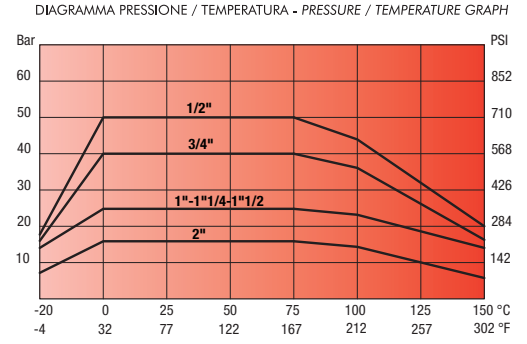
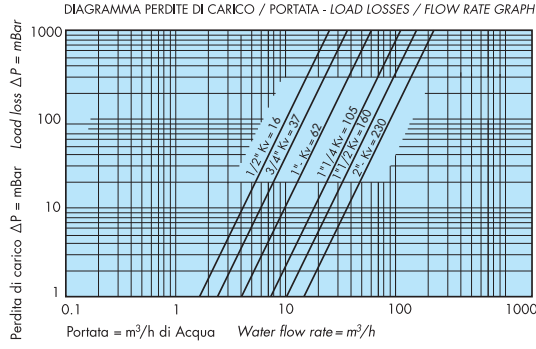
BALL VALVE COMPONENTS EXPLODED VIEW



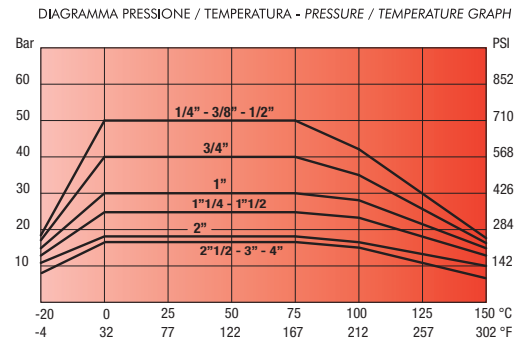
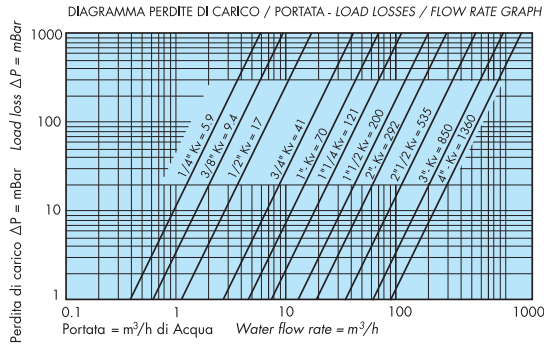
OPEN/CLOSE THE BALL VALVES AND BIBCOCKS AT LEAST ONCE A MONTH IN ORDER TO HAVE A CORRECT AND LONG LASTING FUNCTIONING OF SUCH ITEMS. IN ORDER TO AVOID THE STRAIN OF THE ITEM'S DIMENSIONAL, MECHANICAL AND TECHNICAL FEATURES, IT IS NECESSARY TO USE INSTALLATION WRENCHES OR TOOLS RESPECTING THE ITEMS DIMENSIONS.



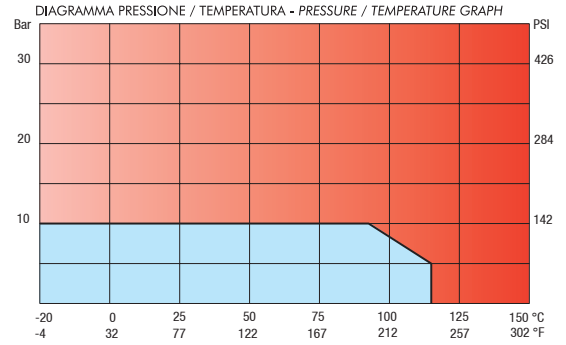
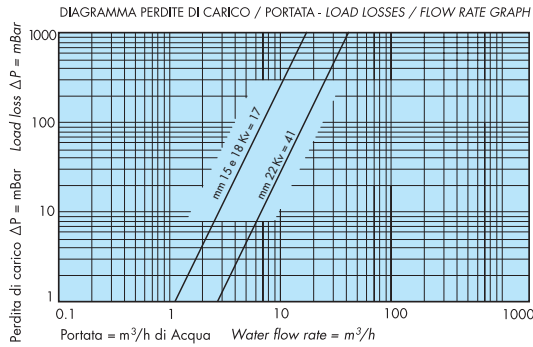
PERFECTA



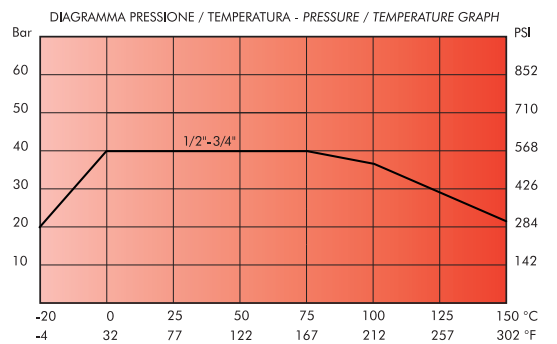
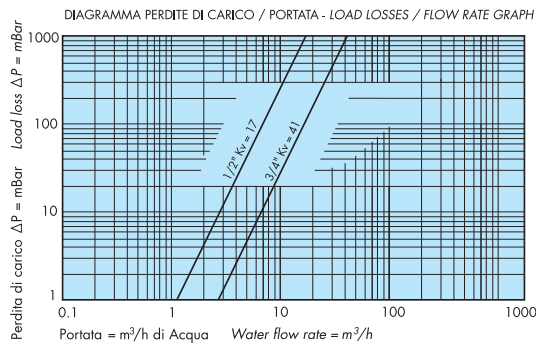
EVOLUTION



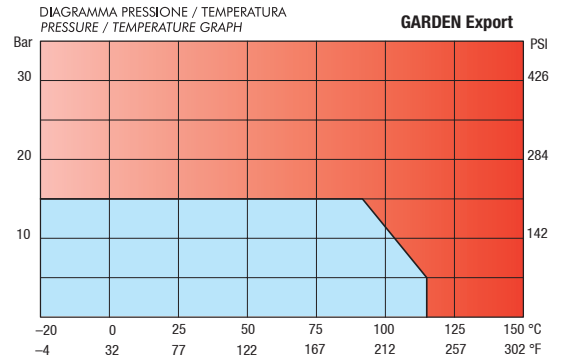
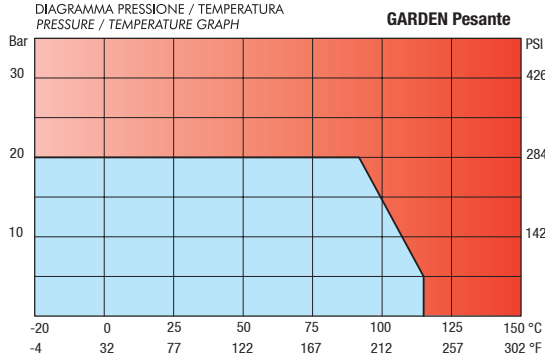
COMPRESSION



INCASSO

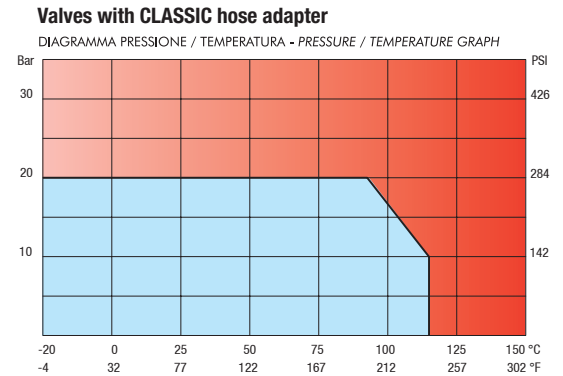
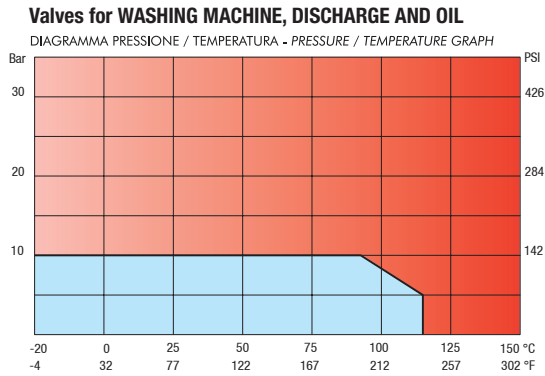


GARDEN

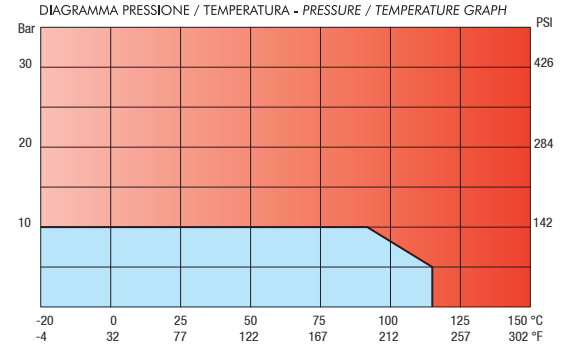
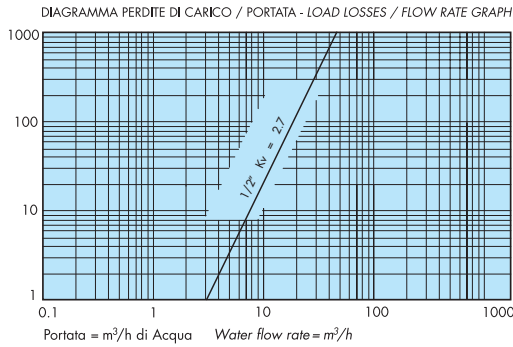


BODY VALVE

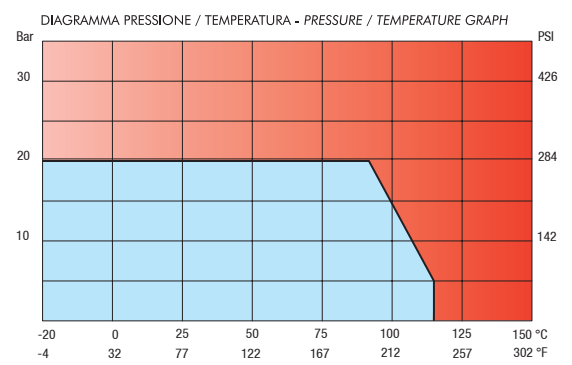
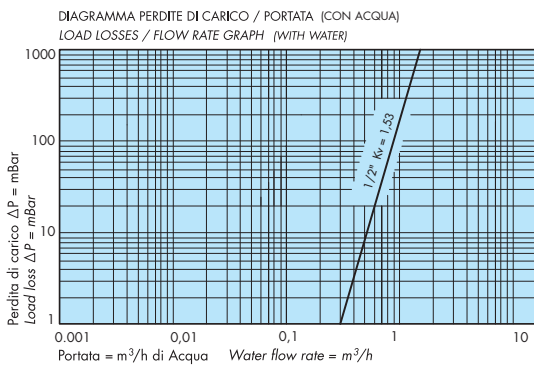
BIBCOCKS



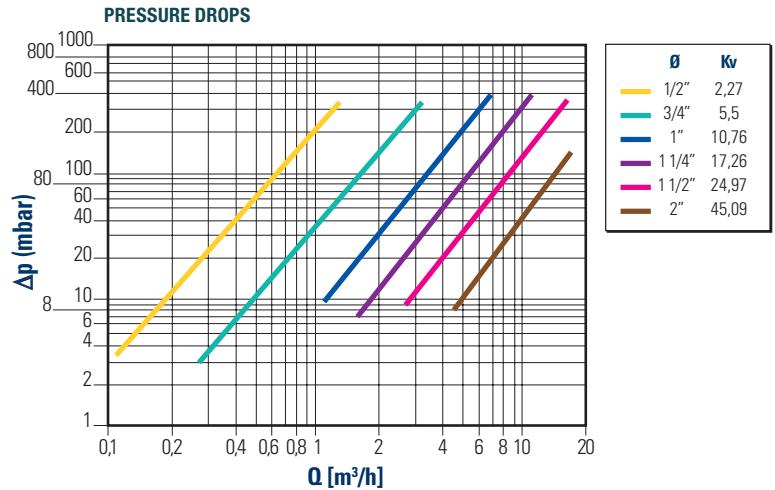
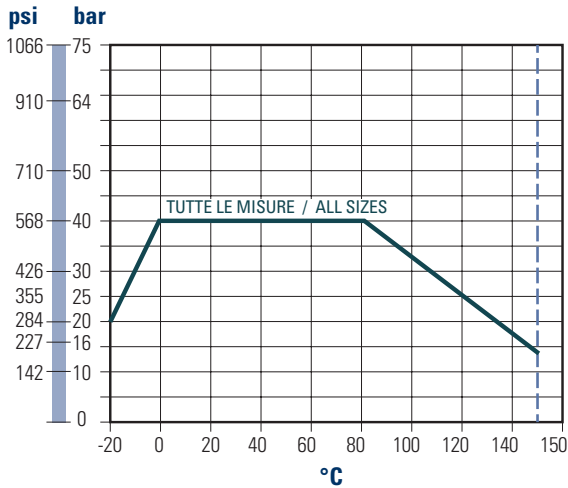
FILTER KING



TWISTER



Three-way ball valve 3-WAY BALL VALVE, REDUCED BORE



Water-Box 2.0 RECESSED BALL VALVE FOR WATER

The instructions given below have been drawn-up to provide the necessary and useful indications for assembly of the products supplied. For installation, inspection and maintenance of the pipes or other equipment connected, refer to the specific instructions of said products.



Fig. A



Fig. E



Fig. B



Fig. F

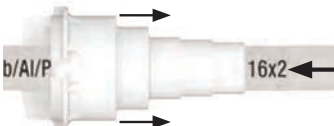


Fig. C



Fig. G



Fig. D

INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLATION

1. Making the slits for box and pipes (Figure A);

Prepare the trace for housing the pipes, considering the clearance of the extensions and a slit for housing the box that can be inspected (horizontal or vertical).

2. Fixing the inspection box;

Insert the box (with or without valve), making sure that the profile of the box is aligned with the finished wall, also considering any thickness for the laying of tiles. To prevent smearing mortar inside the box, perform the masonry operation only after the piping has been connected and the lid and the grout cover cardstock have been applied in the successive passages.

3. Positioning the valve (Figure B);

Fix the ball valve (without knob) blocking the flange on the bottom of the box using the screws provided.

4. Connecting the piping (Figure C);

First of all, engage the extensions in the piping, after having cut them to size depending on the diameter of the pipe. Finally, connect the piping to the valve. In the case of **multi-layer pipe**, use **press fittings** with female swivel nut.

5. Alignment and masonry work of the piping (Figures D/E);

After having checked the plant is sealed and, in particular, the joints made, close the valve, position the lid by fixing it with the screws supplied and apply the grout cover cardstock and then proceed with the masonry work of the piping; ensure the correct alignment to prevent excessive bending stress on the valve and its extensions. The laying of any tiles must leave the entire span of the box lid uncovered.

6. Positioning the door support (Figure F);

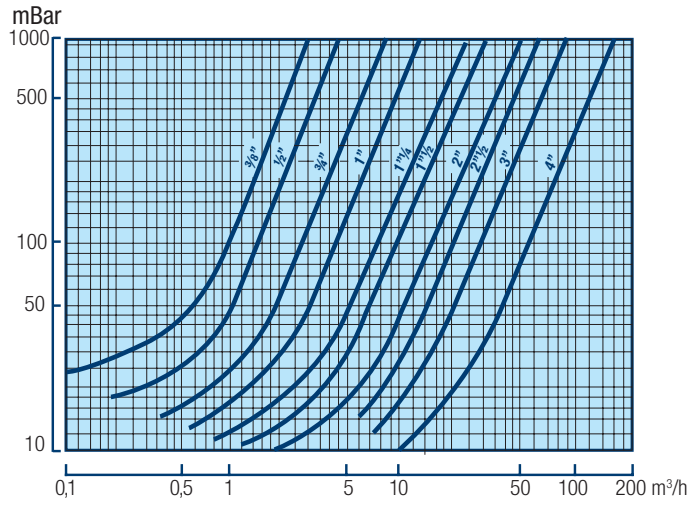
Once the tiles have been applied, the grout cover cardstock can be removed and the door support can be positioned inside the box lid, tightening it with the two long screws supplied. The door support must be screwed until it rests on the tiles. The long screws guarantee a fair stroke to adaptation to different tile thickness and to solve any box installation inaccuracies.

7. Installation of the knob and door (Figure G);

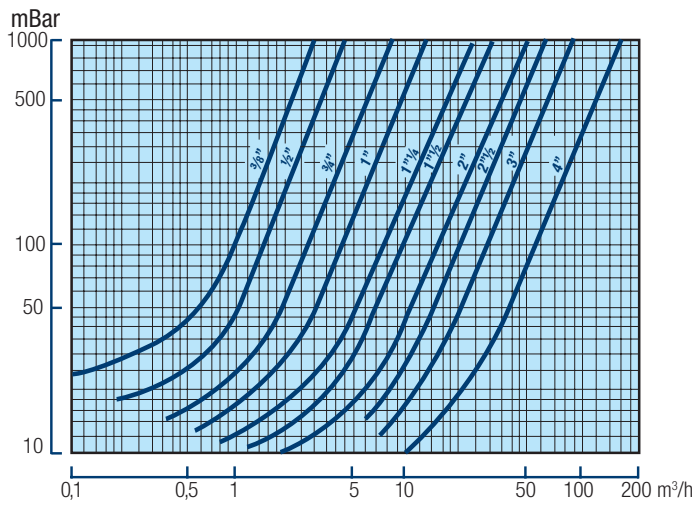
On completion of all previous phases, it will be possible to introduce the blue or red knob into the valve control board by exerting a slight pressure (interlocking attachment). Lastly, install the chrome-plated door by attaching it with hinge pins to the base of the support. Close it by rotating it upwards.

Eura PRESSURE DROPS CHECK VALVE

EURA EXPORT PRESSURE DROPS (APPROXIMATE VALUES)



EURA PESANTE PRESSURE DROPS (APPROXIMATE VALUES)



Futurgas BALL VALVES FOR GAS WITH SAFETY LOCK

These valves, normally used on the meter, are equipped with a safety lock and keys for exclusive use by the user, as set forth in Paragraph 4.1 of the UNI 7129/2008 standard, in addition to a key (purchasable separately) for use by the manager/administrator.

In case of emergency, the gas flow can be shut off without using the key, guaranteeing locking during closure. Moreover, the manager/administrator's key can be used to prevent any action by the user.

INSTRUCTIONS FOR USE OF BALL VALVES FOR GAS

Position 1 - (no key inserted) - (Fig. A)

- When no key is inserted in the lock, the valve may ONLY be closed (OFF) and will be automatically locked in the OFF position.
- To open the valve with the **USER** key, turn it clockwise by 90° to position 2 or use the **MASTER** key turning it anticlockwise by 90° to position 2.

Position 2 - (opening) - (Fig. B)

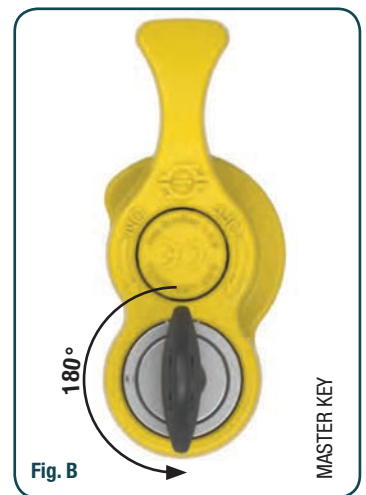
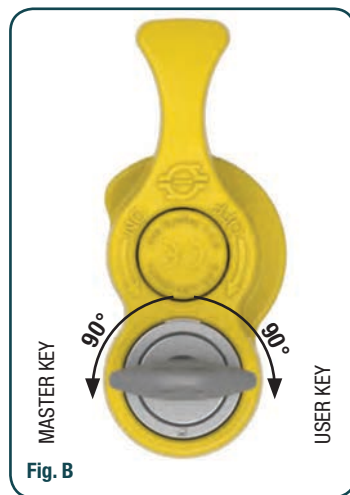
- With the **USER** key rotated clockwise by 90° or the **MASTER** key rotated anticlockwise by 90°, the valve can be opened and closed (ON-OFF) without locking.
- The key CANNOT be extracted.

Position 3 - (closing) - (Fig. C)

- With the **USER** key inserted in this position, the valve may ONLY be closed (OFF) and it will be automatically blocked.
- The key can be extracted, or turned 90° clockwise again to position 2 to re-open the valve (ON).

Position 4 - (master key) - (Fig. D)

- The **MASTER** key has the same functions as the **USER** key for opening and closing the valve.
- With the valve in the closed position (OFF), by turning the **MASTER** key anticlockwise by 180°, it is possible to remove all functionality from the **USER** keys, definitively locking the valve.



Recessed box FOR VALVE WITH FIRST GAS INLET MANIFOLD

DIAMETERS OF HOSE EXTENSION

For DN16 hose:

Ø19 external (sheath), Ø16,5 hose passage

For DN18 hose:

Ø21 external (sheath), Ø18,5 hose passage

For DN20 hose:

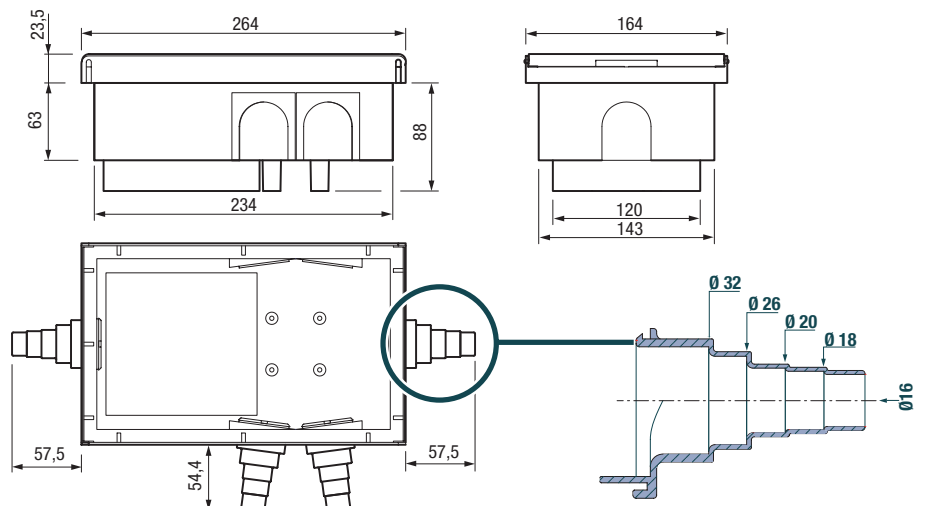
Ø23 external (sheath), Ø20,5 hose passage

For DN26 hose:

Ø30,9 external (sheath), Ø28 hose passage

For DN32 hose:

Ø39 external (sheath), Ø34 hose passage



Gas-Box 2.0

RECESSED BALL VALVE FOR GAS WITH BOX COMPLIANT WITH UNI CIG 7129-92 AND UNI EN 331 STANDARDS

The instructions given below have been drawn-up to provide the necessary and useful indications for assembly of the products supplied. For installation, inspection and maintenance of the pipes or other equipment connected, refer to the specific instructions of said products, compliant with the UNI CIG 7129 standard or other applicable regulations.



Fig. A

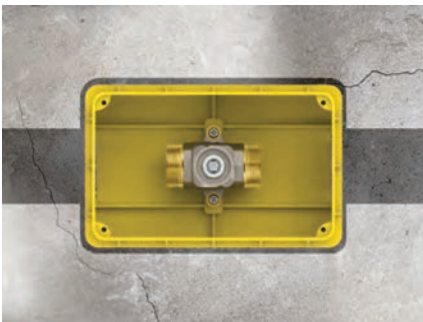


Fig. B

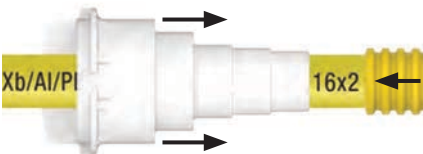


Fig. C

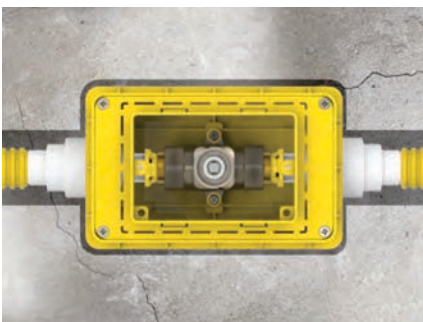


Fig. D

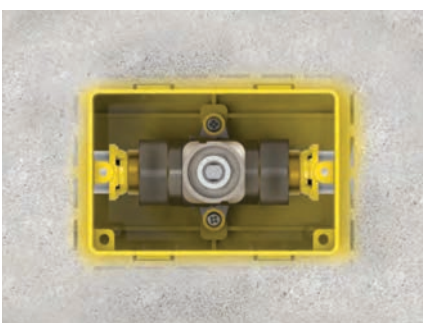


Fig. E

INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLATION

1. Making the slits for box and pipes (Figure A);

Prepare the trace for housing the pipes, considering the clearance of the extensions and a slit for housing the box that can be inspected (horizontal or vertical). For the correct pathway and depth of the pipes and the box, refer to the UNI CIG 7129 standard or other applicable regulations.

2. Fixing the inspection box;

Insert the box (with or without valve), making sure that the profile of the box is aligned with the finished wall, also considering any thickness for the laying of tiles. To prevent smearing mortar inside the box, perform the masonry operation only after the piping has been connected and the lid and the grout cover cardstock have been applied in the successive passages.

3. Positioning the valve (Figure B);

Fix the ball valve (without knob) blocking the flange on the bottom of the box using the screws provided.

4. Connecting the piping (Figure C);

First of all, engage the extensions in the piping, after having cut them to size depending on the diameter of the pipe (the extension must not adhere to the pipe; a minimum passage must be guaranteed) and seal the corrugated sheath of the pipe to the same.

In this way, any leaks along the piping will be conveyed by the protective sheath up to the box containing the valve.

Finally, connect the piping to the valve using **Weld or Press connections** as indicated.

In the case of **multi-layer pipe**, use **press fittings** with female swivel nut.

5. Alignment and masonry work of the piping (Figures D/E);

After having checked the plant is sealed and, in particular, the joints made, close the valve, position the lid by fixing it with the screws supplied and apply the grout cover cardstock and then proceed with the masonry work of the piping; ensure the correct alignment to prevent excessive bending stress on the valve and its extensions.

The laying of any tiles must leave the entire span of the box lid uncovered.

6. Positioning the door support (Figure F);

Once the tiles have been applied, the grout cover cardstock can be removed and the door support can be positioned inside the box lid, tightening it with the two long screws supplied.

The door support must be screwed until it rests on the tiles. The long screws guarantee a fair stroke to adaptation to different tile thickness and to solve any box installation inaccuracies.

7. Installation of the knob and door (Figure G);

On completion of all previous phases, it will be possible to introduce the yellow knob into the valve control board by exerting a slight pressure (interlocking attachment).

Lastly, install the chrome-plated door by attaching it with hinge pins to the base of the support. Close it by rotating it upwards.



Fig. F



Fig. G

Instructions and warnings for installation with solder connections for copper pipes

INSTRUCTIONS AND WARNINGS FOR INSTALLATION WITH SOLDER CONNECTIONS FOR COPPER PIPES

- Weld the tangs equipped with swivel nut at the ends of the pipes;
- Ensure that the seal surfaces are free from dents and/or scratches that can prevent a safe joint seal over the years;
- We recommend welding the pipes to the tangs before inserting the valve inside the box, otherwise, ensure the telescopic joint and valve do not overheat jeopardising the seal;
- Use the provided joints to seal the valve and tangs;
- Screw the nuts to the valve.

Instructions and warnings for installation with press fittings for multilayer pipes

INSTRUCTIONS AND WARNINGS FOR INSTALLATION WITH PRESS FITTINGS FOR MULTILAYER PIPES

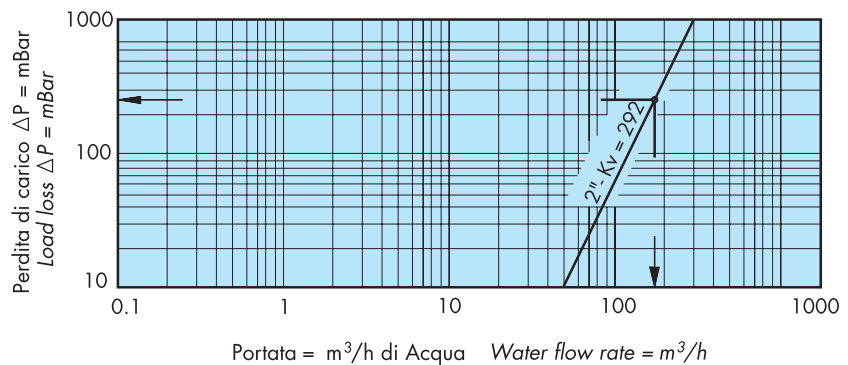
- Calibrate and flare the pipe using the specific tool, after having cut it.
- Fit the protective sheath on the pipe, if provided.
- Fit the extension cable on the pipe, after having cut it for the required measure, depending on the pipe diameter.
- Assemble the fitting (straight female with 3/4" swivel nut with flat seal and metal gasket or 3/4" Eurocone), verify the correct assembly with the under plaster valve, then proceed with pressing and final assembly.
- Engage the extension cables inside the in-built box housings, sealing the junction with a suitable seal material.
- Make any protective sheath slide along the pipe, until fitting the extension cable, sealing the junction with suitable seal material.

Example of calculation diagrams

PRESSURE DROPS / FLOW RATE DIAGRAMS

How to read the graph

The Kv value is the flow rate index in m³/h, water at 15,5 °C, which determines a pressure drop of 1 bar: the higher the value, the lower the load losses.



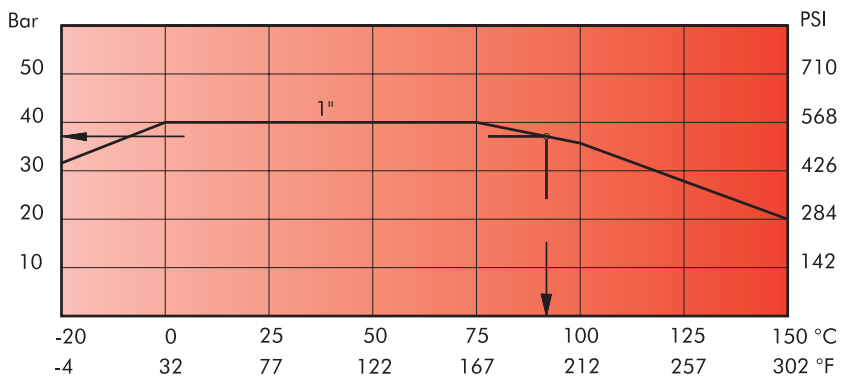
Example

To establish the pressure drop of the 2" valve, at a flow rate of 180 m³/h, work as follows: from the capacity reading on the X axis draw a straight vertical line until it meets the oblique line, and from that point of intersection draw a horizontal line until it meets the Y axis. The point on the Y axis will give a value of 270 mBar corresponding to the pressure drop.

PRESSURE / TEMPERATURE DIAGRAMS

How to read the graph

The values expressed by the curves represent the maximum operating limit of the valves. Such values have been obtained by the slow variation of the trial parameters, and therefore they are only indicative: the type of liquid, the sudden rise or fall in pressure and temperature or the frequency in the manoeuvre have a significant influence on the life-span of the valve. Above 125 °C and close to the top values in the curve, the life-span of the valves is markedly reduced.



Example

To establish the maximum pressure to which the 1" valve can resist, at a temperature of 90 °C, work as follows: from the temperature reading on the X axis draw a straight vertical line until it meets the curve, and from that point draw a horizontal line until it meets the Y axis. The point on the Y axis will give a value of 37 Bar.

Table of chemical resistance

KEY					
	BRASS	P.T.F.E.	N.B.R.	INOX 316	NYLON
E Excellent					
B Good					
M Poor					
S Not recommended					
- Not tested					
ACETALDEHYDE	-	E	S	F	B
ACETIC ACID	S	E	B	F	S
ACETIC ANHYDRIDE	M	E	B	B	-
ACETONE	B	E	B	E	B
ACETYLENE	M	E	-	E	-
ACID	B	E	E	M	-
ALCOHOL AMYL	E	E	E	E	B
ALCOHOL BUTYL	E	E	E	E	B
ALUMINA	B	E	E	B	S
ALUMINIUM CHLORIDE	S	E	E	M	E
ALUMINIUM SULPHATE	M	E	E	B	E
ALUMINUM FLUORIDE	-	E	E	M	-
AMINES	-	E	B	E	-
AMMONIA ACQUEOUS	S	E	B	E	M
AMMONIA ANHYDROUS	E	E	B	E	B
AMMONIUM BICARBONATE	-	E	E	B	-
AMMONIUM CARBONATE	-	E	E	B	B
AMMONIUM CHLORIDE	S	E	E	B	-
AMMONIUM HYDROXIDE	S	E	E	E	-
AMMONIUM MONOSPHOSPHATE	-	E	E	E	-
AMMONIUM NITRATE	S	E	E	B	-
AMMONIUM PHOSPHATE	-	E	E	B	-
AMMONIUM PHOSPHATE DIBASIC	-	E	E	E	-
AMMONIUM PHOSPHATE TRIBASIC	-	E	E	E	-
AMMONIUM SULPHATE	S	E	E	B	-
AMYL ACETATE	B	E	M	B	B
ANILINE CONCENTRATED	M	E	-	B	B
ARSENIC ACID	-	E	E	B	-
ASPHALT (LIQUID)	E	E	S	E	-
BARIUM CARBONATE	E	E	E	B	-
BARIUM CHLORIDE	S	E	E	B	E
BARIUM HYDROXIDE	B	E	E	B	-
BARIUM SULPHATE	E	E	E	B	E
BARIUM SULPHIDE	B	E	E	-	B
BEER	B	E	E	E	-
BENZENE	E	E	E	B	E
BENZOIC ACID	B	E	-	B	M
BORAX	E	E	E	E	-
BORIC ACID	B	E	E	B	B
BRINE	B	E	E	B	-
BROMIC ACID	S	E	E	S	-
BROMINE (DRY)	E	E	S	S	-
BROMINE (WET)	S	E	S	S	-
BUTADIENE	-	E	E	E	-
BUTANE	E	E	E	B	-
BUTYLENE	-	E	E	E	-
BUTYRIC ACID	M	E	E	B	B
CALCIUM BISULPHATE	B	E	E	B	-
CALCIUM CARBONATE	E	E	E	B	-
CALCIUM CHLORIDE	S	E	E	M	-
CALCIUM HYDROXIDE	B	E	E	B	-
CALCIUM HYPOCHLORITE	S	E	E	M	S
CALCIUM SULPHATE	E	E	E	B	-
CARBOLIC ACID	B	E	E	B	-
CARBON DISULPHIDE	B	E	S	B	-

Remarks

Data reported in the tables are not binding. Various factor such as working conditions, fluid concentration, pressure, temperature and possible dynamic shock have to be considered for the practical suitability of materials. Data reported have been obtained from materials manufacturer tables.

KEY					
	BRASS	P.T.F.E.	N.B.R.	INOX 316	NYLON
E Excellent					
B Good					
M Poor					
S Not recommended					
- Not tested					
CARBON SULPHIDE	E	E	S	B	E
CARBON TETRACHLORIDE WET	M	E	S	M	F
CARBONATED WATER	M	E	E	E	B
CASTOR OIL	M	E	E	E	E
CAUSTIC SODA	M	E	E	B	B
CHLORENE ANHYDROUS	S	E	E	M	-
CHLOROBENZENE DRY	-	E	M	E	-
CHLOROFORM DRY	E	E	S	E	S
CITRIC ACID	M	E	E	B	B
COAL TAR	B	E	M	E	-
COCONUT OIL	-	E	E	B	E
COPPER CHLORIDE	S	E	E	B	S
COPPER NITRATE	M	E	E	E	-
COPPER SULPHATE	S	E	E	B	E
COTTONSEED OIL	E	E	E	B	E
CREOSOTE OIL	E	E	S	B	E
CRESUILIC ACID	B	E	-	E	-
CROMIC ACID	S	E	E	S	B
CROMIC ANHYDRIDE	S	E	E	S	-
DICHLOROETHAN	-	E	M	B	-
DISTILLED WATER	E	E	E	E	E
ETHILENE OXIDE	E	E	S	B	-
ETHYL ACETATE	E	E	-	B	B
ETHYL ALCOHOL	E	E	E	B	B
ETHYL CHLORID	B	E	E	E	B
ETHYLENE GLYCOL	B	E	B	E	E
FERRIC CHLORID	S	E	E	S	-
FERRIC SULPHATE	S	E	E	E	-
FERROUS CHLORIDE	S	E	E	S	-
FERROUS SULPHATE	S	E	E	B	-
FISH OIL	-	E	E	E	E
FLAX OIL	B	E	E	B	E
FLOUROSILIC ACID	S	E	E	S	-
FORMALDEHYDE	M	E	E	M	-
FORMIC ACID	S	E	E	M	S
FREON 11-12-21-22-TE	E	E	B	E	E
FRUIT JUICES	S	E	E	E	-
FUEL OIL	E	E	E	E	-
FURFURAL	E	E	S	B	-
GALLIC ACID	-	E	E	B	-
GASOLINE	E	E	E	E	E
GELATINE	B	E	E	E	-
GLUCOSE	E	E	E	B	-
GLYCERINE	E	E	E	E	B
GROUND WATER	B	E	E	E	E
HYDROBROMIC ACID	S	E	E	S	M
HYDROCARBONS	E	E	E	E	E
HYDROCHLORIC DRY ACID	S	E	E	B	S
HYDROCIANIC ACID	S	E	E	B	-
HYDROFLUORIC ACID	S	E	B	S	S
HYDROGEN DRY SULPHIDE	E	E	-	-	S
HYDROGEN PEROXIDE	M	E	E	E	S
HYDROGEN WET SULPHIDE	M	E	-	-	S
HYPOCHLORITE SODIUM	S	E	E	M	S
HYPOSULPHITE SODIUM	M	E	E	B	-

Table of chemical resistance

KEY					
	BRASS	P.T.F.E.	N.B.R.	INOX 316	NYLON
E Excellent					
B Good					
M Poor					
S Not recommended					
- Not tested					
IODOFORM	-	E	-	E	-
IPOCLORATO SODIUM	M	E	M	M	-
ISO-OCTANE	-	E	E	E	-
ISOPROPILIC ALCOHOL	-	E	E	B	B
LACTIC ACID	M	E	E	E	-
LEAD ACETATE	-	E	E	B	B
MAGNESIUM CHLORIDE	S	E	E	B	E
MAGNESIUM HYDROXIDE	B	E	E	E	-
MAGNESIUM OXIDE	-	E	E	B	-
MAGNESIUM SULPHATE	M	E	E	B	-
MALEIC ACID	-	E	E	B	-
MALIC ACID	-	E	E	B	-
MERCURY	S	E	E	M	E
MERCURY SALTS	S	E	E	S	-
METHANE	E	E	E	B	E
METHIL ACETATE	-	E	S	E	B
METHIL ALCOHOL	E	E	E	B	B
METHIL CHLORIDE	B	E	M	B	M
METHIL FORMATE	-	E	M	B	-
MILK	B	E	E	E	E
MINERAL OIL	E	E	E	E	E
MINERAL WATER	B	E	E	B	E
MOLASSES	B	E	E	E	-
NAPHTA	B	E	E	B	E
NAPHTALENE	-	E	-	B	E
NATURAL GAS	E	E	E	E	E
NICKEL CHLORIDE	M	E	E	B	-
NICKEL NITRATE	-	E	E	B	-
NICKEL SULPHATE	M	E	E	B	-
NITRIC ACID CONCENTRATED	S	E	S	B	S
NITRIC ACID FROM 0 TO 50%	S	E	B	E	S
NITRIC ACID FROM 50 TO 80%	S	E	S	B	S
NITROBENZENE	-	E	S	B	B
NITROGEN	E	E	E	E	-
OLEIC ACID	M	E	B	B	B
OLEUM	-	E	S	B	S
OXALIC ACID	M	E	E	B	-
OXIGEN	E	E	E	E	E
PAINT	E	E	E	E	-
PAINT SOLVENTS	E	E	M	E	-
PALMITIC ACID	M	E	B	B	-
PARAFFIN	E	E	E	E	-
PARAFORMALDEHYDE	-	E	B	B	-
PENTANE	-	E	E	E	-
PHENOL	-	E	B	B	B
PHOSPHORIC ACID	S	E	B	S	S
PHTALIC ACID	-	E	M	B	B
PICRIC ACID	M	E	B	B	-
PINE OIL	-	E	E	E	E
POTASSIUM BROMIDE	-	E	E	B	-
POTASSIUM CARBONATE	M	E	E	B	E
POTASSIUM CHLORATE	-	E	E	B	-
POTASSIUM CHLORIDE	M	E	E	B	E
POTASSIUM CYANIDE	S	E	E	B	-
POTASSIUM DICHROMATE	S	E	-	B	B

Remarks

Data reported in the tables are not binding. Various factor such as working conditions, fluid concentration, pressure, temperature and possible dynamic shock have to be considered for the practical suitability of materials. Data reported have been obtained from materials manufacturer tables.

KEY					
	BRASS	P.T.F.E.	N.B.R.	INOX 316	NYLON
E Excellent					
B Good					
M Poor					
S Not recommended					
- Not tested					
POTASSIUM DIPHOSPHATE	-	E	E	E	-
POTASSIUM DISULPHITE	-	E	E	B	-
POTASSIUM HYDROXIDE	M	E	E	E	-
POTASSIUM IODIDE	-	E	E	B	-
POTASSIUM SULPHATE	B	E	E	B	-
PROPANE	E	E	E	B	-
PYROGALLIC ACID	-	E	-	B	-
SALICILIC ACID	-	E	E	B	-
SEA WATER	M	E	E	B	E
SILVER NITRATE	S	E	E	B	E
SOAPS	B	E	E	B	E
SODIUM ACETATE	-	E	B	B	B
SODIUM BICARBONATE	M	E	E	B	B
SODIUM BISULPHITE	B	E	E	E	-
SODIUM BORATE	-	E	E	B	-
SODIUM CARBONATE	M	E	E	B	E
SODIUM CHLORIDE	M	E	E	B	E
SODIUM CYANIDE	S	E	E	B	-
SODIUM DIPHOSPHATE	S	E	E	B	-
SODIUM FLUORIDE	-	E	-	B	-
SODIUM HYDRATE	B	E	E	E	-
SODIUM HYDROXIDE	M	E	E	E	-
SODIUM METALSILICATE	-	E	E	E	-
SODIUM NITRATE	M	E	E	B	E
SODIUM PERBORATE	-	E	E	B	-
SODIUM PHOSPHATE	M	E	E	B	-
SODIUM PHOSPHATE DIBASIC	B	E	E	B	-
SODIUM SILICATE	B	E	E	B	-
SODIUM SULFITE	B	E	E	B	-
SODIUM SULPHATE	B	E	E	B	E
SODIUM SULPHIDE	B	E	E	B	-
SODIUM TIOSULPHATE	M	E	E	E	-
SOYBEAN OIL	-	E	E	E	E
STEAM	M	E	-	E	-
STEARIC ACID	M	E	E	E	-
STYRENE	-	E	B	E	-
SULPHUR	S	E	S	B	E
SULPHUR ANHYDRIDE DRY	E	E	E	B	M
SULPHUR ANHYDRIDE WET	S	E	E	M	S
SULPHUR TRIOXIDE SAND BANK	E	E	E	E	-
SULPHURIC ACID CONCENTRATED	-	E	S	M	S
SULPHURIC ACID FROM 0 TO 10%	M	E	B	M	S
SULPHURIC ACID FROM 10 TO 90%	S	E	S	M	S
SULPHUROUS ACID	M	E	B	B	S
TANNIC ACID	B	E	E	B	-
TARTARIC ACID	M	E	E	E	B
TOLUENE OR TOLUOL	E	E	M	E	E
TRICHLORO-ETHYLENE DRY	E	E	M	B	B
TRICHLORO-ETHYLENE WET	M	E	M	-	B
TRICHLOROACETIC ACID	M	E	-	S	-
TURPENTINE	B	E	S	E	-
VINEGAR	S	E	E	E	-
XILENE DRY	-	E	S	E	-
ZINC CHLORIDE	S	E	E	B	B
ZINC SULPHATE	S	E	E	B	-

International system of units (SI)

CONVERSION FACTORS. SELECTION FOR AERAILIC APPLICATIONS

To convert SI units to other units, multiply by K. From other units to SI unit multiply by 1/K.

Description	Unit System (SI)	Other measure system unit					
		Technical	Factors K	1/K	Anglo-saxon	Factors K	1/K
Length	m (meter)	m	1	1	in (inch)	39,37	0,0254
					ft (foot)	3,281	0,305
Area	m ²	m ²	1	1	in ² (sq. in)	1550	0,000645
					ft ² (sq. ft)	10,764	0,0929
Volume	m ³ 10 ⁻³ m ³ = dm ³ = 1 liter	m ³	1	1	ft ³ (cu. ft)	35,315	0,0283
					gal US (gallon)	0,264	3,785
Time	s (second) h (hour)	s	1	1	sec (second)	1	1
					hr (hour)	0,000278	3600
Rotation speed	turn/s	turn/min	60	0,0167	rpm (rev/min)	60	0,0167
Speed	m/s	m/s	1	1	fpm (ft/min)	196,85	0,0051
Frequency	Hz (hertz)	Hz (period/s)	1	1	Hz (cycle/sec)	1	1
Mass	kg (kilogram) g (gram)				lb (pound)	2,205	0,454
					gr (grain)	15,432	0,0648
Volumetric mass	kg/m ³	(**)			lb/ft ³	0,0624	16,017
Mass capacity	kg/s	(**)					
Force, weight (*)	N (newton)	kgf=kp (kg force)	0,102	9,807	lb (pound force)	0,225	4,448
Specific weight	(**)	kgf=m ³			lb/ft ³		
Weight capacity	(**)	kgf/s			lbf/sec		
Volume capacity	m ³ /s ℓ/h	m ³ /h	8600	0,00278	cfm (ci. ft/min)	2118,9	0,000472
		ℓ/h	1	1	gpm (gal/min)	0,0044	227
Moment of a force, torque (*)	N-m	kgf-m	0,102	9,807	lb-ft	0,738	1,356
Moment of inertia (MR ²) (*)	kg-m ²	kgf-s ² -m ^(****)	0,102	9,807	lb-ft ² (****)	23,73	0,0421
Pressure (*)	Pa (pascal)=N/m ² 10000Pa=1 bar	kgf/m ² =mmH ₂ O	0,102	9,807	in wg (inc water gage)	0,00401	249,09
		kgf/cm ² =at ^(****)	0,000102	98070	psi (lbf/in ²)	0,000145	6895
		torr=mmHg	0,0075	133,322	lbf/ft ²	0,0209	47,88
Stress	N-mm ² =MPa	kgf/mm ²	0,102	9,807	psi (lbf/in ²)	145	0,0069
Material resistance (*)							
Work, energy	J (joule)	kgf-m	0,102	9,807	lb-ft	0,738	1,356
		Wh (Watt hour)	0,000278	3600			
		kcal (calorie)	0,000239	4186,7	BTU (British Thermal Unit)	0,000948	1055
Mechanical power (*)	W (watt)	CV (horsepower)	0,00136	735,5	BHP (Brake Horse Power)	0,00134	745,7
Electric power	W	W	1	1	W	1	1
Thermal power	W	kcal/h	0,860	1,163	BTU/hr	3,413	0,293
Temperature	K (kelvin) °C (celsius)	K ^(****)	1	1	°R (Rankine)	1,8	0,555
		°C	1	1	°F (fahrenheit)	(****)	(****)
Specific heat	J/kg K	kcal/kg °C	0,000239	4186,7	BTU/lb °F	0,000239	4186,7
Heating power / calorific value	J/kg	kcal/kg	0,000239	4186,7	BTU/lb °F	0,00043	2326
Total heat / sensible heat	J/kg	kcal/kg					
Volumetric heat content	J/m ³	kcal/m ³	0,000239	4186,7	BTU/ft ³	2,68E-5	37260
Conductivity	W/m K	kcal/m h°C	0,86	1,163	BTU in/ft ² hr °F	6,933	0,14423
					BTU/ft hr °F	0,5778	1,7308
Specific thermal power	W/m ²	kcal/m ² h	0,86	1,163	BTU in/ft ² hr	0,317	3,1546
Dynamic viscosity (*)	Pa s=N s/m ²	kgf s/m ²	0,102	9,807	lbf sec/ft ²	0,0209	47,88
		cP (centipoise)	1000	0,001			
Kinematic viscosity (*)	m ² /s	m ² /s	1	1	ft ² /sec	10,764	0,0929
		cSt (centistoke)	10 ⁶	10 ⁶			
Gas constant R (*)	J/kg K	m/K	0,102	9,807	ft°R	0,602	1,661

MULTIPLES AND SUBMULTIPLES OF SI UNITS

Multiplication factors	10 ¹²	10 ⁹	10 ⁶	10 ³	10 ²	10 ¹	10 ⁻¹	10 ⁻²	10 ⁻³	10 ⁻⁶	10 ⁻⁹	10 ⁻¹²	10 ⁻¹⁵	10 ⁻¹⁸
Prefix	tera	giga	mega	kilo	etto	deca	deci	centi	milli	micro	nano	pico	temto	atto
Symbol	T	G	M	K	h	da	d	c	m	μ	n	p	f	a

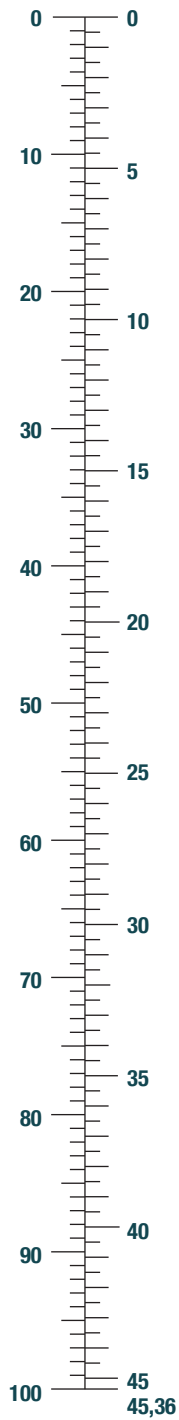
- Notes**
- (*) Conversion factors are valid only if acceleration of gravity has the value g=9,807 (m/s²) equivalent to 32,17 (ft/sec²)
- (**) Specific weight and weight capacity are not considered in SI system: their numeric values in technic system correspond, respectively, to those of volumetric mass and mass capacity in SI system. The volumetric mass of the air in standard conditions (t=20°C; pa = 100.000 Pa) has the value of 1,20 Kg/m³, equal to 0,075 lb/ft³ in the Anglo-Saxon system.
- (****) In technical system the dynamic moment PD² (kgf-m²) is preferably used. The moment of inertia in SI system results MR² (kg-m²) = PD²/4. Anglo-Saxon system uses the fly wheel effect WR² (lb-ft²) = 23,73 MR².
- (*****) at=metric or thermal atmosphere = 736 torr. - atm = normal or physical atmosphere = 760 torr.
- (*****) t (°C) = T(K) - 273,15 t (°C) = 5/9 (t(°F) - 32) - t(°F) = 9/5 t(°C) ÷ 32.

Conversion table

CONVERSION TABLE OF MEASUREMENT UNIT

List of conversion factors between the most common measurement units

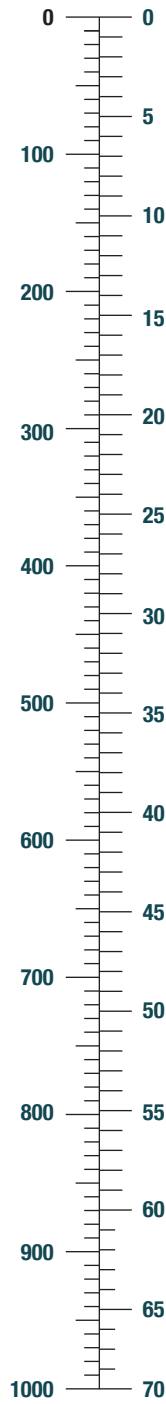
Weight	
pounds	kg



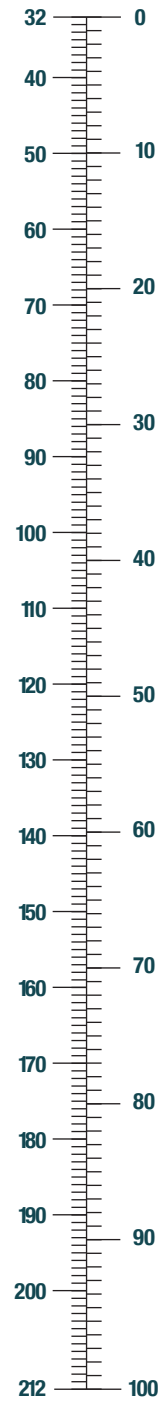
Lenght	
inches	mm



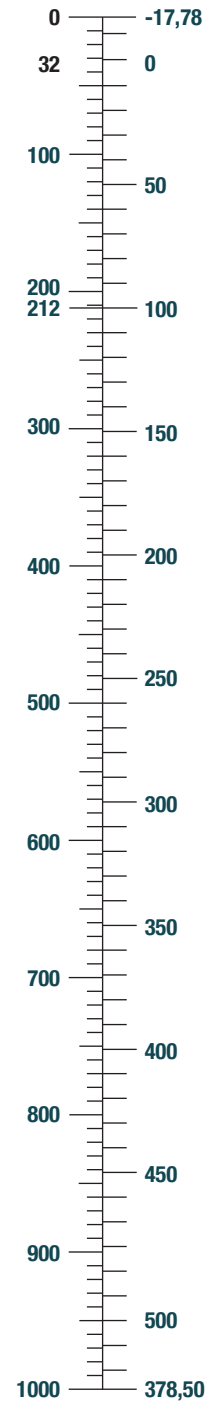
Pressure	
psi	bar



Temperature	
°F	°C



Volume	
US gallons	liters



declaration of REACH compliance

DECLARATION ACCORDING TO THE REACH REGULATION N. 1907/2006

FIV S.r.l. Unipersonale, aware of its obligations deriving from Regulation (EC) no. 1907/2006 REACH as a downstream user, warns that lead has been included in the SVHC substance list, on 27.06.2018, as follows:

Substance name	Number of CAS	Number of EC	Date of registration	Decision
Lead	7439-92-1	231-100-4	27.06.2018	ED/61/2018

The latest version of the Candidate List is available on the ECHA (European Chemicals Agency) website

<https://echa.europa.eu/home>

FIV informs, as required by art. 33 of the REACH Regulation, which in the products of this catalog, containing brass, lead may be present in a concentration higher than 0.1% (w / w), depending on the type of brass alloy used.

The inclusion of lead in the SVHC list does not imply new ways of using FIV products for their safe use, if used in the manner provided by the related product documentation.

FIV undertakes, based on the information that its suppliers of components and finished products will communicate to the company, to keep customers updated on the possible use in their products of substances, which are currently not included in the SVHC list but which could be in future revisions. The information may be included directly in the product information sheets.

Declaration of conformity RoHS

DECLARATION OF CONFORMITY RoHS

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