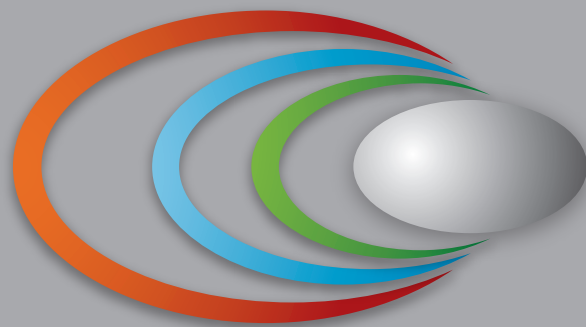




Ideas to install



**HEATING & PLUMBING
AND ECOENERGY CATALOGUE**

GB 01



Light your fire

We light up the fire of efficiency with high-performance heating systems. A range of quality and reliable solutions capable of meeting all the requirements of the heating and plumbing sector.



Be Natural

We have a natural tendency to protect the environment. This is why we support renewable energies with a range of photovoltaic systems and solar panels focusing on maximum energy savings.



Group strength



Emmeti was founded in 1976, initially marketing components for heating systems.

The shift to direct production, however, came soon after, in 1984, following the wishes of the company's founders, who are also its current directors.

In 1989 the air conditioning division was added. 130 professional agents, spread nationwide coordinated by 5 area managers, 3 inspectors and 6 promoter, make up the Emmeti sales force.



Emmeti Iberica was founded in 1993, initially marketing components for air conditioning systems.

The heating division was added in 1995. Today, Emmeti's Spanish enterprise operates across the complete range of hot and cold water supply sector, domestic and commercial and air conditioning, offering diversified, high-quality products.

These products are distributed throughout the country.

Emmeti Iberica, S.L.U.

Poligono Industrial Oeste, parcela 9/15
A - Apartado de correos n. 124
30169 San Ginés - Murcia - España
Telf. 968 808050 - Fax 968 808763
www.emmeti.es - e-mail: emmeti@emmeti.es



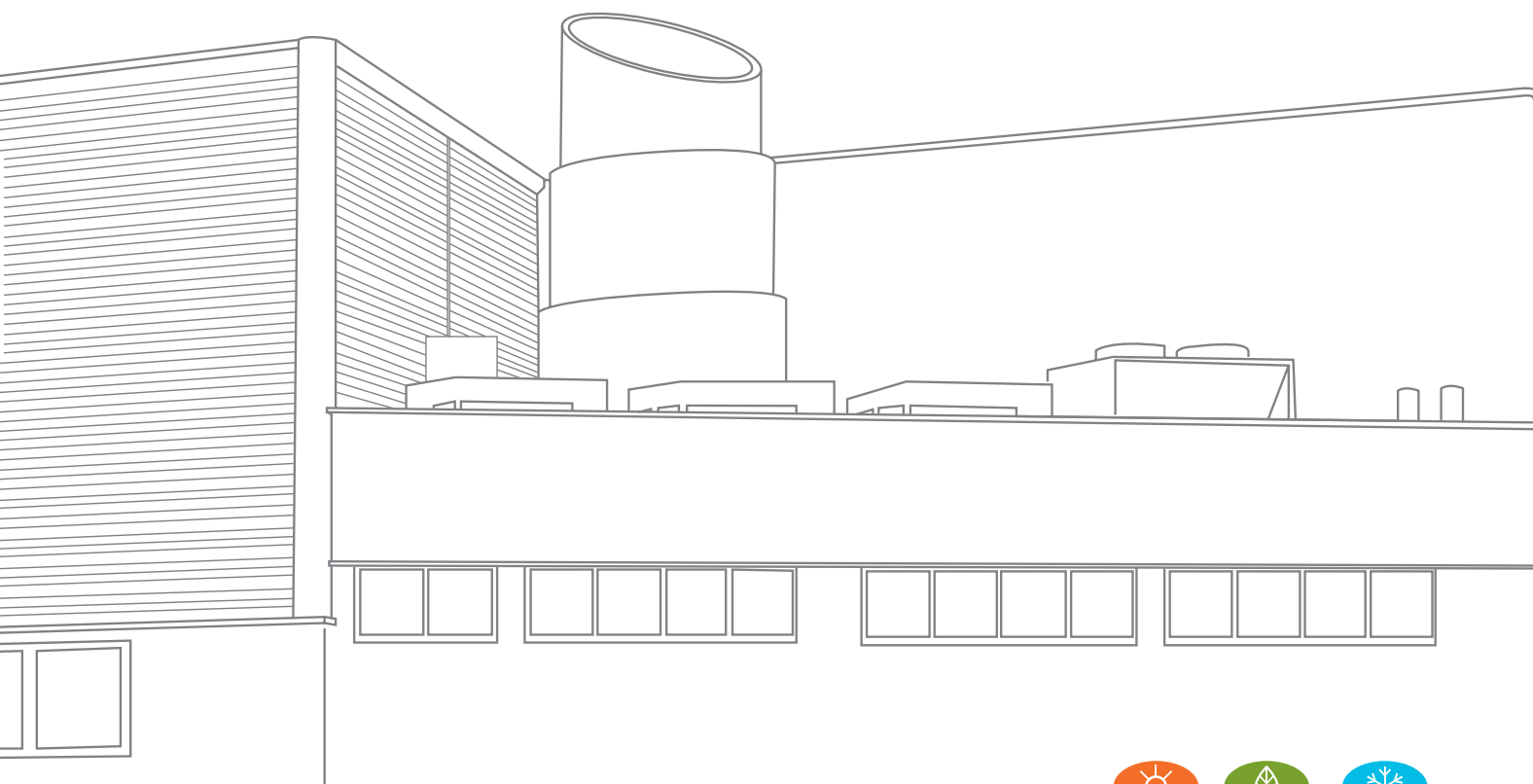
In order to move closer to better serve its French customers, Emmeti Fiv France was created in April 2001.

The sales director, office staff and professionals provide a sales and technical support network that ensures effective, prompt, service.

In addition, clients are kept up-to-date with the company's numerous initiatives and developments.

Emmeti Fiv France

LE FORUM EST - 48,
Boulevard des Coquibus Le Forum Est
91000 Evry - France
Tel. 01 69 91 44 50 - Fax 01 69 91 44 51
www.emmeti.fr - e-mail: info@emmeti.fr



Formed in 2004, its remit is to market and distribute from a UK base Emmeti group products, creating a sales and technical support network nationwide, excelling in customer service and product innovation.

Emmeti UK

6 Tannery Yard - Witney Street - Burford
Oxfordshire - OX18 4DW - UK
Tel. +44 (0) 1993 824900
Fax +44 (0) 1993 824990
www.emmeti.co.uk
e-mail: sales@emmeti.co.uk



Sfera Comercial is one of the newest sales arms of the group. Acquired in 2003, its headquarters are in São Paulo in Brazil. It has a distribution structure supported by 70 agents, with a widely spread presence throughout the Brazilian market, servicing more than 8,000 customers. Sfera Comercial distributes all Emmeti products in the hot water supply sector.

Sfera Comercial Ltda

Rua Antonio Fonseca, 675 - Vila Maria
São Paulo/SP
Tel. +55 (11) 2955 4963 - 2967 2875
www.emmeti.com.br
e-mail: mais_info@emmeti.com.br



In 2012 Emmeti decides to invest in the Chinese market setting up a Representative Office in Beijing. The office is organized with a skilled employees structure and the main objectives are those to develop a strong distribution network around the Country and Emmeti's brand awareness, to technically support the sales distribution and to supply the best service for customer satisfaction.

Emmeti China

Room 719-721, No.5 Haiying Rd.
Zongbujidi - Fengtai District - Beijing
- China
Tel: 0086-10-63714682
Fax: 0086-10-63711083
e-mail: emmeti-china@emmeti.com



Quality, environment, safety



The Emmeti policy for quality, safety and the environment is to work in compliance with the standards contained in the Manual of the Integrated Management System. These standards are effective tools for reaching the goals **of customer satisfaction and reduced environmental impact** by providing products and services that comply with specifications and procedures in respect of standards on quality, the environment and safety, known by and established with the customer, while upholding compliance with legal requirements. Emmeti works in field with a high impact in the energy field, and thus has the mission of being committed and dedicating resources to continuing technological re-search to improve its manufacturing processes and products in order to create energy savings.

These objectives are pursued in the form of **product quality, compliance with environmental legislation, prevention of pollution and safety** through:

- > research and development of innovative products that provide control of consumption with high energy efficiency and long life cycles, keeping ahead of upcoming legal obligations;
- > evaluation in advance of suppliers and supplies;
- > monitoring and continuous improvement of suppliers and supplies, so that the purchased products are compliant with agreed specifications in terms of times and methods;
- > prompt and effective service, also of a preventive nature, on non-conformities in terms of quality, environment and safety;
- > self-management of the internal manufacturing process, with planning and management of prevention-oriented maintenance;
- > effective check of finished product;
- > constant legislative monitoring,
- > managing of the environment effects.



Customer service through:

- > Pre-sales support with heat-engineering design studies.
On a daily basis, the Emmeti technical Promoters (internal and external) offer their consultancy on the choice and correct application of the Emmeti products in compliance with the technical standards and continuous development of the technologies.
- > A capillary technical support service for Emmeti products through internal personnel and authorized service centres trained directly by Emmeti.
To accompany the customer in the correct use of its products and never leave him to face a problem alone.
- > Prompt handling of the various requests (products and services), through suitable management of the information and company processes.

According to this Emmeti believes as crucial, in order to achieve the aims of the integrated system, the **motivation** and **involvement** of the company staff.

Updating of management processes with the implementation of annual improvement plans in the aims of environment, quality and safety, availability of necessary human resources and structures, cooperation with public authorities and communication with the local community. Emmeti, by means of the certifications of its quality and environmental management systems, confirms the international recognition of its commitment to continuous improvement in the quality and environmental performance of its business activities.

Thanks to the further advantages against its competitors the Company confirms a positioning ever more forefront in the market.



Company Certification



1997: Certified Quality System according to ISO 9002:1994
2002: Certified Quality System according to ISO 9001:2000
2003: Environmental System according to ISO 14001:1996
2006: Environmental System according to ISO 14001:2004
2009: Certified Quality System according to ISO 9001:2008

This standard requires continuous improvement in all ex-ecutive processes, from product and system design right through to marketing and technical support. For EMMETI, the principles expressed in this policy come before everything else. For this reason research and development are of fundamental importance within the company. The quality of EMMETI products is also recognised by various European standards institutes.

**COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV**

**= ISO 9001 =
= ISO 14001 =**

Products **Conformity** certificates



Germany



Europe/Italy



England UK



Europe/Italy



Europe/Italy



Russia



Europe/Germany



Europe/Germany



Europe/Italy



Our Divisions



Light your **fire**



Be **cool**



Be **natural**

We light up the fire of efficiency with high-performance heating systems.

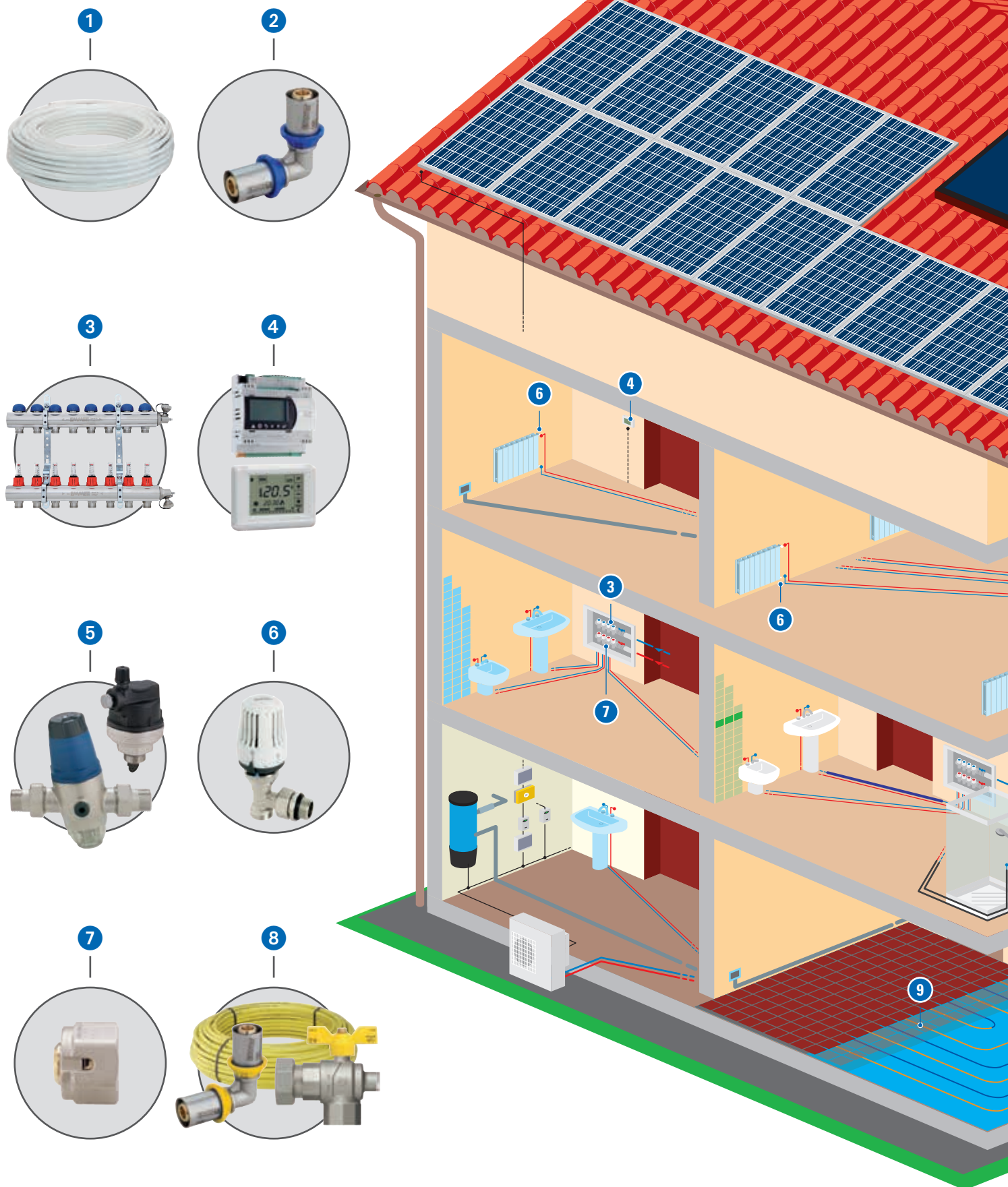
A range of quality and reliable solutions capable of meeting all the requirements of the heating and plumbing sector.

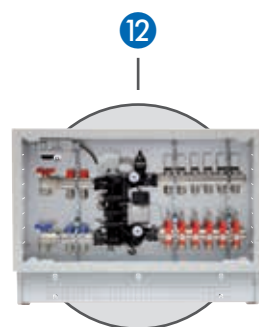
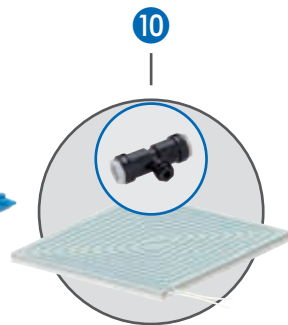
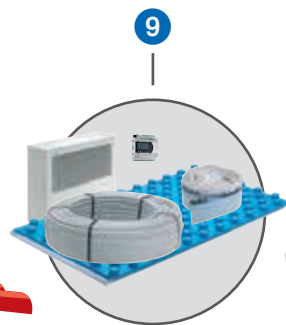
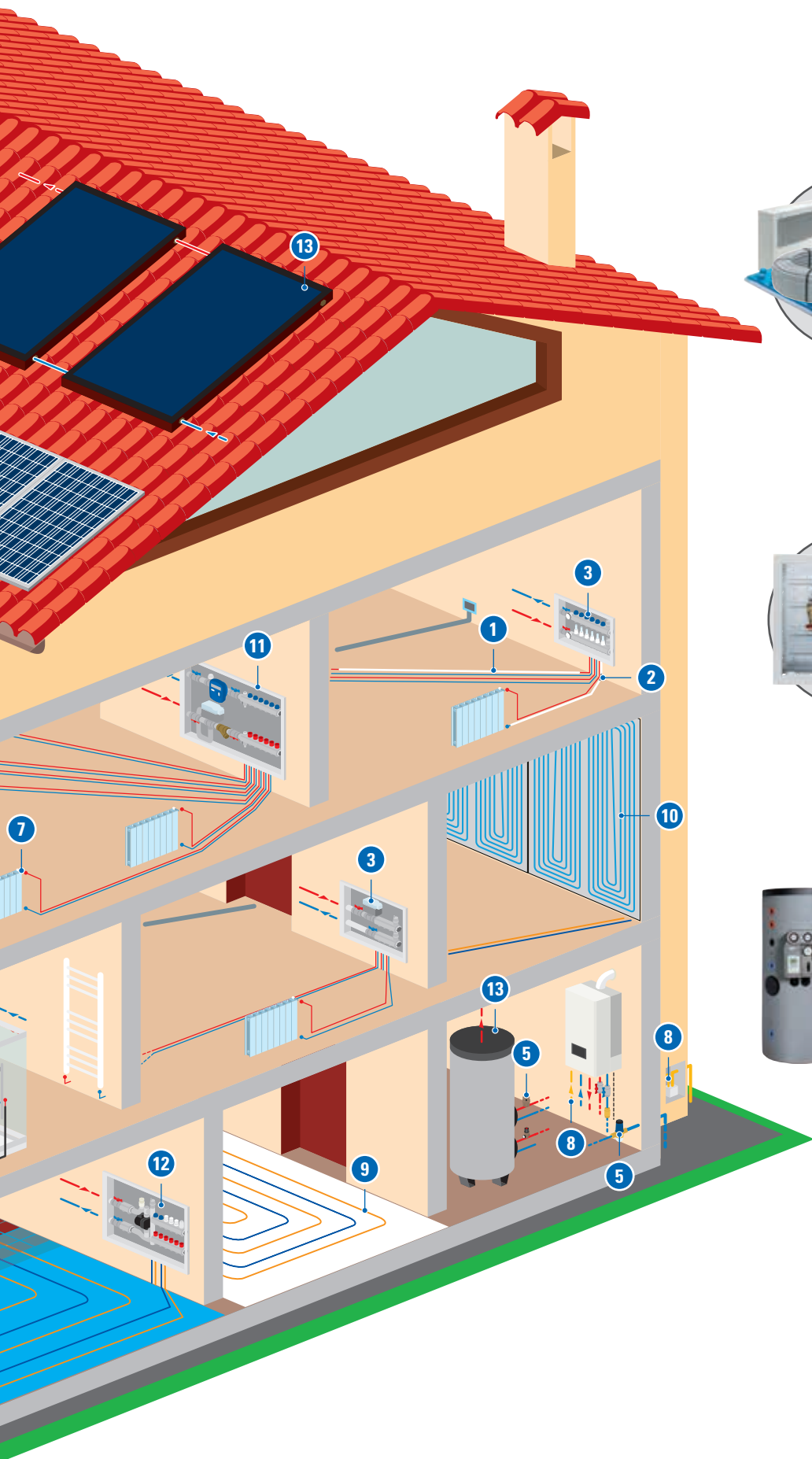
We have chosen a modern and cutting-edge approach as our cornerstone by offering highly efficient climate control systems: innovative, certified and patented technologies to ensure excellent levels of comfort.

We have a natural tendency to protect the environment. This is why we support renewable energies with a range of photovoltaic systems and solar panels focusing on maximum energy savings.

EMMETI

Emmeti Home System







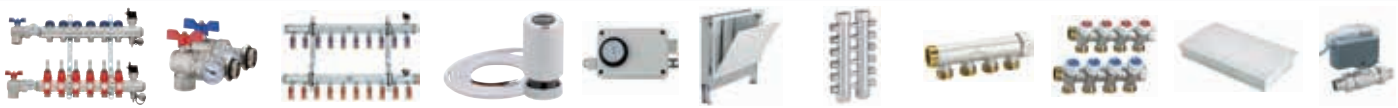
EMMETI STOCK

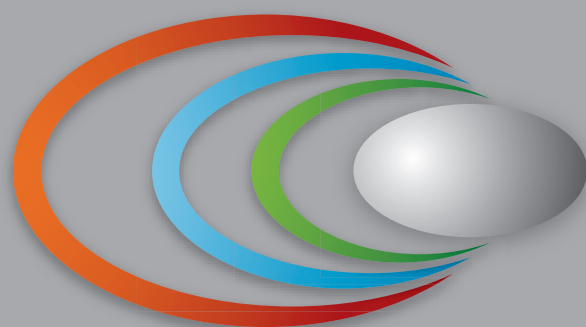
- 1 Pipes used for heating and sanitary delivery systems
- 2 Gerpex - Press fittings for multilayer pipes
- 3 Manifolds, boxes and motorized ball valves
- 4 Regulation and control
- 5 Heating unit components
- 6 Connection and control of heating units
- 7 Seals and screw fittings
- 8 Gas valves and multilayer system for domestic gas adduction systems

EMMETI HOME

- 9 Floor heating and cooling systems
- 10 Wall and ceiling heating and cooling systems
- 11 Regulation groups
- 12 Consumption measuring systems
- 13 Boilers, solar panels and accessories for solar systems

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EMMETI STOCK



Pipes used for heating and sanitary delivery systems





> Gerpex bare pipe



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> Gerpex insulated pipe



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> Gerpex RA bare pipe



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> Gerpex RA insulated pipe



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> Gerpex corrugated pipe

NEW



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> Emmeti Alpert pipe



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> PE-Xa pipe oxygen barrier



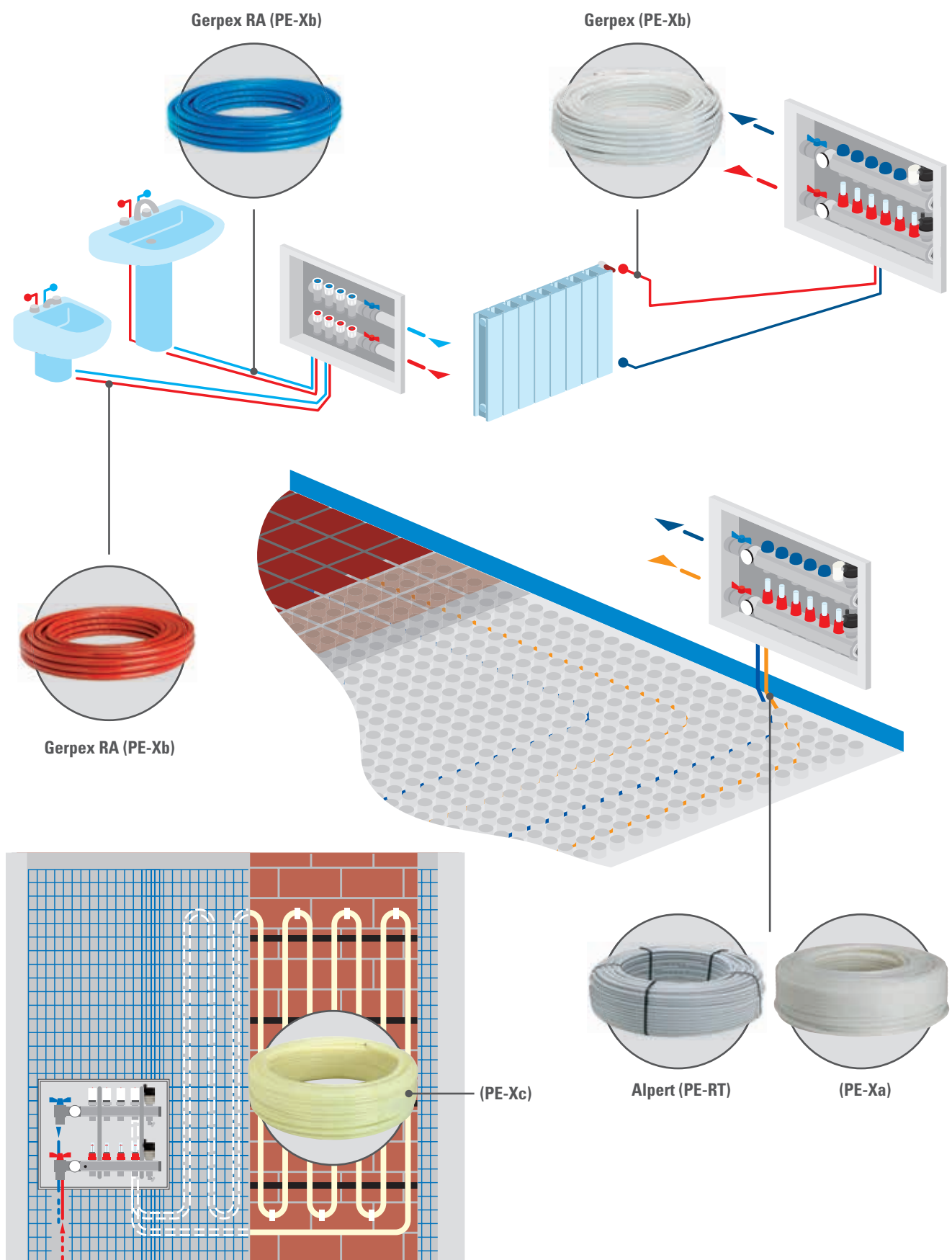
24

> PE-Xc pipe oxygen barrier

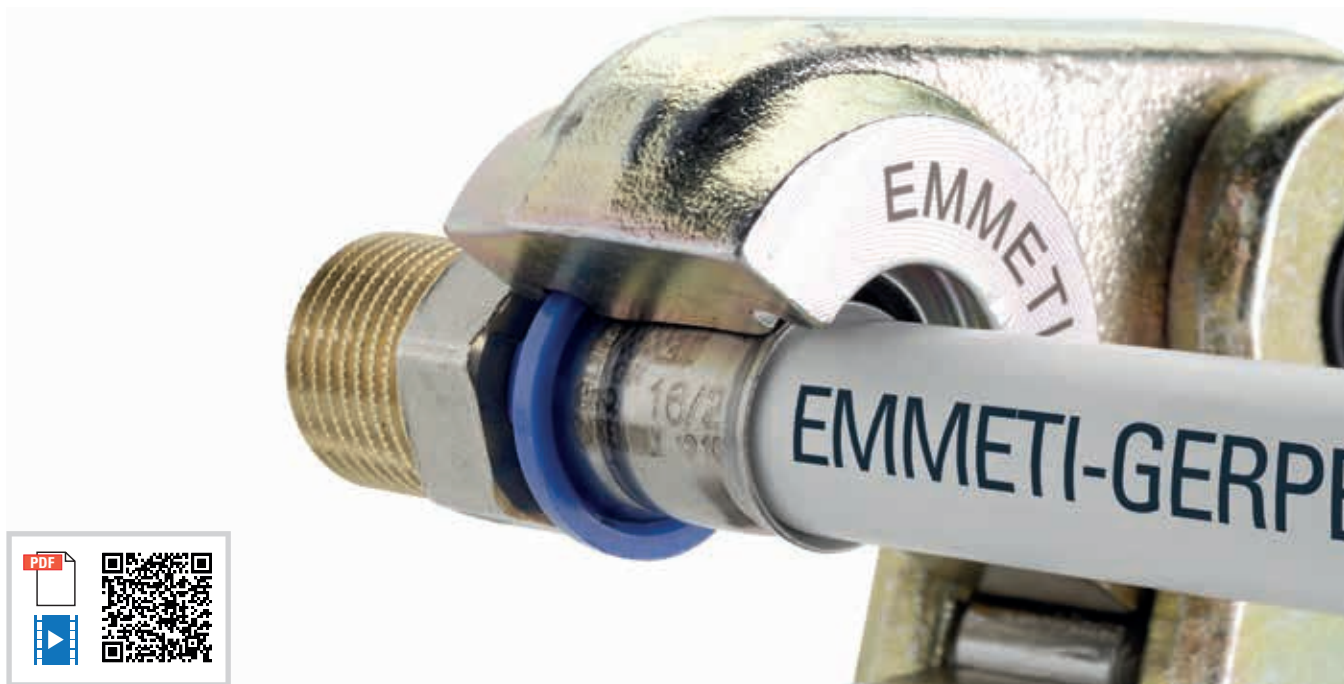


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Example of installation



Heating and sanitary delivery system



TECHNICAL SHEET 60

System ratings

Max operating temperature: 95 °C*
Max allowable working pressure: 10 bar
* for water-run systems.

In appliance to

> UNI EN ISO 21003
> D.M. 174 (suitable for drink water)

Fields of application

GerpeX is the modern and efficient Emmeti system used to build heating and sanitary systems with multilayer pipes, made from cross-linked polyethylene (PEX) and aluminium, and special fittings. The fittings are available in two different versions: press-fittings and screw-fittings. The wide range of fittings and the various fastening options make the GerpeX System a complete and highly reliable product.

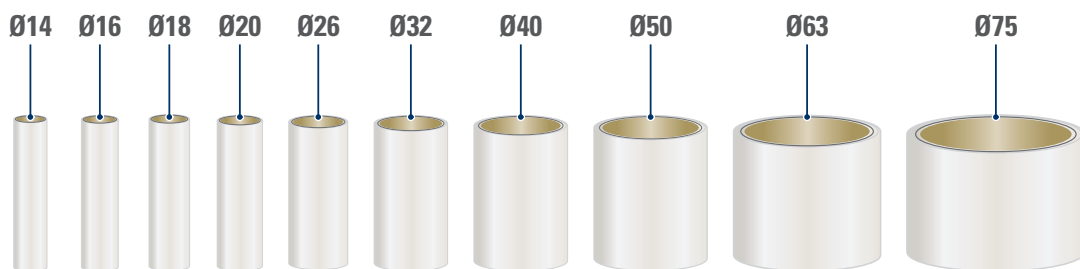
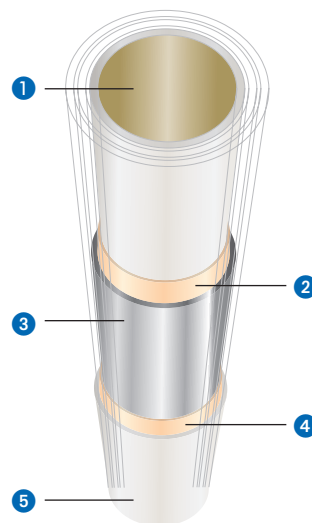
The GerpeX System is suitable for:

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

For the transport of other fluids, please contact our Technical Support service for the suitable checks.

Gerpex pipe

Multi-layer pipe Gerpex



TECHNICAL SHEET 60



Construction

- ① Cross-linked polyethylene inner pipe (PE-Xb).
- ② Bonding layer connecting the inner pipe to the aluminium pipe.
- ③ Butt-welded aluminium pipe, thickness min 0,3 mm.
- ④ Bonding layer connecting the outer pipe to the aluminium pipe.
- ⑤ Cross-linked polyethylene outer pipe (PE-Xb), size 14-32.
High-density polyethylene outer pipe (PE-HD), size 40-75

Technical data Gerpex pipe

Classes of application (UNI ISO 21003): 2/10 bar, 5/10 bar
 Maximum operating temperature: 95 °C
 Maximum operating pressure: 10 bar
 Coefficient of linear expansion: 0,026 mm/m °C
 Thermal conductivity: 0,45 W/m °C
 Minimum radius of bending: 5 x Ø pipe
 Surface roughness of internal pipe: 7 µm
 Fire reaction class: E₁ (EN 13501-1)

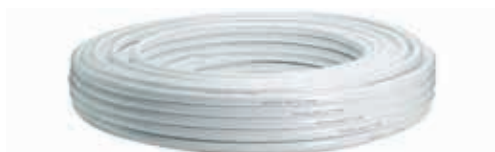
Technical data of insulating sheath

Material: Closed-cell expanded polyurethane, covered with a film in extruded LD-PE.
 Thermal conductivity (at 40 °C): ≤ 0.040 W/mK (UNI EN ISO 8497).
 Fire reaction class: 1 (UNI 9177); D₁-s2-d2 (EN 13501-1).
 Operating temperature: -20 °C ÷ 110 °C.
 Thickness of covering: Compliant with attachment B- TAB 1 of Presidential Decree 412/93 for pipes that run within structures that do not face onto the exterior, nor onto heated rooms.



Gerpex bare pipe

Size	Mts. pack	Code
16 x 2	100	28105000
NEW 20 x 2	200	28105002
20 x 2	100	28105004
NEW 26 x 3	50	28105006
NEW 32 x 3	50	28105008



Gerpex insulated pipe

Size	Insulation thickness	Mts. pack	Code
16 x 2	6 mm	100	28105100
16 x 2	6 mm	50	28105116
20 x 2	6 mm	50	28105104
20 x 2	9 mm	50	28105106
NEW 26 x 3	9 mm	50	28105110
NEW 32 x 3	9 mm	25	28102576

16x2 (6 mm) - 20x2 (9 mm) - 26x3 (9 mm) - 32x3 (9 mm):

Type installations C (see Insulation, section 5 Heating unit components)

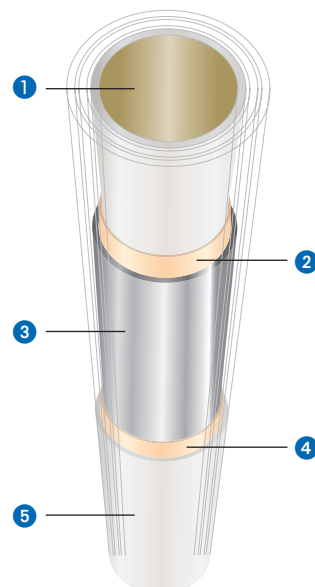
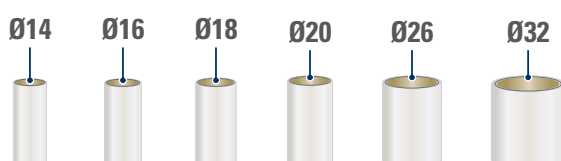
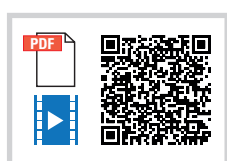


Gerpex bare pipe in 4 mt bars

Size	Mts. pack	Code
16 x 2	96	28108000
20 x 2	96	28108004
NEW 26 x 3	40	28108006
NEW 32 x 3	40	28108008
40 x 3,5	20	28100090
50 x 4	20	28100092
63 x 4,5	12	28100094
75 x 5	12	28100070

Gerpex RA pipe

Multi-layer pipe Gerpex RA



Construction

- 1 Cross-linked polyethylene inner pipe (PE-Xb).
- 2 Bonding layer connecting the inner pipe to the aluminium pipe.
- 3 Butt-welded aluminium pipe, thickness min 0,2 mm.
- 4 Bonding layer connecting the outer pipe to the aluminium pipe.
- 5 Cross-linked polyethylene outer pipe (PE-Xb).

Technical data Gerpex RA pipe

Classes of application (UNI ISO 21003 - see table following pages): 2/10 bar, 5/10 bar
 Operating temperature: 0÷95 °C
 Max. pressure: 10 bar
 Coefficient of linear expansion: 0,026 mm/m °C
 Thermal conductivity: 0,45 W/m °C
 Minimum radius of bending: 5 x Ø pipe
 Surface roughness of internal pipe: 7 µm
 Fire reaction class: E_L (EN 13501-1)

Technical data of insulating sheath

Material: Closed-cell expanded polyurethane, covered with a film in extruded LD-PE.
 Thermal conductivity (at 40 °C): ≤ 0,040 W/mK (UNI EN ISO 8497).
 Fire reaction class: 1 (UNI 9177); D_s-s2-d2 (EN 13501-1).
 Operating temperature: -20 °C ÷ 110 °C.
 Thickness of covering (UNI 10376): Compliant with attachment B- TAB 1 of Presidential Decree 412/93 for pipes that run within structures that do not face onto the exterior, nor onto heated rooms.



Gerpex RA bare pipe

Size	Mts. pack	Code
14 x 2	100	28102314
16 x 2	100	28106000
16 x 2	200	28106010
16 x 2	500	28106050
18 x 2	100	28102318
20 x 2	100	28106004
NEW 20 x 2	200	28106002
NEW 26 x 3	50	28106006
NEW 32 x 3	50	28106008



Gerpex RA insulated pipe

Size	Insulation thickness	Mts. pack	Code
14 x 2	6 mm	50	28102336
14 x 2	6 mm	100	28102334
16 x 2	6 mm	50	28106108
16 x 2	6 mm	100	28106100
18 x 2	6 mm	50	28102340
18 x 2	6 mm	100	28102338
20 x 2	6 mm	50	28106104
20 x 2	9 mm	50	28106106
NEW 26 x 3	9 mm	50	28106110
NEW 32 x 3	9 mm	25	28102872

16x2 (6 mm) - 20x2 (9 mm) - 26x3 (9 mm) - 32x3 (9 mm): **Type installations C**
(see Insulation, section 5 Heating unit components)



Gerpex RA insulated pipe

Size	Insulation thickness	Mts. pack	Code
16 x 2 red	6 mm	100	28106140
16 x 2 blue	6 mm	100	28106142
20 x 2 red	6 mm	50	28106144
20 x 2 blue	6 mm	50	28106146

16x2 (6 mm): **Type installations C** (see Insulation, section 5 Heating unit components)



Gerpex RA insulated pipe

Size	Insulation thickness	Mts. pack	Code
16 x 2	10 mm	50	28102540
20 x 2	13 mm	50	28102542
NEW 26 x 3	13 mm	25	28102870
NEW 32 x 3	13 mm	25	28102874

20x2 (13 mm) - 26x3 (13 mm) - 32x3 (13 mm): **Type installations C**

16x2 (10 mm): **Type installations B** (see Insulation, section 5 Heating unit components)



Gerpex RA bare pipe in 4 mt bars

Size	Mts. pack	Code
16 x 2	96	28108010
NEW 20 x 2	96	28108014
NEW 26 x 3	40	28108016
NEW 32 x 3	40	28108018

Packaged in rigid protective pipe



Gerpex pipe with red corrugated sheath

NEW

Size	Mts. pack	Code
16 x 2	50	28102580
20 x 2	50	28102582
26 x 3 (*)	50	28102844

(*) Minimum stock 5.000 meters. Available on request: 40/50 days to order confirm



Gerpex pipe with blue corrugated sheath

NEW

Size	Mts. pack	Code
16 x 2	50	28102590
20 x 2	50	28102592
26 x 3 (*)	50	28102854

(*) Minimum stock 5.000 meters. Available on request: 40/50 days to order confirm

Floor system pipes



Emmeti Alpert pipe

DN16

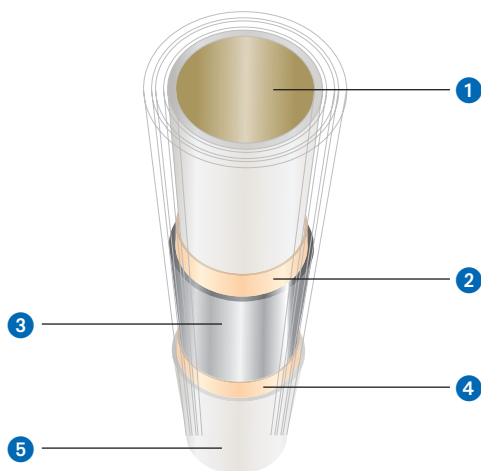
Classes of application (UNI EN ISO 21003 / Operating pressures (bar): 2/10 bar, 5/10 bar - Maximum operating temperature: 70 °C - Maximum operating pressure: 10 bar - Thermal conductivity: 0,45 W/m K - Coefficient of linear expansion: 0,026 mm/m °C - Minimum radius of bending: 5 x D pipe - Pipe roughness: 7 µm - Water capacity: 0,11 l/m - Application: heating / sanitary plants

DN20

Classes of application (UNI EN ISO 21003 / Operating pressures (bar): 2/10 bar, 5/10 bar - Maximum operating temperature: 70 °C - Maximum operating pressure: 10 bar - Thermal conductivity: 0,45 W/m K - Coefficient of linear expansion: 0,026 mm/m °C - Minimum radius of bending: 5 x D pipe - Pipe roughness: 7 µm - Water capacity: 0,2 l/m - Application: heating / sanitary plants

Construction

- ① Inner pipe PE-RT
- ② Bonding layer connecting the inner pipe to the aluminium pipe
- ③ Horizontal-roller-position welding
- ④ Bonding layer connecting the outer pipe to the aluminium pipe
- ⑤ External pipe PE-RT



UNI EN ISO 21003

Size	Mts. pack	Code
16 x 2	100	28107002
16 x 2	200	28107000
16 x 2	500	28107004



20 x 2	100	28107016
20 x 2	240	28107018

Multi-layer pipe for thermosanitary system, in appliance to UNI EN ISO 21003 and made from composite material using a technologically advanced processing during which PE-RT (polyethylene of raised temperature resistance) pipe is coupled with a 0.2 mm (DN16) or 0.25 mm (DN20) thick aluminium core, soldered at the head and externally coated with another layer of PE-RT.



PE-Xa pipe oxygen barrier

DN17

Classes of application / Operating pressures (bar): Cl. 4/6 bar - Cl. 5/6 bar - Oxygen permeability: < 0.1 g/m³ 24h - Density: 0.95 gr/m³ - Degree of reticulation: ≥70% - Softening temperature: 135 °C - Breaking load: 18 MPa - Thermal conductivity: 0.41 W/mK - Average coefficient of linear expansion: 0.14 mm/m °C - Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm - Water capacity: 0,133 l/m - Application: heating systems (not suitable for plumbing systems)

DN 20 - DN 25

Classes of application / Operating pressures (bar): Cl. 4/6 bar - Cl. 5/6 bar - Oxygen permeability: < 0.1 g/m³ 24h - Density: 0.95 gr/m³ - Degree of reticulation: ≥70% - Softening temperature: 135 °C - Breaking load: 18 MPa - Thermal conductivity: 0.41 W/mK - Average coefficient of linear expansion: 0.14 mm/m °C - Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm - Water capacity: 0,201 l/m (20x2) - Water capacity: 0,327 l/m (25x2,3) - Application: heating systems

Size	Mts. pack	Code
17 x 2 mm	240	28130674
17 x 2 mm	600	28130676
20 x 2 mm	500	28130684
25 x 2,3	500	28130686

Pipe in high-density polyethylene, with peroxide crosslinking, certified according to standards UNI EN ISO 15875/2 and provided with an oxygen barrier in conformity with standard DIN 4726.



UNI EN ISO 15875-2



UNI EN ISO 15875-2

PE-Xc pipe oxygen barrier

DN 8 - DN 12

Classes of application / Operating pressures (bar): Cl. 1/8 bar - Cl. 2/8 bar - Cl. 4/10 bar - Cl. 5/8 bar (5/10 bar for size 12x1) - Oxygen permeability: < 0.1 g/m³ 24h - Density: 0.95 gr/m³ - Degree of reticulation: ≥60% - Range of use: -100 / +110 °C - Softening temperature: 135 °C - Breaking load: 18 MPa - Thermal conductivity: 0.38 W/mK - Average coefficient of linear expansion: 0.19 mm/m °C - Minimum bending radius: 5 x D pipe - Surface roughness of the inner pipe: 7 µm - Water capacity: 0,05 l/m - Application: heating/plumbing systems

DN 17

Classes of application / Operating pressures (bar): Cl. 1/10 bar - Cl. 2/8 bar - Cl. 4/10 bar - Cl. 5/8 bar

Oxygen permeability: < 0.1 g/m³ 24h - Density: 0.95 gr/m³ - Degree of reticulation: ≥60% - Softening temperature: 135 °C - Breaking load: 18 MPa - Thermal conductivity: 0.38 W/mK - Average coefficient of linear expansion: 0.19 mm/m °C - Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm - Water capacity: 0,133 l/m - Application: heating/plumbing systems

DN20

Classes of application / Operating pressures (bar): Cl. 1/8 bar - Cl. 2/6 bar - Cl. 4/8 bar - Cl. 5/6 bar

Oxygen permeability: < 0.1 g/m³ 24h - Density: 0.95 gr/m³ - Degree of reticulation: ≥60% - Softening temperature: 135 °C - Breaking load: 18 MPa - Thermal conductivity: 0.38 W/mK - Average coefficient of linear expansion: 0.19 mm/m °C - Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm - Water capacity: 0,201 l/m - Application: heating/plumbing systems

Size	Mts. pack	Code
8 x 1 mm	100	28130750
12 x 2 mm	240	28130718
17 x 2 mm	200	28130702
17 x 2 mm	600	28130706
20 x 2 mm	500	28130708

Pipe in high-density polyethylene, with electronic system crosslinking, certified according to standards UNI EN ISO 15875/2 (and UNI 9338 for DN8 - DN12) and provided with an oxygen barrier in conformity with standard DIN 4726



Gerpex

Press fittings for multilayer pipes

> Press fittings Gerpex



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> Valve for built-in application Gerpex



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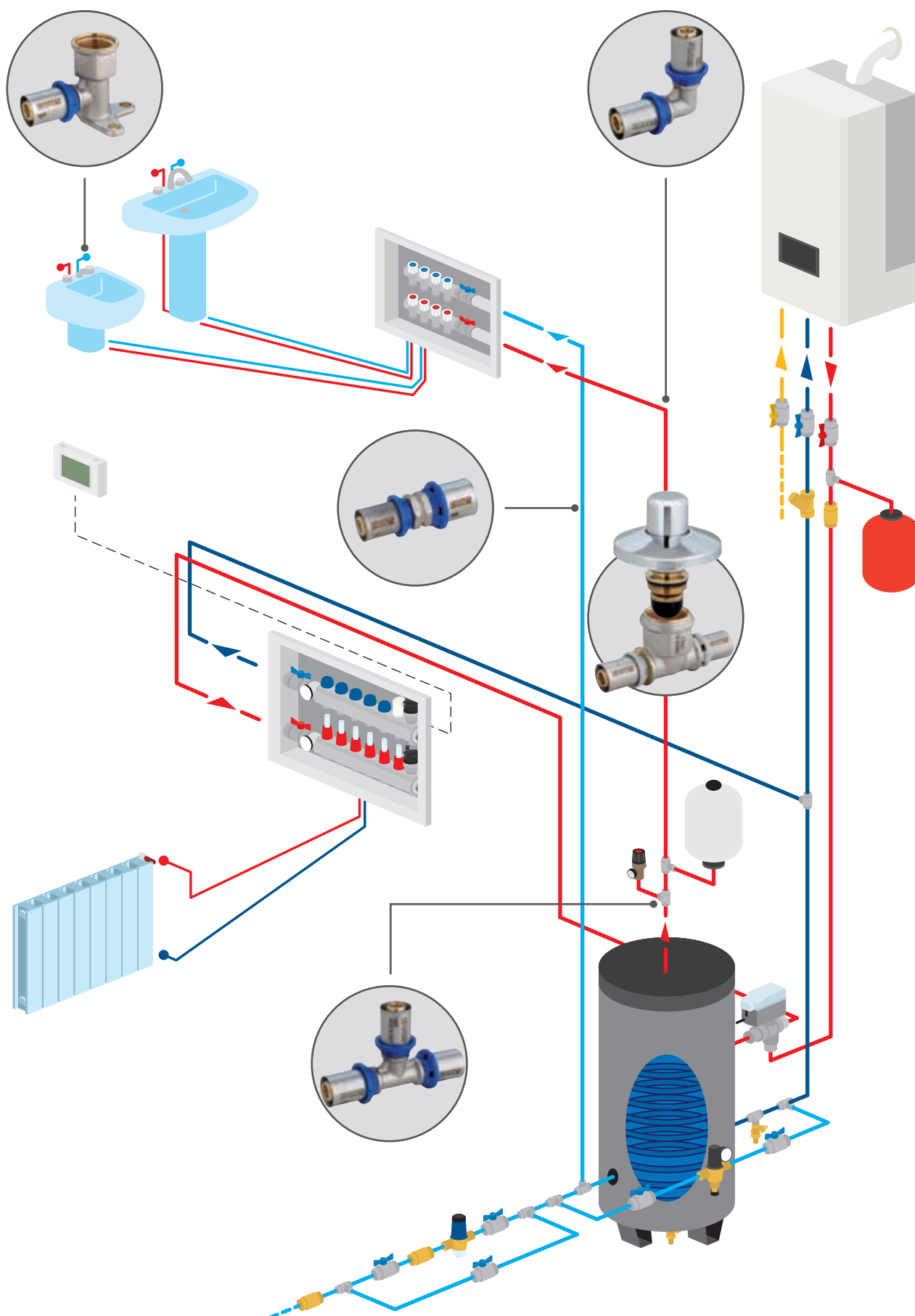
> Tooling Gerpex



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Example of installation





Press fittings Gerpex



TECHNICAL SHEET 60



kQ

Construction

- ① CW617N (UNI EN 12165) and CW614N (UNI EN 12164) brass body*.
Threads: UNI EN ISO 228-1, UNI EN 10226.
- ② Nylon sleeve ring, dielectric
- ③ AISI 304 stainless steel sleeve
- ④ EPDM dual o-ring

* Nickel-plated only on surface non in contact with fluides; availability after exhaustion of totally nickel-plated versions.



Female connecting elbow

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	10	28101330
18 x 1/2"	B (KSP1)	10	28101332
20 x 1/2"	B (KSP1)	10	28101334
20 x 3/4"	B (KSP1)	10	28101335
26 x 3/4"	B (KSP1)	5	28101336
32 x 1"	B (KSP1)	5	28101484



Female elbow, flanged elbow

Size	Profile	H mm	Pcs. pack	Code
16 x 1/2"	B (KSP1)	48	10	28101300
16 x 1/2"	B (KSP1)	68	10	28116202
18 x 1/2"	B (KSP1)	52,5	10	28101302
20 x 1/2"	B (KSP1)	48	10	28101304
20 x 1/2"	B (KSP1)	68	10	28116206
20 x 3/4"	B (KSP1)	56	10	28101696
26 x 3/4"	B (KSP1)	56	10	28101698

Press fittings Gerpex



Male connecting elbow

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	10	28101342
18 x 1/2"	B (KSP1)	10	28101344
20 x 1/2"	B (KSP1)	10	28101346
20 x 3/4"	B (KSP1)	10	28101347
26 x 3/4"	B (KSP1)	5	28101348
32 x 1"	B (KSP1)	5	28101482
40 x 1 1/4"	TH (KSP11)	1	28115150
50 x 1 1/2"	TH (KSP11)	1	28115160
63 x 2"	TH (KSP11)	1	28115170
63 x 2" (*)	F (KSP2)	1	28111670

(*) Item to be out of range



Intermediate elbow

Size	Profile	Pcs. pack	Code
16 x 16	B (KSP1)	10	28101352
18 x 18	B (KSP1)	10	28101354
20 x 20	B (KSP1)	10	28101356
26 x 26	B (KSP1)	5	28101358
32 x 32	B (KSP1)	5	28101480
40 x 40	TH (KSP11)	1	28115200
50 x 50	TH (KSP11)	1	28115210
63 x 63	TH (KSP11)	1	28115220
NEW 75 x 75	TH (KSP11) (**)	1	28115540
75 x 75 (*)	F (KSP2)	1	28112680

(*) Item to be out of range

(**) Compatible profile F (KSP2)



Intermediate elbow 45°

Size	Profile	Pcs. pack	Code
NEW 40 x 40	TH (KSP11)	1	28101720
NEW 50 x 50	TH (KSP11)	1	28101722
NEW 63 x 63	TH (KSP11)	1	28101724
NEW 75 x 75	TH (KSP11) (**)	1	28115542
75 x 75 (*)	F (KSP2)	1	28112682

(*) Item to be out of range

(**) Compatible profile F (KSP2)



Straight with swivel nut, o-ring fitting

Size	Profile	Pcs. pack	Code
Ø 14 - 24x19 (*)	B (KSP1)	10	28101649
Ø 16 - 24x19	B (KSP1)	10	28101650
Ø 18 - 24x19 (*)	B (KSP1)	10	28101652
Ø 20 - 24x19	B (KSP1)	10	28101654
Eurocone 3/4"	B (KSP1)	10	28101656
Eurocone 3/4"	B (KSP1)	10	28101658

(*) Item to be out of range



Straight with swivel nut, flat seal

Size	Profile	Pcs. pack	Code
16 x 3/8"	B (KSP1)	10	28101651
16 x 1/2"	B (KSP1)	10	28102600
16 x 3/4"	B (KSP1)	10	28102598
20 x 1/2"	B (KSP1)	10	28102608
20 x 3/4"	B (KSP1)	10	28102606
26 x 3/4"	B (KSP1)	5	28102612
26 x 1"	B (KSP1)	5	28102610
32 x 1"	B (KSP1)	5	28102614
NEW 32 x 1 1/4"	TH (KSP11)	1	28102620
NEW 40 x 1 1/2"	TH (KSP11)	1	28102622
NEW 50 x 2"	TH (KSP11)	1	28102624
NEW 63 x 2 1/2"	TH (KSP11)	1	28102626



Intermediate Tee joint

Size	Profile	Pcs. pack	Code
16 x 16 x 16	B (KSP1)	5	28101362
18 x 18 x 18	B (KSP1)	5	28101364
20 x 20 x 20	B (KSP1)	5	28101366
26 x 26 x 26	B (KSP1)	5	28101368
32 x 32 x 32	B (KSP1)	5	28101490
40 x 40 x 40	TH (KSP11)	1	28115250
50 x 50 x 50	TH (KSP11)	1	28115260
63 x 63 x 63	TH (KSP11)	1	28115270
NEW 75 x 75 x 75	TH (KSP11) (**)	1	28115544
40 x 40 x 40 (*)	F (KSP2)	1	28111590
63 x 63 x 63 (*)	F (KSP2)	1	28111672
75 x 75 x 75 (*)	F (KSP2)	1	28112684

(*) Item to be out of range

(**) Compatible profile F (KSP2)

Press fittings Gerpex



Intermediate Tee joint with female branching

Size	Profile	Pcs. pack	Code
16 x 1/2" x 16	B (KSP1)	5	28101400
16 x 3/4" x 16	B (KSP1)	5	28101401
18 x 3/4" x 18 (*)	B (KSP1)	5	28101403
20 x 1/2" x 20	B (KSP1)	5	28101404
20 x 3/4" x 20	B (KSP1)	5	28101405
26 x 1/2" x 20	B (KSP1)	5	28101700
26 x 1/2" x 26	B (KSP1)	5	28101702
26 x 3/4" x 26	B (KSP1)	5	28101408
32 x 3/4" x 32	B (KSP1)	5	28101494
32 x 1" x 32	B (KSP1)	5	28101496
40 x 3/4" x 40	TH (KSP11)	1	28115350
40 x 1" x 40	TH (KSP11)	1	28115360
40 x 1 1/4" x 40	TH (KSP11)	1	28115530
50 x 3/4" x 50	TH (KSP11)	1	28115370
50 x 1" x 50	TH (KSP11)	1	28115380
50 x 1 1/4" x 50	TH (KSP11)	1	28115532
63 x 1" x 63	TH (KSP11)	1	28115390
63 x 1 1/4" x 63	TH (KSP11)	1	28115400
NEW 75 x 1" x 75	TH (KSP11) (**)	1	28115550
40 x 3/4" x 40 (*)	F (KSP2)	1	28111610
40 x 1" x 40 (*)	F (KSP2)	1	28111704
50 x 3/4" x 50 (*)	F (KSP2)	1	28111612
63 x 1 1/4" x 63 (*)	F (KSP2)	1	28111678
75 x 1" x 75 (*)	F (KSP2)	1	28112690

(*) Item to be out of range

(**) Compatible profile F (KSP2)



Intermediate Male TEE

Size	Profile	Pcs. pack	Code
16 x 1/2" x 16	B (KSP1)	5	28101410
20 x 1/2" x 20	B (KSP1)	5	28101414
20 x 3/4" x 20	B (KSP1)	5	28101415
26 x 3/4" x 26	B (KSP1)	5	28101418



Intermediate reducing Tee joint

Size	Profile	Pcs. pack	Code
16 x 18 x 16 (*)	B (KSP1)	5	28101371
16 x 20 x 16	B (KSP1)	5	28101396
18 x 26 x 18 (*)	B (KSP1)	5	28101369
20 x 16 x 16	B (KSP1)	5	28101382
20 x 16 x 20	B (KSP1)	5	28101372
20 x 20 x 16	B (KSP1)	5	28101385
20 x 26 x 20	B (KSP1)	5	28101398
20 x 32 x 20	B (KSP1)	5	28101503
26 x 16 x 20	B (KSP1)	5	28101386
26 x 16 x 26	B (KSP1)	5	28101376
26 x 20 x 16	B (KSP1)	5	28101388
26 x 20 x 20	B (KSP1)	5	28101390
26 x 20 x 26	B (KSP1)	5	28101379
26 x 26 x 16	B (KSP1)	5	28101391
26 x 26 x 20	B (KSP1)	5	28101392
26 x 32 x 26	B (KSP1)	5	28101499
32 x 16 x 32	B (KSP1)	5	28101497
32 x 20 x 20	B (KSP1)	5	28101501
32 x 20 x 26	B (KSP1)	5	28101508
32 x 20 x 32	B (KSP1)	5	28101502
32 x 26 x 20	B (KSP1)	5	28101495
32 x 26 x 26	B (KSP1)	5	28101509
32 x 26 x 32	B (KSP1)	5	28101506
32 x 32 x 16	B (KSP1)	5	28101493
32 x 32 x 20	B (KSP1)	5	28101504
32 x 32 x 26	B (KSP1)	5	28101507
40 x 26 x 32	TH (KSP11) ⁽¹⁾ / ₍₂₎	1	28115518
40 x 26 x 40	TH (KSP11) ⁽¹⁾	1	28115514
40 x 32 x 32	TH (KSP11) ⁽²⁾	1	28115516
40 x 32 x 40	TH (KSP11) ⁽¹⁾	1	28115300
40 x 40 x 32	TH (KSP11) ⁽²⁾	1	28115520
50 x 26 x 50	TH (KSP11) ⁽¹⁾	1	28115522
50 x 32 x 50	TH (KSP11) ⁽¹⁾	1	28115320
50 x 40 x 40	TH (KSP11)	1	28115524
50 x 40 x 50	TH (KSP11)	1	28115310
50 x 50 x 32	TH (KSP11) ⁽²⁾	1	28115526
50 x 50 x 40	TH (KSP11)	1	28115528
63 x 50 x 63	TH (KSP11)	1	28115330
NEW 75 x 40 x 75	TH (KSP11) (**)	1	28115546
NEW 75 x 50 x 75	TH (KSP11) (**)	1	28115548
50 x 32 x 50 (*)	F (KSP2)	1	28111604
63 x 50 x 63 (*)	F (KSP2)	1	28111674
75 x 40 x 75 (*)	F (KSP2)	1	28112686
75 x 50 x 75 (*)	F (KSP2)	1	28112688

⁽¹⁾ Profile 26x3: B (KSP1)

⁽²⁾ Profile 32x3: B (KSP1)

(*) Item to be out of range

(**) 75x5 takeoffs: compatible profile F (KSP2)

Press fittings Gerpex



Vertical intermediate union joint

Size	Profile	Pcs. pack	Code
14 x 14	B (KSP1)	10	28101421
16 x 16	B (KSP1)	10	28101422
18 x 18	B (KSP1)	10	28101424
20 x 20	B (KSP1)	10	28101426
26 x 26	B (KSP1)	5	28101428
32 x 32	B (KSP1)	5	28101510
40 x 40	TH (KSP11)	1	28115050
50 x 50	TH (KSP11)	1	28115060
63 x 63	TH (KSP11)	1	28115070
NEW 75 x 75	TH (KSP11) (**)	1	28115554
75 x 75 (*)	F (KSP2)	1	28112694

(*) Item to be out of range

(**) Compatible profile F (KSP2)



Vertical intermediate reducing union joint

Size	Profile	Pcs. pack	Code
20 x 16	B (KSP1)	10	28101430
26 x 16	B (KSP1)	5	28101434
26 x 20	B (KSP1)	5	28101436
32 x 16	B (KSP1)	5	28101512
32 x 20	B (KSP1)	5	28101514
32 x 26	B (KSP1)	5	28101516
40 x 26	TH (KSP11) ⁽¹⁾	1	28115500
40 x 32	TH (KSP11) ⁽²⁾	1	28115100
50 x 32	TH (KSP11) ⁽²⁾	1	28115502
50 x 40	TH (KSP11)	1	28115110
63 x 40	TH (KSP11)	1	28115120
63 x 50	TH (KSP11)	1	28115130
NEW 75 x 40	TH (KSP11) (**)	1	28115556
NEW 75 x 50	TH (KSP11) (**)	1	28115558
NEW 75 x 63	TH (KSP11) (**)	1	28115560
63 x 40 (*)	F (KSP2)	1	28111664
63 x 50 (*)	F (KSP2)	1	28111662
75 x 40 (*)	F (KSP2)	1	28112696
75 x 50 (*)	F (KSP2)	1	28112698
75 x 63 (*)	F (KSP2)	1	28112700

⁽¹⁾ Profile 26x3: B (KSP1)

⁽²⁾ Profile 32x3: B (KSP1)

(*) Item to be out of range

(**) 75x5 takeoff: compatible profile F (KSP2)



Vertical Male union joint

Size	Profile	Pcs. pack	Code
14 x 1/2"	B (KSP1)	10	28101441
16 x 1/2"	B (KSP1)	10	28101440
18 x 1/2"	B (KSP1)	10	28101442
20 x 1/2"	B (KSP1)	10	28101445
20 x 3/4"	B (KSP1)	10	28101446
26 x 3/4"	B (KSP1)	5	28101448
26 x 1"	B (KSP1)	5	28101450
32 x 1"	B (KSP1)	5	28101520
32 x 1 1/4"	B (KSP1)	5	28115510
40 x 1"	TH (KSP11)	1	28115512
40 x 1 1/4"	TH (KSP11)	1	28115000
50 x 1 1/2"	TH (KSP11)	1	28115010
63 x 2"	TH (KSP11)	1	28115020
NEW 75 x 2 1/2"	TH (KSP11) (**)	1	28115552
75 x 2 1/2 x 75 (*)	F (KSP2)	1	28112692

(*) Item to be out of range

(**) Compatible profile F (KSP2)



Vertical Female union joint

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	10	28101454
18 x 1/2"	B (KSP1)	10	28101456
20 x 1/2"	B (KSP1)	10	28101459
20 x 3/4"	B (KSP1)	10	28101460
26 x 3/4"	B (KSP1)	5	28101462
26 x 1"	B (KSP1)	5	28101464
32 x 1"	B (KSP1)	5	28101522



Female double elbow with flange

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	5	28101688
20 x 1/2"	B (KSP1)	5	28101690



Tee with chromed copper pipe

Size	Profile	Pcs. pack	Code
16 x Ø 15 x 16	B (KSP1)	5	28101692
20 x Ø 15 x 20	B (KSP1)	5	28101694

Distance Tee 25 mm, chromed pipe 290 mm long

Press fittings Gerpex



Chromed copper pipe

Size	Pcs. pack	Code
Ø 15 x 1/2" M (L 175 mm)	5	28101686



Type elbow fitting with chromed copper pipe

Size	Profile	Pcs. pack	Code
16 x Ø 15 (L 165,5 mm)	B (KSP1)	10	28101708



Built-in galvanized bracket for flanged elbows

Size	Pcs. pack	Code
10 brackets kit	1	28104062

Takeoffs 80-100-153 mm

Takeoffs 153 mm for fixing flanged elbow in 4 point.



Built-in galvanized bracket for flanged elbows

Size	Pcs. pack	Code
	2	28101530

Takeoffs 80-100-153 mm



Galvanised bracket for flanged elbow

Size	Pcs. pack	Code
	1	28101531

Note: suitable only for flanged elbow with threaded base (year 2005).

Takeoff 153 mm



Female T with elbow

Size	Profile	Pcs. pack	Code
16 x 1/2" x 16	B (KSP1)	5	28101620
20 x 1/2" x 20	B (KSP1)	5	28101624



Right terminal

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	5	28101632
18 x 1/2" (*)	B (KSP1)	5	28101636
20 x 1/2"	B (KSP1)	5	28101640

(*) Item to be out of range



Left terminal

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	5	28101630
18 x 1/2" (*)	B (KSP1)	5	28101634
20 x 1/2"	B (KSP1)	5	28101638

(*) Item to be out of range



Bracket for female T with elbow

Size	Pcs. pack	Code
	2	28101532



Plug for circuit test with o-ring

Size	Pcs. pack	Code
1/2" blue	50	28090003
1/2" red	50	28090004
3/4" blue	50	28090006
3/4" red	50	28090008

Press fittings Gerpex



Leakage test plug for multi-layer pipe

Size	Pcs. pack	Code
16 x 2	1	28101862

Complete with 3/8" F fitting for release valve (provided standard) or pressure gauge (optional)
Items to be out of stock



Leakage test plug for multi-layer pipe

Size	Pcs. pack	Code
16 x 2	1	28101846
20 x 2	1	28101848

Complete with 1/2" F fitting for release valve (provided standard)



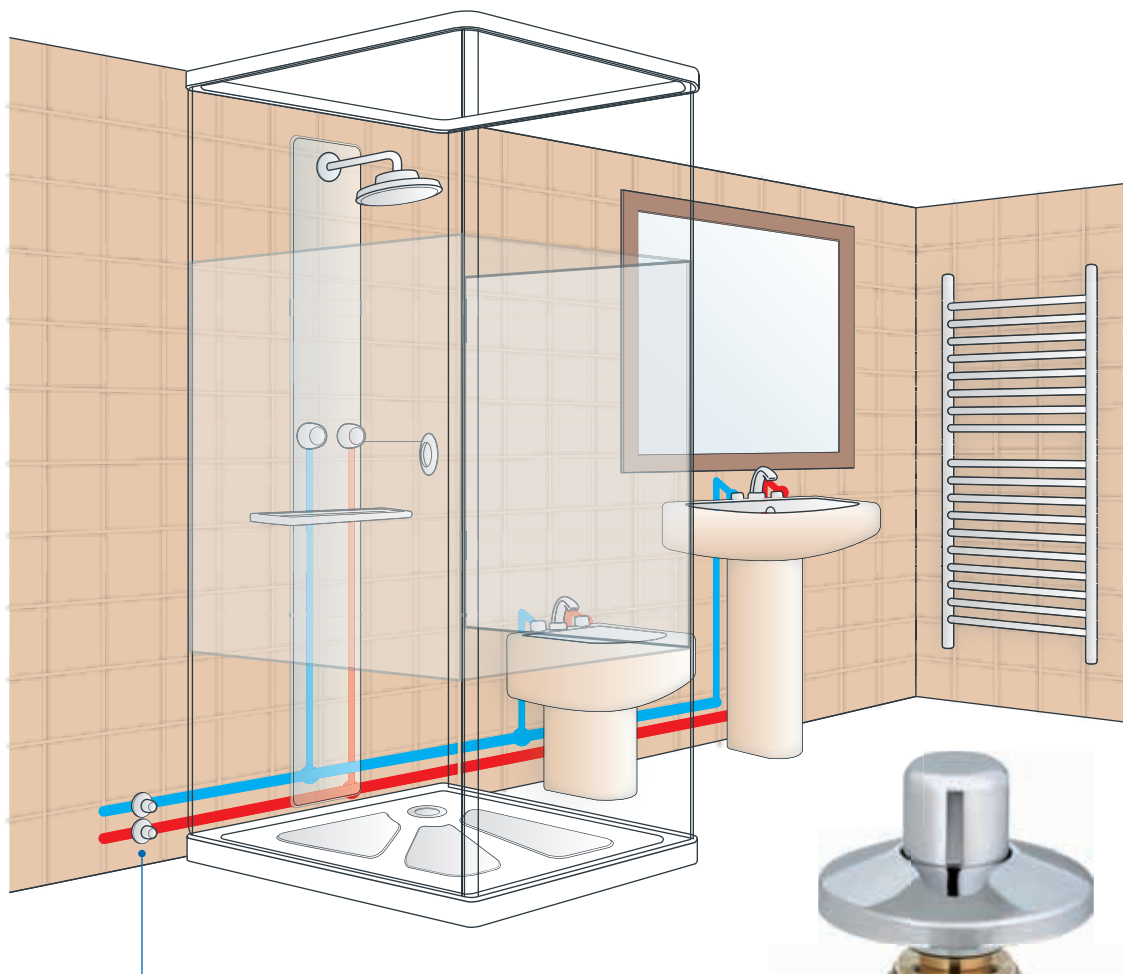
Built-in box for flanged elbows

Size	Pcs. pack	Code
	1	13010010

For installation of Gerpex flanged elbows



Valve for built-in application Gerpex



Construction

Body made of brass ST UNI EN 12165 CW617N **
Group Screw brass TN UNI EN 12164 CW614N
Rosette-gaskets-flywheel, chromed
Gasket EPDM

Technical data

Max operating temperature: 95 °C
Max allowable working pressure at 95 °C: 6 bar
** Nickel-plated only on surface non in contact with fluides; availability after exhaustion of totally nickel-plated versions



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Valve for built-in application Gerpex



Body

Size	Profile	Pcs. pack	Code
16 x 3/4"	B (KSP1)	5	90008120
18 x 3/4"	B (KSP1)	5	90008130
20 x 3/4"	B (KSP1)	5	90008140
26 x 3/4"	B (KSP1)	5	90008150



Screw group 3/4" for built-in valve body

Size	Pcs. pack	Code
3/4"	10	28100980



Cap shutter 3/4" with handle

Size	Pcs. pack	Code
3/4"	10	28100982



Extended screw (+20 mm) brass 3/4"

Size	Pcs. pack	Code
3/4" for built-in valve body	10	90008170
3/4" for cap shutter with handle	10	90008180



Spherical ash seal

Size	Pcs. pack	Code
	10	90008011



Manual pressing machine

NEW

360° rotating head - Telescopic arms, extensible 300 mm
Instrument weight: approximately 3,3 Kg - Instrument lenght: 560 - 860 mm
Thrust force: min. 30 kN - Press fittings: from DN 14 to DN 32

Size	Pcs. pack	Code
	1	28100958



Manual pressing machine MP 32

360° rotating head - Telescopic arms, extensible 30 cm
Instrument weight: approximately 2,5 Kg - Instrument lenght: 560 - 860 mm
Thrust force: min. 30 kN - Press fittings: from DN 14 to DN 32

Size	Pcs. pack	Code
	1	28100934

Item to be out of range



Dies for manual pressing machine MP 32

Size	Profile	Pcs. pack	Code
16 x 2	B (KSP1)	1	28100935
20 x 2	B (KSP1)	1	28100937
26 x 3	B (KSP1)	1	28100938
32 x 3	B (KSP1)	1	28100939



14,4 V battery powered pressing machine SPM32 for Gerpex jaws from DN 14 to DN 75

Weight including accumulator: 3,9 Kg - Dimensions LxHxS: 390x310x95 - Feed force: min. 32kN - Power supply: 14,4 V - Battery charger: 230 V, 50 Hz - Battery capacity : 2,6 Ah - Charging time: 45 min approx. - Pressing performance: approx. 235 (DN20) - Pressing time: from 4 to 7 depending on DN - Operation temperature range: -20 °C ÷ 40 °C - 360° rotating head - Automatic piston retraction - USB connection for remote diagnosis - Optical malfunction report and workin state indicator - Complete with metal case, battery 14,4 V, battery charger, USB cable, analysis software).

Size	Pcs. pack	Code
	1	28122002



230 V powered pressing machine SPM32 for Gerpex jaws from DN 14 to DN 75

Weight including accumulator: 4,5 Kg - 230 V adapter weight: 840 g - Dimensions LxHxS: 390x310x95 - Feed force: min. 32kN - Power supply: 230 V, 50 Hz - Max loading: 30 A - Adapter voltage output: 14,4 V - Pressing time: from 4 to 7 depending on DN - Operation temperature range: -20 °C ÷ 40 °C - 360° rotating head - Automatic piston retraction - USB connection for remote diagnosis - Optical malfunction report and working state indicator - Complete with metal case, 230 V adapter, USB cable, analysis software.

Size	Pcs. pack	Code
	1	28122000

Tooling Gerpex/Gerpex Gas



Spare battery 14,4 V for SMP32 pressing machine

Size	Pcs. pack	Code
	1	28122018



Battery charger 14,4 V for SPM32 pressing machine

Size	Pcs. pack	Code
	1	28122016



230 V adapter for SPM32 pressing machine

Size	Pcs. pack	Code
	1	28122010

Permits power supply to the SPM32 pressing machine, directly at 230 V, replacing the 14,4 V battery



Case for jaws

NEW

Size	Pcs. pack	Code
	1	28122012



Gerpex jaw

Size	Profile	Pcs. pack	Code
14 x 2	B (KSP1)	1	28100201
16 x 2	B (KSP1)	1	28100211
18 x 2	B (KSP1)	1	28100221
20 x 2	B (KSP1)	1	28100231
26 x 3	B (KSP1)	1	28100241
32 x 3	B (KSP1)	1	28100251
40 x 35	TH (KSP11)	1	28100510
50 x 4	TH (KSP11)	1	28100520
63 x 4,5	TH (KSP11)	1	28100530



Gerpex jaws

NEW

Size	Profile	Pcs. pack	Code
75	TH (KSP11)	1	28100540



Ø 40 - Ø 50
F (KSP2)

Ø 63
F (KSP2)

Gerpex jaw

Size	Profile	Pcs. pack	Code
NEW 40 x 3,5	F (KSP2)	1	28100532
NEW 50 x 4	F (KSP2)	1	28100534
NEW 63 x 4,5	F (KSP2)	1	28100536
75	F (KSP2)	1	28100880



Ø 75
F (KSP2)



Gerpex chain jaw UW 63

Size	Pcs. pack	Code
	1	28100290



TH (KSP11)

F (KSP2)

Dies for Gerpex chain jaw UW 63

Size	Profile	Pcs. pack	Code
40 x 3,5 ⁽¹⁾	TH (KSP11)	1	28100870
50 x 4 ⁽¹⁾	TH (KSP11)	1	28100872
63 x 4,5 ⁽¹⁾	TH (KSP11)	1	28100874
40 x 3,5 ⁽²⁾	F (KSP2)	1	28100292
50 x 4 ⁽²⁾	F (KSP2)	1	28100294
63 x 4,5 ⁽²⁾	F (KSP2)	1	28100296

Tooling Gerpex/Gerpex Gas



SPM19 battery pressing machine 18V for Gerpex jaw with dies from DN 16 to DN 32

NEW

Weight (battery not included): 1,8 Kg – Dimensions LxHxS: 371x100x74 mm – Feed force: min 19 kN – Power supply: 18 V DC – Battery power: 230 V, 50 Hz – Battery capacity: 1,5 Ah – Charging time: 30 minutes aprox – Pressing time: from 3 to 4 s (depending on the nominal width) – Operation temperature range: -10 °C ÷ 40 °C – Sound level: 75 dB(A) in 1 m distance - Vibrations: < 2,5 m/s² (real value pondered by the acceleration) - 360° rotating head - Automatic piston retraction - USB connection for remote diagnosis - Optical malfunction report and workin state indicator -Complete with nylon case, battery 18 V, battery charger, USB cable, analysis software).

Size	Pcs. pack	Code
	1	28101816



Gerpex jaw for SPM19 pressing machine

NEW

Size	Pcs. pack	Code
	1	28101818



Dies for jaw for SPM19 pressing machine

Size	Profile	Pcs. pack	Code
16 x 2	B (KSP1)	1	28100935
20 x 2	B (KSP1)	1	28100937
26 x 3	B (KSP1)	1	28100938
32 x 3	B (KSP1)	1	28100939



Battery 18 V for SPM19 pressing machine

NEW

Size	Pcs. pack	Code
1,5 Ah	1	28101820



Battery charger 18 V for SPM19 pressing machine

NEW

Size	Pcs. pack	Code
	1	28101824



230 V adapter for SPM19 pressing machine

NEW

Size	Pcs. pack	Code
	1	28101822

Permits power supply to the SPM19 pressing machine, directly at 230 V, replacing the 18 V battery



Compact battery pressing machine 9,6V for Gerpex jaw with dies from DN 14 to DN 32

Weight approx. 2,5 kg (with battery and jaws) - Dimensions (LxHxS): 467 x 98 x 57 mm - Feed force: 15 kN aprox. - Power supply: 9,6 V - Battery power: 2 Ah - Battery charger: 230 V - 50 Hz - Time of charge: 40 minutes aprox. - Battery full charge pressing performance: 100 aprox. (DN 20) - Pressing time: 3 to 4 s (depending on the nominal width) - Environmental temperature: -20 °C +40 °C - Sound level: 75 dB(A) in 1 m distance - Vibrations: < 2,5 m/s² (real value pondered by the acceleration) - 360° rotating head - Automatic retraction - Complete with plastic case and battery charger

Size	Pcs. pack	Code
	1	28100990

Item to be out of range



Jaw for Compact battery pressing machine

Size	Pcs. pack	Code
	1	28100992

Item to be out of range



Dies for jaw for Compact battery pressing machine

Size	Profile	Pcs. pack	Code
16 x 2	B (KSP1)	1	28100935
20 x 2	B (KSP1)	1	28100937
26 x 3	B (KSP1)	1	28100938
32 x 3	B (KSP1)	1	28100939



Battery 9,6 V for Compact pressing machine

Size	Pcs. pack	Code
2 Ah	1	28101800
3 Ah	1	28101802

Battery full charge pressing performance: 150 aprox. (DN 20)



Battery charger 9 V - 12 V

Size	Pcs. pack	Code
	1	28101806

Tooling Gerpex/Gerpex Gas



Flarer and calibrator

Size	Pcs. pack	Code
Ø 14	1	28100960
Ø 16	1	28100962
Ø 18	1	28100964
Ø 20	1	28100966
Ø 26	1	28100968
Ø 32	1	28100949
Ø 40	1	28100946
Ø 50	1	28100947
Ø 63	1	28100972
Ø 16-20-26	1	28100959



Flarer and calibrator

Size	Pcs. pack	Code
75	1	28100885



Shear for multi-layer pipe

NEW

Size	Pcs. pack	Code
Ø 14 ÷ 26	1	28101808
Ø 26 ÷ 40	1	28101812
Spare blade for cutter Ø 14 ÷ 26	1	28101810
Spare blade for cutter Ø 26 ÷ 40	1	28101814



Gerpex shear

Size	Pcs. pack	Code
Ø 14 ÷ 32	1	28100942
Spare blade for cutter	1	28100943



Shear for Gerpex with pipe guide

Size	Pcs. pack	Code
Ø 14 ÷ 20	1	28100950
Spare blade for cutter	1	28100951

Items to be out of range



Pipe cutter for Gerpex

Size	Pcs. pack	Code
Pipe cutter Ø 14 ÷ 32	1	28100944
Spare part wheel	1	28100948
Pipe cutter Ø 6 ÷ 75	1	28024081



Internal spring for bending pipe

Size	Pcs. pack	Code
Ø 16 L=500 mm	1	28100616
Ø 18 L=500 mm	1	28100618
Ø 20 L=500 mm	1	28100620
Ø 26 L=1000 mm	1	28100626



External spring for bending pipe

Size	Pcs. pack	Code
Ø 16 L=500 mm	1	28100716
Ø 20 L=500 mm	1	28100720



Hydraulic bending machine for Gerpex pipe

Size	Pcs. pack	Code
Ø 26 ÷ 32	1	28100920

Complete with case, shape Ø 26 and Ø 32



Forms and Shapes for bending machine

Size	Pcs. pack	Code
Form Ø 16	1	28104002
Form Ø 20	1	28104006
Shape 14÷16	1	28104010
Shape 18÷20	1	28104012



Manifolds, boxes and motorized ball valves

> Bars
manifolds



51

> Stell co-planar
manifold



75

> Accessories
for manifolds



62

> Brass
manifold



76

> Industrial
manifold



69

> Brass manifold
with bibcocks



77

> Electro-thermic
head



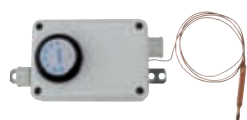
70

> Plastic
manifold box



79

> Electric
boxes



72

> Sanitary manifold
with bibcocks



82

> Manifold
cabinet



73

> Motor driven
ball-valve



83



Manifold for underfloor heating regulation and control



Uses

The Topway bar manifold, with its multitude of components and accessories, is the perfect solution to current system engineering needs. It offers flexible solutions for various system configurations. This manifold makes it possible to set the temperature in any room through the installation of electro-thermal actuators so as to automatically control each circuit using a thermostat. Special attention has been given to speed and ease of installation. All of the parts combine easily with one another. Adjustment and control can be performed with precision using flow rate measurement devices that are already built into the manifold. The performance features of the product, along with its high level of quality, ensured by the materials used and the demanding production controls, make it reliable and functional over time, reducing maintenance and allowing substantial energy savings. Top Way distribution manifolds are tested 100% prior to packaging

Construction

All Topway manifold distribution headers and accessories are nickel plated. Brass header retrieved through a bar drawing process TN UNI EN 12168 CW614N. Seals in EPDM.

Technical data

Maximum operating temperature: 90° C

Maximum working pressure: 6 bar

Head thread: G 1"

Side ways thread: M 24x19

Note: 24x19 thread - 24 mm gas thread and 19 screw threads for inch.

Note: seal on thread of heads ONLY with o-ring.

DO NOT USE tapered threads.



Pre-assembled distribution manifold nickel-plated, 24x19 takeoffs (flow and return)

Technical data

Maximum operating temperature 110 °C with lockshields and 90° with flow meters

Maximum working pressure 10 bar with lockshields and 6 bar with flow meters

Head thread G 3/4" - 1"

Side ways thread M 24x19

Note: 24x19 thread - 24 mm gas thread and 19 screw threads for inch.

Note: seal on thread of heads ONLY with o-ring. DO NOT USE tapered threads.

Size	Ways	Thread	Pcs. Pack	Code
1"	2+2	24x19	1	01297100
1"	3+3	24x19	1	01297102
1"	4+4	24x19	1	01297104
1"	5+5	24x19	1	01297106
1"	6+6	24x19	1	01297108
1"	7+7	24x19	1	01297110
1"	8+8	24x19	1	01297112
1"	9+9	24x19	1	01297114
1"	10+10	24x19	1	01297116
1"	11+11	24x19	1	01297118
1"	12+12	24x19	1	01297120



Pre-assembled distribution manifold nickel-plated with air vent, 24x19 takeoffs (flow and return)

NEW

Technical data

Maximum operating temperature 110 °C with lockshields and 90° with flow meters

Maximum working pressure 10 bar with lockshields and 6 bar with flow meters

Head thread G 3/4" - 1"

Side ways thread M 24x19

Note: 24x19 thread - 24 mm gas thread and 19 screw threads for inch.

Note: seal on thread of heads ONLY with o-ring. DO NOT USE tapered threads.

Size	Ways	Thread	Pcs. Pack	Code
1"	2+2	24x19	1	01297280
1"	3+3	24x19	1	01297282
1"	4+4	24x19	1	01297284
1"	5+5	24x19	1	01297286
1"	6+6	24x19	1	01297288
1"	7+7	24x19	1	01297290
1"	8+8	24x19	1	01297292
1"	9+9	24x19	1	01297294
1"	10+10	24x19	1	01297296
1"	11+11	24x19	1	01297298
1"	12+12	24x19	1	01297300

Bars manifold



TECHNICAL SHEET 10

Uses

The Topway bar manifold, with its multitude of components and accessories, is the perfect solution to current system engineering needs. It offers flexible solutions for various system configurations.

This manifold makes it possible to set the temperature in any room through the installation of electro-thermal actuators so as to automatically control each circuit using a thermostat.

Special attention has been given to speed and ease of installation.

All of the parts combine easily with one another. Adjustment and control can be performed with precision using flow rate measurement devices that are already built into the manifold.

The performance features of the product, along with its high level of quality, ensured by the materials used and the demanding production controls, make it reliable and functional over time, reducing maintenance and allowing substantial energy savings.

Top Way distribution manifolds are tested 100% prior to packaging.

Construction

All Topway manifold distribution headers and accessories are nickel plated.

Brass header retrieved through a bar drawing process TN UNI EN 12168 CW614N.

Seals in EPDM

Technical data

Maximum operating temperature 110 °C with lockshields and 90° with flow meters

Maximum working pressure 10 bar with lockshields and 6 bar with flow meters

Head thread G 3/4" - 1" - 1 1/4"

Side ways thread M 24x19 - 3/4" Eurocone

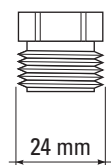
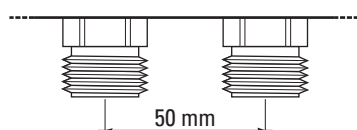
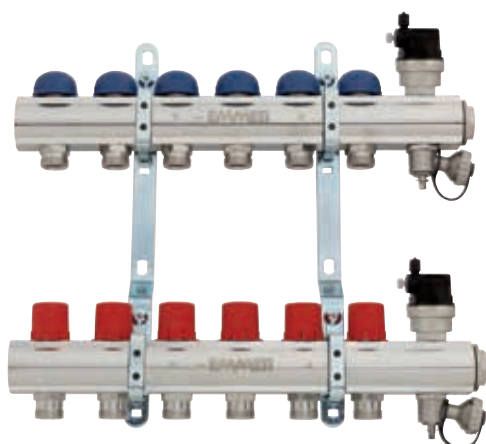
Note: 24x19 thread - 24 mm gas thread and 19 screw threads for inch.

Note: seal on thread of heads ONLY with o-ring.

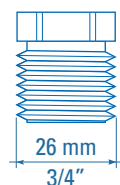
DO NOT USE tapered threads.

Bars manifold

Pre-assembled bar Topway manifold



24x19



Eurocone

Pre-assembled distribution manifold nickel-plated, 24x19 takeoffs (flow and return) and 3/4" eurocone takeoffs (flow and return)

Supplied together with:

Lockshield featuring dual micrometric adjustment on inlet

Manual adjustment valves set up to take thermo-electric

Nr. 2 blind nipples 1" or 1 1/4" complete with o-ring

Nr. 2 water drain valves 1/2"

Nr. 2 Varia air vent 1/2" with upper bleed (lateral + manual)

Nr. 2 dual metal holders 1" or 1 1/4"

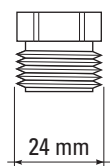
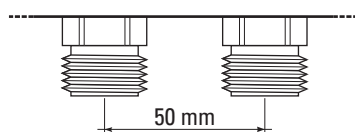
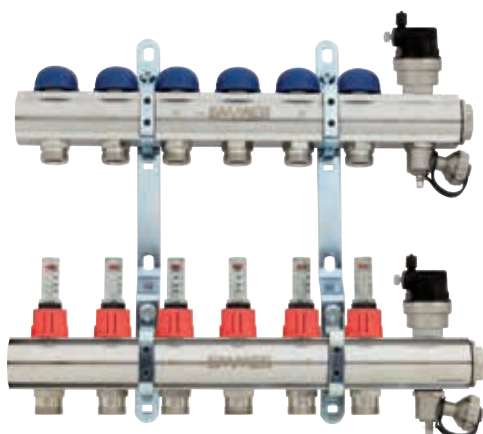
Note: nr. 2 Progress ball valves 1" or 1 1/4" with red and blue butterfly handles, with or without pipe union for thermometer and thermometer, are supplied optionally

Size	Ways	Thread	Pcs. pack	Code
1"	2+2	24x19	1	01298680
1"	3+3	24x19	1	01298682
1"	4+4	24x19	1	01298684
1"	5+5	24x19	1	01298686
1"	6+6	24x19	1	01298688
1"	7+7	24x19	1	01298690
1"	8+8	24x19	1	01298692
1"	9+9	24x19	1	01298694
1"	10+10	24x19	1	01298696
1"	11+11	24x19	1	01298698
1"	12+12	24x19	1	01298700
1 1/4"	4+4	24x19	1	01298924
1 1/4"	5+5	24x19	1	01298926
1 1/4"	6+6	24x19	1	01298928
1 1/4"	7+7	24x19	1	01298930
1 1/4"	8+8	24x19	1	01298932
1 1/4"	9+9	24x19	1	01298934
1 1/4"	10+10	24x19	1	01298936
1 1/4"	11+11	24x19	1	01298938
1 1/4"	12+12	24x19	1	01298940

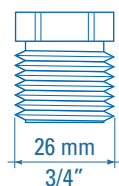
1"	2+2	3/4" Eurocone	1	01298710
1"	3+3	3/4" Eurocone	1	01298712
1"	4+4	3/4" Eurocone	1	01298714
1"	5+5	3/4" Eurocone	1	01298716
1"	6+6	3/4" Eurocone	1	01298718
1"	7+7	3/4" Eurocone	1	01298720
1"	8+8	3/4" Eurocone	1	01298722
1"	9+9	3/4" Eurocone	1	01298724
1"	10+10	3/4" Eurocone	1	01298726
1"	11+11	3/4" Eurocone	1	01298728
1"	12+12	3/4" Eurocone	1	01298730
1 1/4"	6+6	3/4" Eurocone	1	01298958
1 1/4"	7+7	3/4" Eurocone	1	01298960
1 1/4"	8+8	3/4" Eurocone	1	01298962
1 1/4"	9+9	3/4" Eurocone	1	01298964
1 1/4"	10+10	3/4" Eurocone	1	01298966
1 1/4"	11+11	3/4" Eurocone	1	01298968
1 1/4"	12+12	3/4" Eurocone	1	01298970

Takeoffs 50 mm

It is also possible to insert the flow meter cartridge into the new lockshield



24x19



Eurocone

Pre-assembled distribution manifold nickel-plated, 24x19 takeoffs (flow and return) and 3/4" eurocone (flow and return) with lockshields with flow meters

Supplied together with:

Lockshields with flow meters (0÷4 l/min)

Manual adjustment valves set up to take thermo-electric

Nr. 2 blind nipples 1" or 1 1/4" complete with o-ring

Nr. 2 water drain valves 1/2"

Nr. 2 Varia air vent 1/2" with bleed (lateral+manual)

Nr. 2 dual metal holders 1" or 1 1/4"

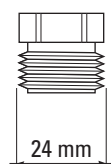
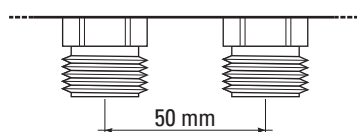
Note: nr. 2 Progress ball valves 1" or 1 1/4" with red and blue butterfly handles, with or without pipe union for thermometer, are supplied optionally

Size	Ways	Thread	Pcs. pack	Code
1"	2+2	24x19	1	01298180
1"	3+3	24x19	1	01298182
1"	4+4	24x19	1	01298184
1"	5+5	24x19	1	01298186
1"	6+6	24x19	1	01298188
1"	7+7	24x19	1	01298190
1"	8+8	24x19	1	01298192
1"	9+9	24x19	1	01298194
1"	10+10	24x19	1	01298196
1"	11+11	24x19	1	01298198
1"	12+12	24x19	1	01298200
1 1/4"	4+4	24x19	1	01298424
1 1/4"	5+5	24x19	1	01298426
1 1/4"	6+6	24x19	1	01298428
1 1/4"	7+7	24x19	1	01298430
1 1/4"	8+8	24x19	1	01298432
1 1/4"	9+9	24x19	1	01298434
1 1/4"	10+10	24x19	1	01298436
1 1/4"	11+11	24x19	1	01298438
1 1/4"	12+12	24x19	1	01298440
1"	2+2	3/4" Eurocone	1	01298210
1"	3+3	3/4" Eurocone	1	01298212
1"	4+4	3/4" Eurocone	1	01298214
1"	5+5	3/4" Eurocone	1	01298216
1"	6+6	3/4" Eurocone	1	01298218
1"	7+7	3/4" Eurocone	1	01298220
1"	8+8	3/4" Eurocone	1	01298222
1"	9+9	3/4" Eurocone	1	01298224
1"	10+10	3/4" Eurocone	1	01298226
1"	11+11	3/4" Eurocone	1	01298228
1"	12+12	3/4" Eurocone	1	01298230
1 1/4"	6+6	3/4" Eurocone	1	01298458
1 1/4"	7+7	3/4" Eurocone	1	01298460
1 1/4"	8+8	3/4" Eurocone	1	01298462
1 1/4"	9+9	3/4" Eurocone	1	01298464
1 1/4"	10+10	3/4" Eurocone	1	01298466
1 1/4"	11+11	3/4" Eurocone	1	01298468
1 1/4"	12+12	3/4" Eurocone	1	01298470

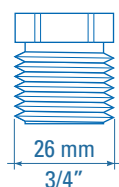
Takeoffs 50 mm

Bars manifold

Single bar distribution Topway manifold



24x19



Eurocone

1" and 1 1/4" pre-assembled distribution manifold nickel-plated, 24x19 takeoffs (return) and 3/4" eurocone (return)

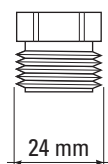
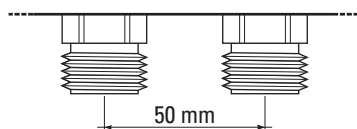
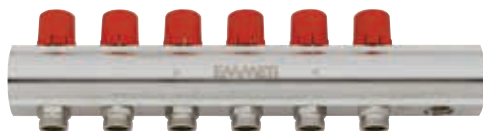
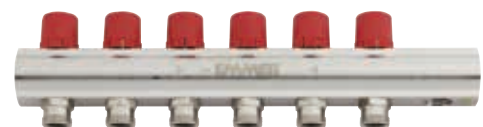
Supplied with:

Manual valves with valve-caps, set up to take thermo-electric heads

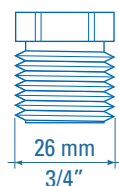
Additional connections for bleed valve and drain cock

Size	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01293890
1"	3	24x19	2	01293892
1"	4	24x19	2	01293894
1"	5	24x19	2	01293896
1"	6	24x19	2	01293898
1"	7	24x19	2	01293900
1"	8	24x19	2	01293902
1"	9	24x19	2	01293904
1"	10	24x19	2	01293906
1"	11	24x19	2	01293908
1"	12	24x19	2	01293910
1 1/4"	4	24x19	2	01294694
1 1/4"	5	24x19	2	01294696
1 1/4"	6	24x19	2	01294698
1 1/4"	7	24x19	2	01294700
1 1/4"	8	24x19	2	01294702
1 1/4"	9	24x19	2	01294704
1 1/4"	10	24x19	2	01294706
1 1/4"	11	24x19	2	01294708
1 1/4"	12	24x19	2	01294710
1"	2	3/4" Eurocone	2	01293920
1"	3	3/4" Eurocone	2	01293922
1"	4	3/4" Eurocone	2	01293924
1"	5	3/4" Eurocone	2	01293926
1"	6	3/4" Eurocone	2	01293928
1"	7	3/4" Eurocone	2	01293930
1"	8	3/4" Eurocone	2	01293932
1"	9	3/4" Eurocone	2	01293934
1"	10	3/4" Eurocone	2	01293936
1"	11	3/4" Eurocone	2	01293938
1"	12	3/4" Eurocone	2	01293940
1 1/4"	6	3/4" Eurocone	2	01294728
1 1/4"	7	3/4" Eurocone	2	01294730
1 1/4"	8	3/4" Eurocone	2	01294732
1 1/4"	9	3/4" Eurocone	2	01294734
1 1/4"	10	3/4" Eurocone	2	01294736
1 1/4"	11	3/4" Eurocone	2	01294738
1 1/4"	12	3/4" Eurocone	2	01294740

Takeoffs 50 mm



24x19



Eurocone

1" and 1 1/4" flow manifold nickel-plated, with lockshields 24x19 takeoffs (flow) and 3/4" eurocone takeoffs (flow)

Supplied with:

Double-adjustable lockshields

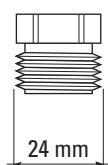
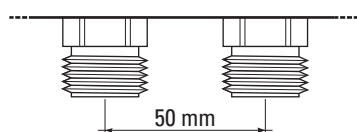
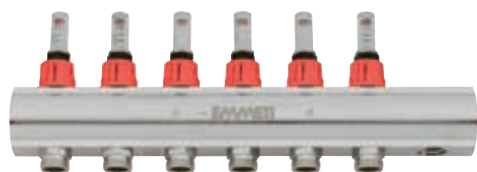
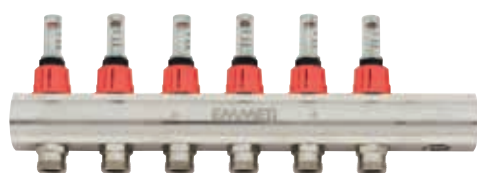
Additional connections for bleed valve and drain cock

Size	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01298620
1"	3	24x19	2	01298622
1"	4	24x19	2	01298624
1"	5	24x19	2	01298626
1"	6	24x19	2	01298628
1"	7	24x19	2	01298630
1"	8	24x19	2	01298632
1"	9	24x19	2	01298634
1"	10	24x19	2	01298636
1"	11	24x19	2	01298638
1"	12	24x19	2	01298640
1"1/4	4	24x19	2	01298864
1"1/4	5	24x19	2	01298866
1"1/4	6	24x19	2	01298868
1"1/4	7	24x19	2	01298870
1"1/4	8	24x19	2	01298872
1"1/4	9	24x19	2	01298874
1"1/4	10	24x19	2	01298876
1"1/4	11	24x19	2	01298878
1"1/4	12	24x19	2	01298880
1"	2	3/4" Eurocone	2	01298650
1"	3	3/4" Eurocone	2	01298652
1"	4	3/4" Eurocone	2	01298654
1"	5	3/4" Eurocone	2	01298656
1"	6	3/4" Eurocone	2	01298658
1"	7	3/4" Eurocone	2	01298660
1"	8	3/4" Eurocone	2	01298662
1"	9	3/4" Eurocone	2	01298664
1"	10	3/4" Eurocone	2	01298666
1"	11	3/4" Eurocone	2	01298668
1"	12	3/4" Eurocone	2	01298670
1"1/4	6	3/4" Eurocone	2	01298898
1"1/4	7	3/4" Eurocone	2	01298900
1"1/4	8	3/4" Eurocone	2	01298902
1"1/4	9	3/4" Eurocone	2	01298904
1"1/4	10	3/4" Eurocone	2	01298906
1"1/4	11	3/4" Eurocone	2	01298908
1"1/4	12	3/4" Eurocone	2	01298910

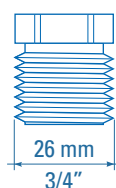
Takeoffs 50 mm

It is also possible to insert the flow meter cartridge into the new lockshield

Bars manifold



24x19



Eurocone

1" and 1 1/4" flow manifold nickel-plated, with lockshields with flow meters, 24x19 takeoffs (flow) and 3/4" eurocone (flow)

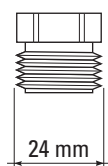
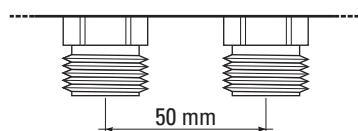
Supplied with:

Lockshields with flow meters (0÷4 l/min)

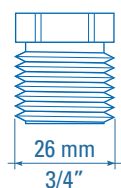
Additional connections for bleed valve and drain cock

Size	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01298120
1"	3	24x19	2	01298122
1"	4	24x19	2	01298124
1"	5	24x19	2	01298126
1"	6	24x19	2	01298128
1"	7	24x19	2	01298130
1"	8	24x19	2	01298132
1"	9	24x19	2	01298134
1"	10	24x19	2	01298136
1"	11	24x19	2	01298138
1"	12	24x19	2	01298140
1 1/4"	4	24x19	2	01298364
1 1/4"	5	24x19	2	01298366
1 1/4"	6	24x19	2	01298368
1 1/4"	7	24x19	2	01298370
1 1/4"	8	24x19	2	01298372
1 1/4"	9	24x19	2	01298374
1 1/4"	10	24x19	2	01298376
1 1/4"	11	24x19	2	01298378
1 1/4"	12	24x19	2	01298380
1"	2	3/4" Eurocone	2	01298150
1"	3	3/4" Eurocone	2	01298152
1"	4	3/4" Eurocone	2	01298154
1"	5	3/4" Eurocone	2	01298156
1"	6	3/4" Eurocone	2	01298158
1"	7	3/4" Eurocone	2	01298160
1"	8	3/4" Eurocone	2	01298162
1"	9	3/4" Eurocone	2	01298164
1"	10	3/4" Eurocone	2	01298166
1"	11	3/4" Eurocone	2	01298168
1"	12	3/4" Eurocone	2	01298170
1 1/4"	6	3/4" Eurocone	2	01298398
1 1/4"	7	3/4" Eurocone	2	01298400
1 1/4"	8	3/4" Eurocone	2	01298402
1 1/4"	9	3/4" Eurocone	2	01298404
1 1/4"	10	3/4" Eurocone	2	01298406
1 1/4"	11	3/4" Eurocone	2	01298408
1 1/4"	12	3/4" Eurocone	2	01298410

Takeoffs 50 mm



24x19



Eurocone

1" pre-assembled distribution manifold nickel-plated, 24x19 takeoffs (return) and 3/4" eurocone (return), without additional way

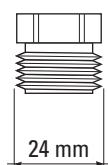
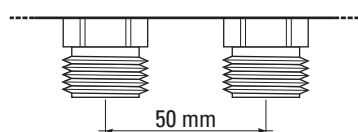
NEW

Supplied with:

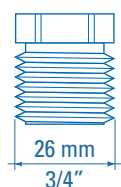
Manual valves with valve-caps, set up to take thermo-electric heads

Size	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01294130
1"	3	24x19	2	01294132
1"	4	24x19	2	01294134
1"	5	24x19	2	01294136
1"	6	24x19	2	01294138
1"	7	24x19	2	01294140
1"	8	24x19	2	01294142
1"	9	24x19	2	01294144
1"	10	24x19	2	01294146
1"	11	24x19	2	01294148
1"	12	24x19	2	01294150
1"	2	3/4" Eurocone	2	01294160
1"	3	3/4" Eurocone	2	01294162
1"	4	3/4" Eurocone	2	01294164
1"	5	3/4" Eurocone	2	01294166
1"	6	3/4" Eurocone	2	01294168
1"	7	3/4" Eurocone	2	01294170
1"	8	3/4" Eurocone	2	01294172
1"	9	3/4" Eurocone	2	01294174
1"	10	3/4" Eurocone	2	01294176
1"	11	3/4" Eurocone	2	01294178
1"	12	3/4" Eurocone	2	01294180

Takeoffs 50 mm



24x19



Eurocone

1" flow manifold nickel-plated, with lockshields 24x19 takeoffs (flow) and 3/4" eurocone takeoffs (flow), without additional way

NEW

Supplied with:

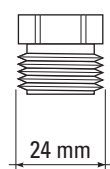
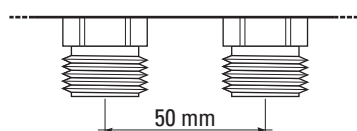
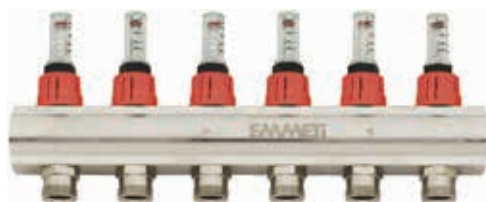
Double-adjustable lockshields

Size	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01298800
1"	3	24x19	2	01298802
1"	4	24x19	2	01298804
1"	5	24x19	2	01298806
1"	6	24x19	2	01298808
1"	7	24x19	2	01298810
1"	8	24x19	2	01298812
1"	9	24x19	2	01298814
1"	10	24x19	2	01298816
1"	11	24x19	2	01298818
1"	12	24x19	2	01298820
1"	2	3/4" Eurocone	2	01298830
1"	3	3/4" Eurocone	2	01298832
1"	4	3/4" Eurocone	2	01298834
1"	5	3/4" Eurocone	2	01298836
1"	6	3/4" Eurocone	2	01298838
1"	7	3/4" Eurocone	2	01298840
1"	8	3/4" Eurocone	2	01298842
1"	9	3/4" Eurocone	2	01298844
1"	10	3/4" Eurocone	2	01298846
1"	11	3/4" Eurocone	2	01298848
1"	12	3/4" Eurocone	2	01298850

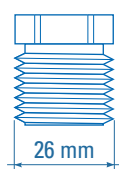
Takeoffs 50 mm

It is also possible to insert the flow meter cartridge into the new lockshield

Bars manifold



24x19



Eurocone

1" flow manifold nickel-plated, with lockshields with flow meters, 24x19 takeoffs (flow) and 3/4" eurocone (flow), without additional way

NEW

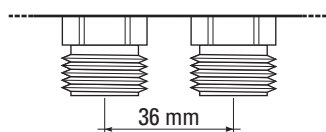
Supplied with:

Lockshields with flow meters (0÷4 l/min)

Size	Ways	Thread	Pcs. pack	Code
1"	2	24x19	2	01298480
1"	3	24x19	2	01298482
1"	4	24x19	2	01298484
1"	5	24x19	2	01298486
1"	6	24x19	2	01298488
1"	7	24x19	2	01298490
1"	8	24x19	2	01298492
1"	9	24x19	2	01298494
1"	10	24x19	2	01298496
1"	11	24x19	2	01298498
1"	12	24x19	2	01298500

1"	2	3/4" Eurocone	2	01298510
1"	3	3/4" Eurocone	2	01298512
1"	4	3/4" Eurocone	2	01298514
1"	5	3/4" Eurocone	2	01298516
1"	6	3/4" Eurocone	2	01298518
1"	7	3/4" Eurocone	2	01298520
1"	8	3/4" Eurocone	2	01298522
1"	9	3/4" Eurocone	2	01298524
1"	10	3/4" Eurocone	2	01298526
1"	11	3/4" Eurocone	2	01298528
1"	12	3/4" Eurocone	2	01298530

Takeoffs 50 mm

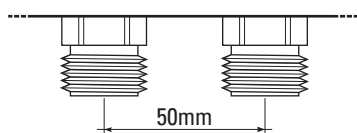


3/4" distribution manifold nickel-plated, complete with 24x19 takeoffs connections

Supplied with hole on upper side bleed valve

Size	Ways	Pcs. pack	Code
3/4"	2	4	01293260
3/4"	3	4	01293262
3/4"	4	4	01293264
3/4"	5	4	01293266
3/4"	6	4	01293268
3/4"	7	4	01293270
3/4"	8	4	01293272
3/4"	9	4	01293274
3/4"	10	4	01293276
3/4"	11	4	01293278
3/4"	12	4	01293280

Takeoffs 36 mm

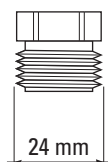
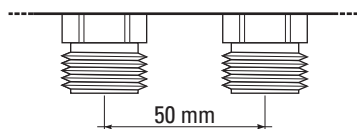


3/4" distribution manifold nickel-plated, complete with 24x19 takeoffs connections

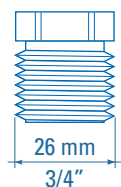
Supplied with hole on upper side for bleed valve

Size	Ways	Pcs. pack	Code
3/4"	2	4	01293290
3/4"	3	4	01293292
3/4"	4	4	01293294
3/4"	5	4	01293296
3/4"	6	4	01293298
3/4"	7	4	01293300
3/4"	8	4	01293302
3/4"	9	4	01293304
3/4"	10	4	01293306
3/4"	11	4	01293308
3/4"	12	4	01293310

Takeoffs 50 mm



24x19



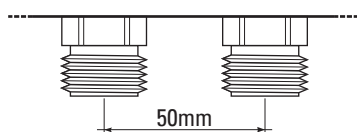
Eurocone

1" distribution manifold nickel-plated, complete with 24x19 takeoffs connection and 3/4" eurocone takeoffs (flow)

Supplied with hole on upper side for bleed valve

Size	Ways	Thread	Pcs. pack	Code
1"	2	24x19	4	01293830
1"	3	24x19	4	01293832
1"	4	24x19	4	01293834
1"	5	24x19	4	01293836
1"	6	24x19	4	01293838
1"	7	24x19	4	01293840
1"	8	24x19	4	01293842
1"	9	24x19	4	01293844
1"	10	24x19	4	01293846
1"	11	24x19	4	01293848
1"	12	24x19	4	01293850
1"	2	3/4" Eurocone	4	01293860
1"	3	3/4" Eurocone	4	01293862
1"	4	3/4" Eurocone	4	01293864
1"	5	3/4" Eurocone	4	01293866
1"	6	3/4" Eurocone	4	01293868
1"	7	3/4" Eurocone	4	01293870
1"	8	3/4" Eurocone	4	01293872
1"	9	3/4" Eurocone	4	01293874
1"	10	3/4" Eurocone	4	01293876
1"	11	3/4" Eurocone	4	01293878
1"	12	3/4" Eurocone	4	01293880

Takeoffs 50 mm



1 1/4" distribution bar manifold nickel-plated, complete with 24x19 takeoffs connections

Supplied with hole on upper side for bleed valve

Size	Ways	Pcs. pack	Code
1 1/4"	4	2	01294634
1 1/4"	5	2	01294636
1 1/4"	6	2	01294638
1 1/4"	7	2	01294640
1 1/4"	8	2	01294642
1 1/4"	9	2	01294644
1 1/4"	10	2	01294646
1 1/4"	11	2	01294648
1 1/4"	12	2	01294650

Takeoffs 50 mm

Bars manifold

Accessories for Topway manifolds



Right-angle Progress ball valves with thermometers and pipe unions

Size	Pcs. pack	Code
1"	1	01306264



Right-angle Progress ball valves with pipe union for thermometer and thermometers

Size	Pcs. pack	Code
1"1/4	1	01306136



Right-angle Progress ball valves with pipe union

Size	Pcs. pack	Code
3/4"	1	01306180
1"	1	01306266
1"1/4	1	01306184



Straight Progress ball valve with thermometers and pipe unions

Size	Pcs. pack	Code
1"	1	01306260



Straight Progress ball valves with pipe union for thermometer and thermometers

Size	Pcs. pack	Code
1"1/4	1	01306132



Straight Progress ball valves with pipe union

Size	Pcs. pack	Code
3/4"	1	01306140
1"	1	01306262
1"1/4	1	01306144



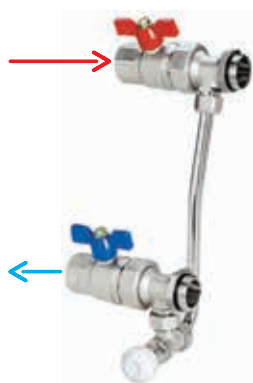
Right-angle kit Progress with differential by-pass

Overpressure valve from 0,2 to 0,5 bar

Size	Pcs. pack	Code
1"	1	01306186

For Floor Controlbox system

Only for 120 mm brick thickness steel cabinet



Straight kit Progress with differential by-pass

Overpressure valve from 0,2 to 0,5 bar

Size	Pcs. pack	Code
1" *	1	01306160
1"1/4	1	01306162

* For Floor Controlbox system

Only for 120 mm brick thickness steel cabinet

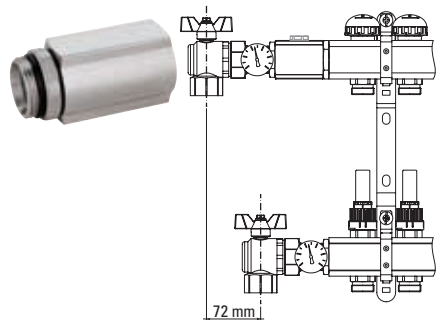


Thermal kit with by-pass for Topway manifolds

Overpressure valve from 0,2 to 0,5 bar

Size	Pcs. pack	Code
1/2"	1	01306170
3/4"	1	01306172
1"	1	01306174
1"1/4	1	01306176

Bars manifold



Extension kit for Topway manifolds

The extension kit for Topway collectors is combined with the Progress angle valve kit in order to create a distance between the delivery and return tubes, to have more space available both during installation as well as when manoeuvring (see diagram).

Size	Pcs. pack	Code
M-F 1"	1	01306254
M-F 1"1/4	1	01306256



3/4" Eurocono splitter fitting

Connection size	Pcs. pack	Code
3/4" Eurokone	2	28130606

Splitter fitting for Topway collectors with 3/4" Eurocono takeoffs



Pack with 12 red bands to lock regulator

Size	Pcs. pack	Code
1" - 1"1/4	12	01306320

With labels for identify circuits



Varia air bleed valve 1/2" nickel-plated

Size	Pcs. pack	Code
1/2"	12	00400662



Tecno-Varia air bleed valve 1/2" with plastic casing

Size	Pcs. pack	Code
1/2"	12	00400004



Drain valve nickel-plated

Size	Pcs. pack	Code
1/2"	1	90011750

Item to be out of range



Charge and drain valve, nickel-plated 1/2" with Male 3/4" adjustable connection

Size	Pcs. pack	Code
1/2"	1	90011790



T-terminal with adjustable drain valve and manual vent valve



Size	Pcs. pack	Code
1"	2	01306158

With O-ring

Supplied with 1/2" adjustable water drain valve and 1/2" manual vent valve



Kit thermostatic shutter for 24x19

Size	Pcs. pack	Code
For manifold 1"	4	01306114
For manifold 1"1/4	4	01306118



Kit thermostatic shutter for 3/4" Eurocone

Size	Pcs. pack	Code
For manifold 1"	4	01306290
For manifold 1"1/4	4	01306292



Blue cap for valves

Size	Pcs. pack	Code
	1	90004470

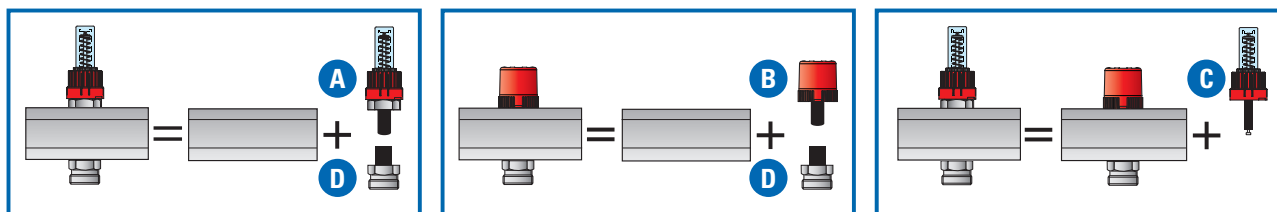


Red cap for manifolds

Size	Pcs. pack	Code
	1	90023360

Bars manifold

Instructions for the selection of lockshields/flow meter with a capacity on the basis of the manifold installed



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

Size	Pcs. pack	Code
0÷4 l/min	4	01306302



Kit lockshield

Size	Pcs. pack	Code
	4	01306300



Kit flow meter

Size	Pcs. pack	Code
0÷2,5 l/min	4	01306304
0÷4 l/min	4	01306306
0÷6 l/min	4	01306308



Lockshield / flow meter seat

Size	Pcs. pack	Code
For manifold 1" - 24x19	4	01306312
For manifold 1" - 3/4" eurocone	4	01306314
For manifold 1"1/4 - 24x19	4	01306316
For manifold 1"1/4 - 3/4" eurocone	4	01306318



Nickel-plated blind plug

Size	Pcs. pack	Code
1/2" M (*)	30	90004930
3/4" M (*)	30	90004820
1" M (*)	15	90004830
1"1/4 M (*)	10	90005070
3/4" F	30	01291536
1" F	15	01291538
24 x 19 F blind monoblocco (*)	20	01321460

(*) With o-ring



Nickel plated reduction

Size	Pcs. pack	Code
3/4" M x 3/8" F	30	90005050
3/4" M x 1/2" F	30	90004840
1" M x 3/8" F	15	90005060
1" M x 1/2" F	15	90004850
1" M x 3/4" F	15	90006870
1 1/4" M x 1/2" F	10	90005080
1 1/4" M x 1" F	10	90005084

With o-ring



Key for nipples CH 37 - 48

Size	Pcs. pack	Code
	1	01306044



Nickel-plated nipple

Size	Pcs. pack	Code
1" M x 1" M	15	90006700
1 1/4" M x 1 1/4" M	5	90006910

With o-ring



Swivel nipple

Size	Pcs. pack	Code
1" M x 1" M	6	01306426
1 1/4" M x 1 1/4" M	6	01306430
1" M x 1" F (**)	6	01306428
1 1/4" M x 1" M (*)	4	01306432
3/4" M x 3/4" M	6	01306434
3/4" M x 1" M (*) (**)	6	01306438

(*) Reduction

(**) Items to be out of stock



Thermometer Ø 40

Size	Pcs. pack	Code
0-80 °C	1	90006860



Tee union with pipe union for thermometer

Size	Pcs. pack	Code
M-F 24x19	1	90011760
M-F 3/4" (*)	1	90011770

(*) eurocone

Bars manifold



Hand wheel for manual control

Size	Pcs. pack	Code
	6	01306112



Couple single metal holder

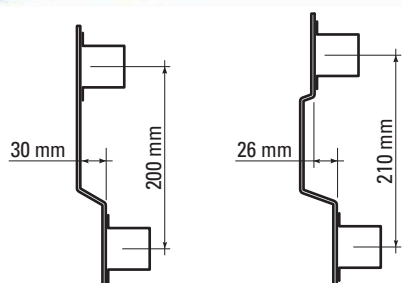
Size	Pcs. pack	Code
3/4"	1	90011500
1"	1	90011510
1"1/4	1	90011520



Couple double metal holder

Size	Take off	Pcs. pack	Code
3/4"	200 mm	1	90011530
1"	200 mm	1	90011540
1"1/4	200 mm	1	90011550
3/4" (*)	210 mm	1	90011560
1" (*)	210 mm	1	90011570
1"1/4 (*)	210 mm	1	90011580

(*) For wall fixing



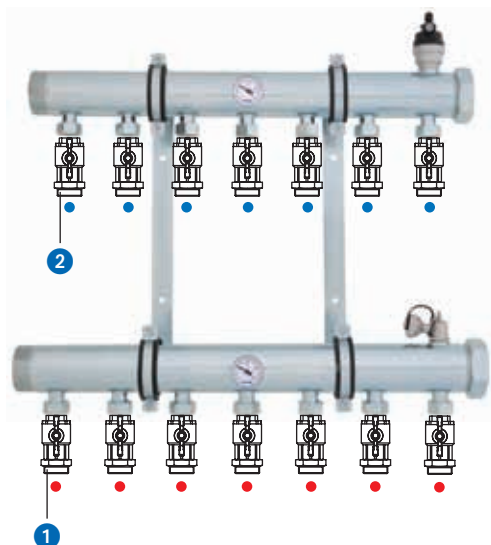
Insulating shells for Top Way manifolds

Size	Pcs. pack	Code
1"	1	01306500
1"1/4	1	01306502

In extruded polyethylene. No. of branch holes: 12, interval 50 mm.
To be cut to size according to the number of ways of the collector to be insulated.



Industrial manifold



Steel industrial manifold for ball valves

Manifolds and branches in drawn steel Fe 306B UNI EN 10305 - Braze welding in continuous oven at 1080 °C with copper welding material 99.9% - Surface treatment: white zinc plating

Technical Data

Maximum operating temperature 110 °C - Maximum operating pressure 10 bar - Head threads G 2" M - Takeoff thread G 3/4" F - Takeoff 80 mm

Supplied together with:

Nr. 2 blins nipples G 2" F - Nr. 1 water drain/discharge valve G 1/2" M - Nr. 1 automatic + manual air vent valve G 1/2" M - Nr. 2 thermometers Ø 40 (80 °C) - Nr. 2 dual metal holders

Application of steel industrial manifold for ball valves

- 1 Kit valve 3/4" red butterfly + fitting
- 2 Kit valve 3/4" blue butterfly + fitting

Size	Ways	Thread	Pcs. pack	Code
2"	5 + 5		1	07400460
2"	6 + 6		1	07400462
2"	7 + 7		1	07400464
2"	8 + 8		1	07400466
2"	9 + 9		1	07400468
2"	10 + 10		1	07400470
2"	11 + 11		1	07400472
2"	12 + 12		1	07400474
2"	13 + 13		1	07400476
2"	14 + 14		1	07400478
2"	15 + 15		1	07400480

Note: manifold supplied NOT assembled

Accessories for industrial manifolds



Kit valve 3/4" red butterfly + fitting

Maximum operating temperature 120 °C - Maximum operating pressure 40 bar
The valves must be used fully open or closed

Size	Pcs. pack	Code
24x19	1	01306196
M32x1,5	1	01306192



Kit valve 3/4" blue butterfly + fitting

Maximum operating temperature 120 °C - Maximum operating pressure 40 bar
The valves must be used fully open or closed

Size	Pcs. pack	Code
24x19	1	01306198
M32x1,5	1	01306194

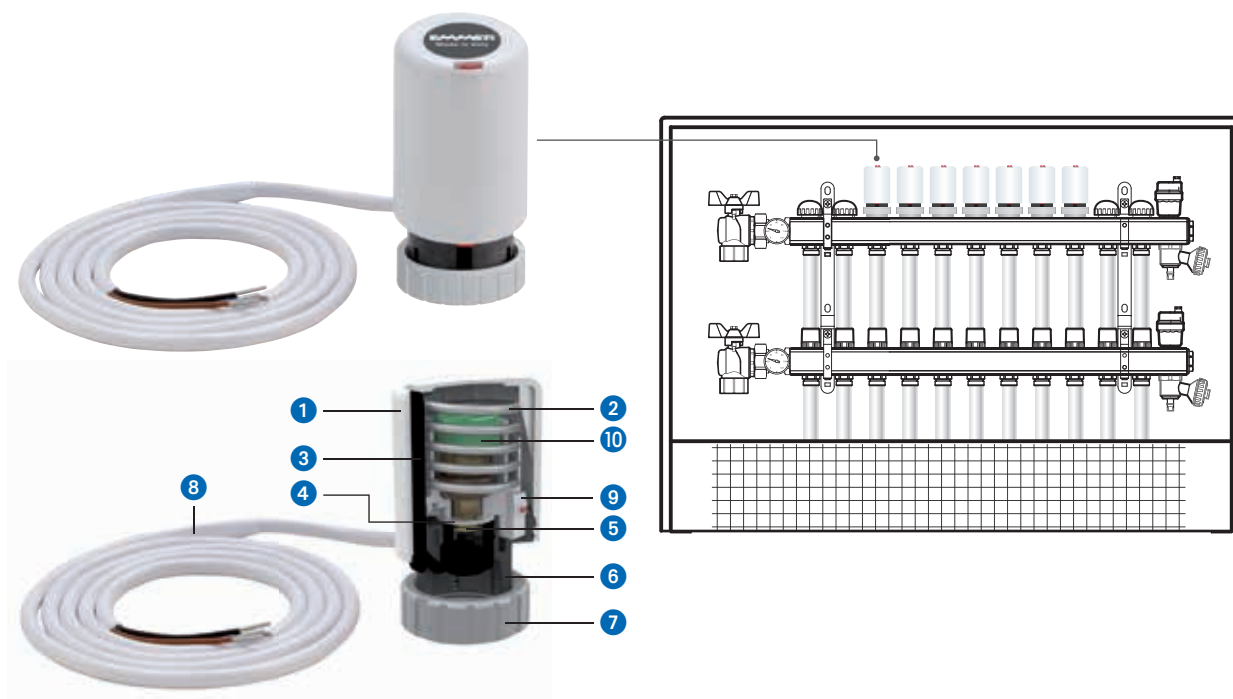


Vertical male union joint, nickel plated

Size	Thread	Pcs. pack	Code
3/4"	24x19	14	28103050
3/4"	M32x1,5	10	28103060

Control T

Electro-thermic head



Construction

- ① Polycarbonate case
- ② Stainless steel spring
- ③ Indicator PPA (35% FV)
- ④ Steel radial stop ring
- ⑤ Brass shelf TN UNI EN 12164 CW614N
- ⑥ Polycarbonate base
- ⑦ M30x1.5 ring nut PA 66 (50% FV)
- ⑧ PVC cable
- ⑨ Microswitch 5A
- ⑩ Wax expansion electrothermal actuator



Control T - Electro-thermic head normally closed

The valve opens upon receiving the command from the thermostat or any similar control device - Absorption 3,45 VA (230 V) 3 VA (24 V) - Protection: IP 40 (IP 44 vertical position) - Cable length: 1 m - Breakaway current: 0,35 A (model 24 V) - 0,25 A (model 230 V) - Closing/opening time: 5-6 min

Size	Pcs. pack	Code
230 V (AC/DC)	1	01213240
24 V (AC/DC)	1	01213200

Note: The thermo-electric heads can be used in conjunction with: Topway bar manifolds with valves, Tris 3 thermostatic valves, Poker thermostatic valves, Poker valves which can be equipped with thermostat. For the use with different type of manifold, it can be necessary the adaptor code 90039364.

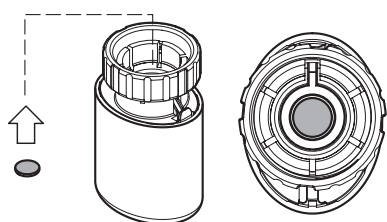


Control T - Electro-thermic head normally closed with end switch (5 A 230 V)

Absorption 3,45 VA (230 V) 3 VA (24 V) - Protection IP 40 (IP 44 vertical position) - Cable length: 1 m - End switch: 5 A 230 V - Breakaway current: 0,35 A (modello 24 V) - 0,25 A (modello 230 V) - Closing/opening time: 5-6 min

Size	Pcs. pack	Code
230 V (AC/DC) with micro	1	01213250
24 V (AC/DC) with micro	1	01213210

Note: The thermo-electric heads can be used in conjunction with: Topway bar manifolds with valves, Tris 3 thermostatic valves, Poker thermostatic valves, Poker valves which can be equipped with thermostat. For the use with different type of manifold, it can be necessary the adaptor code 90039364.



Adapter for Control T - electro-thermic heads

Size	Pcs. pack	Code
	12	90039364

Apply in the case of incomplete closure on manifolds not produced by Emmeti.



Control T - Electro-thermic head normally open

The valve opens upon receiving the command from the thermostat or any similar control device - Absorption - protection 3,45 VA (230 V) 3 VA (24 V) - Protection: IP 40 (IP 44 vertical position) - Cable length: 1 m - Breakaway current: 0,35 A (model 24 V) - 0,25 A (model 230 V) - Closing/opening time: 5-6 min

Size	Pcs. pack	Code
230 V (AC/DC)	1	01213280
24 V (AC/DC)	1	01213260

Note: The thermo-electric heads can be used in conjunction with: Topway bar manifolds with valves, Tris 3 thermostatic valves, Poker thermostatic valves, Poker valves which can be equipped with thermostat

Electronic system for electro-thermic actuators



Basic wiring box 6T

Electronic system for electrothermic heads, comprised of a basic junction box and additional extension - Power supply 230 V or 24 V - Direct power supply to the electrothermic heads (at the same power supply voltage as the junction box) - Direct connection to the environment thermostats (at the same power supply voltage as the junction box) - Connection of up to six electrothermal heads (configured at high or low temperature) - Connection of up to six environment thermostats - Connection for low temperature circulating pump - Connection for boiler consensus - Adjustable safety thermostat (30÷60 °C) - Safety thermostat contact - Circulating pump anti-blocage function - Expandable for the connection of additional electrothermal heads/thermostats by means of extra extension

Size	Pcs. pack	Code
Basic wiring box 6T	1	28130616

Electronic system for electrothermic heads. Comprised of a basic junction box and additional extension.

Electro-thermic head



5T extension

Connection of up to 5 electrothermal heads (low temperature only) - Connection of up to 5 environment thermostats - Power supply from basic junction box - Connection for boiler consensus - Connection wire to basic junction box included - (L 100 cm x 1° extension, L 30 cm x 2° extension)

Size	Pcs. pack	Code
1° extension 5T *	1	28130618
2° extension 5T **	1	28130619

* Wire L 100 cm

** Wire L 30 cm

Electric boxes



Electric box with safety thermostat for pump cable low temperature

Bulb lenght: 65 mm - Bulb diameter: 7 mm - Setting: 0÷60 °C ± 3 - Contacts: 400 V 16(4) A - Differential: 4 °C

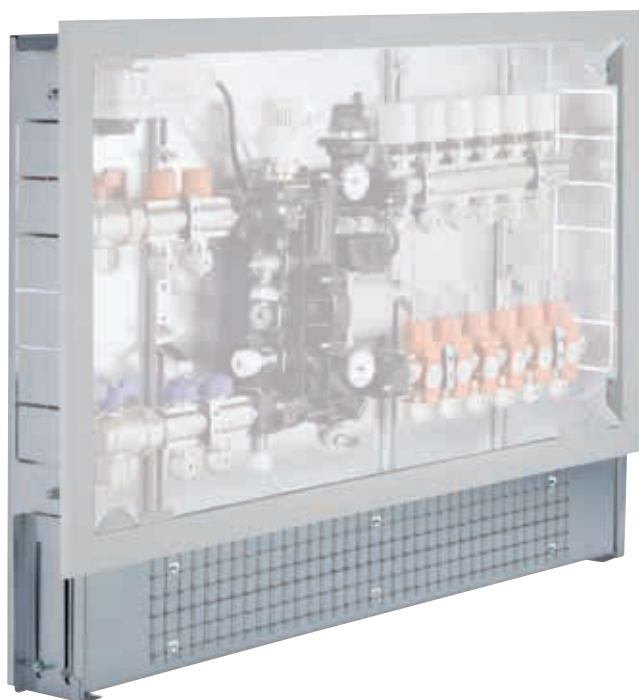
Size	Pcs. pack	Code
	1	28130632



Electric box for pump cable high temperature

Size	Pcs. pack	Code
	1	90033840

Manifold cabinet



L 500



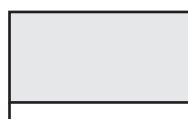
L 600



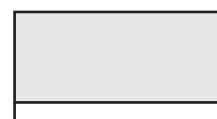
L 700



L 850



L 1000



L 1200



Cabinet in galvanised steel with enamelled door, white colour, for 80 mm brick thickness. Suitable for 1" Topway manifold

Box for manifolds, flush fitting with adjustable depth. Supplied complete with push locking catch, feet adjustable for height from 0 to 130 mm and cover for protection during site work.

Size	Pcs. pack	Code
L 500 (540x630x90/130)	1	01301040
L 700 (740x630x90/130)	1	01301042
L 850 (890x630x90/130)	1	01301048
L 1000 (1040x630x90/130)	1	01301044

Door to fit flush with plaster



Cabinet in galvanized steel with enamelled door, white colour, keylock, for 80 mm brick thickness. For Topway manifolds until 1"

Box for manifolds, flush fitting with adjustable depth. Supplied complete with keylocking catch, feet adjustable for height from 0 to 130 mm and cover for protection during site work.

Size	Pcs. pack	Code
L 700 (740x630x90/130)	1	01301162
L 1000 (1040x630x90/130)	1	01301166

Door to fit flush with plaster

Manifold cabinet



Cabinet in galvanised steel with enamelled door, white colour, for 120 mm brick thickness. Suitable for 1" 1/4 Topway manifold.

Box for manifolds, flush fitting with adjustable depth. Supplied complete with locking catch, feet adjustable for height from 0 to 130 mm and cover for protection during site work.

Size	Pcs. pack	Code
L 500 (540x630x110/160)	1	01301030
L 700 (740x630x110/160)	1	01301032
L 850 (890x630x110/160)	1	01301038
L 1000 (1040x630x110/160)	1	01301034
L 1200 (1240x630x110/160)	1	01301036

Surface-mounting door thickness 15 mm



Cabinet in galvanised steel with enamelled door, white colour, key lock, for 120 mm brick thickness, for the installation of modules for measuring consumption.

Box for modules for measuring consumption, flush fitting with adjustable depth. Supplied complete with feet adjustable for height from 0 to 130 mm and cover for protection during site work.

Size	Pcs. pack	Code
L 500 (540x630x110/160)	1	01301108
L 600 (640x630x110/160)	1	01301110
L 700 (740x630x110/160)	1	01301100
L 850 (890x630x110/160)	1	01301102
L 1000 (1040x630x110/160)	1	01301104
L 1200 (1240x630x110/160)	1	01301106

Frame and door to fit flush with wall. Door with key lock.



External cabinet in galvanised steel with enamelled door, white colour. Suitable for 1" 1/4 Topway manifolds.

External box for manifolds, supplied complete with locking catch and cover for protection during site work.

Size	Pcs. pack	Code
L 500 (560x650x130)	1	01301090
L 700 (760x650x130)	1	01301092
L 850 (910x650x130)	1	01301094
L 1000 (1060x650x130)	1	01301096
L 1200 (1260x650x130)	1	01301098

Steel co-planar manifold



TECHNICAL SHEET 13

Uses

Mixer manifold is suitable for the close circuit heating system for the connection at radiators thermoconvectors, fan-coils, using the proper seals patented by Emmeti 24x19.
Mixer is suitable for the insertion into the manifold box TermoBox.

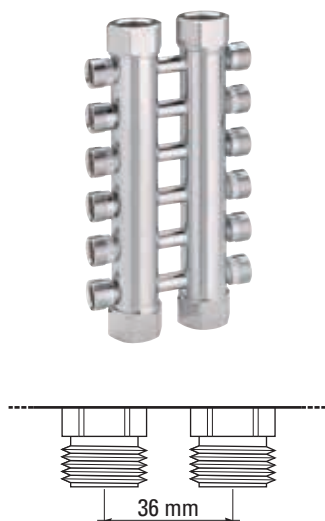
Construction

Flange 3/4" and 1" steel AVP
Pipes made in steel De 35 x 2 Fe 360 B UNI EN 10204 thread UNI EN 10226 (UNI EN ISO 7/1)
Connections 24x19 in steel AVP showing inlet / outlet
Connections pipes steel De 14 x 1,5 Fe 360 B UNI EN 10204
Brazing in continuous over 1080 °C with copper 99,9%
Finish treatment with nickel and chrome plating

Technical data

Max. operating pressure 10 bar
Max. operating temperature 110 °C
Tested 100%

Note: lime damages the coating and compromises the life span of the product.



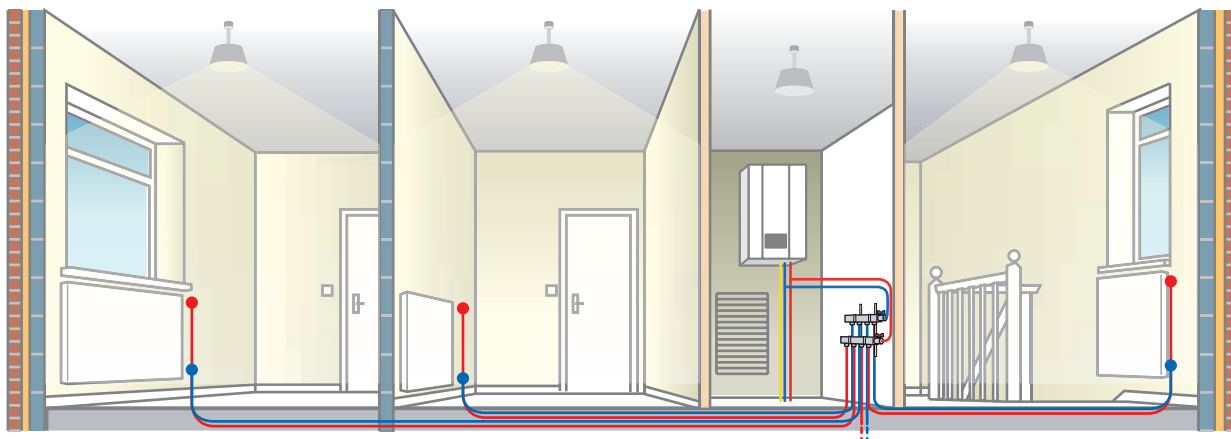
Mixer steel co-planar manifold

Size	Ways	Pcs. pack	Code
3/4"	2x2	1	01290800
3/4"	4x4	1	01290810
3/4"	6x6	1	01290820
3/4"	8x8	1	01290830
3/4"	10x10	1	01290840
1" (*)	4x4	1	01290850
1" (*)	6x6	1	01290860
1" (*)	8x8	1	01290870
1" (*)	10x10	1	01290880

Emmeti seals 24x19: see section 7
(*) Items to be out of stock

Modular

Brass manifold



WRAS
APPROVED
PRODUCT



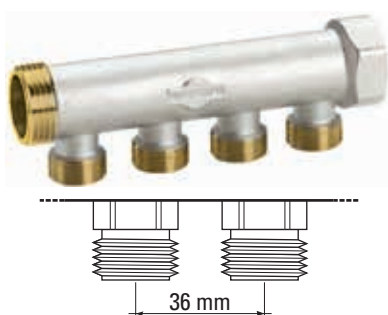
TECHNICAL SHEET 13

Construction

Body made of brass ST UNI EN 12165 CW617N with nickel finish
Thread 24x19 Ø 14 mm

Technical data

Maximum operating pressure 10 bar
Maximum operating temperature range 110 °C



Modular manifold for copper pipe, multi-layer, Pex, PP, PB, takeoffs 36 mm

Size	Ways	Pcs. pack	Code
3/4"	2	10	01303050
3/4"	3	6	01303052
3/4"	4	10	01303054
1"	2	8	01303060
1"	3	10	01303062
1"	4	8	01303064

Emmeti seals 24x19: see section 7

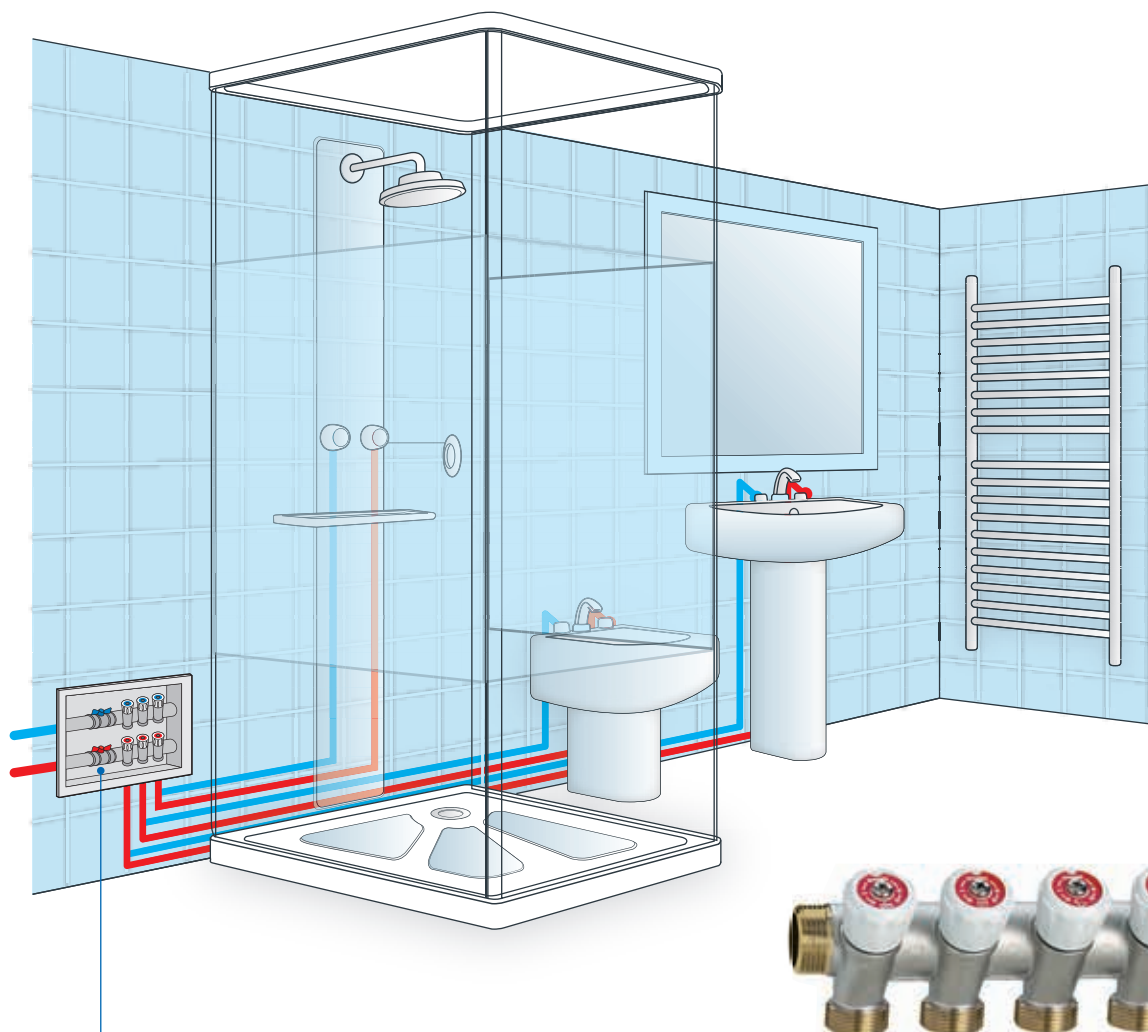
WRAS
APPROVED
PRODUCT



Metallic support takeoffs 50 mm

Size	Pcs. pack	Code
Couple single x 3/4"	1	01306370
Couple double x 3/4"	1	01306374
Couple single x 1"	1	01306372
Couple double x 1"	1	01306376

Brass manifold with bibcocks



TECHNICAL SHEET 13

WRAS
APPROVED
PRODUCT

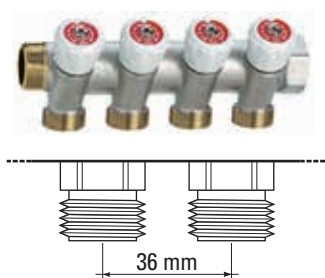
Construction

Body made of brass ST UNI EN 12165 CW617N with nickel finish
Thread 24x19
ABS white knobs
Copuling in NBR
Plate indicating the supporting services
Takeoffs centers 36 mm

Technical data

Maximum operating pressure: 10 bar
Maximum operating temperature: 110 °C

Brass manifold with bibcocks



Multiplex brass manifold with isolating taps , sectional with union nipple

Size	Ways	Pcs. pack	Code
3/4"	2	12	01307260
3/4"	3	8	01307265
3/4"	4	6	01307270
1"	2	8	01307280
1"	3	6	01307285
1"	4	4	01307290

Emmeti seals 24x19: see section 7



Multiplex manifold bridging piece

Size	Pcs. pack	Code
3/4"	10	01307200
1"	10	01307210

Accessories for Mixer, Modular, Multiplex manifolds



Nickel-plated plug

Size	Pcs. pack	Code
3/4" M	30	90004820
1" M	15	90004830
3/4" F	30	01291536
1" F	15	01291538

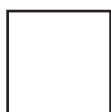


Nickel-plated adapter

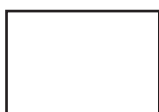
Size	Pcs. pack	Code
3/4" M x 3/8" F	30	90005050
1" M x 3/8" F	15	90005060

With o-ring

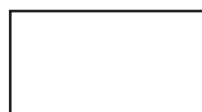
Plastic manifold box



L 310



L 460



L 610

Uses

Plastic box for manifolds, flush fitting with adjustable depth.
Supplied complete with plastic netting and cover for protection during site work.

Construction

Made of plastic material for toughness and durability
Box in ABS
Cover in PS shock-resistant polystyrene supports in PA6



Termobox universal white plastic manifold box

Size	Pcs. pack	Code
310 x 310 x 90	5	01302090
460 x 310 x 90	3	01302100
610 x 310 x 90	2	01302110



Kit supports for Topway and Topsan manifolds

Type	Size	Pcs. pack	Code
Kit 10 couple supports Topway - Topsan	3/4"	1	01302120
Kit 10 couple supports Topway - Topsan	1"	1	01302130



Kit supports for Modular and Multiplex manifolds

Type	Size	Pcs. pack	Code
10 couples supports kit for Modular - Multiplex	3/4"	1	01302140
10 couples supports kit for Modular - Multiplex	1"	1	01302150

Plastic manifold box



Kit supports for Mixer manifolds

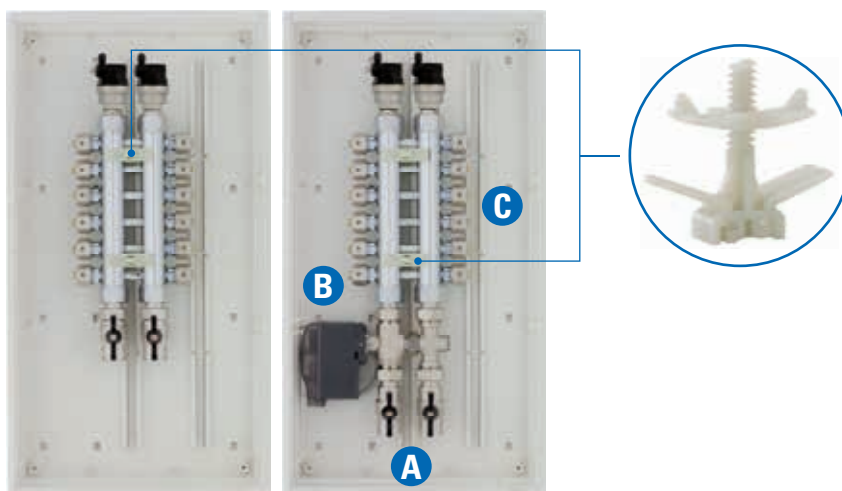
Type	Size	Pcs. pack	Code
10 pieces supports kit for Mixer	3/4" - 1"	1	01302160



Aluminium profilers for supports manifold

Size	Pcs. pack	Code
400 mm	1	01306400
200 mm	1	01306398

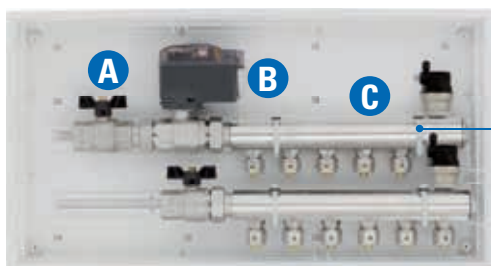
Termobox with Mixer manifold: maximum number of ways



Termobox	1" A+C	3/4" A+C	1" B+C	3/4" B+C	1" A+B+C	3/4" A+B+C
310 x 310	-	-	-	-	-	-
460 x 310	4 ways	4 ways	4 ways	4 ways	-	2 ways
610 x 310	8 ways	8 ways	8 ways	8 ways	6 ways	6 ways

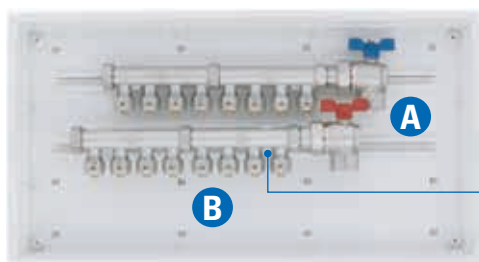


Termobox with Topway manifolds: maximum number of ways



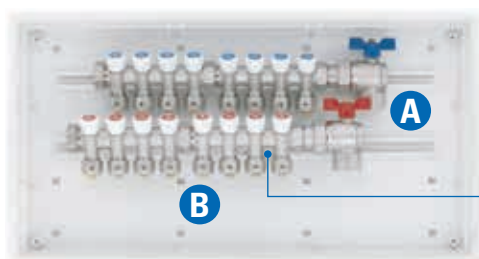
Termobox	1" A+C	3/4" A+C takeoff 50 mm	3/4" A+C takeoff 36 mm	1" B+C	3/4" B+C takeoff 50 mm	3/4" B+C takeoff 36 mm	1" A+B+C	3/4" A+B+C takeoff 50 mm	3/4" A+B+C takeoff 36 mm
310 x 310	2 ways	3 ways	4 ways	-	2 ways	2 ways	-	-	-
460 x 310	5 ways	6 ways	8 ways	4 ways	5 ways	6 ways	3 ways	4 ways	5 ways
610 x 310	8 ways	9 ways	12 ways	7 ways	8 ways	11 ways	6 ways	7 ways	9 ways

Termobox with Modular manifold: maximum number of ways



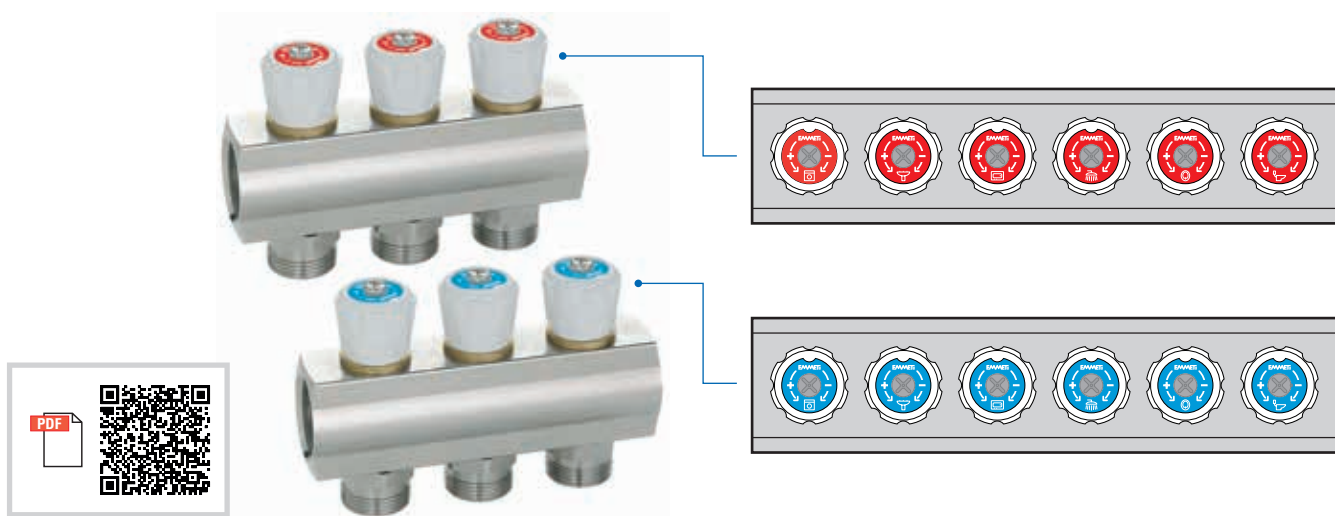
Termobox	1" A+B	3/4" A+B
310 x 310	3 ways	4 ways
460 x 310	7 ways	8 ways
610 x 310	12 ways	12 ways

Termobox with Multiplex or Topsan manifold: maximum number of ways



Termobox	1" A+B takeoffs 36 mm	3/4" A+B takeoffs 36 mm
310 x 310	3 ways	4 ways
460 x 310	7 ways	8 ways
610 x 310	12 ways	12 ways

Sanitary manifold with bibcocks



TECHNICAL SHEET 13

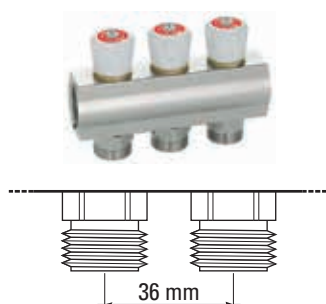


Construction

Brass header retrieved through a bar drawing process TN UNI EN 12168
CW614N
Head threads G 3/4"
Lateral threads M 24x19
ABS white colour knobs
Gasket in NBR
Plate indicating the support services
Takeoffs 36 mm centers

Technical data

Maximum operating pressure: 10 bar
Maximum operating temperature: 110 °C
Note: seals on head thread ONLY with o-ring, DO NOT USE tapered threads



Topsan 24x19 sanitary manifold with bibcocks

Size	Ways	Pcs. pack	Code
3/4"	4+4	2	01282054
3/4"	5+5	2	01282056
3/4"	6+6	2	01282058

Takeoffs 36 mm

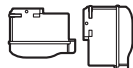


Motor driven ball-valve

IP 55



IP 50



TECHNICAL SHEET 11

Valve technical data

Valve body made brass ST UNI EN 12165 CW617N with nickel finish
Ball made brass ST UNI EN 12165 CW617N chromium plated
Operating temperature range from -40 to 100 °C (circulating fluid)
Operating pressure PN 40
Maximum differential pressure 6 bar
Seals PTFE
Fittings for operating rod HNBR

Note: in the 3-way type is granted the flow port during the running operations.

Servomotor technical data

Power supply 230 V / 50 Hz or 24 Vac in function of model
Absorption 4 VA
Rotation angle 90° (2 ways) - 180° (3 ways) - 90/270° (4 ways)
Rotation time 60" (2 ways) - 120" (3 ways) - 60/180" (4 ways)
Torque: 8 Nm
Auxiliary contact 1-free 5 A / 230 V (on-off)
Protection class IP 55 IP 50
Insulating class: II
Indicator open valve (2 ways) diverted flux c-sx c-dx (3 ways)



Modulo Compact 230 Vac 2 ways with pipe union connection with thread

Size	Ways	Pcs. pack	Code
1/2"	2	1	01425800
3/4"	2	1	01425802
1"	2	1	01425804



Modulo Compact 230 Vac three ways diverter with pipe union connection with thread

Size	Ways	Pcs. pack	Code
1/2"	3	1	01425806
3/4"	3	1	01425808
1"	3	1	01425810

Motor driven ball-valve



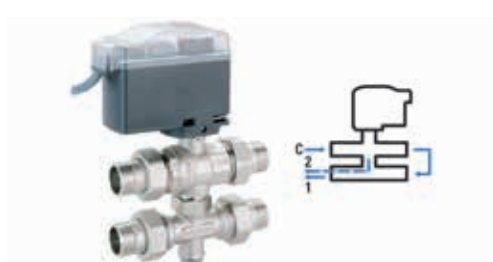
Modulo Compact 230 Vac 2 ways, Female Female thread

Size	Ways	Pcs. pack	Code
1/2"	2	1	01425820
3/4"	2	1	01425822
1"	2	1	01425824



Modulo Compact 230 Vac 3 ways diverter, Female Female thread

Size	Ways	Pcs. pack	Code
1/2"	3	1	01425826
3/4"	3	1	01425828
1"	3	1	01425830



Modulo Compact 230 Vac 4 ways 49÷61mm / 53÷65 mm centers with by-pass

Size	Pcs. pack	Code
3/4" for Mixer manifold (*)	1	01425840
1" for Mixer manifold (**)	1	01425842

(*) 49-61 mm centers

(**) 53-65 mm centers



Modulo Compact 230 Vac 4 ways 190÷210 mm centers with by-pass

Size	Pcs. pack	Code
3/4" for Topway manifold	1	01425848
1" for Topway manifold	1	01425850



Modulo Compact 230 Vac 4 ways 90÷100 mm centers with by-pass for installation in Termobox box

Size	Pcs. pack	Code
3/4"	1	01425844
1" for Topway manifold (*)	1	01425846

(*) Impossible to use in Termobox with Modular / Multiplex manifolds
Items to be out of range



Differential valve for by-pass

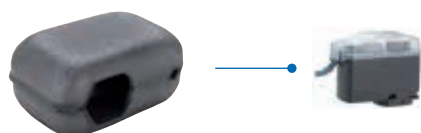
Size	Pz. conf.	Codice
	1	01306360

Overpressure valve from 0,2 to 0,5 bar for the T fitting of 4 ways Modulo Compact



Servomotor for motorised ball valve Modulo Compact

Size	Pcs. pack	Code
2 vie - 230 Vac	1	01425860
3 vie - 230 Vac	1	01425862
4 vie - 230 Vac	1	01425864
2 vie - 24 Vac	1	01425866
3 vie - 24 Vac	1	01425868
4 vie - 24 Vac	1	01425870



Insulating shells for servomotor for Modulo Compact

Size	Pcs. pack	Code
Insulating shell for servomotor for Modulo Compact	1	90045270

In close-cell expanded polyethylene

Modulo Plus

Motor driven ball-valve

IP 55



IP 50



Valve technical data

Valve body made brass ST UNI EN 12165 CW617N with nickel finish
Ball made brass ST UNI EN 12165 CW617N chromium plated
Operating temperature range from -40 to 100 °C (circulating fluid)
Operating pressure PN 40
Maximum differential pressure 6 bar
Seals PTFE
Fittings for operating rod HNBR

Note: in the 3-way type is granted the flow port during the running operations.

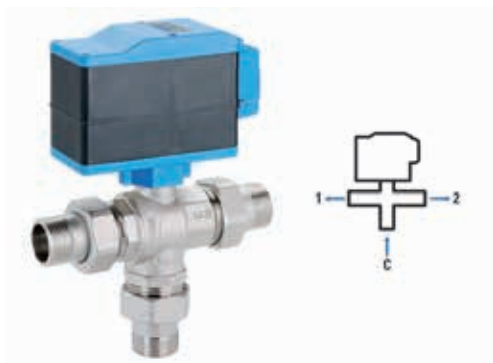
Servomotor technical data

Power supply 230 V / 50 Hz
Absorption 4 VA
Rotation angle 90° (2 ways) - 180° (3 ways)
Rotation time 60" (2 ways) - 120" (3 ways)
Maximum torque 28 Nm (230 V)
Auxiliary contact 1-free 6 A / 230 V (on-off)
Protection class IP 55 IP 50
Insulating class: II
Indicator open valve (2 ways) diverted flux c-sx c-dx (3 ways)



Modulo Plus 230 Vac 2 ways with pipe union connection with thread

Size	Ways	Pcs. pack	Code
1"1/4	2	1	01425700
1"1/2	2	1	01425702
2"	2	1	01425704



Modulo Plus 230 Vac three ways diverter with pipe union connection with thread

Size	Ways	Pcs. pack	Code
1"1/4	3	1	01425710
1"1/2	3	1	01425712
2"	3	1	01425714



Modulo Plus 230 Vac 2 ways, Female Female thread

Size	Ways	Pcs. pack	Code
1"1/4	2	1	01425730
1"1/2	2	1	01425732
2"	2	1	01425734



Modulo Plus 230 Vac 3 ways diverter, Female Female thread

Size	Ways	Pcs. pack	Code
1"1/4	3	1	01425740
1"1/2	3	1	01425742
2"	3	1	01425744



Servomotor for motorised ball valve Modulo Plus

Size	Pcs. pack	Code
2 ways - 230 Vac	1	01420170
3 ways - 230 Vac	1	01420172

Bodies for motorized ball valves



Body for Modulo 2 ways with pipe union connection with thread

Size	Ways	Pcs. pack	Code
1/2" (*)	2	1	90021400
3/4" (*)	2	1	90021410
1" (*)	2	1	90021420
1"1/4 (**)	2	1	90021430
1"1/2 (**)	2	1	90021440
2" (**)	2	1	90021450

(*) Recommended for Modulo Compact - (**) Recommended for Modulo Plus



Body for Modulo 3 ways with pipe union connection with thread

Size	Ways	Pcs. pack	Code
1/2" (*)	3	1	90021320
3/4" (*)	3	1	90021460
1" (*)	3	1	90021470
1"1/4 (**)	3	1	90021480
1"1/2 (**)	3	1	90021490
2" (**)	3	1	90021500

(*) Recommended for Modulo Compact - (**) Recommended for Modulo Plus



Body for Modulo 2 ways Female Female thread

Size	Ways	Pcs. pack	Code
1/2" (*)	2	1	90021200
3/4" (*)	2	1	90021210
1" (*)	2	1	90021220
1"1/4 (**)	2	1	90021230
1"1/2 (**)	2	1	90021240
2" (**)	2	1	90021250

(*) Recommended for Modulo Compact - (**) Recommended for Modulo Plus



Body for Modulo 3 ways Female Female thread

Size	Ways	Pcs. pack	Code
1/2" (*)	3	1	90021310
3/4" (*)	3	1	90021260
1" (*)	3	1	90021270
1"1/4 (**)	3	1	90021280
1"1/2 (**)	3	1	90021290
2" (**)	3	1	90021300

(*) Recommended for Modulo Compact - (**) Recommended for Modulo Plus



Body for Modulo Compact 4 ways 49÷61 mm / 53÷65 mm centers for by-pass

Size	Pcs. pack	Code
3/4" (*)	1	90021950
1" (**)	1	90021960

(*) for Mixer manifold 49÷61 mm centers - (**) for Mixer manifold 53÷65 mm centers
NB. Do not used with Modulo Plus



Body for Modulo Compact 4 ways 190÷210 mm centers for by-pass

Size	Pcs. pack	Code
3/4" for Topway manifold	1	90021970
1" for Topway manifold	1	90021980

NB. Do not used with Modulo Plus



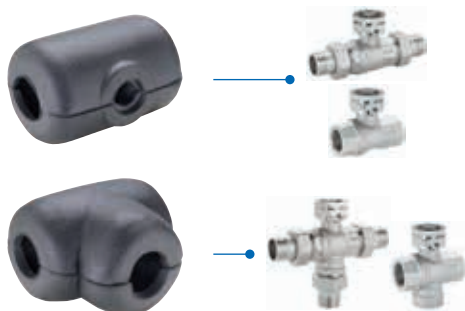
Body for Modulo Compact 4 ways 90-100 mm centers for by-pass for installation in Termobox box

Size	Pcs. pack	Code
3/4"	1	90021990
1" for Topway manifold (*)	1	90022000

(*) Impossible to use in Termobox with Modular / Multiplex manifolds.

NB. Do not used with Modulo Plus

Items to be out of range



Insulating shells for Modulo ball valves

Size	Pcs. pack	Code
Insulating shell for ball valve 2 ways 1/2"	1	90045150
Insulating shell for ball valve 2 ways 3/4"	1	90045160
Insulating shell for ball valve 2 ways 1"	1	90045170
Insulating shell for ball valve 2 ways 1" 1/4	1	90045180
Insulating shell for ball valve 2 ways 1" 1/2	1	90045190
Insulating shell for ball valve 2 ways 2"	1	90045200
Insulating shell for ball valve 3 ways 1/2"	1	90045210
Insulating shell for ball valve 3 ways 3/4"	1	90045220
Insulating shell for ball valve 3 ways 1"	1	90045230
Insulating shell for ball valve 3 ways 1" 1/4	1	90045240
Insulating shell for ball valve 3 ways 1" 1/2	1	90045250
Insulating shell for ball valve 3 ways 2"	1	90045260

In close-cell expanded polyethylene



Regulation and control

> Touch screen
chronothermostat



93

> PCOC
controller



102

> Touch screen
chronothermostat

NEW



95

> Climatic
regulation kit



104

> Touch screen
thermostat

NEW



96

> NCTA W
chronothermostat



108

> Room
thermostat



97

> Chronothermostat/
humidistat

NEW



110

> Emmeti Climatic
regulator

NEW



99

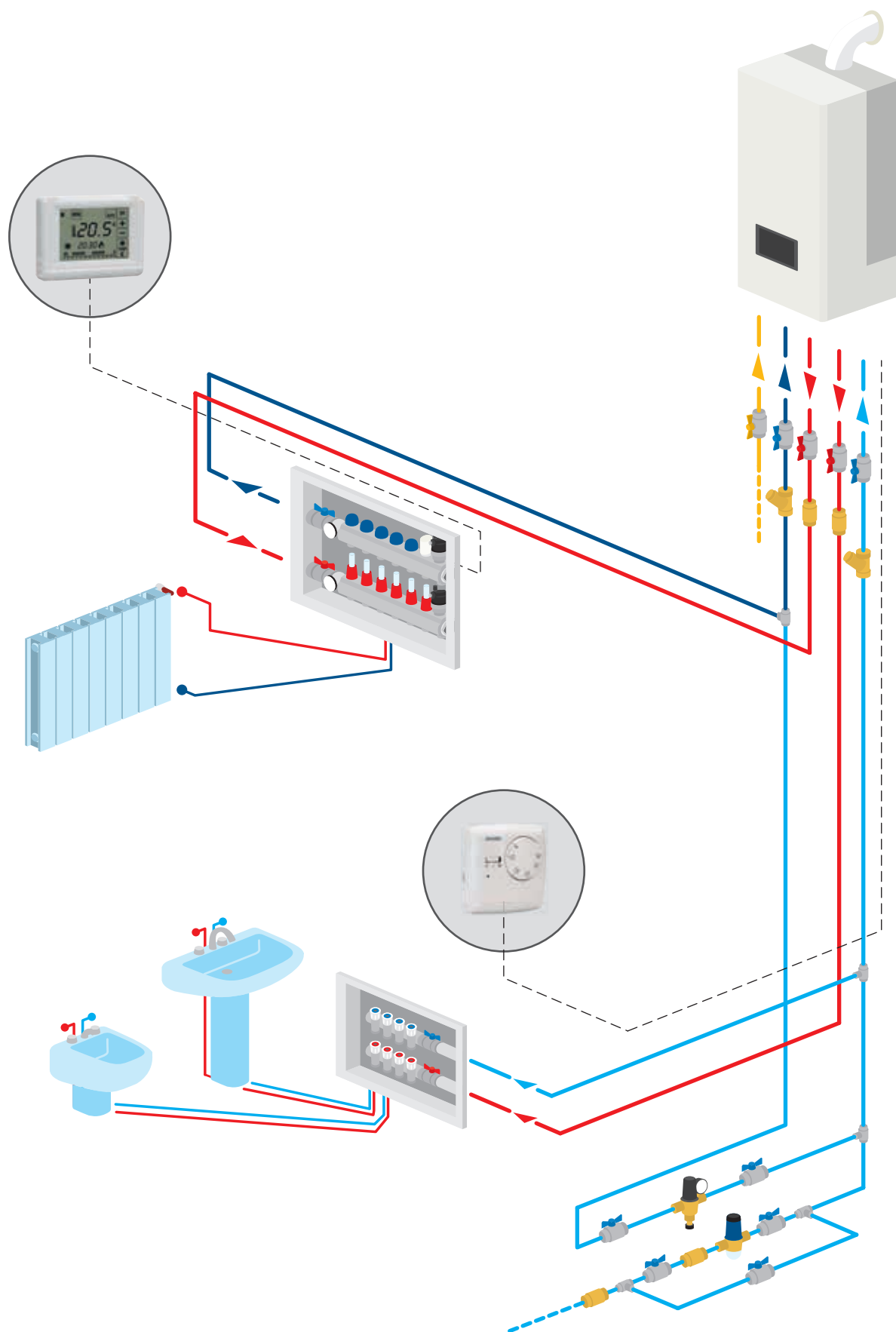
> Electronic
humidistat



111



Example of installation



Weekly touch screen chronothermostat



TECHNICAL SHEET 54

Technical data

External dimensions: 120 x 90 x 28 mm
 Touch-screen display 80 x 55 mm (3,8")
 Weekly programming for periods of at last 30 minutes.
 Temperatures can be adjusted on three levels:
 - Comfort
 - Energy saving
 - Off with the option of setting the anti-freeze protection.
 Temperature adjustment range from 4 to 40 °C (from 40 to 99.4 °F) with 0.5 °C/F intervals.
 System on/off differential, 0.5 °C (can be modified)
 Summer/Winter function
 Operating and storage temperature between 0 and 40 °C
 Fitted with reminder alarm
 Partial recessed (230 V mod.) or covered fastening (battery mod.) in a standard 503 box.

Electrical data - version with 230 V power supply

Power supply from 110 to 230 V - 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.

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.



Touch Screen weekly chronothermostat

Size	Pcs. pack	Code
Wall chronothermostat with battery power supply	1	01514200
Semi-recessed chronothermostat with 230 V power supply	1	01514202

Touch Screen thermostats



TECHNICAL SHEET 54

Technical data with daily programming

External dimensions: 120 x 90 x 28 mm
 Touch-screen display 80 x 55 mm (3,8")
 Daily programming for periods of at last 1 hour.
 Temperatures can be adjusted on 2 levels:
 - Comfort
 - Energy saving
 Switched off manually with the option of setting the anti-freeze protection.
 Temperature adjustment range from 4 to 40 °C (from 40 to 99.4 °F) with 0.5 °C/F intervals.
 System on/off differential, 0.5 °C (can be modified)
 Summer/Winter function
 Operating and storage temperature between 0 and 40 °C
 Fitted with reminder alarm
 Partial recessed (230 V mod.) or covered fastening (battery mod.) in a standard 503 box.

Electrical data - versions with 230 V power supply

Power supply from 110 to 230 V - 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.

Technical data manual control ambient thermostat

External dimensions: 120 x 90 x 28 mm
 Touch-screen display 80 x 55 mm (3,8")
 Operating temperature selected manually and switched off manually with the option of setting the anti-freeze protection.
 Temperatures can be adjusted on 2 levels:
 - Comfort
 - Energy saving
 Temperature adjustment range from 4 to 40 °C (from 40 to 99.4 °F) with 0.5 °C/F intervals (adjustable).
 System on/off differential, 0.5 °C (adjustable)
 Summer/Winter function
 Operating and storage temperature between 0 and 40 °C
 Partial recessed (230 V mod.) or covered fastening (battery mod.) in a standard 503 box.

Electrical data - versions 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.



Touch Screen thermostat with daily programming

Size	Pcs. pack	Code
Wall thermostat with daily programming and battery power supply	1	01514212
Semi-recessed thermostat with daily programming and 230 V power supply	1	01514210



Manually room thermostat touch screen

Size	Pcs. pack	Code
Wall thermostat with battery power supply	1	01514216
Semi-recesse thermostat with 230 V power supply	1	01514214



Recessed touch-screen chronothermostat

NEW



Electronic touch-screen chronothermostat with weekly programming and recessed installation in a 3-modules box, designed to control the room temperature, both in heating and air-conditioning mode.

Both mains and battery-operated versions available.

- Installation in a 3-modules recessed box (503)
- Supports to adapt the instrument to the plates of the main civil series
- Touch-screen display to show the measured temperature and program the instrument
- Terminal board at the back of the instrument to connect the output relay of the power supply (only for the 230 Vac model) and the external contact (only for the battery-operated model)
- Interchangeable front panel available in white and anthracite grey (included)
- Procedure to extract the push-push instrument (only for the battery-operated model) to make it easier to replace the battery
- Backlit display: multicolour red, green, blue for the 230 Vac model; single-colour blue touch-screen display for the battery-operated model

Adapters included for use with the following plates:

ABB: Chiara, Mylos

AVE: S44

BTICINO: Axolute, Light, Light tech, Living, Livinglight, Livinglight Air (via a frame that can be purchased separately), Matix

GEWISS: Chorus

VIMAR: Eikon, Eikon Evo, Idea, Plana

Technical Data

Power supply:

230 VAC 230 (-15% ÷ +10%) 50/60 Hz (230 model)

2 x 1.5 V (AAA) (battery-operated model)

Installation: recessed

Maximum cable cross-section: mm² 1.5

Programming: weekly

Operating modes: summer / winter / off

Type of adjustment: ON/OFF and proportional

Differential: 0.1÷1 °C

Temperatures that can be set: 3 + manual + antifreeze

Setpoint values that can be set: 2÷35 °C

Measured temperature resolution: 0.1 °C

Measurement accuracy: 0.5 °C

Antifreeze temperature (can be excluded) 1÷10 °C

Programming resolution: 1 hour

Start-up delay: 15, 30 or 45 minutes

Output relay capacity: 5 A / 250 V (bistable)

Clock accuracy: ± 1 s/day

Digital input (only for the battery-operated model): to turn off the instrument remotely

Operating temperature: 0÷50 °C

Storage temperature: -10 ÷ 65 °C

Operating humidity: RH 20%÷90%, non-condensing

Protection rating: IP40



Recessed touch-screen chronothermostat

NEW

Size	Pcs. pack	Code
230 V	1	02018086
Battery	1	02018088
BTicino LivingLightAir plate adapter	1	01306296

Recessed touch-screen thermostat

Recessed touch-screen thermostat

NEW



Touch-screen electronic thermostat with recessed installation in a 3-modules box, designed to control the room temperature, both in heating and air-conditioning mode, both mains and a battery-operated versions available.

- Installation in a 3-modules recessed box (503)
- Supports to adapt the instrument to the plates of the main civil series
- Touch-screen display to show the measured temperature and program the instrument
- Terminal board at the back of the instrument to connect the output relay of the power supply (only for the 230 Vac model) and the external contact (only for the battery-operated model)
- Interchangeable front panel available in white and anthracite grey (included)
- Procedure to extract the push-push instrument (only for the battery-operated model) to make it easier to replace the battery
- Backlit display: multicolour red, green, blue for the 230 Vac model; single-colour blue touch-screen display for the battery-operated model

Adapters included for use with the following plates:

ABB: Chiara, Mylos

AVE: S44

BTICINO: Axolute, Light, Light tech, Living, Livinglight, Livinglight Air (via a frame that can be purchased separately), Matix

GEWISS: Chorus

VIMAR: Eikon, Eikon Evo, Idea, Plana

Technical Data

Power supply:

230 VAC 230 (-15% ÷ +10%) 50/60 Hz (230 model)

2 x 1.5 V (AAA) (battery-operated model)

Installation: recessed

Maximum cable cross-section: 1.5 mm²

Output relay capacity: 5A/250V (bistable)

Operating time: 12 months

Input: two terminals to reduce the setpoint (battery-operated model only)

Operating modes: summer/winter/off

Setpoint values that can be set: 2÷35 °C

Differential: 0.1÷1 °C

Measured temperature resolution: 0.1 °C

Measurement accuracy: 0.5 °C

Antifreeze temperature: 1÷10 °C

Operating temperature: 0÷50 °C

Storage temperature: -10-65°C

Operating humidity: 20%÷90%, non-condensing RH

Protection rating: IP40



Recessed touch-screen thermostat

NEW

Size	Pcs. pack	Code
230 V	1	02018082
Battery	1	02018084
BTicino LivingLightAir plate adapter	1	01306296

Room thermostat



TECHNICAL SHEET 51

Technical data

Gas expansion sensible element
 Temperature limiting/blocking device
 Protection class: IP 20
 Contact's rating: 10 (2,5) A - 250 V
 Temperature range: from 5 to 30 °C
 Temperature differential: 1,4 °C (4 °C/h)
 Dimensions: 90 x 90 x 40 mm
 Weight: from 130 to 145 gr
 Antifreeze protection
 Double insulation



Termec thermostat

Size	Pcs. pack	Code
3 contacts	1	02001012
3 contacts with lamp	1	02001014
3 contacts with lamp + indep. switch	1	02001016
3 contacts with lamp + on/off switch	1	02001018
2 contacts with lamp + summer/winter off switch	1	02001020

Thermostats

Electronic room thermostat



Electronic room thermostat

Power supply: 230 Vac 50 Hz - Range temperature: 0÷50 °C - Protection rate: IP 30 - Absorption: 1 VA - Contact's rating: 5 (1) AC 250 Vac - Rcd triggering: 0,5 °C - Dimensions: 85 x 85 x 31 mm

Size	Pcs pack	Code
Simply	1	02018044
With summer/winter switch	1	02018046

Thermostats for fancoils



Contact thermostat for fan-coil

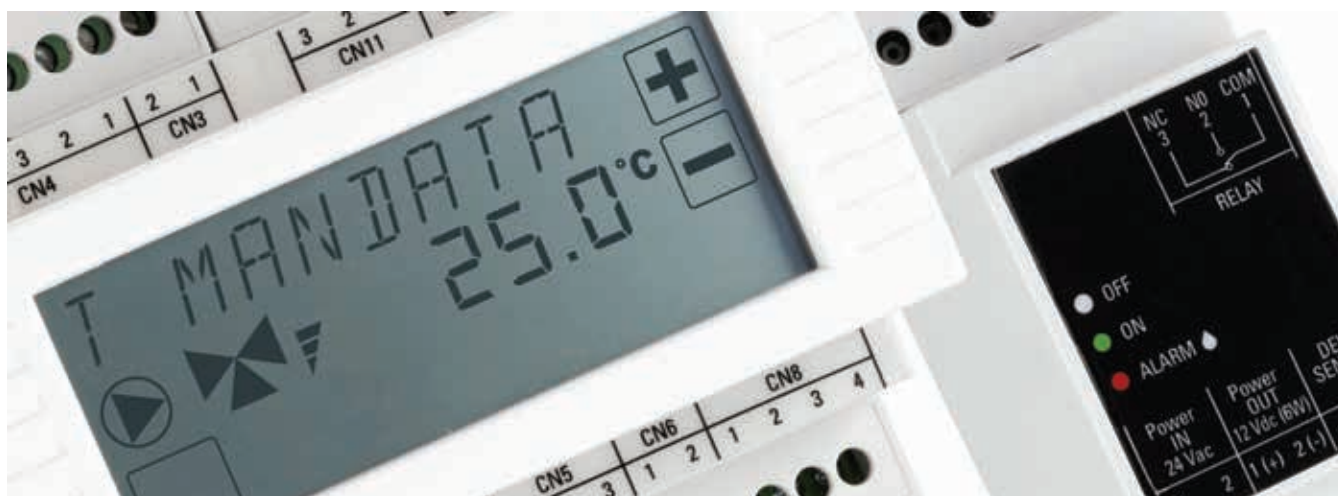
Free contact: 250 V -10 (2,5 A) - Contact closes: 42 °C - Contact opens: 34 °C

Size	Pcs. pack	Code
	1	02012030



RCE - Emmeti Climatic Regulator for mixing units

NEW



Mixing system thermoregulator for automatic control of heating and cooling functions of small and medium systems with radiant panels (floor and ceiling) or with high temperature (radiators, fancoils), such as houses, apartments, shops, offices, etc. Option of managing a centralised system.

This regulator manages the different functions required for the climatic control of the mixing system, such as controlling a mixing valve and relative pump.

Features

One of the main features is the different management of the delivery temperature according to the selected mode:

- 'Fixed point' mode: fixed delivery temperature in both heating and cooling mode;
- 'Modulating' mode: fixed delivery temperature in cooling mode and variable delivery temperature in heating mode.

In the latter case, the delivery temperature is modified compared to the temperature set according to the system return temperature.

- 'Climatic' mode: the delivery temperature is calculated according to the outdoor temperature (winter and summer climatic curve).

The regulator also manages the pump of the system and can control a mixing valve with floating servomotor 3-point or modulating servomotor 0-10 Vdc.

Important

Install a dew sensor for every delivery manifold in systems that also run in cooling mode. Every delivery manifold must be positioned in an area adjacent to the room to be cooled, in order to have equal temperature and humidity conditions. Moreover, the room must have a suitable air handling system (e.g. a dehumidifier regulated by a humidistat to control room humidity).

How to choose the components

Single system

Two-floor detached house with one mixing valve and two delivery manifolds (one per floor).

The system runs both in heating and cooling mode.

Components required:

nr. 1 Emmeti climatic regulator kit for mixing units (code 28139070).

Note: the required components for "fixed point" mode or "modulating" mode are found in the packaging.

For "climatic" mode, add 1 "external probe housing" (code 28139076) to install one of the probes found in the packaging outdoors.

nr. 2 "dew sensors" (code 28139072), install one for each delivery manifold. Both probes must be connected directly to the climatic regulator.

Central system

Central system for heating and cooling mode of a condominium consisting of 20 apartments and one single mixing valve in heating unit.

Every apartment has one zone valve installed for the heat transfer fluid flowing towards the delivery manifold of the apartment.

Components required:

nr. 1 Emmeti climatic regulator kit for mixing units (code 28139070) in heating unit.

Note: the required components for "fixed point" mode or "modulating" mode are found in the packaging.

For the "climatic" mode, add the "external probe housing" (code 28139076) to install one of the probes found in the packaging outdoors.

For each apartment

- nr. 1 "dew sensor" (code 28139072) to be installed on the delivery manifold. (Total 20 pcs).
- nr. 1 converter for dew sensor (code 28139074), to which the dew sensor will be connected; it controls the zone valve, closing it in case of a condensation alarm. (Total 20 pcs).
- nr. 1 "230 V - 24 V, 10 VA transformer" (code 28139130) to power the dew sensor converter. (Total 20 pcs).

RCE - Emmeti Climatic Regulator for mixing units



Emmeti Climatic regulator kit for mixing units

NEW

Composition

- nr. 1 Emmeti Climatic Regulator (RCE)
- nr. 2 NTC temperature probes
- nr. 1 Probe-holder kit
- nr. 1 Wall plug for display
- nr. 1 male/female connector kit for display extension cable (connectors for 4-pin MSTB printed circuit boards)

Technical data of the climatic Regulator

Power supply: 110-230 Vac $\pm 10\%$; 50/60 Hz - Double insulation - Contact capacity: 5 A / 230 Vac - Protection rating IP20 - Connected to DIN (EN 60715) guide (optional) according to standards DIN 43880 - Regulator material: Self-extinguishing PPO - Regulator colour: RAL 7035 grey - Dimensions: 6 DIN modules (95 x 105 x 82 mm) - Display material: PC/ABS - Display colour: white

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 digital output to a floating servomotor 3 points and 1 analogic output to a modulating servomotor 0-10 V (the 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

Size	Pcs. pack	Code
	1	28139070

Accessories for Emmeti Climatic Regulator for mixing units



Dew sensor

NEW

Power supply: 15 Vdc $\pm 10\%$ - RH% of intervention: 90-95%

Size	Pcs. pack	Code
	1	28139072

To be used in the event that the Emmeti climatic regulator for mixing units operates also in cooling mode. Order one dew sensor for each system delivery manifold.



Converter for dew sensor

NEW

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 (optional) 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).

Size	Pcs. pack	Code
	1	28139074

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.



Transformer 230/24V 10 VA

230/24V, P=10VA, f=50/60Hz

NEW

Size	Pcs. pack	Code
2 DIN modules	1	28139130

To be used to power maximum two converters per dew sensor (code 28139074) or to power 0-10V / 24 Vac servomotors (the number of servomotors that can be powered depends on the load required).



Socket for immersion type water sensor

Size	Pcs. pack	Code
G 1/4", L=83 mm	1	28153220



Housing for external probe

NEW

Material: Self-extinguishing ABS - Colour: white - Housing equipped with cable gland
Dimensions: 80x80x25 mm

Size	Pcs. pack	Code
	1	28139076

To be ordered if you use the Emmeti Climatic Regulator in climatic mode



Probe holders kit

NEW

2 permanent adhesive probe holders for probes (diameter 6 mm, maximum length 70 mm) in contact on the pipe

Size	Pcs. pack	Code
	1	01306294



Recessed electronic humidistat

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)

Adapters included for use with following plates:

ABB: Chiara

BTICINO: Axolute, Living International, Light, Light tech, Magic, Matrix

VIMAR: Idea, Plana, Eikon

LEGRAND: Cross, Vela quadra, Vela tonda

GEWISS: Chorus, Playbus

SIEMENS: Delta Futura, Delta Geo

Technical data:

Power supply: 230 VAC 50-60 Hz - Consumption: 4 VA (0.7 W) - Contact capacity 250 VAC: 5 A - Adjustment range: 30% - 90% - Differential: $\pm 2.5\%$ - Operating temperature: 0 °C - 50 °C - Storage temperature: -10 °C - 60 °C - Protection rating: IP40 front

Size	Pcs. pack	Code
	1	28154580

Climatic thermoregulation modular system



PCOC controller

Power supply 24 Vac +10/-15% 50/60 Hz e 28 Vdc +10/-20% - Max. consumption P=11 W, P=14VA - Terminal strip with unpluggable M/F connector, max. voltage 250 Vac - Cable size min. 0.5 mm² - max 2,5 mm² - Index of protection IP20, IP40 at front panel only - DIN rail mounting according do DIN 43880 and CEI EN 50022 standards - Material: tecnopolymer - Size: 6 DIN modules - Self-extinguishing class V2 according to UL94 and 960 °C according to IEC 695 - Ball test rating 125 °C - Creep current resistance ≥ 250 V - Colour RAL 7035 grey - Cooling slots

Size	Pcs. pack	Code
PCOC Controller with user terminal	1	28154142
PCOC Controller for external user terminal (*)	1	28154132
Screw type connector kit PCOC	1	28154150

(*) to be combined with the large terminal with frame (code 28154171)



Remote terminal with display

Maximum distances

Maximum length of pLAN network: 500 m with AWG22 shielded pair cable. pCO terminal distance: 50 m with telephone cable 500 m with AWG22 shielded pair cable.

Note: to achieve maximum length, use a bus type with distribution lines not exceeding 5 metres.

Plastic casing

Clear front cover: clear polycarbonate - Anthracite grey rear casing (wall/recess): polycarbonate + ABS - Keypad: silicone rubber - Clear glass/surround: clear polycarbonate - Self-extinguishing class: V0 at clear front panel and rear casing - HB at silicone keypad and remaining parts.

Electrical specifications

Power supply from pCO via telephone connector or 18/30 Vdc external source - Protected by external 250 mA fuse - Maximum consumption: 1.2 W.

Size	Pcs. pack	Code
Large terminal with surrond	1	28154171

Use the remote large terminal (code 28154171) as the main display for the PCOC Regulator for the external user terminal (code 28154132). There is always the option of using two terminals as displays. For this purpose, use the PCOC Regulator as the user terminal (code 28154142) together with the remote terminal (code 28154171). This allows to view and control the system both from the regulator and the terminal (both with displays).
Inclusive of frame for large terminal.



PCOE modules

Power supply 24 Vac +10/-15% 50/60 Hz and 28 Vdc +10/-20% - Max. consumption P=6 W, P=7VA - Terminal strip with unpluggable M/F connector, max. voltage 250 Vac - Cable size min. 0.5 mm² - max 2,5 mm² - Index of protection IP20, IP40 at front panel only - DIN rail mounting according do DIN 43880 and CEI EN 50022 standards - Material: tecnopolymer - Size: 4 DIN modules - Self-extinguishing class V0 according to UL94 and 960 °C according to IEC 695 - Ball test rating 125 °C - Creep current resistance ≥ 250 V - Colour RAL 7035 grey - Cooling slots

Size	Pcs. pack	Code
PCOE Module (*)	1	28154261
Screw type connector kit PCOE	1	28154270

(*) the PCOE Module can be configured to:

- increase the number of areas (MOD_Z1, MOD_Z2, MOD_Z3)
- manage 3-point servomotors for mixing valves (MOD_M3P)



Room temperature - humidity sensor

Power supply 9/30 Vdc +- 10% - 12/24 vac -10%, +15% - Absorption (outputs active) - current outputs (maximum absorption with two outputs) - 35 mA with 12 Vdc power supply - 24 mA with 24 Vdc power supply - 50 mA with 12 Vac power supply - 24 mA with 24 Vac power supply - - voltage outputs (typical absorption with 10 kΩ load) - 10 mA with 12 Vdc power supply - 8 mA with 24 Vdc power supply - Working temperature range -10 to 60 °C - Working humidity range 10 to 90% R.H. (0 to 50 °C) - Temperature sensor NTC - Index of protection of casing IP 30 - Index of protection of sensing element IP 30

Size	Pcs. pack	Code
Temperature sensor	1	28153181
Temperature and humidity sensor	1	28153191



Outdoor temperature sensor

Power supply DC 9 to 30 V - Power supply AC 12 to 24 V - Temperature sensor NTC - Index of protection of casing IP55 - Index of protection of sensing element IP54 - Working range: -20 / +70 °C

Size	Pcs. pack	Code
	1	28153201



Flow temperature sensor

Size	Pcs. pack	Code
	1	28153210



Socket for immersion type water sensor

Size	Pcs. pack	Code
G 1/4", L=83 mm	1	28153220

Climate control unit



Transformer 230/24V 10 VA

230/24V, P=10VA, f=50/60Hz

NEW

Size	Pcs. pack	Code
2 DIN modules	1	28139130

To be used to power 0-10V / 24 Vac servomotors (the number of servomotors that can be powered depends on the load required).



Transformer 230/24V 35 VA

Size	Pcs. pack	Code
5 DIN modules	1	28153410



Transformer 230/24V 63 VA

Size	Pcs. pack	Code
8 DIN modules	1	28153420



RC FH electronic climatic regulation kit for heating

Size	Pcs. pack	Code
	1	28139060

Consisting of: electronic climatic regulator with control unit, external probe, remote control with room sensor, flow pipe sensor. Functions: automatic auto adaptation of heating curve, optimisation at startup and shut-down, automatic summer/winter switching, system protection. Weekly programming with three periods of comfort and economy for day.

Item to be out of range



OpenTherm interface

OpenTherm interface to be used for dialogue between electronic climatic adjuster and Niña and Talita boilers - Installation on DIN rail - Dimensions: 3 DIN modules

Size	Pcs. pack	Code
	1	07400860

Item to be out of range



Module for remote start-up via GSM

Electronic device to remotely activate, via GSM, two relay outlets with independent controls to activate set electrical equipment - Option of viewing the status of the relay outlets - Option of local control of the relays using a button that is already fitted on the device - Particularly suited for systems of homes with no fixed telephone network - Installed directly on a flat wall or in a recessed box with tree modules (type 503)

Technical data

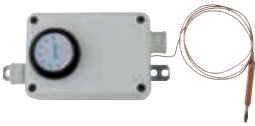
Power supply: 10...30 stabilized VDC (230 VAC +10 -15% 50-60 Hz with power supply unit supplied) - Protection rating: IP42 when installed correctly - Operating temperature: 0...50 °C - Operating humidity: 20...90% without condensation - Dimensions: 139x98x40 mm

Size	Pcs. pack	Code
	1	28139020

Climate control unit

RCE Climate control unit selection guide

NEW

Components	Type of application			
	 Floor Control Unit Plus Section 11	 Mixing Unit M3V Section 11	 Firstbox Section 11	 Three-ways mixing valve Section 5
 28139070 - Section 4	1	1	1	1
 28157210 o 28157220 - Section 11	1	1	1	
 28130208 o 28130206 ⁽²⁾ o 28130209 ⁽³⁾ - Section 5				1
 28130084 ⁽¹⁾ - Section 5				1
 28130632 - Section 3	1	1	1	
 02012038 - Section 5				1
 28153220 ⁽⁴⁾ - Section 4				1

⁽¹⁾ Code 28130084: to be combined with the three-way mixer valves codes 28130218, 28130220, 28130222.

⁽²⁾ Code 28130206: Can be used in combination with three-way mixing valves for electronic adjustment kits with codes 28130210 - 28130212 - 28130214 - 28130216.

⁽³⁾ Code 28130209: Can be used in combination with three-way mixing valves for electronic adjustment kits with codes 28130210 - 28130212 - 28130214 - 28130216 - 28130218 - 28130220 - 28130222.

⁽⁴⁾ Code 28153220: If the RCE regulator is used in modulating mode, order two wells, one for the delivery probe and the other one for the return probe.



RC FH Climate control unit selection guide

Components	Type of application			
	 Floor Control Unit Section 11	 Mixing Unit M3V Section 11	 Firstbox Section 11	 Three-ways mixing valve Section 5
 28139060 - Section 4	1	1	1	1
 28157210 - Section 11	1	1	1	
 28130208 - Section 5				1
 28130084 (*) - Section 5				1
 28130632 - Section 3	1	1	1	
 02012038 - Section 5				1
 00510682 - Section 5				1

(*) Code 28130084: to be combined with the three-way mixer valves codes 28130218, 28130220, 28130222.

Control unit



NCTA W chronothermostat

Digital timer thermostat, wireless, battery powered (2x1,5 V), summer-winter operation, daily and weekly programming in 4 time periods per day and temperatures on 3 levels (Comfort, Reduced, Off/Anti-freeze) - Anti-freeze function - Holiday function - Large back-lit display - Internal sensor and designed for remote SRA-150 probe - Can be controlled by telephone - The timer thermostat activates or de-activates one or more remotely located receivers by means of a radio connection - Degree of protection IP 30 - Dimensions: 132x87x31 mm (LxHxD)

Size	Pcs. pack	Code
	1	02018110



NTA W thermostat

On-off room thermostat, wireless, battery operated (2x1,5 V), for heating and cooling systems, with mechanical locking of temperature scale, internal sensor and set up for remote probe SRA-150 - The thermostat activates or de-activates one or more remotely located receivers by means of a radio connection - Degree of protection IP 30. Dimensions: 85x85x29 mm (LxHxD)

Size	Pcs. pack	Code
	1	02018112



NAR W antenna

Active receiving antenna for modules NMC2 W and NMC8 W, complete with 5-metre connection cable - Frequency: 868,150 MHz - Degree of protection: IP 30 - Dimensions: 85x85x31 mm (LxHxD)

Size	Pcs. pack	Code
	1	02018114



2-channel relay module NMC2 W

Relay module with two independent channels (which can be assigned to different transmitters) for the activation of electro-thermal actuators (normally open and normally closed) + 1 auxiliary channel for the activation of a circulator pump - Self-learning of transmission code - Supply of direct (230V) or auxiliary (24V) - Loads Set up for connection to a timer for management of night reduction - Global Standby and Summer/Winter inputs - Can be cascade connected with NMC8 W and NMC2 W modules (max 1 NMC2 W per cascade)

Technical data

Power supply: 230 V -15% +10% 50Hz - Absorbed power: 4 VA - Contact capacity: 3A @ 250V - Degree of protection: IP 30 - Dimensions: 130 x 100 x 60 mm (L x H x D)

Size	Pcs. pack	Code
	1	02018118



8-channel relay module NMC8 W

Relay module with 8 independent channels (which can be assigned to different transmitters) for the activation of electro-thermal actuators (normally open and normally closed) + 1 auxiliary channel for the activation of a circulator pump - Self-learning of transmission code - Supply of loads direct (230V) or auxiliary (24V) - Set up for connection to a timer for management of night reduction - Global Standby and Summer/Winter inputs - Can be cascade connected with NMC8 W and NMC2 W modules (max 1 NMC2 W per cascade)

Technical data

Power supply: 230V -15% +10% 50Hz - Absorbed power: 7 VA - Contact capacity: 3A @ 250V - Degree of protection: IP 30 - Dimensions: 245 x 100 x 60 mm (L x H x D)

Size	Pcs. pack	Code
	1	02018120



1-channel receiver NR1 W

Single-channel radio receiver equipped with built-in antenna and relay output to activate an electrothermal actuator or a circulator or directly a boiler - Self-learning of transmission code

Technical data

Power supply: 230 V $\pm$ 10% 50 Hz - Absorption: 11 VA - Relay contacts: 6 A @ 250 V - Frequency: 868,150 MHz - Degree of protection: IP 30 - Dimensions: 85 x 85 x 31 mm (L x H x D)

Size	Pcs. pack	Code
	1	02018116



Probe SRA-150

Probe for installation in air or in liquids (with well) equipped with bi-polar silicon cable with a net length of 150 cm - The sensor is provided, on the sensitive end, with a small nickel-plated brass tube measuring 6x25mm - The sensor is NTC type - 100K ohm @25°C - Degree of protection IP 44

Size	Pcs. pack	Code
	1	28130662



Telephone interface IT CTA for PSTN fixed telephone line

Power supply 12V via mains adaptor - Absorption: 100 mA - Contacts capacity: 2 x 3A @ 250V~ SPDT - Degree of protection IP 30 - Dimensions: 85 x 85 x 31 mm (L x H x D)

Size	Pcs. pack	Code
	1	28130664

Chronothermostat with wall-mounted humidistat

NEW



Chronothermostat with weekly programming with built-in humidity sensor to adjust the temperature and control the ambient humidity thanks to two separate relays.

The first relay is controlled by the temperature setting, while the second relay is activated when the humidity threshold is reached. Depending on the setting, it serves as an instrument to measure the maximum or minimum value. For instance, it can control a dehumidifier or a humidifier, with automatic switch from standard time to daylight-saving time and keypad lock for installation in public areas.

- It has a plastic base for wall installation or it can be secured to a 503 box (or a similar one)
- Wide display to show the operating status, time and day, temperature and humidity in the room
- Keyboard concealed underneath the front panel and used to program the instrument.

Technical Data

Power supply: battery 1 x 1.5 V (AAA)

Battery charge: 1 h

Fixing system: Wall-mounted/503 box

Protection rating: IP XXD

Operating temperature: 0÷50 °C

Storage temperature: -10-65°C

Relative humidity: 20%÷90%, non-condensing RH

Humidistat Technical Data

Operating range: HR Off, 30÷90%

Fixed centred differential: HR 5%

Time between two switchings: 1 min

Accuracy: HR ±3%

Resolution: HR 1%

N.O. bistable relay capacity at 250 Vac: A5

Chronothermostat Technical Data

Programming: weekly

Operation: summer/winter

Temperatures that can be set: 3 + antifreeze + manual

Temperature measurement: 0÷50 °C

Measurement accuracy: 0.5 °C

Temperature resolution: 0.1 °C

Programming resolution: 1 h

Interval between two temperature measurements: 20 s

Start-up delay: 15, 30, 45 min

Differential that can be set: 0.1÷1 °C

Exchange relay capacity at 250 Vac: 5 A



Chronothermostat with wall-mounted, battery-operated humidistat

NEW

Size	Pcs. pack	Code
	1	02018090



Recessed electronic humidistat

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)

Adapters included for use with following plates:

ABB: Chiara

BTICINO: Axolute, Living International, Light, Light tech, Magic, Matrix

VIMAR: Idea, Plana, Eikon

LEGRAND: Cross, Vela quadra, Vela tonda

GEWISS: Chorus, Playbus

SIEMENS: Delta Futura, Delta Geo

Technical data:

Power supply: 230 VAC 50-60 Hz - Consumption: 4 VA (0.7 W) - Contact capacity 250 VAC: 5 A - Adjustment range: 30% - 90% - Differential: $\pm 2.5\%$ - Operating temperature: 0 °C - 50 °C - Storage temperature: -10 °C - 60 °C - Protection rating: IP40 front

Size	Pcs. pack	Code
	1	28154580



Heating unit components

> Pressure
reducer



115

> Mesh filter
sandblasted



132

> Automatic
air valve



121

> Thermostatic
regulation kit



133

> Safety
valve



123

> Open manifolds



135

> Automatic
feeder



125

> Plate heat
exchangers



139

> Electronic
circulator pump



126

> Fuel cut-off
valve



144

> Expansion vessel



130

> ISO GUM



145

> ISPESL
safety valve



131

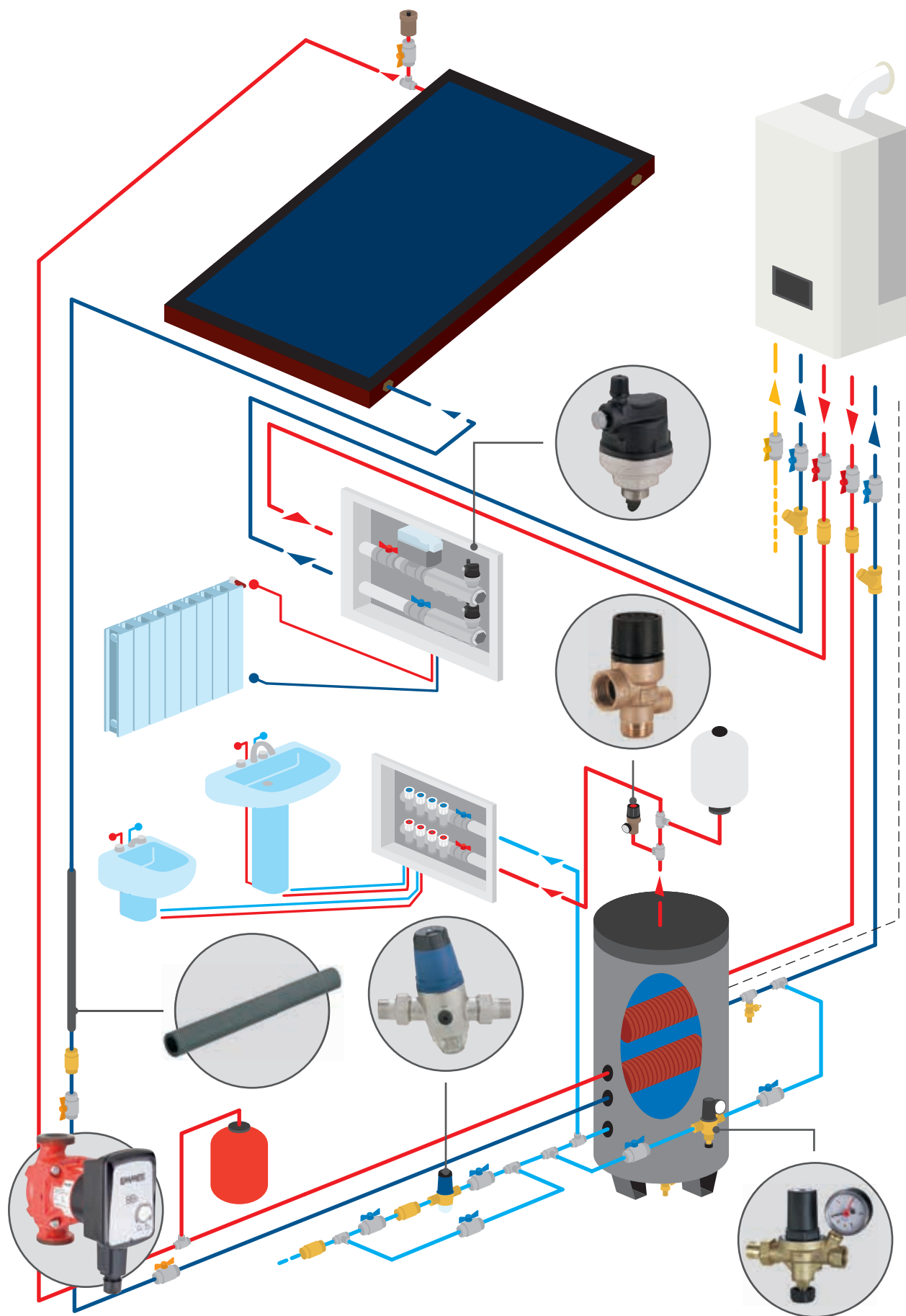
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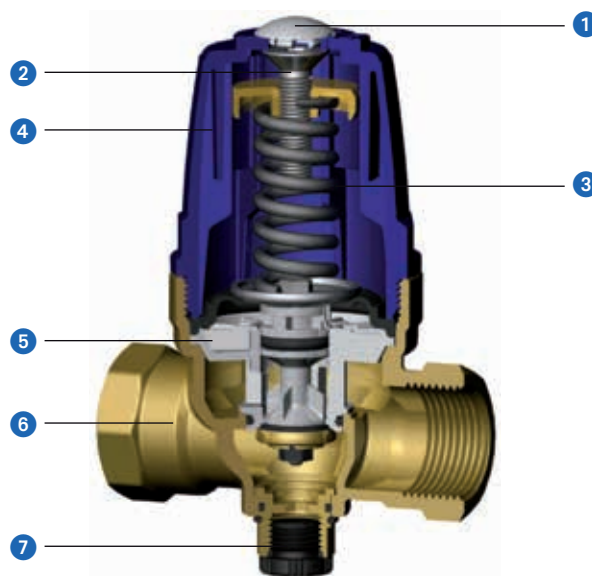
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Example of installation



Membrane pressure reducer Eco+



TECHNICAL SHEET 150

Membrane pressure reducer.

The stopper cartridge is located around a stainless steel bolt, guaranteeing mechanical resistance and easy maintenance: the cartridge can always be replaced by removing it from the reducer without the need to remove the latter from the system.

The stopper is coupled with a piston, whose surface compensates for the force exercised by the pressure upstream of the stopper itself, thereby guaranteeing the stability of the delivered pressure independently of fluctuations in supply pressure.

The sliding surfaces of the seal elements are made with synthetic components with a low friction coefficient, which reduces the formation of deposits and the onset of malfunctions.

The maximum inlet pressure is 25 bar, and the outlet pressure can be regulated between 1 and 6 bar.

All reducers are bench tested and calibrated to a delivery pressure of 3 bar, this setting can be changed using the adjustment screw, screwing it in to increase the output pressure and unscrewing it to decrease it.

The reducer is available with connections with female, male threading or pipe connections.

The transversal dimension remains limited also if a pressure control gauge is placed upstream thanks to its axial installation by means of an adjustable fitting (G 1/4" female thread).

It is recommended to place a silt filter upstream of the reducer, which retains any impurities in the water. This will extend the life of the reducer itself.

Construction

- ① Protection cap in PA 6 (15% GF)
- ② Adjustment mechanism in brass TN UNI EN 12164 CW614N
- ③ Spring in stainless steel AISI 302
- ④ Cap in PA 66 (30% GF)
- ⑤ Stopper cartridge: plastics in Hostaform - gasket and membrane in EPDM 70 WRAS - shaft and washers in stainless steel AISI 304
- ⑥ Brass body TN UNI EN 12165 CW617N
- ⑦ G 1/4" pressure gauge fittings in brass TN UNI EN 12164 CW614N

Technical data

Max upstream pressure: 25 bar

Adjustable field: 1÷6 bar

Max temperature: 70 °C

Membrane pressure reducer Eco+



Eco+ pressure reducer Female - Female, without pipe unions, sandy

Size	Pcs. pack	Code
1/2"	1	28104220
3/4"	1	28104222



Eco+ pressure reducer Male - Male, without pipe unions, sandy

Size	Pcs. pack	Code
DN 15 (G 3/4" M)	1	28104340
DN 20 (G 1" M)	1	28104342



Pipe unions couple for pressure reducer Male - Male without pipe unions

Size	Pcs. pack	Code
3/4" F x 1/2" M	1	90027800
1" F x 3/4" M	1	90027810
3/4" F x 1/2" F	1	90027840
1" F x 3/4" F	1	90027850



Pressure gauge radial attachment Ø 63

Size	Pressure	Pcs. pack	Code
1/4" x 63 mm	10 bar	10	00612010
1/4" x 63 mm	6 bar	10	00612006



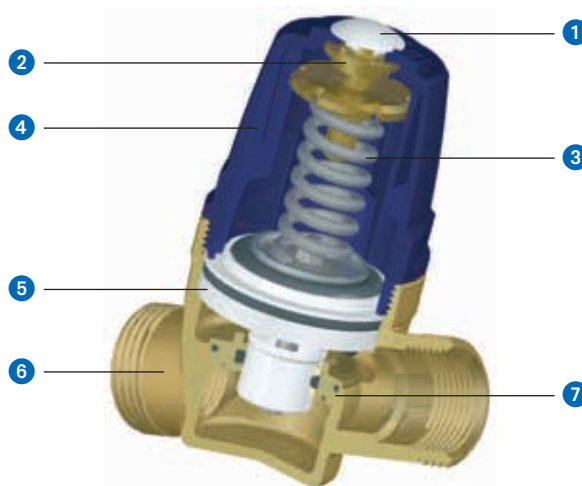
Emmeti Pressure reducer

Max upstream pressure: 25 bar - Adjustable field: 0,5÷6 bar - Max temperature: 80 °C

Size	Connections	Pcs. pack	Code
1"	F-F	1	01060100
1"1/4	F-F	1	01060114
1"1/2	F-F	1	01060150
2"	F-F	1	01060200
2"1/2 (*)	F-F	1	01060212

(*) without pipe union

Membrane pressure reducer Eco



TECHNICAL SHEET 150

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 or with shaped shunts to house tightened seals. The second solution, along with the pipe unions complete with specific adaptors (provided separately), allows inlet connection of conduits which are different from the outlet ones, e.g. iron pipe and copper pipe.

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. Both sides of 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.

Construction

- 1 Protection cap in PA 6 (15% GF)
- 2 Adjustment mechanism in brass TN UNI EN 12164 CW614N
- 3 Spring in stainless steel AISI 302
- 4 Cap in PA 66 (30% GF)
- 5 Stopper cartridge: plastics in Hostaform - gasket and membrane in EPDM 70 WRAS - shaft and washers in stainless steel AISI 304
- 6 Brass body TN UNI EN 12165 CW617N
- 7 Brass ring nut seal for shutter TN UNI EN 12164 CW614N

Technical data

Max upstream pressure: 25 bar

Adjustable field: 1÷6 bar

Max temperature: 70 °C

Membrane pressure reducer Eco



WRAS
APPROVED
PRODUCT

Eco pressure reducer without pipe unions

Size	Pcs. pack	Code
3/4" F - 1" M	1	28103922
1" F - 1 1/4" M	1	28103924

Items to be out of range



Pipe unions couple

Size	Pcs. pack	Code
3/4" F x 1/2" M	1	90027800
1" F x 3/4" M	1	90027810
1 1/4" F x 1" M	1	90028290
3/4" F x 1/2" F	1	90027840
1" F x 3/4" F	1	90027850



Pressure gauge Ø 50 side back connection for pressure reducer

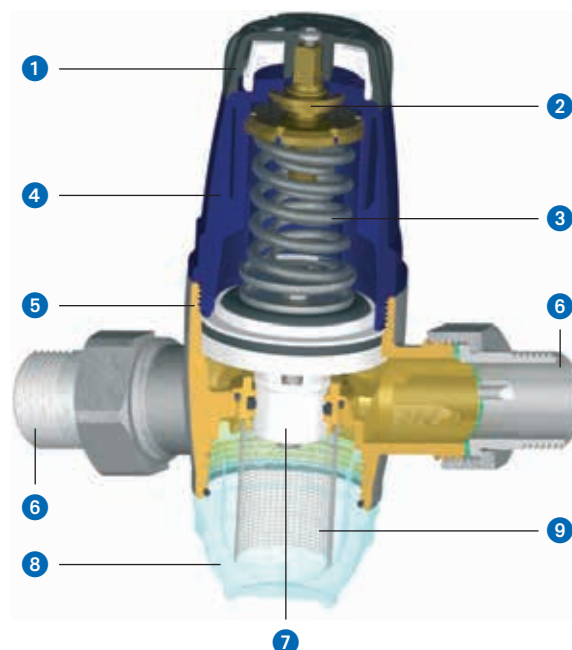
Size	Pressure	Pcs. pack	Code
1/4"	10 bar	10	00612442

Membrane pressure reducer Top



Membrane pressure reducer equipped with stopper with compensated surfaces. This measure ensures stability of outlet pressure regardless of variations in upstream pressure. The calibration system includes a pair of springs that act on an oscillating housing which isolate the stopper and the membrane from the torsions and lateral flexion induced by the working of the spring.

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 reducer is also provided with a reduced section mesh filter, which can be inspected in the version with transparent cup. This further increases durability and protects the plumbing circuit from any impurities which may be present in the water supply. The control knob and the graduated scale in the upper part allow easy adjustment of the calibration pressure. Therefore, the reducer can be calibrated to the desired pressure prior to installation and the system, when powered up, will automatically go the set value. The pressure reducers are calibrated at the test bench with an upstream pressure of 8 bar and 3 bar downstream, with 100% testing prior to packaging.



TECHNICAL SHEET 150

Construction

- ① Knob in PA 6 (15% GF)
- ② Adjustment mechanism for shutter TN UNI EN 12164 CW614N
- ③ Spring in stainless steel AISI 302
- ④ Cap in PA66 (60% GF)
- ⑤ Brass body TN UNI EN 12165 CW17N
- ⑥ Brass pipe unions TN UNI EN 12165 CW617N
- ⑦ Stopper cartridge: plastics in Hostaform, gaskets and membrane in EPDM 70 WRAS, shaft and washers in stainless steel AISI 304
- ⑧ Filter cup in transparent PA 12
- ⑨ Filter in stainless steel AISI 316

Membrane pressure reducer Top



Top pressure reducer with transparent filter cup that can be inspected

Max upstream pressure: 16 bar - Adjustable field: 1÷6 bar - Max temperature: 30 °C

Size	Pipe unions	Pcs. pack	Code
1/2"	M-M	1	28103450
3/4"	M-M	1	28103452
1"	M-M	1	28103454
1/2" (*)	F-F	1	28103530
3/4" (*)	F-F	1	28103532

(*) Items to be out of range



Pressure gauge Ø 50 side back connection for pressure reducer

Size	Pressure	Pcs. pack	Code
1/4"	10 bar	10	00612442

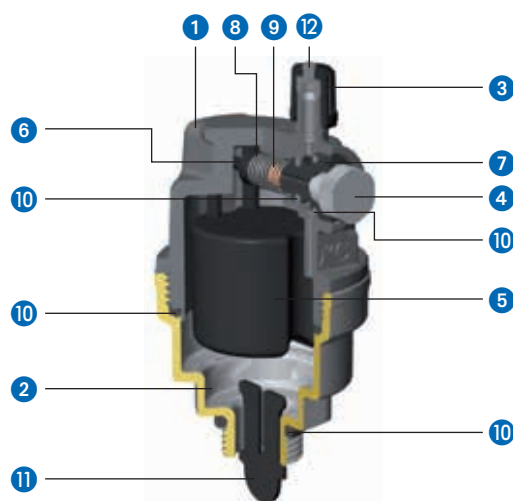


Brass cup kit

Size	Pcs. pack	Code
	1	90038820

With filter for 1/2" and 3/4" reducers

Automatic air valve with plastic cover and anti-dirt air chamber



TECHNICAL SHEET 40

Construction

- ① Casing in Zytel (HTN51)
- ② Cup in brass ST UNI EN 12165 CW617N
- ③ Black cap manual venting PA 6 stiffened
- ④ Grey cap automatic venting PA 6 stiffened
- ⑤ Floater in PP
- ⑥ Splingle in PA 6
- ⑦ Ring in PPO
- ⑧ Spring in steel inox
- ⑨ Shutter in silicone rubber
- ⑩ O-ring in NBR
- ⑪ Bubble-breaker in PA 6 stiffened
- ⑫ Gasket in NBR

Technical data

Maximum pressure 10 bar
Maximum temperature +110 °C

Tecno-Varia

Size	Pcs. pack	Code
3/8" reduced + bb*	12	00400000
3/8" standard + bb*	12	00400002
1/2" standard	12	00400004

* bubble-breaker

Varia and Tecno-Varia accessories

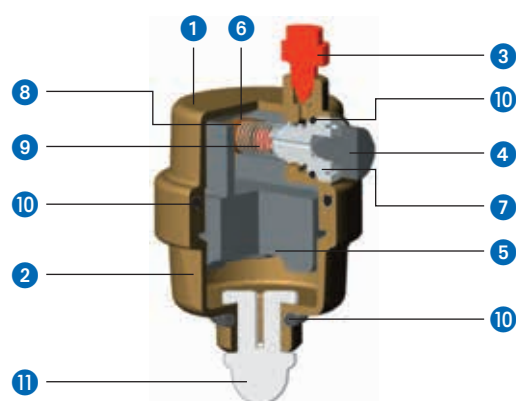


Check valve

Size	Pcs. pack	Code
3/8" M x 3/8" F	12	00402060
1/2" M x 3/8" F	12	00402080
1/2" M x 1/2" F	12	00402100

Valve Varia

Automatic air valve



TECHNICAL SHEET 40

Construction

- ① Casing in brass ST UNI EN 12165 CW617N
- ② Cup in brass ST UNI EN 12165 CW617N
- ③ Red cap manual venting PA 6 stiffened
- ④ Black cap automatic venting PA 6 stiffened
- ⑤ Floater in PP
- ⑥ Splingle in PA 6
- ⑦ Ring in PPO
- ⑧ Spring in steel inox
- ⑨ Shutter in silicone rubber
- ⑩ O-ring in NBR
- ⑪ Bubble-breaker in PA 6 stiffened

Technical data

Maximum pressure 10 bar
Maximum temperature +120 °C

Product 100% tested



Emmeti patented

Varia reduced with bubble-breaker

Size	Pcs. pack	Code
3/8"	16	00400620



Varia standard with bleed-nipple al top and without bubble-breaker

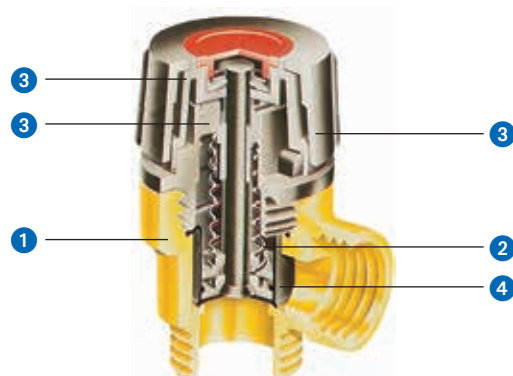
Size	Pcs. pack	Code
1/2"	12	00400660



Varia maxi automatic air vent valve 3/4"

Size	Pcs. pack	Code
3/4"	10	00400340

Safety valve



TECHNICAL SHEET 41

Construction

- ① Body in brass ST UNI EN 12165 CW617N
- ② Stainless steel spring
- ③ Ring nut, knob and cap in nylon
- ④ Membrane in ethylpropylene rubber

Technical data

Membrane valve, with fixed high-lift calibration and direct reaction spring.

The calibration screw cannot be tampered with, without causing irretrievable damage to the valve.

The shutter membrane is guaranteed non-stick type and will not alter shape after prolonged utilisation.

The calibration pressure is stamped in relief on the plug placed on top of the valve.

The possibility of the valve being opened accidentally is prevented by a protection cap. In order to turn the knob, it is necessary to remove the cap.

Maximum operating temperature: 110 °C

The addition of a pressure gauge is already foreseen.

Product 100% tested



Safety valve

Size	Pressure	Pcs. pack	Code
1/2" F-F	3 bar	12	00205030
1/2" M-F	3 bar	12	00206030
1/2" F-F	6 bar	12	00205060
1/2" M-F	6 bar	12	00206060
3/4" F-F	3 bar	10	00202334
3/4" F-F	6 bar	10	00202634

Safety valve



Safety valve with special regulation

Size	Pressure	Pcs. pack	Code
1/2" F-F	1,5 bar	12	00205015
1/2" F-F	1,8 bar	12	00205018
1/2" F-F	2 bar	12	00205020
1/2" M-F	2 bar	12	00206020
1/2" F-F	2,5 bar	12	00205025
1/2" F-F	4 bar	12	00205035
1/2" M-F	4 bar	12	00206040
NEW 1/2" F-F	7 bar	10	00201270
NEW 1/2" F-F	8 bar	10	00201280
NEW 1/2" F-F	9 bar	10	00201290



With gauge fitting

Size	Pressure	Pcs. Pack	Code
1/2" F-F	3 bar	10	00206080
1/2" F-F	6 bar	10	00206082
1/2" M-F	3 bar	10	00206090
1/2" M-F	6 bar	10	00206092



With pressure gauge Ø 50

Size	Pressure	Pcs./pack	Code
1/2" F-F	3 bar	2	00206100

For export market settings different from standard can be required

Automatic feeder



Technical data

Max upstream pressure: 10 bar
Adjustable field: 0,3÷4 bar
Max temperature: 40 °C
Pressure gauge: Ø 5,2 cm

Product 100% tested



Automatic filling valve

Size	Pcs. pack	Code
1/2" without pressure gauge	1	00200514
1/2" with pressure gauge	1	00200614

Circulator pumps



Technical data

Operating temperature: from -10 to 110 °C
 Maximum room temperature: 40 °C
 Maximum service pressure: 10 bar
 Min. pressure at suction: 1,5 mCE at 82 °C,
 3 mCE at 95 °C, 10 mCE at 110 °C
 Immersed rotor motor
 Voltage: 230 V / 50 Hz
 Insulation class: F (155 °C)
 Connections: G 1"1/2
 Interaxis connection: 130 mm
 Absorption: 65 W (5/33), 93 W (6/53), 132 W (7/63)
 Energetic class: E (7/63), D (5/33, 6/53)

AVAILABLE ONLY FOR EXTRA EU MARKETS



Shark three-speed circulator pump

Size	Connections	Pcs. Pack	Code
5/33 (*)	1"1/2	1	00710122
6/53	1"1/2	1	00710124
7/63 (*)	1"1/2	1	00710115

(*) Items to be out of range

Circulator pumps



In confirm to ErP directive

Operating modes

- Δp -c for constant pressure difference
- Δp -v for variable pressure difference

Manual functions

- Operating mode setting
- Pump performance setting (static pressure)

Automatic functions

- Modulating adjustment of the performance according to the operating mode
- Automatic release
- Visualisation of power consumption in W
- Visualisation of current set static pressure

Technical data

Fluid temperature: from -10 °C to +95 °C

Voltage: 1~230 V, 50/60 Hz

Index of protection: IP X2 D

Insulating class: F

Maximum operating pressure.: 6 bar

Maximum room temperature: 40 °C

Absorbption: 4-20 W(25/4), 4 - 40 W(25/6), 4 - 70 W(25/8)

Minimum pressure at suction at 50 / 95 / 110 °C: 0,5 / 3 / 10 m

Connection: 1", 1 1/2"

Interaxis connection: 130 mm

Energetic class: A



Electronic circulator pump for heating systems Shark E

Model	Connections	Pcs. Pack	Code
25/4-130	1" 1/2	1	00710340
25/6-130	1" 1/2	1	00710342
25/8-130	1" 1/2	1	00710344
15/4-130	1"	1	00710346

Circulator pumps



In confirm to ErP directive

Electronic circulator pump

Operating modes

- Dp-c for constant pressure difference - Dp-v for variable pressure difference

Manual functions

- Operating mode setting - Pump performance setting (static pressure) - Reduced operation setting

Automatic functions

- Modulating adjustment of the performance according to the operating mode - Reduced automatic operation - Automatic air-relief function - Automatic release

Signalling and viewing functions

- Visualisation of power consumption in W - Visualisation in kWh of accumulated kilowatt-hours

Technical data

Operating temperature: from 2 to 110 °C - Maximum room temperature: 40 °C - Maximum operating pressure: 10 bar - Protection class: IP44 - Voltage: 230 V-50 Hz - Interaxis connection: 130 mm - Absorption 40-25/130: 3 W (min), 20 W (max) - Absorption 60-25/130: 3 W (min), 40 W (max)

Size	Pcs. pack	Code
40-25/130	1	00710332
60-25/130	1	00710334



In confirm to ErP directive

Electronic circulator pump for small-collective heating systems

Regulation

Manual setting of parameters: Start/Stop, Constant ΔP , Variable ΔP , Speed speed

ΔP Constant (Constant Pressure)

With this function, the pump maintains a constant differential pressure in the system the flow rate varies according to a value of prevalence desired

ΔP Variable (Variable pressure)

With this function, the circulator varies the differential pressure in the system the flow rate varies guaranteeing 1/2 of prevalence in flow rate $Q = 0$ with respect to head value set.

Speed regulation

With this function it is possible to determine the speed of rotation of the circulator and keep it constant at a value between the speed min to 1400 rev / min and the max of 4800 rev / min (depending on model)

Automatic rallenty

The adjustment of equipment Day / Night does not always take into account the pump, this pump provides placement to the min. according to the variation of the water temperature, avoiding unnecessary waste in case of operation when the system is at rest.

Remote report

A potential-free contact (normally open) allows the remote signaling of any abnormality of the circulator.

Technical data

Fluid temperature: from -10 °C to +110 °C - Voltage: 1-230 V, 50 Hz - Index of protection: IP 55 - Insulation class: F - Maximum operating pressure.: 10 bar - Maximum room temperature: 40 °C - Absorbed power: 9-85 W(32/40), 9-130 W(32/60) - Minimum pressure at suction at 50 / 95 / 110 °C: 3 / 10 / 16 m - Connection: 2" - Connection interaxis: 180 mm - Energetic class: A

Size	Connections	Pcs. Pack	Code
32-40/180	2"	1	00710350
32-60/180	2"	1	00710352



Three-speed circulator pump for plumbing systems

Operating temperature: from -10 to 110 °C - Maximum room temperature: 40 °C - Maximum pressure: 10 bar - Voltage: 230 V -50 Hz - Insulation class: F (155 °C) - Interaxis connection: 130 mm (H2/3 V - 15S), 158 mm (H4/3V - 20S and H5/3V - 25S) - Absorption: 56 W (H2/3V - 15S), 89 W (H4/3V - 20S), 114W (H5/3V - 25S)

Size	Connections	Pcs. Pack	Code
H2/3V-15S	1"	1	00710230
H4/3V-20S	1"1/4	1	00710240
H5/3V-25S	1"1/2	1	00710250



Domestic circulator pump for sanitary hot water recirculation

Operating fluid temperature: from 20 to 65 °C (until 70 °C for short periods: about 2 hours) - Setting: from 40 to 70 °C - Maximum room temperature: 40 °C - Maximum pressure: 10 bar - Min. pressure at suction: 2 mCE at 65 °C - Voltage: 230 V - 50 Hz - Insulation class: F (155 °C) - Interaxis connection: 138 mm - Absorption: 10 W

Size	Connections	Pcs. pack	Code
SB04-15TS	1"	1	00710298

Application: re-circulation of domestic hot water. Three programmable daily time periods of operation. Setting of minimum operating temperature. Thermal disinfection function. Anti-seizure function. Complete with non-return valve and cut-off valve.



Pipe union manufactured in brass for circulator pump

Size	Pcs. pack	Code
3/4" F x 1"1/2 F	1	00801034
1" F x 1"1/2 F	1	00801100
1"1/4 M x 1"1/2 F	1	00801114
1"1/4 F x 2" F	1	00801130
1" F x 1/2" F	1	28130312

Supplied with gasket.

Heating unit components



Expansion vessels with fixed membrane

Fixed membrane in SBR - Operating temperature: $-10 \div +100$ °C - Max operating pressure: 4 bar (6 ÷ 12 liters), 3,5 bar (18 ÷ 24 liters), 5 bar (35 liters), 6 bar (50 ÷ 300 liters) - Precharge pressure: 1,5 bar

Liters	Connection	Pcs. pack	Code
6	M 3/4" Gas	1	00103006
8	M 3/4" Gas	1	00103008
10	M 3/4" Gas	1	00103010
12	M 3/4" Gas	1	00103012
18	M 3/4" Gas	1	00103018
24	M 3/4" Gas	1	00103024
35	M 3/4" Gas	1	00102400
50	M 3/4" Gas	1	00102405
80	M 3/4" Gas	1	00102410
100	M 3/4" Gas	1	00102415
150	M 1" Gas	1	00102420
200	M 1" Gas	1	00102425
250	M 1" Gas	1	00102430
300	M 1" Gas	1	00102435

In compliance with directive 97/23 EEC. From 80 to 300 litres equipped with support base. Uses: Heating circuit and cooling systems.



Bracket for fastening expansion tank with fitting for 18 and 24 lts expansion tanks

L-bracket for wall mounting of expansion tank. The 3/4" M x 3/4" F fitting is equipped with a non-return valve. Gasket and wall plugs included.

Size	Pcs. pack	Code
	1	02706834

For 18 and 24 lts expansion tanks.



Stainless steel flexible hose kit for connection to expansion tank

Flexible tube in stainless steel AISI 304 for connection of the expansion tank to the safety group. Threading 3/4". Includes hose, fittings and gaskets.

Size	Pcs. pack	Code
L 500	1	02706836
L 1000	1	02706838



Expansion vessels for sanitary water with interchangeable membrane

Interchangeable membrane in BUTYL - Operating temperature: $-10 \div +100$ °C - Max operating pressure: 10 bar - Precharge pressure: 3,5 bar (2 liters), 2,5 bar (5 ÷ 8 liters)

Liters	Connection	Pcs. pack	Code
2	M 3/4" Gas	4	00800002
5	M 3/4" Gas	1	00800005
8	M 3/4" Gas	1	00800008

In compliance with directive 97/23 EEC
Uses: Hot and cold water, heating and cooling system circuits.



Expansion vessels for sanitary water with interchangeable membrane **NEW**

Interchangeable membrane in EPDM - Operating temperature: $-10 \div +100$ °C - Max operating pressure: 10 bar (12 liters), 8 bar (18 and 24 liters) - Precharge pressure: 2,5 bar

Liters	Connection	Pcs. pack	Code
12	M 3/4" Gas	1	00800012
18	M 3/4" Gas	1	00800019
24	M 3/4" Gas	1	00800021

In compliance with directive 97/23 EEC

Uses: Hot and cold water, heating and cooling system circuits.



Expansion vessels for sanitary water

Interchangeable membrane in EPDM - Operating temperature: $-10 \div +100$ °C - Max operating pressure: 8 bar - Precharge pressure: 1,5 bar

Liters	Connection	Pcs. pack	Code
24	M 1" Gas	1	00800026

In compliance with directive 97/23 EEC

Uses: Domestic hot and cold water circuit, pressurization autoclave, heating and cooling system circuits.



Expansion vessels for sanitary water

Interchangeable membrane in EPDM - Operating temperature: $-10 \div +100$ °C - Max operating pressure: 10 bar - Precharge pressure: 1,5 bar (35 ÷ 80 liters), 2,5 bar (100 ÷ 300 liters)

Liters	Connection	Pcs. pack	Code
35 *	M 1" Gas	1	00800595
35	M 1" Gas	1	00800590
50	M 1" Gas	1	00800600
80	M 1" Gas	1	00800610
100	M 1" Gas	1	00800615
150	M 1" Gas	1	00800620
200	M 1 1/4" Gas	1	00800625
300	M 1 1/4" Gas	1	00800630

In compliance with directive 97/23 EEC

*L35 without feet.

Uses: Domestic hot and cold water circuit, pressurization autoclave, heating and cooling system circuits.



ISPEL qualified and calibrated safety valve. Compliant with directive PED 97/23/EC

Size	Pressure	kcal/h	Pcs. pack	Code
1/2" x 3/4" Ø 15	3 bar	126.873	1	00208030
1/2" x 3/4" Ø 15	6 bar	221.407	1	00208060
3/4" x 1" Ø 20	3 bar	254.151	1	00209030
3/4" x 1" Ø 20	6 bar	443.520	1	00209060

Heating unit components



F F sandblasted filter with inox steel filter

Body UNI EN 12165 CW617N - Cap UNI EN 12165 CW617N - Shutter UNI EN 12165 CW617N - Gasket NBR 70 Sh A (ASTM D 2240) - Female thread ISO 228/1 (DIN 259) - Steel inox filter

Size	Pcs. pack	Code
1/2"	6	01005012
3/4"	7	01005034
1"	4	01005100
1"1/4	2	01005114
1"1/2	1	01005112
2"	1	01005200
2"1/2	1	01005205

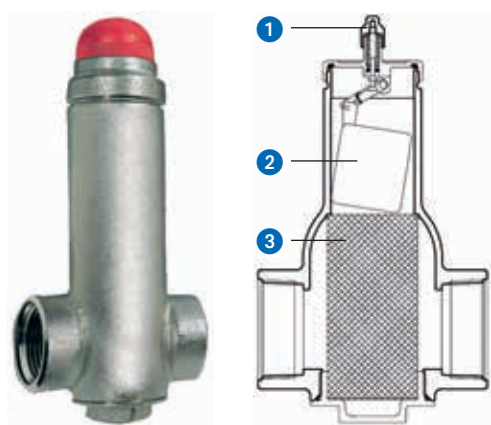


De-aeration device

Maximum operating temperature: 140 °C - Maximum operating pressure: 10 bar
Kv: 6,5 - Employment fluid: water, glicole

Size	Pcs. pack	Code
DN 15 - G 1"M x G 3/4"F	1	02707822
Extension 50 mm (*)	1	02707820

(*) for air vent valve



De-aeration device for installations on heating and air-conditioning circuits, with horizontal supply arrangement.

Construction

- ① Body: brass
- ② Float: polypropylene
- ③ Mesh cartridge: stainless steel

Ratings

Maximum temperature: 100 °C - Maximum pressure: 6 bar - Testing pressure: 16 bar - Kvs (m³/h): 7,5 (3/4") - 10,2 (1") - 17,5 (1"1/4)

Size	Pcs. pack	Code
3/4"	1	00406070
1"	1	00406080
1"1/4	1	00406090



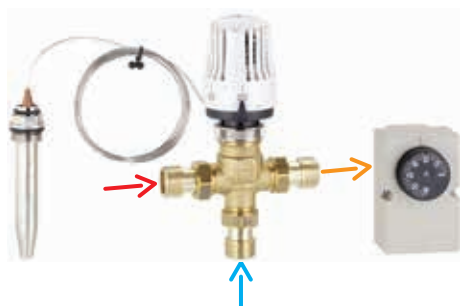
Overpressure valve

Max pressure: 10 bar - Max temperature: 110 °C - Range of adjustment: 0,1÷0,6 bar

Size	Pcs. pack	Code
3/4"	1	01406040
1"1/4	1	01406044



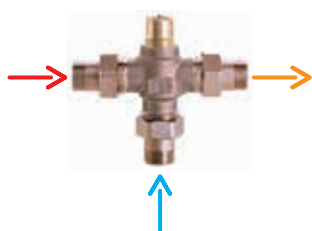
Mixing valves and accessories



Thermostatic regulation kit

Size	Pcs. pack	Code
1/2"	1	28130054
3/4"	1	28130056
1"	1	28130058

Consisting of: liquid-expansion thermostatic probe head (range of adjustment 20÷65°C) with remote immersion probe holder, safety contact thermostat. Mixing valve class PN 16, body in brass, spindle in chemically nickel-plated brass, shutter in MDPE. Complete with unions.



Three-ways mixing valve for electronic kit regulation

Size-Kvs (m³/h)	Pipe union connection	Pcs. pack	Code
DN 10 - 1,6 (*)	G 3/8" M	1	28130210
DN 15 - 2,5 (*)	G 1/2" M	1	28130212
DN 20 - 4 (*)	G 1/2" F	1	28130214
DN 25 - 6,3 (*)	G 3/4" F	1	28130216
DN 25 - 10 (**)	G 1" F	1	28130218
DN 32 - 16 (**)	G 1 1/4" F	1	28130220
DN 40 - 25 (**)	G 1 1/2" F	1	28130222

PN 16 class, body in bronze, spindle in steel and o-rings in PDPE. Complete with unions.

(*) Can be used in conjunction with electric servo-motors code 28130206 - 28130208 - 28130209.

(**) Can be used in conjunction with electric servo-motors code 28130208 - 28130209.



3 points servomotor for three-ways mixing valve

Type of operation: 3-position control - Nominal voltage: 230 Vac (± 15 %) - Nominal frequency: 50/60 Hz - Maximum consumption: 6 VA - Permissible room temperature: from 1 to 50 °C - Maximum permissible fluid temperature: 110 °C - Nominal stroke: 5.5 mm - Stroke time (at 50/60 Hz): 150 s - Nominal force: 300 N - Degree of protection: IP40 according to EN 60529 - Insulation class: II according to EN 60730 - Threaded fitting size: G 3/4"

Size	Pcs. pack	Code
3 points	1	28130208



0-10 V DC servomotor for three-ways mixing valve

Type of operation: 0-10 V DC control - Nominal voltage: AC/DC 24 V (±20 % / ±25 %) - Nominal frequency: 50/60 Hz - Maximum consumption: 2 VA - Permissible room temperature: from 1 to 50 °C - Maximum permissible fluid temperature: 110 °C - Nominal stroke: 5.5 mm - Stroke time (at 50/60 Hz): 75 s - Nominal force: 200 N - Degree of protection: IP40 according to EN 60529 - Insulation class: II according to EN 60730 - Threaded fitting size: G 3/4"

Size	Pcs. pack	Code
0-10 V DC (*)	1	28130206

(*) To be combined with PCO and RCE regulators

Heating unit components



Servomotor 0-10 V DC for three-ways mixing valves

NEW

Type of operation: 0-10 V DC control - Nominal voltage: AC/DC 24 V ($\pm 20\%$ / $\pm 25\%$) - Nominal frequency: 50/60 Hz - Current consumption: 2 VA max - Permissible room temperature: from 5 to 50 °C - Maximum permissible fluid temperature: 110 °C - Nominal stroke: 5.5 mm - Stroke time (at 50 Hz): 30 s - Nominal force: 300 N - Degree of protection: IP40 according to EN 60529 - Insulation class: III according to EN 60730 - Threaded fitting size: G 3/4"

Size	Pcs. pack	Code
0-10 V DC	1	28130209

(*) To be combined with PCO and RCE regulators



Adjusting lockshield

Size	Pcs. pack	Code
1"	1	28130084

Body in nickel-plated brass, sealing parts in MPDE. Connection for steel pipe.



Balance valve

Balance valves, fixed Kvs, for proper calibration and adjustment of the following systems: heating, air conditioning, plumbing. The valves are standard-equipped with two rapid-attachment pressure plugs for connection to the differential electronic gauge. The valves are made for non-hazardous liquids that belong to Group 2 of the directive "Pressure Equipment Devices P.E.D." 97/23/EC.

Technical data

Max pressure working:

25 bar (-10 °C * $\div$ 100 °C), 20 bar (100 °C ** $\div$ 130 °C)

(*) for sub-freezing temperatures, the water is intended as being in an anti-freeze solution (glycol)

(**) above 100 °C the water is intended as including anti-boiling additives

Construction

Brass body CW602N EN 12165 (DZR) - Handle in ABS

O-ring in peroxide EPDM

Size	Thread	Kvs* - Kv**	Pcs. pack	Code
3/4"	ISO 228/1-G 3/4"	5.33 - 3.66	1	01406024
1"	ISO 7/1-Rp 1"	9.72 - 6.25	1	01406026
1 1/4"	ISO 7/1-Rp 1 1/4"	20.25 - 12.64	1	01406028

* Kvs = coefficient at pressure points, ** Kv = valve totally open coefficient



Automatic flow rate stabilizer

Automatic flow rate stabilizers are devices that keep the flow constant and at a preset value. The balancing is carried out automatically without having to act from the outside, even after changes are made to the system's set-up. The adjustment is conducted with individual cartridges designed for each specific flow rate. The ends with pipe unions allow to easily disassemble the stabiliser to install the cartridges after the initial washing of the line or replace the cartridge with other cartridges designed for different flow rates. The innovative straight design reduces pressure drops not required for adjustments to a minimum, reducing the power required by the pump.

Technical data

Flow rate range: 0,076 (l/s) $\div$ 0.651 (l/s) for the DN25 stabiliser, 0.209 (l/s) $\div$ 1.958 (l/s) for the DN32 stabiliser

Pressure within the temperature interval: 25 bar from 0 °C to 80 °C

Construction

Brass body CW602N EN 12165 - Brass cap CW617N EN 12165

brass pipe union CW602N EN 12165 - EPDM peroxide pipe union O-ring

Size	Thread	Pcs. pack	Code
DN20 (3/4")	ISO 7/1-Rp 3/4"	1	01406103
DN25 (1")	ISO 7/1-Rp 1"	1	01406105
DN32 (1 1/4")	ISO 7/1-Rp 1 1/4"	1	01406107

Items to be out of range



Open manifolds



Open manifold 2+2

Size	Ways	Pcs. pack	Code
2"	2+2+5	1	07400170
3"	2+2+5	1	07400174

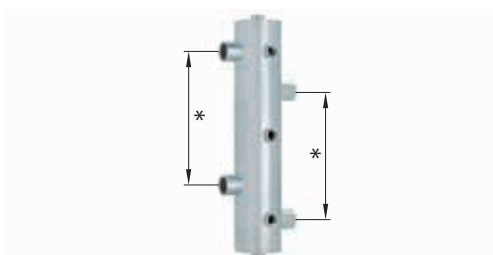
Made in zinc-plated steel welding UNI EN 13134. Lateral connections Female 1". Auxiliar connection Female 1/2". Max operating pressure: 8 bar.



Open manifold 2+2 S

Size	Ways	Pcs. pack	Code
2"	2+2+5 S	1	07400188
3"	2+2+5 S	1	07400182

Made in zinc-plated steel welding UNI EN 13134. Lateral connections Female 1". Auxiliar connection Female 1/2". Max operating pressure: 8 bar



Open manifold 2+2 S, takeoff Firstbox

Size	Ways	Pcs. pack	Code
3"	2+2+5 S	1	07400284

Made in zinc-plated steel welding UNI EN13134. Lateral connections Female 1"1/4 - Auxiliar connection Female 1/2". Max operating pressure: 8 bar.

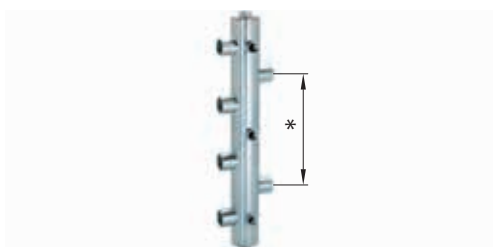
(*) Takeoff Firstbox 159 mm



Open manifold 4+2

Size	Ways	Pcs. pack	Code
2"	4+2+5	1	07400172
3"	4+2+5	1	07400176

Made in zinc-plated steel welding UNI EN 13134. Lateral connections Female 1". Auxiliar connection Female 1/2". Max operating pressure: 8 bar.



Open manifold 4+2, takeoff Firstbox

Size	Ways	Pcs. pack	Code
3"	4+2+5	1	07400286

Made in zinc-plated steel welding UNI EN13134. Lateral connections Female 1"1/4. Auxiliar connection Female 1/2". Max operating pressure: 8 bar.

(*) Takeoff Firstbox 159 mm.

Heating unit components



Open manifold 6+2

Size	Ways	Pcs. pack	Code
3"	6+2+5	1	07400184

Made in zinc-plated steel welding UNI EN 13134. Lateral connections Female 1". Auxiliar connection Female 1/2". Max operating pressure: 8 bar.



Open manifold 6+4

Size	Ways	Pcs. pack	Code
3"	6+4+5	1	07400186

Made in zinc-plated steel welding UNI EN 13134. Lateral connections Female 1". Auxiliar connection Female 1/2". Max operating pressure: 8 bar.



Insulating shells for open manifolds

Size	Pcs. pack	Code
2"	1	01306504

In extruded polyethylene. Suitable for installation with open manifolds code 07400170 and 07400172.

Distribution modular manifolds and accessories



Kit for connection of distribution modular manifolds

Size	Pcs. pack	Code
1" M x 2" M	1	07401020

Includes combination with open manifolds code 07400170-07400172-07400174-07400176-07400182-07400188. Kit supplied with 2 Swivel nipples 1 1/4" M x 1" M.



Connection kit for distribution modular manifolds

Size	Pcs. pack	Code
2" M-M	1	07401022

Includes combination with open manifolds D 100 code 07401014 and D 150 code 07401016.



2 zone modul

Size	Pcs. pack	Code
2" M-M	1	07401024

Supplied together with: nr. 2 wall support bracket with blocks, nr. 2 wells 1/2" M for thermometers with o-ring, nr. 4 plugs 1/2" M with o-ring, nr. 2 thermometers D40, nr.2 label holder. Connection takeoffs 3/4" M.



3 zone modul

Size	Pcs. pack	Code
2" M-M	1	07401026

Supplied together with: nr. 2 wall support bracket with blocks, nr. 2 wells 1/2" M for thermometers with o-ring, nr. 4 plugs 1/2" M with o-ring, nr. 2 thermometers D40, nr.2 label holder. Connection takeoffs 3/4" M.



Mix modul

Technical data of mixing group

Lower connections: 3/4" F (w/pipe union) - Upper connections: 1" M - Connection take-offs: 100 mm - Nominal flow rate: 4.000 l/h

Technical data of 3 points servo-control

Nominal voltage: AC 230 Vac (15%) - Nominal frequency: 50/60 Hz - Maximum consumption: 6 VA - Stroke time (at 50/60 Hz): 150 s - Nominal stroke: 5.5 mm - Degree of protection: IP40 as per EN 60259 - Insulation class: II as per EN 60730

Technical data of mixer valve

Class: PN 16 - Characteristic of adjustment, straight path: linear with Kvs=10 - Characteristic of adjustment, angled path: linear - Between filament: 0...0.02% of Kvs - Stroke: 5.5 mm - Admissible fluids: water (max 110 °C) - anti-freeze (max 50% vol) - Valve body: bronze - Rod: steel - O-rings: EPDM

Technical data of bypass stopper

Kv=1.90

Size	Pcs. pack	Code
1" M x 3/4" F	1	07401028

Supplied together with: 3-ways mixing valve DN 25-10, servomotor 3 points, nr. 2 wells 1/2" M for thermometer with o-ring, nr. 2 thermometer D 40, nr. 2 wells for probe, nr. 1 contact regulation thermostat, nr. 1 Tris right-angle lockshield 1/2" with o-ring for copper pipe, nr 1 couple of pipe unions 3/4" F x 1" 1/2 F, nr. 1 pipe union 1" F x 1" 1/2 F



Couple 3 pieces joints in cast iron

Size	Pcs. pack	Code
2" F-F	1	07401034

Supplied together with fasit gaskets

Heating unit components



Couple of 90° elbow in cast iron

Size	Pcs. pack	Code
2" M-F	1	07401032



Kit ball valves

Size	Pcs. pack	Code
2" M-F	1	07401030



Couple of nuts

Size	Pcs. pack	Code
2" F	1	07401036

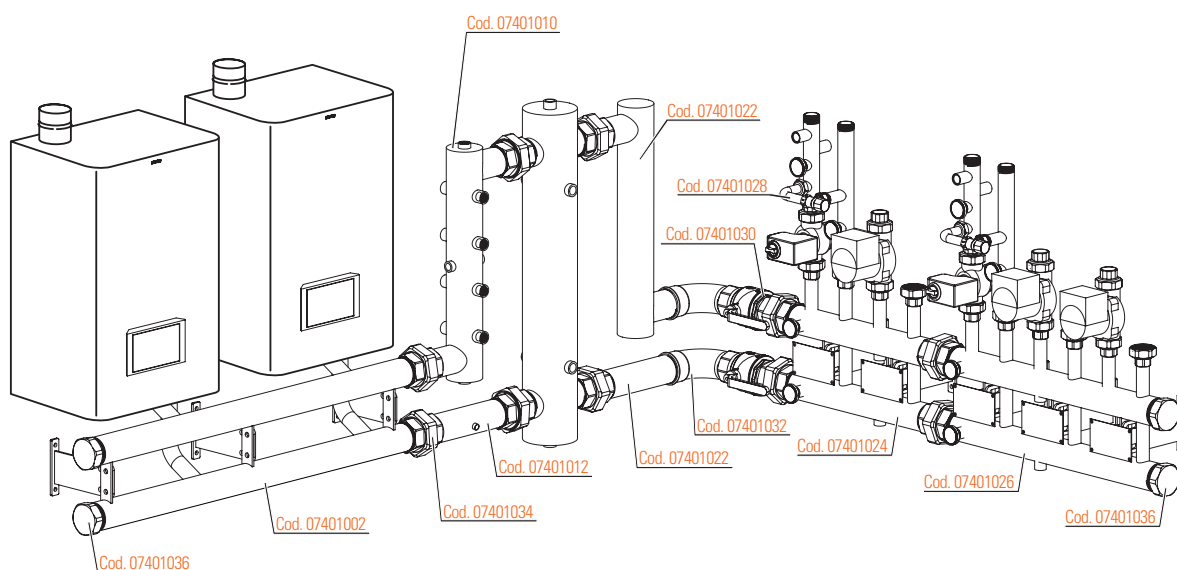


Pipe union manufactured in brass for circulator pump

Size	Pcs. pack	Code
3/4" F x 1 1/2 F	1	00801034
1" F x 1 1/2 F	1	00801100

Supplied with gasket.

Example of installation with modul manifolds



Composition of distribution modules: the maximum combination of modules must be such that it does not lead to a total flow rate (the sum of the single zone flow rates) greater than 14,000 l/h.



SPE 207 heat exchangers with braze-welded heat exchangers

Plates material: stainless steel 316L - Brazing material: copper - Maximum continuous operating pressure: 10 bar - Fittings: 3/4" M primary - 1/2" M secondary

Size	CSA (*)	Pcs. pack	Code
14 plates	8	1	02706814
20 plates	14	1	02706818

(*) nr. maximum of Arcobaleno solar panels (CSA) in coupling. The number is indicative.
Items to be out of stock



SPES 210 heat exchangers with braze-welded heat exchangers

Plates material: stainless steel 316L - Brazing material: pure copper - Min. operating temperature: 0 °C - Max. operating temperature: 100 °C - Maximum operating pressure: 10 bar a 100 °C - Fittings: 3/4" M primary - 1/2" M secondary

Size	CSA (*)	Pcs. pack	Code
10 plates	5	1	02709200
12 plates	6	1	02709202
14 plates	8	1	02709204
16 plates	10	1	02709206
20 plates	14	1	02709208
24 plates	18	1	02709210
30 plates	20	1	02709212
34 plates	24	1	02709214
40 plates	28	1	02709216
Insulating shell for SPES 210 24 plates		1	01306508

(*) nr. maximum of Arcobaleno solar panels (CSA) in coupling. The number is indicative.



SPES 315 heat exchangers with braze-welded heat exchangers

Plates material: stainless steel 316L - Brazing material: pure copper - Min. operating temperature: 0 °C - Max. operating temperature: 100 °C - Maximum operating pressure: 10 bar a 100 °C - Fittings: 3/4" M primary - 3/4" M secondary

Size	CSA (*)	Pcs. pack	Code
20 plates	20	1	02709220
24 plates	24	1	02709222
30 plates	30	1	02709224
34 plates	36	1	02709226
40 plates	40	1	02709228

(*) nr. maximum of Arcobaleno solar panels (CSA) in coupling. The number is indicative.



SPES 526 heat exchangers with braze-welded heat exchangers

Plates material: stainless steel 316L - Brazing material: pure copper - Min. operating temperature: -196 °C - Max. operating temperature: 225 °C - Maximum operating pressure a 155 °C: 31 bar - Maximum operating pressure a 225 °C: 27 bar - Fittings: 1" M primary - 1" M secondary

Size	CSA (*)	Pcs. pack	Code
20 plates	42	1	02709230
30 plates	60	1	02709232
40 plates	80	1	02709234
50 plates	100	1	02709236
60 plates	120	1	02709238
80 plates	140	1	02709240

(*) nr. maximum of Arcobaleno solar panels (CSA) in coupling. The number is indicative.

Heating unit components

Controlpump



Electric controller

Size		Pcs. pack	Code
Adjustable setting	1,5÷3 bar	1	00700004

Pumps



Self-priming Jet electric pump with stainless alloy casing

Size	Pcs. pack	Code
HP 1 (0,75 Kw) 1"	1	00703022



Submersible pump

Size	Pcs. pack	Code
0,80 HP 1"1/4	1	00705120
Item to be out of range		



Anti-vibrating flexible pipe

With galvanized iron fittings - Temperature from +4 °C to +100 °C
Nominal pressure: 20 bar (1/2" - 3/4"), 18 bar (1"), 12 bar (1"1/4), 8 bar (1"1/2)

Size	Length	Pcs. pack	Code
M F 1/2"	cm 40	1	02431240
M F 1/2"	cm 50	1	02431250
M F 3/4"	cm 30	1	02433430
M F 3/4"	cm 40	1	02433440
M F 3/4"	cm 50	1	02433450
M F 3/4"	cm 60	1	02433460
M F 1"	cm 30	1	02431030
M F 1"	cm 40	1	02431040
M F 1"	cm 50	1	02431050
M F 1"	cm 60	1	02431060
M F 1"1/4	cm 50	1	02431450
M F 1"1/2	cm 50	1	02431150

Items to be out of range



Autoclaves



Horizontal autoclave with brackets

Certified 97/23/CEE - Temperature from -10 °C to +100 °C - Maximum pressure: 8 bar - Precharge pressure: 1,5 bar - For sanitary water - EPDM membrane

Size	Pcs. pack	Code
24 lt - 40 cm	1	00802024

Spare membrane for autoclave

Size	Pcs. pack	Code
24 liters	1	00806024

For cylindrical and spherical models



5-ways fitting

Size	Pcs. pack	Code
1"	10	00810010



Automatic pressure switch for autoclave

Range of adjustment: from 1 to 5 bar - Factory calibration: 1.4-2.8 bar - Minimum differential: 0.6 bar - Maximum differential: 2.3 bar
Connection: 1/4" F swivel - Nominal current: 16A (10)A - Nominal voltage: 250 V

Size	Pcs. pack	Code
	1	00300004

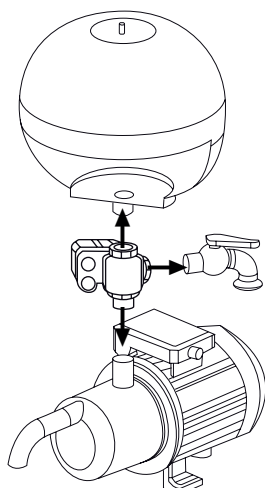


Pressure switch for autoclave with integrated pressure gauge and 3-ways fitting

Pressure switch, with integrated pressure gauge and 3-ways fitting, to be used with water in autoclave systems. The switch automatically adjust the start and stop of electric-pump in according to set pressure value.

Range of adjustment: from 1 to 15 bar - Factory calibration: 1,4-2,8 bar - Minimum differential: 0,6 bar - Maximum differential: 2,3 bar - Nominal current: 16 A (10 A) - Nominal voltage: 250 Vac - International protection: IP44 - Maximum environmental temperature: 55 °C

Size	Pcs. pack	Code
1" M x 1" F x 1" F	1	00300008



Adjustment and accessories



CE 0497 (*)
ENEC 03 (*)
According to ISPEL (*)

Immersion thermostat

Connection: M 1/2" - Bulb lenght: 90 mm - Setting: from 30÷90 °C ± 3 - Max temperature: 105 °C - Contacts: 250 V 10(2) A - Security temperature: 100 +0 -6 - Differential: 6 °C

Size	Pcs. pack	Code
Thermostat for adjustment	1	02012050
Double thermostat for adjustment and safety with manual reactivating (*)	1	02012060



Contact thermostat

Setting 30÷90 °C ± 3 / 0÷60 °C ± 3 - Max temperature: 105 °C - Contacts: 250 V 10(2) A - Differential: 6 °C

Size	Pcs. pack	Code
30÷90 °C	1	02012040
0÷60 °C	1	02012038



CE 0497
ENEC 03
According to ISPEL

Adjustment capillary thermostat

Bulb lenght: 65 mm - Ø bulb: 7 mm - Setting: 30÷90 °C ± 3 - Contacts: 400 V 16(4) A - Differential: 4 °C

Size	Pcs. pack	Code
Capillar 1000 mm 30÷90 °C	10	02016014
Capillar 1500 mm 30÷90 °C	10	02016016



CE 0497
ENEC 03
According to ISPEL

Safety capillary thermostat

Temperature: 100 °C +0 -6 - Bulb lenght: 70 mm - Ø bulb: 6,5 mm - Contacts P1: 250 V 10(2,5) A - Contacts P1: 250 V 2 A

Size	Pcs. pack	Code
Capillar 1000 mm	10	02018095
Capillar 1500 mm	10	02018097



Safety pressure switch with manual reset, ISPEL type-approved

Range of adjustment: from 1 to 5 bar - Factory calibration: 3 bar - Nominal current: 16A (10)A - Nominal voltage: 250 V - Max fluid temperature: 110 °C - Connection: 1/4" F - Type of contact: NC

Size	Pcs. pack	Code
1/4"	1	00300006

Type-approved maximum pressure switch for heating systems to automatically stop the heat generator once a preset maximum water pressure limit has been reached.



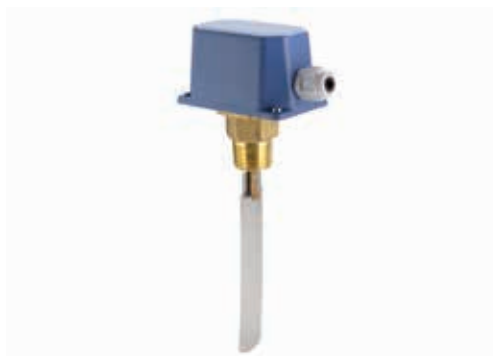
Minimum pressure switch with manual reset, ISPEL type-approved

Type-approved minimum pressure switch for heating systems to automatically stop the heat generator once a preset minimum water pressure limit has been reached.

Technical data

Protection rating: IP44 - Type of contact: N.O. - Adjustment range: 0.5 ÷ 1.7 bar - Default setting: 0.9 bar - Nominal current: 16 (10)A - Nominal voltage: 250V - Max temperature of the liquid: 110 °C - Max ambient temperature: 55 °C - NBR rubber membrane with fabric insert

Size	Pcs. pack	Code
1/4" F	1	00300010



Flow switch for liquids

Max. admissible fluid temperature: $-40 \div +120$ °C - Max. admissible pressure: 11 bar
 - Contacts: dust-proof microswitch, contacts in commutation (n.c./n.o.) - Contacts capacity: 24...250 V AC 15 (8) A - Blades: stainless steel AISI 316L, 1", 2", 3", 8" - Cover: in ABS

Connection	Pcs. pack	Code
1"	1	01200700



Pressure gauge according to EN837.1 with radial connection and casing in ABS

Size	Pressure	Pcs. pack	Code
1/8" x 50 mm	25 bar	10	00612444
1/4" x 63 mm (*)	2,5 bar	10	00612003
1/4" x 63 mm (*)	4 bar	10	00612004
1/4" x 63 mm (*)	6 bar	10	00612006
1/4" x 63 mm (*)	10 bar	10	00612010
1/4" x 63 mm (*)	16 bar	10	00612016
1/4" x 63 mm	25 bar	10	00612025
3/8" x 80 mm (*)	4 bar	1	00614004
3/8" x 80 mm (*)	6 bar	1	00614006
3/8" x 80 mm (*)	10 bar	1	00614010
3/8" x 80 mm (*)	16 bar	1	00614016
3/8" x 80 mm	25 bar	1	00614025

(*) ISPESEL brand



Pressure gauge according to EN837.1 with side back connection and casing in ABS

Size	Pressure	Pcs. pack	Code
1/4" x 63 mm (*)	4 bar	10	00616004
1/4" x 63 mm (*)	6 bar	10	00616006
1/4" x 63 mm (*)	10 bar	10	00616010

(*) ISPESEL brand



Immersion thermometer according to EN 13190 complete with trap

Temperature $0 \div 120$ °C

Size	L bulb	Pcs. pack	Code
1/2" x 63 mm (*)	50 mm	10	00610612
1/2" x 80 mm (*)	50 mm	4	00610812
1/2" x 80 mm (*)	100 mm	2	00611812

(*) ISPESEL brand



Capillary thermometer Ø 52

Temperature $0 \div 120$ °C - Bulb length 25 mm - Ø bulb 6,5 mm - Ø cassa: 52 mm

Capillar size	Pcs. pack	Code
1000 mm	10	00622056

Adjustment and accessories



Thermo-manometer

Pressure 0÷4 bar - Temperature 0÷120 °C - Ø casing 80 mm - Fitting 1/4" M complete with check valve 1/2" M

Size	Pcs. pack	Code
Back connection	1	00600012
Radial connection	1	00602012



Capillary thermo-manometer

Pressure 0÷4 bar - Temperature 0÷120 °C - Capillar lenght 1 mt - Lenght bulb temperature 19 mm - Ø bulb temperature 6,5 mm - Pressure outlet connection M 14x1 - Ø casing 52 mm

Size	Pcs. pack	Code
	6	00622052



Check valve for capillary thermo-manometer

Size	Pcs. pack	Code
M 14 x 1 F x 1" M	6	00600010

To use only for Capillary themomanometer code 00622052



Bibcock with pressure gauge union

Pressure: 0÷4 bar - Temperature: 0÷120 °C

Size	Pcs. pack	Code
1/4"	10	00508014
3/8"	10	00508038



Socket for thermometer according to ISPEL norms, connection M 1/2"

Size	Pcs. pack	Code
Ø 7 L 50 mm	1	00510682
Ø 9 L 50 mm	20	00510012
Ø 10 L 50 mm	12	00510684
Ø 10 L 100 mm	12	00510686
Ø 15 L 110 mm	12	00510688



Elastic connection for pressure gauge

Size	Pcs. pack	Code
1/4"	10	00512008
3/8"	10	00512010



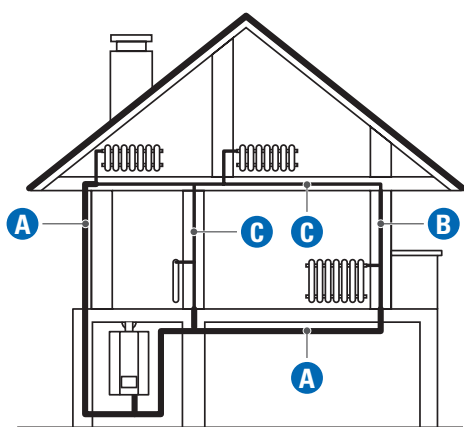
Fuel cut-off valve ISPEL qualified and calibrated, ATEX approved. Compliant with directive PED 97/23/EC

Manual reset and positive action - Calibration temperature 97 ± 3°C
Capillar lenght 5 m - Reset 85 °C - For use with liquids and gaseous combustibles

Size	Pcs. pack	Code
1/2" - P max 6 bar	1	00504010
3/4" - P max 6 bar	1	00504012
1" - P max 6 bar	1	00504014
1"1/4 - P max 1 bar	1	00504016
1"1/2 - P max 1 bar	1	00504018
2" - P max 1 bar	1	00504020



Insulation



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

Thermic conductivity

Reference for the calculation example

Compliance with 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

Installation type A (A symbol)

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 (B symbol)

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 (C symbol)

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.

Ley 10/91
Ecological

Insulation

ISO GUM



EN 14304

Uses

Thermic insulation for both hot and cold water piping.
Features a steam barrier to prevent the formation of condensation on cold piping. Supplied in 2-metre-long bars.
For external installation, provide suitable protection against bad weather and UV rays.
For underground installations, provide suitable protection against humidity and direct contact with the ground (the use of an external sheath is recommended).

Construction

Obtained by extrusion of elastomer (expanded synthetic rubber) with closed cell.

Technical data

Operating temperature range: + 110°C ÷ - 40°C
Thermic conductivity at 40 °C: 0.040 W/m °C
Density: 60 ± 20 kg/m³
Reaction class to fire: 1 (UNI 9177) - BL-s3-d0 (EN 13501-1)
Resistance to diffusion of water vapour: (μ) = 7000
Designation code (EN 14304): FEF - EN 14304-ST(+110-ST(-)40-MU10000-WS01-CL500-pH7

Installation

In consideration of the possible variations in length related to the fluid temperature fluctuations, it is advisable to compress the insulating pipe by about 5 cm per metre and either glue or tape the junctions between two sections.



Reaming example

C 18 - 3/8" - DN 10 - 16x2

C	Installation type
18	Ø copper pipe
3/8"	Ø steel pipe
DN 10	Ø nominal
16x2	Ø multi-layer pipe



EN 14304

ISO GUM in expanded elastomer

Dimensions	Thickness	Mts. pack	Code
C 15 - 14x2	6 mm	266	02967708
22 - 1/2" - DN 15 - 20x2 (*)	6 mm	180	02967714
28 - 3/4" - DN 20 - 26x3 (*)	6 mm	130	02967716
35 - 1" - DN 25 - 32x3 (*)	6 mm	100	02967718
42 - 1 1/4" - DN 32 - 40x3,5 (*)	6 mm	90	02967720
C 18 - 3/8" - DN 10 - 16x2 - 18x2	9 mm	166	02967748
C 22 - 1/2" - DN 15 - 20x2	9 mm	136	02967724
C 28 - 3/4" - DN 20 - 26x3	9 mm	98	02967726
C 35 - 1" - DN 25 - 32x3	9 mm	76	02967728
42 - 1 1/4" - DN 32 - 40x3,5	9 mm	60	02967730
48 - 1 1/2" - DN 40 - 50x4	9 mm	50	02967732
54 - 1 1/2" - DN 40 - 50x4	9 mm	46	02967734
60 - 2" - DN 50 - 63x4,5	9 mm	46	02967736
76 - 2 1/2" - DN 60-65 - 75x5	9 mm	40	02967738
B 18 - 3/8" - DN 10 - 16x2 - 18x2	13 mm	118	02967756
C 22 - 1/2" - DN 15 - 20x2	13 mm	98	02967758
C 28 - 3/4" - DN 20 - 26x3	13 mm	78	02967760
C 35 - 1" - DN 25 - 32x3	13 mm	58	02967762
C 42 - 1 1/4" - DN 32 - 40x3,5	13 mm	48	02967764
C 48 - 1 1/2" - DN 40 - 50x4	13 mm	40	02967766
C 54 - 50x4	13 mm	34	02967768
60 - 2" - DN 50 - 63x4,5	13 mm	32	02967770
76 - 2 1/2" - DN 60-65 - 75x5	13 mm	26	02967772
89 - 3" - DN 80	13 mm	24	02967774
B 15 - 14x2 (*)	19 mm	78	02967798
B 18 - 3/8" - DN 10 - 16x2 - 18x2 (*)	19 mm	72	02967800
B 22 - 1/2" - DN 15 - 20x2	19 mm	64	02967782
B 28 - 3/4" - DN 20 - 26x3	19 mm	48	02967784
B 35 - 1" - DN 25 - 32x3	19 mm	36	02967786
B 54 - 50x4	19 mm	24	02967788
C 42 - 1 1/4" - DN 32 - 40x3,5	19 mm	32	02967802
C 48 - 1 1/2" - DN 40 - 50x4	19 mm	24	02967804
C 60 - 2" - DN 50 - 63x4,5	19 mm	22	02967790
C 76 - 2 1/2" - DN 60-65 - 75x5	19 mm	18	02967792
C 89 - 3" - DN 80	19 mm	14	02967794
C 114 - 4" - DN 100	19 mm	12	02967806
C 140 - 5" - DN 125	19 mm	08	02967796

(*) Item to be out of range

ISO GUM accessories

Description		Pcs. pack	Code
Glue	0,75 lts can	1	02965900
Adhesive tape	10 mts roll	1	02965950

Filters



Self cleaning filter

Device for the treatment of drinking water, with patented semiautomatic self cleaning system. Device can be used for the filtering of domestic drinking water and industrial uses. It protects the sanitary system and pipes from damages caused by sand, limo, rust oxide particles, steel scrap particles, etc. till a granulometry of 90 micron, so preventing the starting of corrosion processes. The device is not suitable of water containing oils, fats, soaps, thinners, or similars. Filtering surface consisting of stainless steel mesh. Mounting plate in brass, adjustable at 360°, fitted with non return valve.

Size	Pcs. pack	Code
3/4"	1	15600200
1"	1	15600201
1"1/4	1	15600202



Spanner for self cleaning filters

Size	Pcs. pack	Code
	1	15600210



Water filter 9" with by-pass

Water filter with integrated by-pass valve with 3 positions:

- 1) in the "BY-PASS" position, the water flows without passing through the filtering chamber.
- 2) in the "OFF" position, the water is blocked at the inlet of the filter.
- 3) in the "FILTER" position, the water flows into the filtering chamber.

Technical data

Talc polypropylene head - Max operating pressure: 8 bar - Bursting pressure: 28 bar - Max operating temperature: 40

Size	Pcs. pack	Code
3/4" 3 pieces	1	15100020



Water filter 9"

Head in polypropylene - Max operating pressure 8 bar - Burst pressure 28 bar - Max continuous operating temperature 40 °C - Diameter 178 mm

Size	Pcs. pack	Code
3/4" 3 pieces	1	15460004
1" 3 pieces	1	15460006



Water filter 5"

Head in polypropylene - Max operating pressure: 8 bar - Burst pressure: 28 bar - Max operating temperature: 40 °C - Diameter: 178 mm

Size	Pcs. pack	Code
3/4" 3 pieces	1	15460028



Cartridge 5" and 9"

Nominal delivery 3.500 l/h

1 - Nylon: filtration 60 micron

2 - Inox: filtration 50 micron

3 - Polypropylene: filtration 10 micron

Size	Pcs. pack	Code
5" Nylon	1	15460018
5" Polypropylene	2	15100005
9" Nylon	1	15120110
9" Polypropylene	1	15100010



Cartridge 9" with polyphosphates

Size	Pcs. pack	Code
	1	15120112



Spreader pipe

Size	Pcs. pack	Code
5"	6	15410550
9"	6	15140010



Spreader

Size	Pcs. pack	Code
For 2 pieces (*)	6	15140011
For 3 pieces	6	15140012

(*) Item to be out of stock



Spanner for filter

Size	Pcs. pack	Code
For 3 pieces	1	15460012
For 3 pieces with by-pass	1	15100022



Metal bracket for filter without by-pass

Size	Pcs. pack	Code
	1	15460014

Filters



Metal bracket for filter with by-pass

Size	Pcs. pack	Code
	1	15100024



Square water filter for 5" cartridge

Max operating pressure: 6 bar - Burst pressure: 25 bar - Max continuous operating temperature: 40 °C - Diameter: 90 mm

Size	Pcs. pack	Code
1/2" 3 pieces	1	15400012



5" cartridge for square filter

1 - Nylon: filtration 60 micron

2 - Polypropylene: filtration 10 micron

Size	Pcs. pack	Code
Nylon	1	15410520
Polypropylene	2	15410510



Spreader pipe 5" for square water filter

Size	Pz. conf.	Codice
	6	15410550



Spanner for square filter 5"

Size	Parametro	Pcs. pack	Code
For 3 pieces	for 3 pieces	1	15350001



Anti-scaling filter for washmachine

Size	Pcs. pack	Code
	12	15500034



Polyphosphates

Size	Kg pack	Code
	25	15500000

Suitable for use in the food industry according to D.M. 443 dated 21/12/1990 under normal usage conditions.



Water meter model with wet dial

Size	Water	Pcs. pack	Code
1/2"	Cold	1	01138000
3/4"	Cold	1	01138002
1"	Cold	1	01138004
1"1/4	Cold	1	01138006
1/2"	Hot	1	01138020

Complies with Leg. Dec. no. 22 dated 02/02/07 (implementation of European directive 2004/22/CE MID)

Cold water maximum temperature 30 °C. Hot water maximum temperature 90 °C



Water meter models with dry dial

Size	Water	Pcs. pack	Code
1/2"	Cold	1	01138040
1"	Cold	1	01138044
1"1/4	Cold	1	01138046
1"1/2	Cold	1	01138048
2"	Cold	1	01138050

Complies with Leg. Dec. no. 22 dated 02/02/07 (implementation of European directive 2004/22/CE MID)

Cold water maximum temperature 30 °C

Hot water maximum temperature 90 °C



Water meter model with dry dial

Size	Water	Pcs. pack	Code
1/2"	Cold	1	01138080
3/4"	Cold	1	01138082
1/2"	Hot	1	01138084
3/4"	Hot	1	01138086

Complies with Leg. Dec. no. 22 dated 02/02/07 (implementation of European directive 2004/22/CE MID). Cold water maximum temperature 30 °C. Hot water maximum temperature 90 °C. CEE metering class:

horizontal display installation: class B, vertical display installation: class A

Solenoid valves for water



Water and air electric valve - Normally Open

Size	Type	Pcs. pack	Code
1/2" F	N.A. 230 V	1	00306210
3/4" F	N.A. 230 V	1	00306212
1" F	N.A. 230 V	1	00306214

NBR membrane



Solenoid valve for water and air - Normally Closed type

Size	Type	Pcs. pack	Code
1/2" F	N.C. 230 V	1	00306200
3/4" F	N.C. 230 V	1	00306202
1" F	N.C. 230 V	1	00306204
1/2" F	N.C. 24 V	1	00306206
3/4" F	N.C. 24 V	1	00306208

NBR membrane



Connection and control of heating units

NEW



> Manually FULL valve and lockshield

155



> Manually POKER valve and lockshield

156



> Thermostatizable POKER valve

158



> Thermostatic POKER valve

160



> Manually TRIS 1 valve and lockshield

162



> Thermostatizable TRIS 2 valve and lockshield

164



> Thermostatic TRIS 3 valve and lockshield

166



> Thermostatic head

168

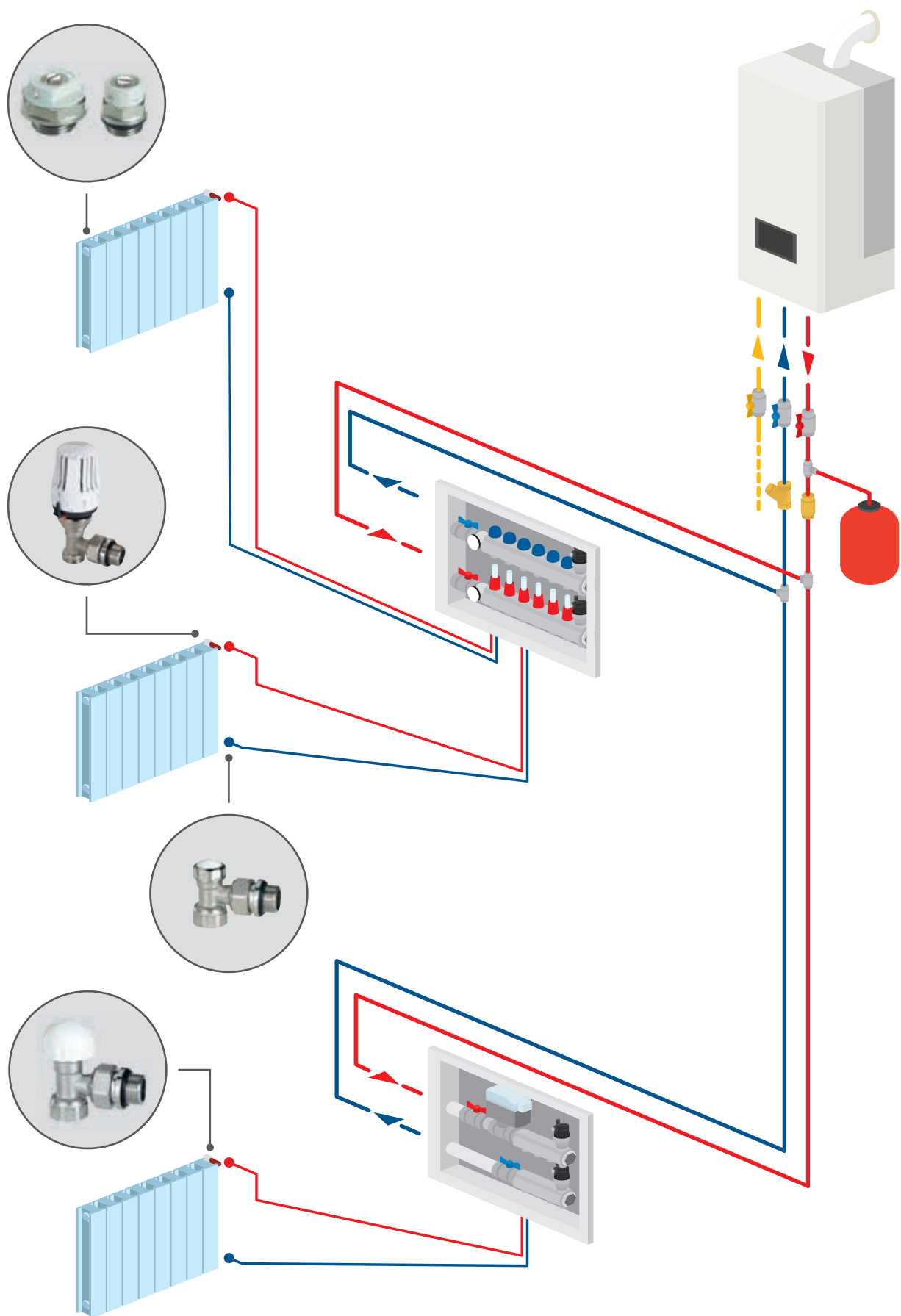


> Bleed valves

171

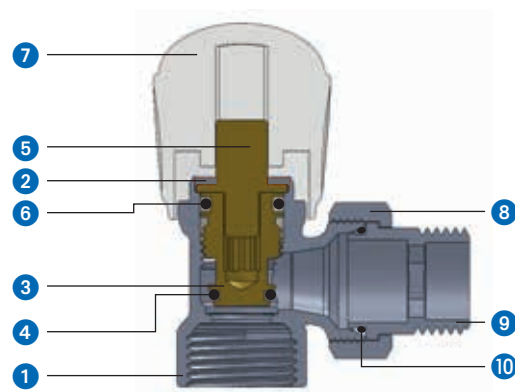


Example of installation



Full manual valve

NEW



Valve construction

- 1 Valve body made of brass ST UNI EN 12165 CW617N with nickel finish
- 2 Collar in brass TN UNI EN 12164 CW614N with nickel finish
- 3 Shutter in brass TN UNI EN 12164 CW614N
- 4 O-ring for shutter steadying in EPDM
- 5 Rod in brass TN UNI EN 12164 CW614N
- 6 O-ring for shutter steadying in EPDM
- 7 Knob in white ABS RAL 9003
- 8 Nut in brass ST UNI EN 12165 CW617N with nickel finish
- 9 Tang in brass TN UNI EN 12164 CW614N with nickel finish
- 10 O-ring for tang steadying in NBR

Technical data

Maximum operating pressure 10 bar
 Maximum differential pressure 6 bar
 Maximum operation temperature +100 °C
 Large capacity
 Fitting available also with O-ring (NBR)



Full manual right-angle valve for copper pipe, multi-layer, PEX, PP, PB

NEW

Size	Pcs. pack	Code
1/2"	25	01350700
1/2" O-R	25	01350704



Full manual right-angle lockshield for copper pipe, multi layer, PEX, PP, PB

NEW

Size	Pcs. pack	Code
1/2"	25	01350702
1/2" O-R	25	01350706



Full manual right-angle valve for steel pipe

NEW

Size	Pcs. pack	Code
1/2"	25	01350720
1/2" O-R	25	01350724



Full manual right-angle lockshield for steel pipe

NEW

Size	Pcs. pack	Code
1/2"	25	01350722
1/2" O-R	25	01350726

Poker manual

Poker manual valve



TECHNICAL SHEET 20

Valve construction

- 1 Valve body made of brass ST UNI EN 12165 CW617N with nickel finish
- 2 Collar in brass TN UNI EN 12164 CW614N with nickel finish
- 3 Shutter in brass TN UNI EN 12164 CW614N
- 4 O-ring for shutter steadying in NBR
- 5 Rod in brass TN UNI EN 12164 CW614N
- 6 O-ring for rod steadying in EPDM
- 7 Knob in white ABS RAL 9003
- 8 Nut in brass ST UNI EN 12165 CW617N with nickel finish
- 9 Tang in brass TN UNI EN 12164 CW614N with nickel finish
- 10 O-ring for tang steadying in NBR

Note: tang with radiator connection have NBR O-ring

Technical data

Maximum operating pressure 10 bar
Maximum differential pressure 6 bar
Maximum operation temperature +100 °C



Manual right-angle valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	10	01350300
1/2"	10	01350304
3/8" O-R	10	01350400
1/2" O-R	10	01350404

Emmeti seal 24x19: see section 7



Manual right-angle lockshield for copper pipe, multi layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	10	01350302
1/2"	10	01350306
3/8" O-R	10	01350402
1/2" O-R	10	01350406

Emmeti seal 24x19: see section 7



Manual straight valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	5	01350308
1/2"	5	01350312
3/8" O-R	5	01350408
1/2" O-R	5	01350412

Emmeti seal 24x19: see section 7



Manual straight lockshield for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	5	01350310
1/2"	5	01350314
3/8" O-R	5	01350410
1/2" O-R	5	01350414

Emmeti seal 24x19: see section 7



Manual right-angle lockshield for steel pipe

Size	Pcs. pack	Code
3/8"	5	01350316
1/2"	5	01350320
3/8" O-R	5	01350416
1/2" O-R	5	01350420



Manual right-angle lockshield for steel pipe

Size	Pcs. pack	Code
3/8"	5	01350318
1/2"	5	01350322
3/8" O-R	5	01350418
1/2" O-R	5	01350422



Manual straight valve for steel pipe

Size	Pcs. pack	Code
1/2"	5	01350328
1/2" O-R	5	01350428

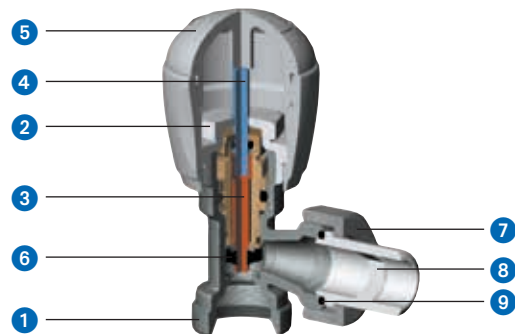


Manual straight lockshield for steel pipe

Size	Pcs. pack	Code
1/2"	5	01350330
1/2" O-R	5	01350430

Poker thermostatic

Poker thermostatic valve



TECHNICAL SHEET 20

Thermostatic valve construction

- ① Valve body made of brass ST UNI EN 12165 CW617N nickel finish
- ② Collar in brass TN UNI EN 12164 CW614N nickel finish
- ③ Shutter in brass TN UNI EN 12164 CW614N nickel finish
- ④ Spindle in stainless steel AISI 304
- ⑤ Removable knob in white ABS RAL 9003 in 2 pieces
- ⑥ Shutter steady in NBR
- ⑦ Nut in brass ST UNI EN 12165 CW617N nickel finish
- ⑧ Tang in brass TN UNI EN 12164 CW614N nickel finish
- ⑨ O-ring for tang steady in NBR

Technical data

Maximum operating pressure: 10 bar
Maximum differential pressure: 6 bar
Maximum operation temperature: +100 °C

Note: tang with radiator connection have NBR O-ring

Note: can be used in conjunction with thermostatic and thermo-electric heads after the following steps:

- unscrew the upper part **5**
- unscrew **2**
- extract the lower part **5**
- screw back in **2**
- install the head.



Thermostatic right-angle valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	10	01350380
1/2"	10	01350382
3/8" O-R	10	01350480
1/2" O-R	10	01350482

Emmeti seal 24x19: see section 7



Thermostatic right-angle valve for steel pipe

Size	Pcs. pack	Code
3/8"	5	01350388
1/2"	5	01350390
3/8" O-R	5	01350488
1/2" O-R	5	01350490



Thermostatic straight valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	5	01350384
1/2"	5	01350386
3/8" O-R	5	01350484
1/2" O-R	5	01350486

Emmeti seal 24x19: see section 7

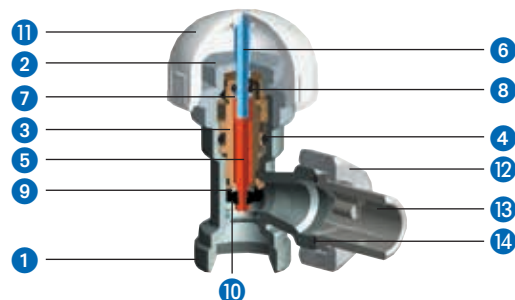


Thermostatic straight valve for steel pipe

Size	Pcs. pack	Code
1/2"	5	01350394
1/2" O-R	5	01350494

Poker thermostatic

Poker thermostatic valve



TECHNICAL SHEET 20

Thermostatic valve construction

- ① Valve body made of brass ST UNI EN 12165 CW617N with nickel finish
- ② Collar in brass TN UNI EN 12164 CW614N with nickel finish
- ③ Shutter in brass TN UNI EN 12164 CW614N
- ④ O-ring for shutter steadying in NBR
- ⑤ Bolt in brass TN UNI EN 12164 CW614N
- ⑥ Spindle in stainless steel AISI 304
- ⑦ Collar for shutter in brass TN UNI EN 12164 CW614N with nickel finish
- ⑧ O-ring for rod steadying in EPDM
- ⑨ Washer of lock gasket in brass TN UNI EN 12164 CW614N
- ⑩ Shutter steadying in NBR
- ⑪ Cap in white ABS (RAL 9003)
- ⑫ Nut in brass ST UNI EN 12165 CW614N with nickel finish
- ⑬ Tang in brass TN UNI EN 12165 CW614N with nickel finish
- ⑭ O-ring for tang steadying in NBR

Technical data

Maximum operating pressure: 10 bar
 Maximum differential pressure: 6 bar
 Maximum operation temperature: +100 °C

Note: tang with radiator connection have NBR O-ring

Note: can be used in conjunction with Sensor thermostatic heads and thermo-electric heads



Thermostatic right-angle valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	10	01350340
1/2"	10	01350342
3/8" O-R	10	01350440
1/2" O-R	10	01350442

Emmeti seal 24x19: see section 7



Thermostatic right-angle valve for steel pipe

Size	Pcs. pack	Code
3/8"	5	01350348
1/2"	5	01350350
3/8" O-R	5	01350448
1/2" O-R	5	01350450



Thermostatic straight valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	5	01350344
1/2"	5	01350346
3/8" O-R	5	01350444
1/2" O-R	5	01350446

Emmeti seal 24x19: see section 7

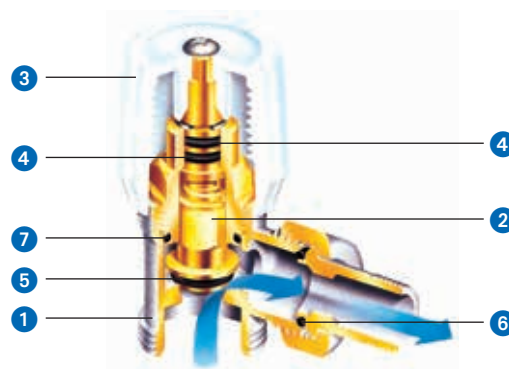


Thermostatic straight valve for steel pipe

Size	Pcs. pack	Code
1/2"	5	01350354
1/2" O-R	5	01350454

Tris 1

Manual valve



TECHNICAL SHEET 21

Construction

- ① Valve body made of brass ST UNI EN 12165 CW617N with nickel finish
- ② Three-piece bolt turned from a brass bar in TN UNI EN 12164 CW614N
- ③ Knob in white ABS
- ④ Bolt steadying with nr. 2 O-ring in EPDM
- ⑤ Steadying on the shutter seat with O-ring in NBR
- ⑥ Steadying on the tang with O-ring in NBR
- ⑦ Steadying on the body with O-ring in NBR

Technical data

Maximum operating pressure: 10 bar
Maximum differential pressure: 3 bar
Maximum operation temperature: +100 °C

Manual regulation for copper pipe, multi-layer, PEX, PP, PB



Tris 1 right-angle valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	10	01263000
1/2"	10	01263004
3/8" O-R	10	01263080
1/2" O-R	10	01263084

Emmeti seal 24x19: see section 7



Right-angle Tris 1 lockshield for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	10	01263002
1/2"	10	01263006
3/8" O-R	10	01263082
1/2" O-R	10	01263086

Emmeti seal 24x19: see section 7



Tris 1 straight valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	5	01263008
1/2"	5	01263012
3/8" O-R	5	01263088
1/2" O-R	5	01263092

Emmeti seal 24x19: see section 7



Tris 1 straight lockshield for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	5	01263010
1/2"	5	01263014
3/8" O-R	5	01263090
1/2" O-R	5	01263094

Emmeti seal 24x19: see section 7

Manual regulation for steel pipe



Tris 1 right-angle valve for steel pipe

Size	Pcs. pack	Code
3/8"	5	01263016
1/2"	5	01263020
3/8" O-R	5	01263096
1/2" O-R	5	01263100



Tris 1 right-angle lockshield for steel pipe

Size	Pcs. pack	Code
3/8"	5	01263018
1/2"	5	01263022
3/8" O-R	5	01263098
1/2" O-R	5	01263102



Tris 1 straight valve for steel pipe

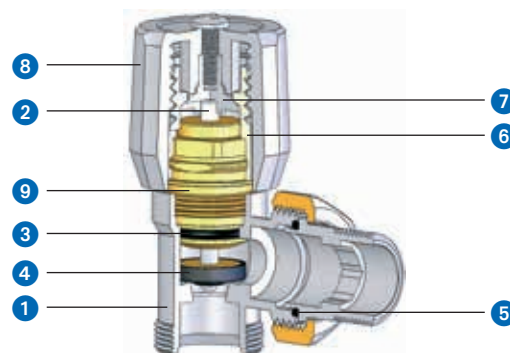
Size	Pcs. pack	Code
1/2"	5	01263028
1/2" O-R	5	01263108



Tris 1 straight lockshield for steel pipe

Size	Pcs. pack	Code
1/2"	5	01263030
1/2" O-R	5	01263110

Thermostatizable valve



TECNICAL SHEET 21

Construction

- 1 Body made of brass ST UNI EN 12165 CW617N with nickel finish
- 2 Control rod in rectified steel AISI 304
- 3 External steadying with O-ring in NBR
- 4 Gasket for shutter steadying in NBR
- 5 O-ring for tang steadying in NBR
- 6 Securing flange in PA 6
- 7 Pin in PA 6
- 8 Knob in white ABS
- 9 Thermostatic shutter in brass TN UNI EN 12164 CW614N

Technical data

Maximum operating pressure: 10 bar
Maximum differential pressure: 2 bar
Maximum operation temperature: + 100 °C

Note: cannot be used with thermo-electric heads

Note: can be used in conjunction with sensor thermostatic heads by means of an adaptor provided with sensor heads

Thermostatizable valve for copper pipe, multi-layer, PEX, PP, PB



Tris 2 right-angle valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs.pack	Code
3/8"	10	01264000
1/2"	10	01264004
3/8" O-R	10	01264060
1/2" O-R	10	01264062

Emmeti seal 24x19: see section 7



Tris 2 right-angle lockshield for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	10	01263002
1/2"	10	01263006
3/8" O-R	10	01263082
1/2" O-R	10	01263086

Emmeti seal 24x19: see section 7



Tris 2 straight valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	5	01264008
1/2"	5	01264012
3/8" O-R	5	01264064
1/2" O-R	5	01264066

Emmeti seal 24x19: see section 7



Tris 2 straight lockshield for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	5	01263010
1/2"	5	01263014
3/8" O-R	5	01263090
1/2" O-R	5	01263094

Emmeti seal 24x19: see section 7

Thermostatizable valve for steel pipe



Tris 2 right-angle valve for steel pipe

Size	Pcs. pack	Code
3/8"	5	01264016
1/2"	5	01264020
3/8" O-R	5	01264068
1/2" O-R	5	01264070



Tris 2 right-angle lockshield for steel pipe

Size	Pcs. pack	Code
3/8"	5	01263018
1/2"	5	01263022
3/8" O-R	5	01263098
1/2" O-R	5	01263102



Tris 2 straight valve for steel pipe

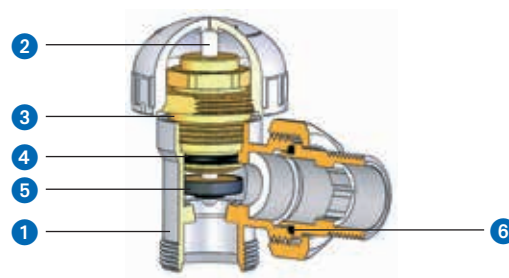
Size	Pcs. pack	Code
1/2"	5	01264028
1/2" O-R	5	01264074



Tris 2 straight lockshield for steel pipe

Size	Pcs. pack	Code
1/2"	5	01263030
1/2" O-R	5	01263110

Thermostatic valve



TECNICAL SHEET 21

Construction

- 1 Valve body hot pressed in brass ST UNI EN 12165 CW617N with nickel finish
- 2 Rod in rectified steel AISI 304
- 3 Thermostatic shutter in brass TN UNI EN 12164 CW614N
- 4 External steadying with O-ring in NBR
- 5 Gasket for shutter steadying in NBR
- 6 O-ring for tang steadying in NBR

Technical data

Maximum operating pressure: 10 bar
Maximum differential pressure: 2 bar
Maximum operation temperature: +100 °C

Note: can be used in conjunction with sensor thermostatic heads and thermo-electric heads

Thermostatic valve for copper pipe, multi-layer, PEX, PP, PB



Tris 3 right-angle valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	10	01266000
1/2"	10	01266004
3/8" O-R	10	01266060
1/2" O-R	10	01266062

Emmeti seal 24x19: see section 7



Tris 3 right-angle lockshield for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	10	01263002
1/2"	10	01263006
3/8" O-R	10	01263082
1/2" O-R	10	01263086

Emmeti seal 24x19: see section 7



Tris 3 straight valve for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	5	01266008
1/2"	5	01266012
3/8" O-R	5	01266064
1/2" O-R	5	01266066

Emmeti seal 24x19: see section 7



Tris 3 straight lockshield for copper pipe, multi-layer, PEX, PP, PB

Size	Pcs. pack	Code
3/8"	5	01263010
1/2"	5	01263014
3/8" O-R	5	01263090
1/2" O-R	5	01263094

Emmeti seal 24x19: see section 7

Thermostatic valve for steel pipe



Tris 3 right-angle valve for steel pipe

Size	Pcs. pack	Code
3/8"	5	01266016
1/2"	5	01266020
3/8" O-R	5	01266068
1/2" O-R	5	01266070



Tris 3 right-angle lockshield for steel pipe

Size	Pcs. pack	Code
3/8"	5	01263018
1/2"	5	01263022
3/8" O-R	5	01263098
1/2" O-R	5	01263102



Tris 3 straight valve for steel pipe

Size	Pcs. pack	Code
1/2"	5	01266028
1/2" O-R	5	01266074



Tris 3 straight lockshield for steel pipe

Size	Pcs. pack	Code
1/2"	5	01263030
1/2" O-R	5	01263110

Angle thermostatic valve for copper pipe, PEX, multi-layer, PP, PB

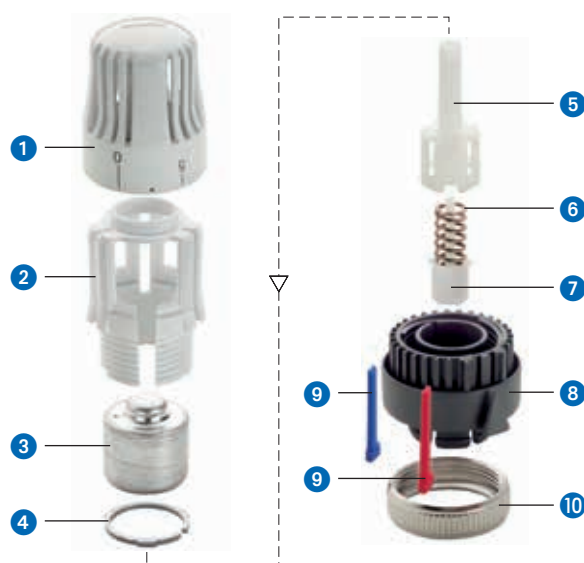


Right-angle R valve for copper pipe

Size	Pcs. pack	Code
1/2"	5	01350240
1/2" O-R	5	01350242

Emmeti seal 24x19: see section 7

Thermostatic head



TECHNICAL SHEET 20

Construction

- ① ABS control knob white RAL 9003
- ② Basket in reinforced PA 6.6
- ③ Thermostatic sensor with fluid expansion
- ④ Ring in spring steel
- ⑤ Spindle in natural acetal resin (POM)
- ⑥ Spring in nickel steel class D UNI 3823
- ⑦ Rod in natural acetal resin (POM)
- ⑧ Base in reinforced PA 6.6
- ⑨ Pin for limiting temperature blue and red in acetal resin (POM)
- ⑩ Fastening flange M 30x1,5 made of brass TN UNI EN 12164 CW617N nickel finish

Technical data of connection between Sensor Thermostatic head and Poker thermostatisable and thermostatic valves

Maximum operating temperature: 10 bar
 Maximum differential pressure: 1 bar
 Influence of differential pressure: 0,3 k
 Maximum ambient temperature: 40 °C
 Maximum water temperature: 100 °C
 Maximum storage temperature: -10 ÷ +50 °C
 Range of regulation: 7 ÷ 28 °C
 Nominal climb: 0,22 mm/k
 Hysteresis: 0,6 k
 Antifreeze action: 7 °C
 Nominal rating straight Poker valves: 125 l/h
 Nominal rating right-angle Poker valves: 130 l/h
 Authority: 0,88
 Influence water temperature: 1 k
 Time of reaction: 25 minutes
 Note: can be used in conjunction with: Poker thermostatic valves; Poker thermostatisable valves; Tris 3; Tris 2 (whit adaptor supplied)

UNI EN 215

Setting of the room temperature

0	*	1	2	③	4	5
Closed	7 °C (*)	12 °C	16 °C	20 °C	24 °C	28 °C

(*) Antifreeze

Numbers from 0 to 5 are marked on the rotating knob.

Each one of these numbers corresponds to an established temperature. The distances between the single numbers correspond to intermediate temperatures. With the help of the table that is provided ahead, you will find an approximate correspondance between the scale on the knob and the respective temperatures.



Product CEN certified in according to UNI EN 215 in the following couplings



Valve	Code		Head	Code
Thermostatic	01350340	+	Head	01213040
Thermostatic	01350342	+	Head	01213040
Thermostatic	01350348	+	Head	01213040
Thermostatic	01350344	+	Head	01213040
Thermostatic	01350346	+	Head	01213040



Thermostatic head with sensor

Size	Pcs. pack	Code
	6	01213040



Safety band for thermostatic heads

Size	Pcs. pack	Code
	6	90023720

Sensor Kit

NEW

The Sensor kit is a boxed set containing the thermostatic radiator valve body, head and lockshield, along with the required 10 mm or 15 mm copper pipe seals, and fitting instructions. If your demand is great enough, we can provide other kits, containing a combination of parts, including direct connectors suitable for all PEX, PB and multilayer pipes. This product is manufactured to EN215 specification. 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. Universal 24x19 thread allows connection to copper and all plastic pipe types.



Sensor kit, thermostatic right-angle valve + lockshield for steel pipe **NEW**

Size	Pcs. pack	Code
Thermostatic head + 1/2" right-angle valve and lockshield for steel pipe	1	01213126



Sensor kit, thermostatic right-angle valve + lockshield for steel pipe **NEW**

Size	Pcs. pack	Code
Thermostatic head + 1/2" O-R right-angle valve and lockshield for steel pipe	1	01213130



Sensor kit, thermostatic right-angle valve + lockshield and connection for copper pipe **NEW**

Size	Pcs. pack	Code
Thermostatic head + 1/2" right-angle valve and lockshield for copper pipe + 2 pcs monoblocco seals Ø 16	1	01213128



Sensor kit, thermostatic right-angle valve + lockshield and connection for copper pipe **NEW**

Size	Pcs. pack	Code
Thermostatic head + 1/2" O-R right-angle valve and lockshield for copper pipe + 2 pcs monoblocco seals Ø 16	1	01213132



Bleed valve

Size	Pcs. pack	Code
1/4"	100	00410007
3/8"	100	00410011
1/2"	75	00410012



Bleed valves

Size	Pcs. pack	Code
3/8"	10	00410019
1/2"	10	00410021



Key for operating bleed valves

Size	Pcs. pack	Code
	10	00408230

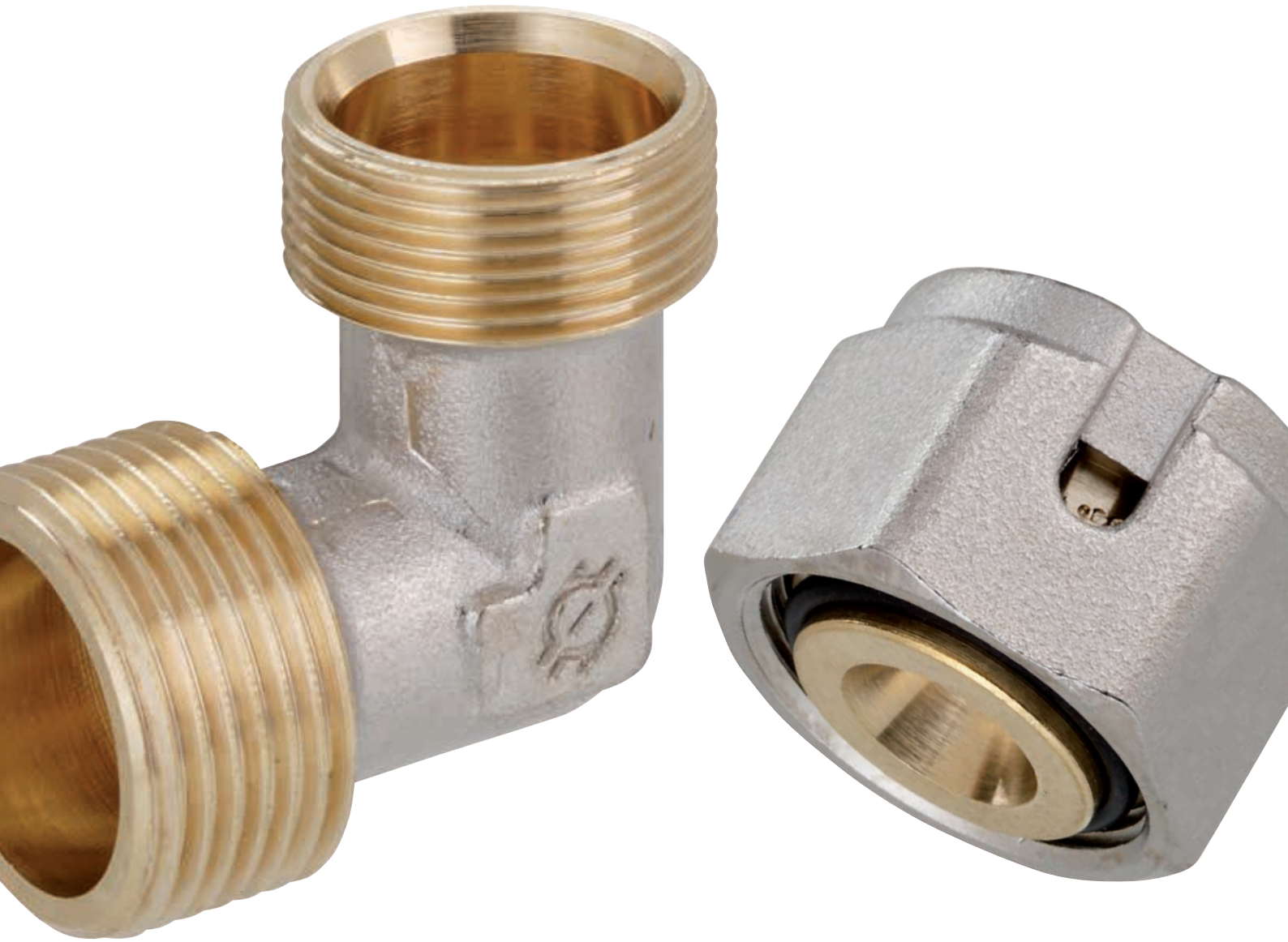
Kit for radiators



Accessories kit for radiators

Size	Pcs. pack	Code
	1	51201100

Consisting of:
nr. 2 reductions 1" x 3/8" dx, nr. 2 reductions 1" x 3/8" sx, nr. 1 air vent valve 3/8", nr. 1 plug 3/8".



Seals and screw fittings

> Monoblocco seal 24x19 for copper pipe   175

> Monoblocco seal 24x19 for copper pipe (solar systems)   176

> Monoblocco seal 24x19 for multi-layer pipe   177

> Eurocono for multi-layer pipe   177

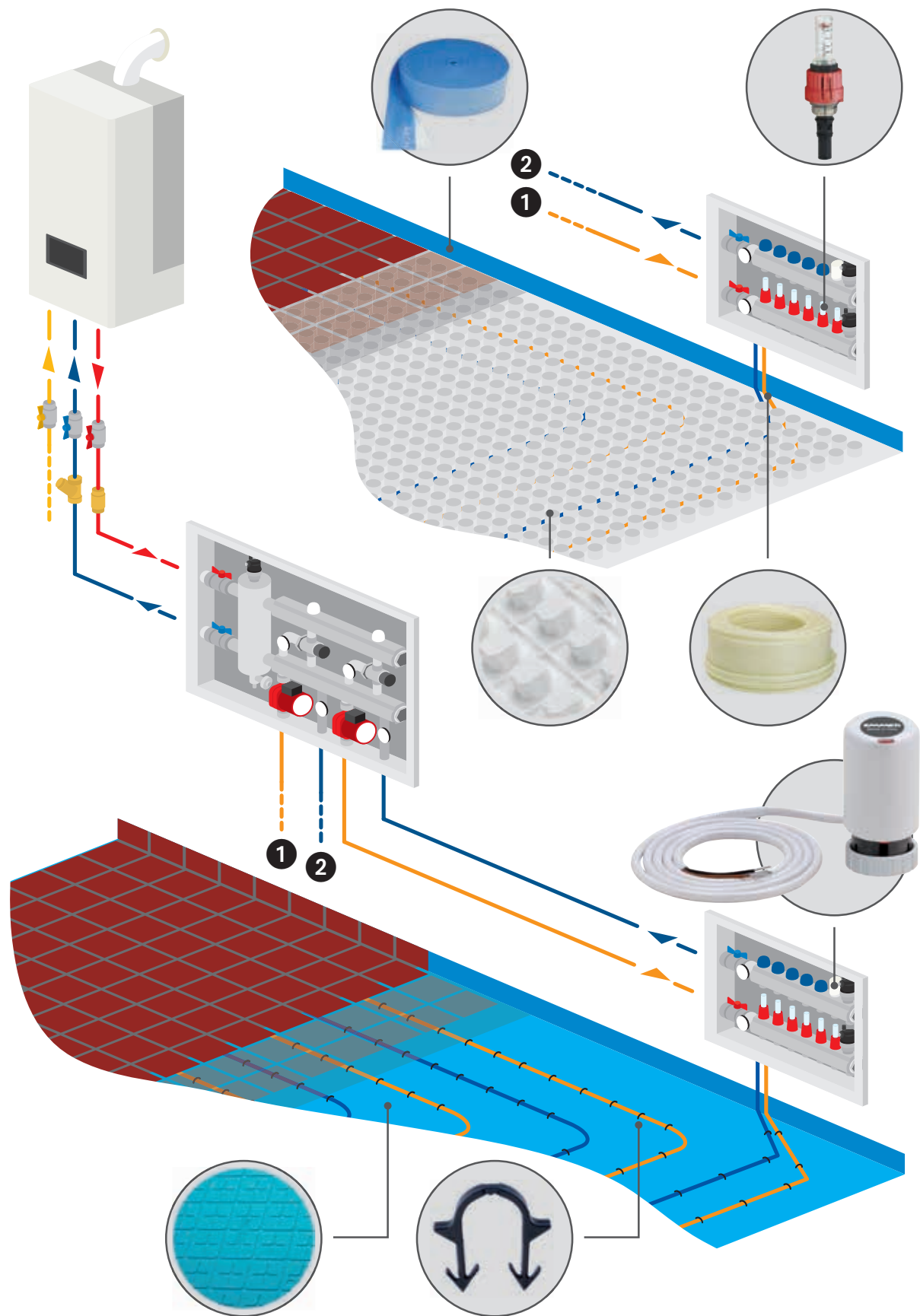
> PEX, PP and PB monoblocco seal 24x19   179

> PEX, PP eurocono seal   179

> Monoblocco seal for gas   181

> Seals and fittings to be tightened   183

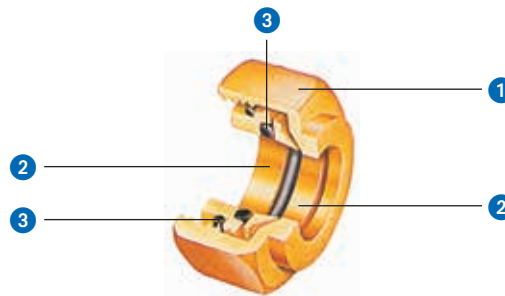
Example of installation



Copper Monoblocco seal



Monoblocco seal 24x19 for copper pipe



Construction

- 1 Nut in nickel-plated brass ST UNI EN 12165 CW617N
- 2 Metal components in brass TN UNI EN 12164 CW614N
- 3 O-ring fitting in NBR

Maximum torque: 30 Nm
Maximum pressure: 10 bar
Maximum temperature: 100 °C



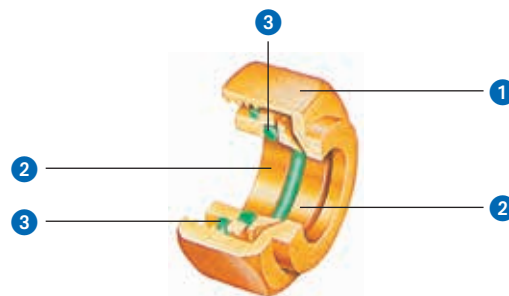
PATENT PENDING

Monoblocco seal for copper pipe, nickel-plated

Size	Thread	Pcs. pack	Code
10	24x19	20	01321410
12	24x19	20	01321412
14	24x19	20	01321414
15	24x19	20	01321415
16	24x19	20	01321416
18 standard seal	24x19	20	01321320
Monoblocco blind seal (plug)	24x19	20	01321460

Copper Monoblocco seal for solar

Monoblocco seal 24x19 for copper pipe, nickel-plated
for high temperature, solar systems



Construction

- 1 Nut in nickel-plated brass ST UNI EN 12165 CW617N
- 2 Metal components in brass TN UNI EN 12164 CW614N
- 3 O-ring fitting in VITON

Maximum torque: 30 Nm
Maximum pressure: 10 bar
Maximum temperature: 160 °C



PATENT PENDING

Monoblocco seals 24x19, copper pipe for high temperature, solar systems

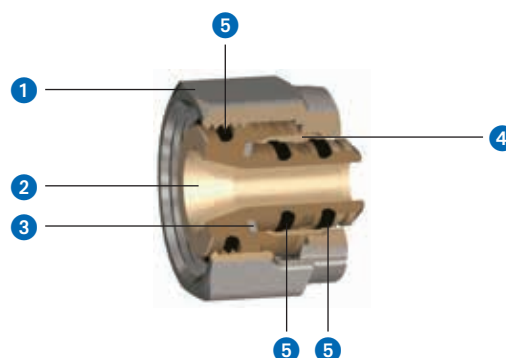
Size	Pcs. pack	Code
Ø 15	20	01321476
Ø 16	20	01321478
Ø 18 (*)	20	01321484

(*) Standard seal

Multi-layer Monoblocco seal



Monoblocco seal 24x19 and Eurocone for multi-layer pipe



Construction

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

Maximum torque: 30 Nm
Maximum pressure: 10 bar
Maximum temperature: 100 °C



PATENT PENDING

24x19 seal for multi-layer pipe, nickel-plated

Size	Thread	Pcs. pack	Code
12 x 1,6	24x19	20	28100355
14 x 2	24x19	20	28100356
16 x 2	24x19	50	28100358
16 x 2,25	24x19	20	28100360
17 x 2	24x19	20	28100362
18 x 2	24x19	50	28100364
20 x 2	24x19	50	28100366
20 x 2,25	24x19	20	28100374
20 x 2,5	24x19	20	28100370
26 x 3	M32x1,5	8	28100368



PATENT PENDING

Fitting Female 24x19 - Male M32x1,5

Size	Pcs. pack	Code
24x19 - M32x1,5	10	01306252

Complete with O-Ring and adapter female side

Multi-layer Monoblocco seal



Straight Male fitting 1/2" - M32x1,5

Size	Pcs. pack	Code
1/2" - M32x1,5	10	01306250

Complete with O-Ring

PATENT PENDING



Eurocone seal for multi-layer pipe

Size	Pcs. pack	Code
16 x 2	10	28100392
20 x 2	10	28100400

PATENT PENDING



CH 38 spanner for multi-layer Monoblocco seals 26x3

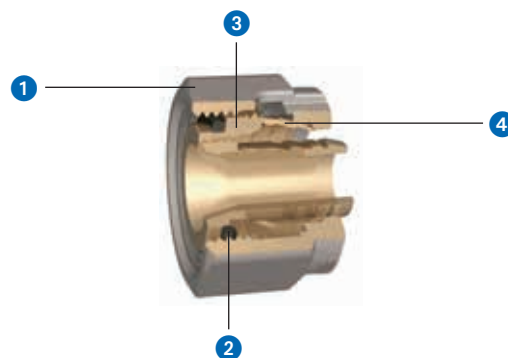
Size	Pcs. pack	Code
	1	28171002

To be used for the tightening of the single-piece seals for multi-layer pipe 26x3 on the branches of Topway manifolds with interval of 50 mm

PEX-PP-PB Monoblocco seal



Monoblocco seal 24x19 and Eurocone for plastic pipe PEX, PP



Construction

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

Maximum torque: 30 Nm
Maximum pressure: 10 bar
Maximum temperature: 100 °C



PATENT PENDING

Monoblocco seal 24x19 for plastic pipe PEX, PP

Size	Thread	Pcs. pack	Code
12 x 1	24x19	20	28100320
12 x 2	24x19	20	28100322
14 x 2	24x19	20	28100324
15 x 1,5	24x19	20	28100325
15 x 1,7	24x19	20	28100326
15 x 2,5	24x19	20	28100328
16 x 1,5	24x19	20	28100332
16 x 2	24x19	20	28100334
16 x 2,2	24x19	20	28100336
17 x 2	24x19	20	28100340
18 x 2	24x19	20	28100342
18 x 2,5	24x19	20	28100344
20 x 2	24x19	20	28100346
20 x 2,8	24x19	20	28100348
25 x 2,3	M32 x 1,5	8	28100382

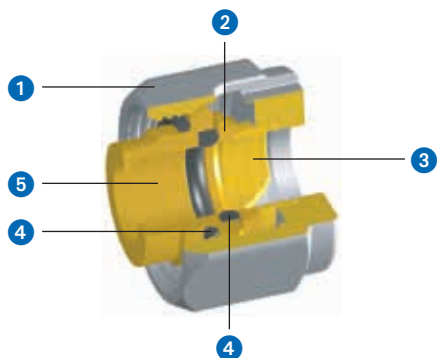


PATENT PENDING

Eurocone seal for plastic PEX, PP pipe

Size	Pcs. pack	Code
17x2	10	28100768
20x2	10	28100774
3/8" SDR 9	50	28104166
1/2" SDR 9	50	28104168
5/8" SDR 9	50	28104170
3/4" SDR 9	50	28104172

PEX-PP-PB Monoblocco seal



PATENT PENDING

Monoblocco seal 24x19 for plastic pipe PB

Construction

- ① Nut in nickel-plated brass ST UNI EN 12165 CW617N
- ② Collar in brass ST UNI EN 12164 CW614N
- ③ Serrate hose-clamp in brass ST UNI EN12164 CW614N
- ④ O-ring seal in EPDM
- ⑤ Adapter in brass ST UNI EN 12164 CW614N

Maximum torque: 30 Nm

Size	Pcs. pack	Code
Ø 10 (*)	50	28100318
Ø 15 (*)	50	28100330

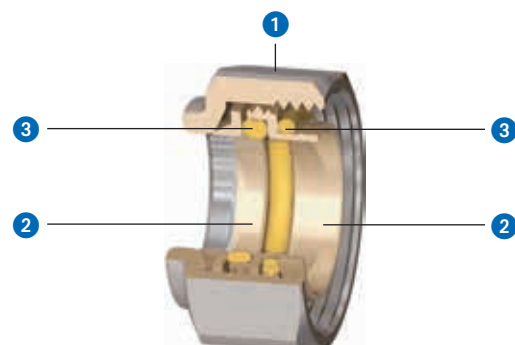
(*) Polybutylene

When using these with plastic pipe, please ensure you use the plastic pipe insert provided for by the manufacturer of the pipe you are using.

Gas Monoblocco seal



Monoblocco copper seal for gas



Construction

- 1 Nut in nickel-plated brass ST UNI EN 12165 CW617N
- 2 Metal components in brass TN UNI EN 12164 CW6214N
- 3 O-ring fitting in yellow HNBR

Maximum torque: 30 Nm
Maximum pressure: 10 bar
Maximum temperature: 100 °C

Confirm to UNI EN 1254-2 with Emmeti seals 24x19



PATENT PENDING

Monoblocco seal for gas

Size	Pcs. pack	Code
10	20	01321450
12	20	01321452
14	20	01321454
15	20	01321456
16	20	01321458
18 (*)	20	01321670
Monoblocco blind seal (plug)	20	01321460

(*) Standard seal

Accessories for Monoblocco



CH 27 -30 spanner for tightening takeoffs

Size	Pcs. pack	Code
	1	01306046



CH 27 spanner for tightening takeoffs until DN 18

Size	Pcs. pack	Code
	1	01306054

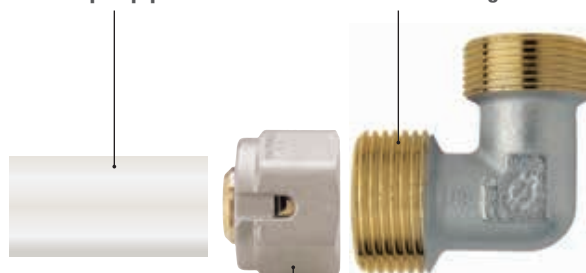


Seals and fittings to be tightened



Gerpex pipe

Modular screw fittings



Monoblocco seal



Uses

The use of the screw-together pipe fittings makes installing the multi-layer pipe easy, and moreover it requires very few tools.

The 24x19 threading allows for a single type of fitting which can be matched with Emmeti seals 24x19 for multi-layer pipe (see section nr. 6 - Connection and Control of Heating Units), thus rationalizing stocks. The hydraulic seal is ensured by means of a system with three O-rings and a toothed pipeholding ogive.

All the fittings are equipped with a special PTFE ring that insulates the aluminium of the pipe from the brass fitting.

Construction

The single body seal is supplied with its components (nut, olive, adaptor) already assembled and ready for insertion into the pipe.

The opening on the nut makes it possible to verify if the fitting has been inserted all the way down to the Seat point.

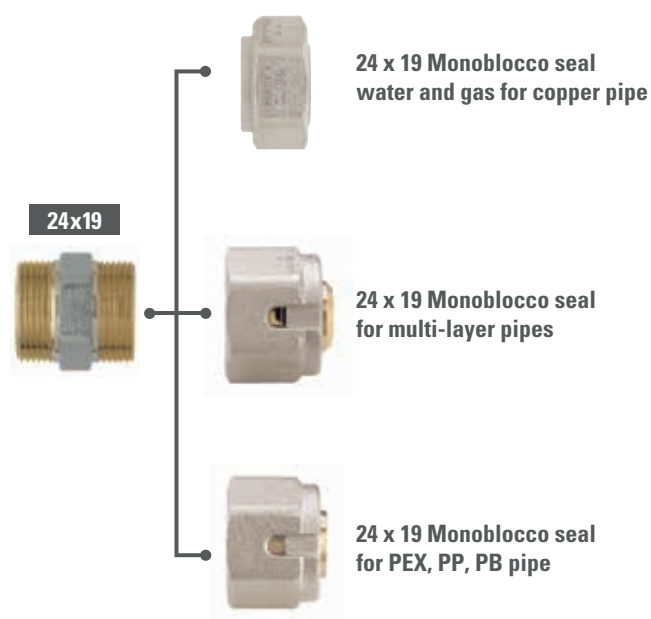
Body UNI EN 12165 CW617N**

Female - Male connection

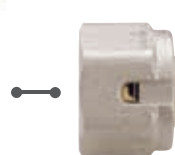
Thread gas ISO 228/1 (DIN 259)

** Nickel-plated only on surface non in contact with fluids; availability after exhaustion of totally nickel-plated version.

24x19 thread connect copper pipe, multi-layer, pex, PP and PB using standard fitting and Emmeti seals.



M 32x1,5



M 32x1,5 Monoblocco seal for multi-layer pipe DN 26x3

Seals and fittings to be tightened



PATENT PENDING

Straight female joint, nickel-plated

Size	Thread	Pcs. pack	Code
1/2"	24x19	20	28103000
3/4"	24x19	14	28103010
3/4"	M32x1,5	10	28103020
1"	M32x1,5	8	28103030



PATENT PENDING

Straight male joint, nickel-plated

Size	Thread	Pcs. pack	Code
1/2"	24x19	20	28103040
3/4"	24x19	14	28103050
3/4"	M32x1,5	10	28103060
1"	M32x1,5	10	28103070



PATENT PENDING

Straight joint double jointed nickel-plated

Size	Pcs. pack	Code
24 x 19	20	28103080
M32 x 1,5	10	28103090



PATENT PENDING

Fitting Female 24x19 - Male M32x1,5

Size	Pcs. pack	Code
24x19 - M32x1,5	10	01306252

Complete with O-Ring and adapter female side



PATENT PENDING

Straight Male fitting 1/2" - M32x1,5

Size	Pcs. pack	Code
1/2" - M32x1,5	10	01306250

Complete with O-Ring



PATENT PENDING

Female elbow joint nickel-plated

Size	Thread	Pcs. pack	Code
1/2"	24x19	10	28103100
3/4"	24x19	8	28103110
3/4"	M32x1,5	6	28103120
1"	M32x1,5	4	28103130



PATENT PENDING

Male elbow joint nickel-plated

Size	Thread	Pcs. pack	Code
1/2"	24x19	10	28103140
3/4"	24x19	10	28103150
3/4"	M32x1,5	8	28103160
1"	M32x1,5	5	28103170



PATENT PENDING

Double-jointed elbow nickel-plated

Size	Pcs. pack	Code
24 x 19	10	28103180
M32 x 1,5	6	28103190



PATENT PENDING

TEE joint female nickel-plated

Size	Thread	Pcs. pack	Code
1/2"	24x19	8	28103200
3/4"	24x19	5	28103210



PATENT PENDING

TEE-joint male nickel-plated

Size	Thread	Pcs. pack	Code
1/2"	24x19	8	28103240
3/4"	24x19	6	28103250



PATENT PENDING

TEE-joint three-piece nickel-plated

Size	Pcs. pack	Code
24x19	8	28103280



PATENT PENDING

Elbow joint female with flange nickel-plated

Size	Thread	Pcs. pack	Code
1/2"	24x19	6	28103300



Galvanized bracket for flanged elbow

Size	Pcs. pack	Code
	12	28100822



Gas valves and multilayer system
for domestic gas adduction systems

> Ball valves for gas



189

> Valve with manifold first inlet



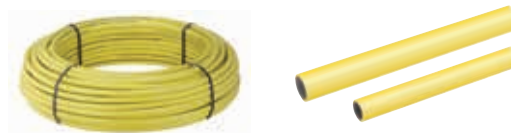
195

> Solenoid valves for gas



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> Gerpe Gas pipe



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> Gerpex Gas pipe
with rolled corrugated sheath



200

> Press fittings Gerpex Gas



202

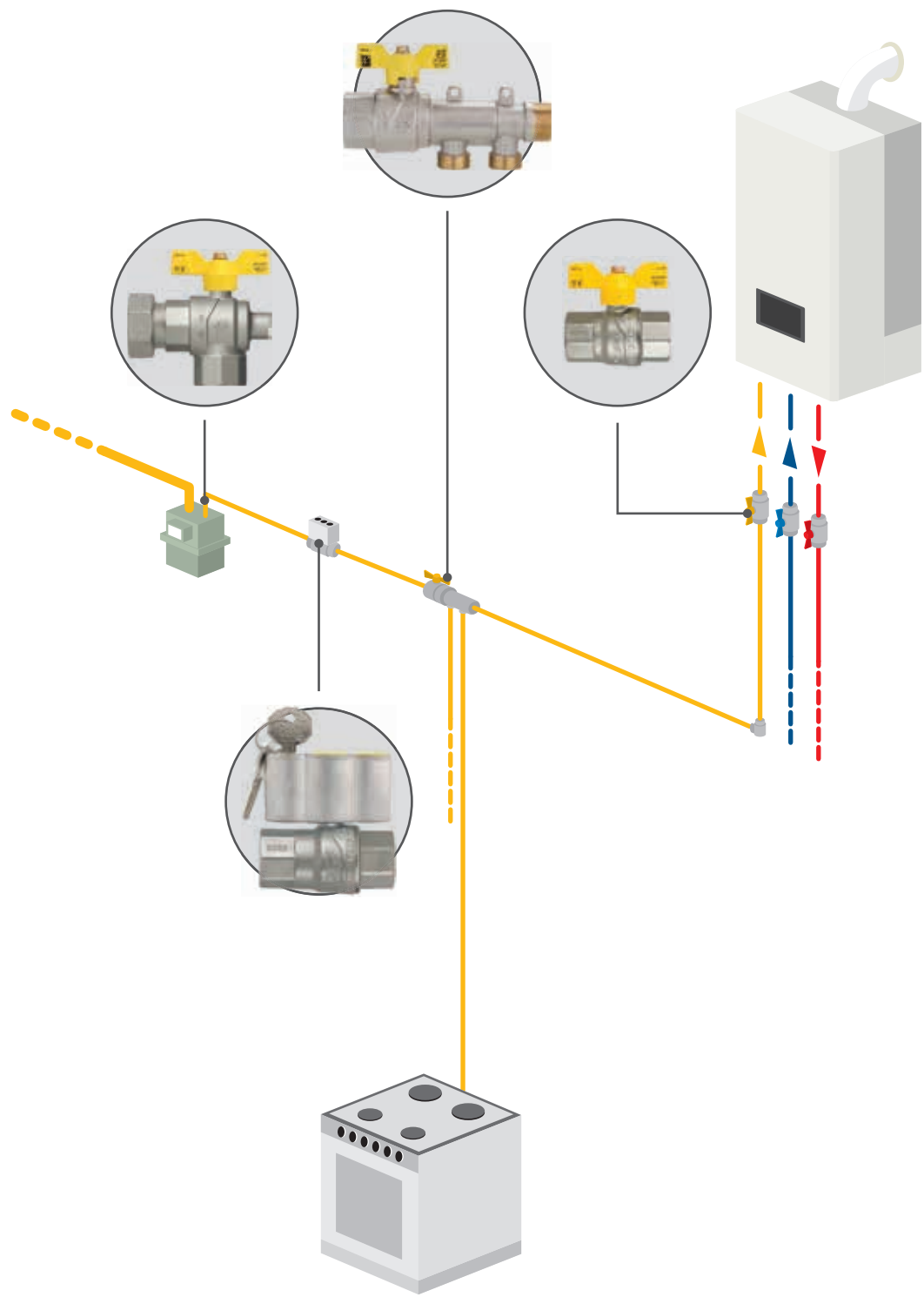
> Tooling Gerpex Gas



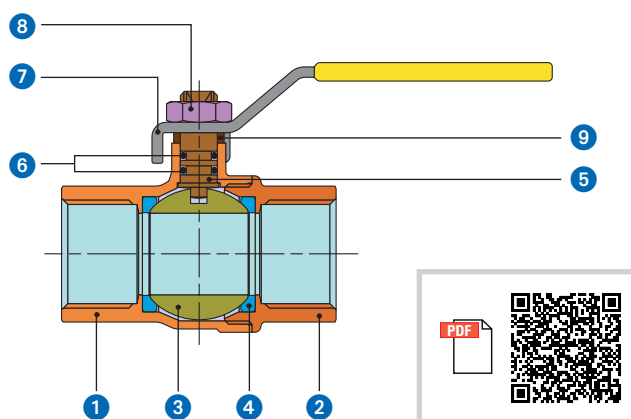
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Example of installation



Ball valves for gas



UNI EN
331

Construction

- 1 Valve body made brass UNI EN 12165 CW617N nickel finish
 - 2 End connection nickel-plated brass UNI EN 12165 CW617N
 - 3 Ball hard chromed brass UNI EN 12165 CW617N
 - 4 Ball seal in pure P.T.F.E.
 - 5 Stem brass UNI EN 12164 CW614N
 - 6 Rod seal o-ring NBR 75 Sh A (ASTM D 2240)
 - 7 Handle zinc-plated steel, plastified
 - 8 Nut zinc-plated steel
 - 9 Anti-friction ring P.T.F.E.
- Thread ISO 7/1 (DIN 2999)

Technical data

Max operating pressure MOP 5-20
 Operating temperature:
 for gas group 1-2-3
 from -20 to +60 °C - class -20 °C
 from -20 to +120 °C for water
 FULL PORT
 Anti-explosion rod
 Valves must be used in fully open or fully close position

Gas families1-2-3
MOP 5-20



TECHNICAL SHEET 30



UNI EN
331

Futurgas Female-Female lever handle

Size	Pcs. pack	Code
1/2"	16	09812130
3/4"	12	09812132
1"	6	09812134
1"1/4	4	09812136
1"1/2	1	09812138
2"	3	09812140



UNI EN
331

Futurgas Male-Female lever handle

Size	Pcs. pack	Code
1/2"	16	09812150
3/4"	12	09812152
1"	6	09812154
1"1/4	4	09812156
1"1/2	1	09812158
2"	3	09812160

Futurgas - Ball valves for gas



Futurgas Female-Female butterfly handle

Size	Pcs. pack	Code
1/2"	16	09812170
3/4"	12	09812172
1"	6	09812174
1"1/4	4	09812176



Futurgas Male-Female butterfly handle

Size	Pcs. pack	Code
1/2"	16	09812180
3/4"	12	09812182
1"	6	09812184
1"1/4	4	09812186



Futurgas Female-Revolving nut butterfly handle

Size	Pcs. pack	Code
1/2" F x 3/4" G	16	09812291
3/4" F x 3/4" G	12	09812297



Futurgas Female-Female with 1/4" F connections (pressure connection) and butterfly handle

Size	Pcs. pack	Code
1/2"	6	09812320
3/4"	5	09812322
1"	6	09812324



Futurgas Female-Revolving nut with 1/4" F connections (pressure connection) and butterfly handle

Size	Pcs. pack	Code
3/4" F x 1" G	2	09812463
1" F x 1" 1/4 G	1	09812465



Right-angle Futurgas Female Female butterfly handle

Size	Pcs. pack	Code
1/2"	18	09800110
3/4"	12	09800112
1"	6	09800114
1"1/4	4	09800116



Right-angle Futurgas Female Male butterfly handle

Size	Pcs. pack	Code
1/2"	18	09800120
3/4"	12	09800122
1"	6	09800124



Right-angle Futurgas Male Female butterfly handle

Size	Pcs. pack	Code
1/2"	18	09800130
3/4"	12	09800132
1"	6	09800134



Right-angle Futurgas Male Male butterfly handle

Size	Pcs. pack	Code
1/2"	18	09800140
3/4"	12	09800142
1"	6	09800144

Futurgas - Ball valves for gas



Right-angle Futurgas Female Swivel union butterfly handle

Size	Pcs. pack	Code
1/2" F x 3/4" G	14	09800151
3/4" F x 3/4" G	10	09800157



Right-angle Futurgas Male Swivel union butterfly handle

Size	Pcs. pack	Code
3/4" M x 1" G	18	09800162
1" M x 1" 1/4 G	10	09800164

Items to be out of range



Right-angle Futurgas Male Swivel union butterfly handle

Size	Pcs. pack	Code
1/2" M x 3/4" G	14	09800161
3/4" M x 1" G	8	09800163
1" M x 1" 1/4 G	4	09800165



Right-angle Futurgas Female-Female with 1/4" F connection (pressure connection) and butterfly handle

Size	Pcs. pack	Code
3/4"	2	09812432
1"	1	09812434



Right-angle Futurgas Female-Revolving nut with 1/4" F connection (pressure connection) and butterfly handle

Size	Pcs. pack	Code
3/4" F x 1" G	2	09812403
1" F x 1" 1/4 G	1	09812405



Ball valves for gas with safety locks

These valves, which are normally applied on the counter, are provided with a safety lock for the exclusive use of the user, as requested by the new UNI 7129/2008 paragraph 4.1

It is also available in a version with two safety locks with different codes, one of which is for the exclusive use of the user and the second with an anti-tampering function or as an additional safety against the delivery of gas prior to system inspection and during maintenance operations.

With this version, delivery can only take place with both locks open so that neither of the two enabled parties can arbitrarily open the valve without the explicit consent of the other, involuntarily causing gas leaks. However, in an emergency, the gas flow can be shut off without using the key.

The valves must be used in the completely open or closed position



Futurgas Female-Female with key-operated lock

Size	Pcs. pack	Code
3/4"	2	09812522
1"	1	09812524



Futurgas Female-Female with 1/4" F connections (pressure connection) and key-operated lock

Size	Pcs. pack	Code
1/2"	2	09812490
3/4"	2	09812492
1"	1	09812494



Futurgas Female-Revolving nut with 1/4" F connections (pressure connection) and key-operated lock

Size	Pcs. pack	Code
1" x 1"1/4 G	1	09812474

Item to be out of range



Futurgas - Ball valves for gas



Futurgas Female-Revolving nut with 1/4" F connections (pressure connection) and key-operated lock

Size	Pcs. pack	Code
3/4" F x 1" G	2	09812473
1" F x 1" 1/4 G	1	09812475



Futurgas Female-Female with key-operated lock

Size	Pcs. pack	Code
3/4"	2	09812542
1"	1	09812544



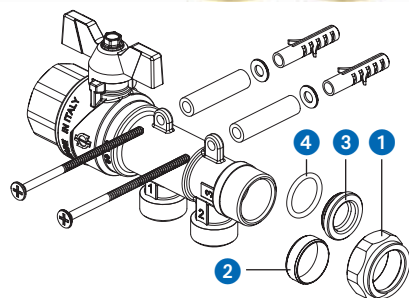
Right-angle Futurgas Female-Female with 1/4" F connection (pressure connection) and key-operated lock

Size	Pcs. pack	Code
3/4"	2	09812442
1"	1	09812444



Right-angle Futurgas Female-Revolving nut with 1/4" F connection (pressure connection) and key-operated lock

Size	Pcs. pack	Code
3/4" F x 1" G	2	09812413
1" F x 1" 1/4 G	1	09812415



Valve with manifold first inlet

Collector with integrated shut-off valve with 1" F inlet / two 24x 19M 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 (1) that can be used with the brass ogive (2) supplied for connection to copper piping Ø22 mm, or with the blind adapter D22 (3) and relative o-ring in HNBR 18x2.5 (4) provided in order to seal the outlet if not used.

Note: fitting seals, see gas monobloc section

Size	Pcs. pack	Code
1" F	1	09812564

Lateral branches: 24x19 M

Head branch: M28 x 1.5



Straight with female swivel nut, o-ring fitting

NEW

Size	Profile	Pcs. pack	Code
Ø 26 - M 28 x 1,5	B (KSP1)	2	28125250

Fitting accessory for joint M28 x 1.5 valve manifold with first entry



Built-in box for valve with gas manifold first inlet

Size	Pcs. pack	Code
264x164x110	1	13010000

Items inside the package:

- 4 adjustable extension cables for DN16 - DN18 - DN20 - DN26 - DN32 pipes
- 2 M4x50 screws with relative washers and nuts



Dielectric joints 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 for operating at 15 bar

Size	Pcs. pack	Code
1/2"	5	02460012
3/4"	6	02460020
1"	3	02460025
1"1/4	2	02460032
1"1/2	1	02460040
2"	1	02460050

Solenoid valves for gas



Manually-reset solenoid brass valve for gas Normally Closed

Absorbed power (230V): 7 W - Maximum operating pressure: 500 mbar - Ambient temperature: -15 ÷ 60 °C - Threaded connections: according to EN 10226 - Max surface temperature NC: 75 °C - Closing time: < 1 s - Degree of protection: IP65

Size	Type	Pcs. pack	Code
1/2"	230 Vac N.C. OT	1	00309354
3/4"	230 Vac N.C. OT	1	00309362

N.C. = normally closed



Manually-reset solenoid brass valve for gas Normally Opened

Absorbed power (230V): 7 W - Maximum operating pressure: 500 mbar - Ambient temperature: -15 ÷ 60 °C - Threaded connections: according to EN 10226 - Max surface temperature NC: 75 °C - Closing time: < 1 s - Degree of protection: IP65

Size	Type	Pcs. pack	Code
1/2"	230 Vac N.A. OT	1	00309352
3/4"	230 Vac N.A. OT	1	00309360

N.A. = normally opened



Manually-reset solenoid gas valve Normally Closed

Supply voltage: 230 V/50-60 Hz Vac - Absorbed power: 9W - Maximum operating pressure: 500 mbar - Ambient temperature: -15 ÷ +60 °C - Threaded connections: according to EN 10226 - Max surface temperature: 80 °C - Closing time: < 1 s - Degree of protection: IP65

Size	Type	Pcs. pack	Code
F-F 1/2"	N.C. OT	1	00309050
F-F 3/4"	N.C. OT	1	00309052
F-F 1"	N.C. OT	1	00309057
F-F 1"	N.C. AL	1	00309056
F-F 1"1/4	N.C. AL	1	00309058
F-F 1"1/2	N.C. AL	1	00309060
F-F 2"	N.C. AL	1	00309062

N.C. = normally closed

OT = brass

AL = aluminium



Manually-reset solenoid gas valve Normally Opened

Supply voltage: 230 V / 50-60 Hz Vac - Absorbed power (brass): 7 W - Absorbed power (aluminium): 24 W - Max operating pressure: 500 mbar - Ambient temperature: -15 - +60 °C - Threaded connections: according to EN 10226 - Max surface temperature: 70 °C - Closing time: < 1 s - Degree of protection: IP65

Size	Type	Pcs. pack	Code
F-F 1/2"	N.A. OT	1	00308500
F-F 3/4"	N.A. OT	1	00308502
F-F 1"	N.A. OT	1	00308504
F-F 3/4"	N.A. AL	1	00308034
F-F 1"	N.A. AL	1	00308100
F-F 1 1/4"	N.A. AL	1	00308114
F-F 1 1/2"	N.A. AL	1	00308112
F-F 2"	N.A. AL	1	00308200

N.A. = normally opened

OT = brass

AL = aluminium



Manually-reset solenoid gas valve with flange Normally Closed

Supply voltage: 230 V/50-60 Hz - Absorbed power: 18W - Maximum operating pressure: 500 mbar - Ambient temperature: -20 - +60 °C - Threaded connections: according to ISO 7005 - Max surface temperature: 80 °C - Closing time: < 1 s - Degree of protection: IP65

Size	Type	Pcs. pack	Code
2 1/2" DN 65	N.C. AL	1	00309064
3" DN 80	N.C. AL	1	00309066
4" DN 100	N.C. AL	1	00309068

N.C. = normally closed

OT = brass

AL = aluminium



Manually-reset solenoid gas valve with flange Normally Opened

Supply voltage: 230 V/50-60 Hz - Absorbed power: 23W - Maximum operating pressure: 500 mbar - Ambient temperature: -15 - +60 °C - Threaded connections: according to ISO 7005 - Max surface temperature: 70 °C - Closing time: < 1 s - Degree of protection: IP65

Size	Type	Pcs. pack	Code
2 1/2" DN 65	N.A. AL	1	00308212
3" DN 80	N.A. AL	1	00308300
4" DN 100	N.A. AL	1	00308400

N.A. = normally opened

OT = brass

AL = aluminium

Filters gas



Gas filter regulators

NEW

Size	P1 max	P2	Pcs. pack	Code
DN 15 (1/2")	0,5÷1 bar	18÷40 mbar	1	02200420
DN 20 (3/4")	0,5÷1 bar	18÷40 mbar	1	02200422
DN 25 (1")	0,5÷1 bar	18÷40 mbar	1	02200424
DN 32 (1"1/4)	0,5÷1 bar	20÷36 mbar	1	02200426
DN 40 (1"1/2)	0,5÷1 bar	20÷36 mbar	1	02200428
DN 50 (2")	0,5÷1 bar	20÷36 mbar	1	02200430

Environment temperature: -15 ÷ 60 °C - Filtration: 50 µm
 Availables on request: 30/40 days to order confirm



Gas filter

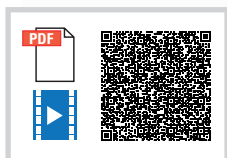
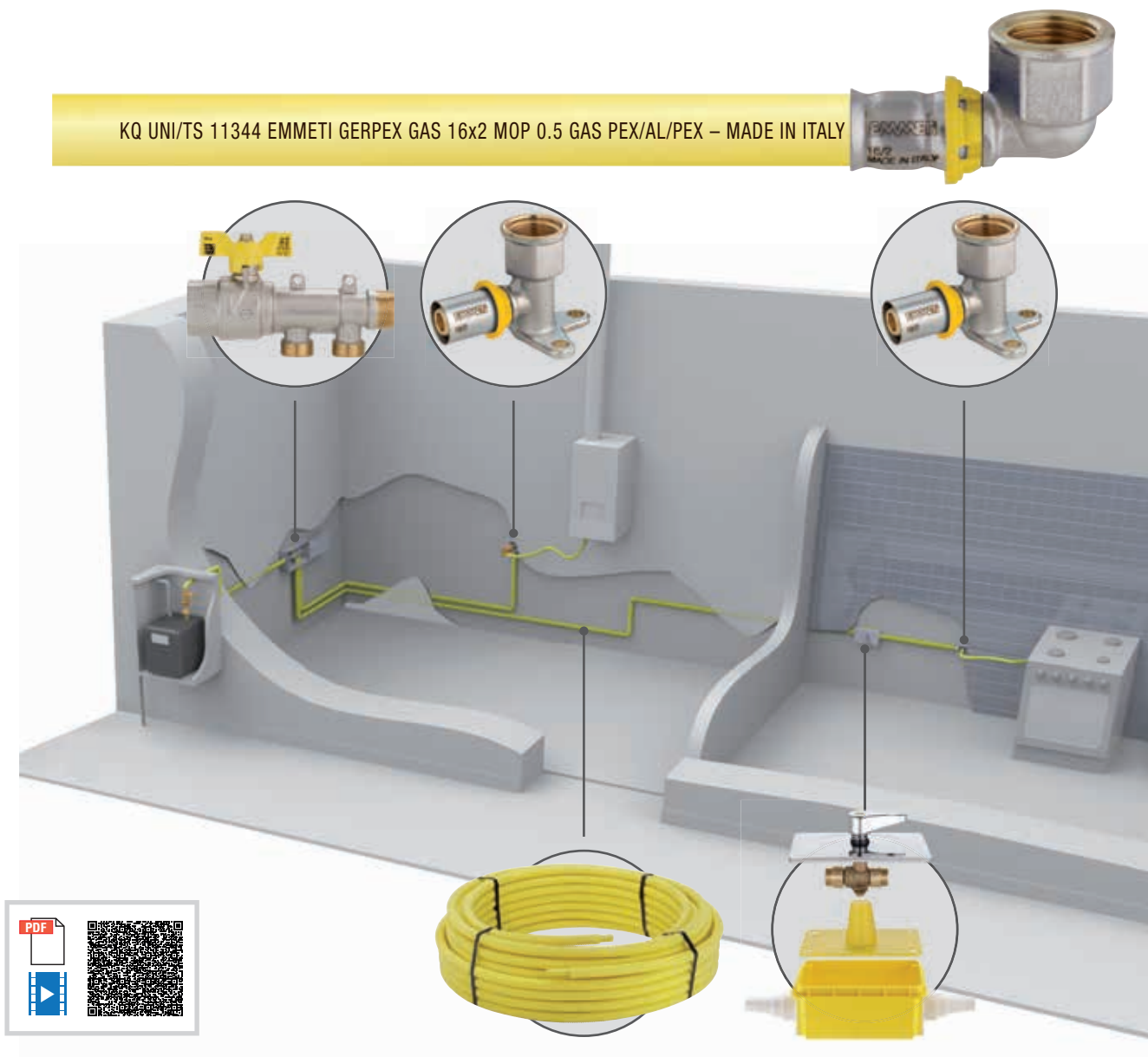
NEW

Size	P1 max	Pcs. pack	Code
DN 15 (1/2")	2 bar	1	02200400
DN 20 (3/4")	2 bar	1	02200402
DN 25 (1")	2 bar	1	02200404
DN 32 (1"1/4)	2 bar	1	02200406
DN 40 (1"1/2)	2 bar	1	02200408
DN 50 (2")	2 bar	1	02200410

Environment temperature: -40 ÷ 70 °C - Filtration: 50 µm
 Availables on request: 30/40 days to order confirm

Multilayer system for domestic gas adduction systems

KQ UNI/TS 11344 EMMETI GERPEX GAS 16x2 MOP 0.5 GAS PEX/AL/PEX – MADE IN ITALY



TECHNICAL SHEET 53

kQ

Operating range of the system

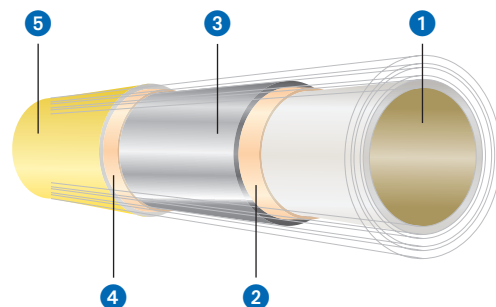
Gaseous fuels supplied by distribution networks, cylinders and fixed GPL tanks, with a 0.5 bar maximum operating pressure and operating temperature ranging between -20°C and +70°C.

In appliance to:

- > UNI/TS 11344
- > UNI/TS 11343

Gerpex Gas pipe

Multi-layer pipe Gerpex Gas



TECHNICAL SHEET 53

kQ

Construction

- 1 Cross-linked polyethylene inner pipe (PE-Xb).
- 2 Bonding layer connecting the inner pipe to the aluminium pipe.
- 3 Butt-welded aluminium pipe, thickness min 0,2 mm.
- 4 Bonding layer connecting the outer pipe to the aluminium pipe.
- 5 Cross-linked polyethylene outer pipe (PE-Xb), yellow colour.

Technical data Gerpex gas pipe

Operating temperature: -20°C÷70°C
 Allowable working pressure: max 0.5 bar
 Coefficient of linear expansion: 0,026 mm/m °C
 Thermal conductivity: 0.45W/m°C
 Minimum radius of bending: 5 x Ø pipe
 Surface roughness of internal pipe: 7 µm

Corrugated sheath technical data(ref. precoated pipe)

Material: High density polyethylene HDPE
 Self-extinguishing (UL 94): Class V2

Expandable corrugated sheath technical data

Material: Polypropylene
 Self-extinguishing (IEC 60695-2-10):
 1) Class 850 (°C)
 2) Mean extinguishing time 6.4 (seconds)
 Self-extinguishing (UL 94): Class V2
 Expanding capacity: approximately 3 times the original length



Gerpex Gas bare pipe in roll

	Size	Mts. pack	Code
NEW	16 x 2	100	28109100
	16 x 2 (*)	100	28129500
NEW	20 x 2	100	28109104
	20 x 2 (*)	100	28129502
	26 x 3 (*)	50	28129504
NEW	26 x 3	50	28109106
	32 x 3 (*)	50	28129506
NEW	32 x 3	50	28109108

(*) Item to be out of range



Gerpex Gas bare pipe in 4 mt bars

Size	Mts. pack	Code
26 x 3 (*)	20	28129604
NEW 26 x 3	20	28109126
32 x 3 (*)	16	28129606
NEW 32 x 3	16	28109128

Packaged in rigid protective pipe

(*) Item to be out of range



Gerpex Gas pipe with rolled corrugated sheath

Size	DN sheath	Mts. pack	Code
NEW 16 x 2	20	50	28109110
16 x 2 (*)	20	50	28129510
NEW 20 x 2	26	50	28109114
20 x 2 (*)	26	50	28129512
26 x 3 (*)	30	50	28129514
NEW 26 x 3	30	50	28109116
32 x 3 (*)	35	25	28129516
NEW 32 x 3	35	25	28109118

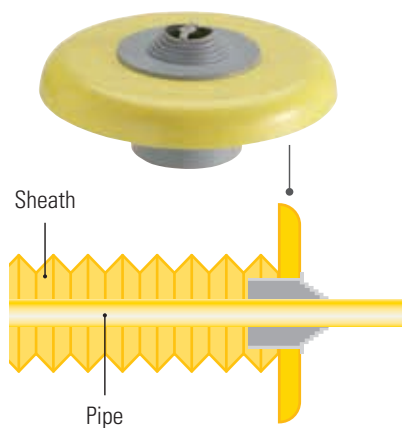
(*) Item to be out of range



Expandable corrugated sheath

Size	Mts. pack	Code
20*	50	01220500
25*	25	01220502
30*	25	01220504
40*	25	01220506

(*) internal Ø (mm)



Expandable sheath terminal

Size	Pcs. pack	Code
20* for Ø 16 pipe	10	01220508
25* for Ø 20 pipe	10	01220510
30* for Ø 26 pipe	10	01220512
40* for Ø 32 pipe	10	01220514

(*) internal Ø (mm)

Press fittings Gerpex Gas

Press fittings Gerpex Gas



TECHNICAL SHEET 53

kQ

Construction

- 1 CW617N (UNI EN 12165) and CW614N (UNI EN 12164) brass body.
Threads: UNI EN ISO 228-1, UNI EN 10226.
- 2 Nylon sleeve ring, dielectric
- 3 AISI 304 stainless steel sleeve
- 4 NBR dual o-ring (in confirm to EN 682, EN 549)



Vertical Female union joint

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	10	28125000
20 x 1/2"	B (KSP1)	10	28125002
20 x 3/4"	B (KSP1)	10	28125004
26 x 3/4"	B (KSP1)	5	28125006
26 x 1"	B (KSP1)	5	28125008
32 x 1"	B (KSP1)	5	28125010



Vertical Male union joint

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	10	28125020
20 x 1/2"	B (KSP1)	10	28125022
20 x 3/4"	B (KSP1)	10	28125024
26 x 3/4"	B (KSP1)	5	28125026
26 x 1"	B (KSP1)	5	28125028
32 x 1"	B (KSP1)	5	28125030



Female elbow

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	10	28125040
20 x 1/2"	B (KSP1)	10	28125042
20 x 3/4"	B (KSP1)	10	28125044
26 x 3/4"	B (KSP1)	5	28125046
32 x 1"	B (KSP1)	5	28125048



Male elbow

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	10	28125050
20 x 1/2"	B (KSP1)	10	28125052
20 x 3/4"	B (KSP1)	10	28125054
26 x 3/4"	B (KSP1)	5	28125056
32 x 1"	B (KSP1)	5	28125058



Female elbow, flanged elbow

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	10	28125060
20 x 1/2"	B (KSP1)	10	28125062
NEW 20 x 3/4"	B (KSP1)	10	28125064



Intermediate Tee joint with female branching

Size	Profile	Pcs. pack	Code
16 x 1/2" x 16	B (KSP1)	10	28125070
16 x 3/4" x 16	B (KSP1)	10	28125072
20 x 1/2" x 20	B (KSP1)	5	28125074
20 x 3/4" x 20	B (KSP1)	5	28125076
26 x 3/4" x 26	B (KSP1)	5	28125078
32 x 3/4" x 32	B (KSP1)	5	28125080
32 x 1" x 32	B (KSP1)	5	28125082



Vertical intermediate union joint

Size	Profile	Pcs. pack	Code
16 x 16	B (KSP1)	10	28125090
20 x 20	B (KSP1)	10	28125092
26 x 26	B (KSP1)	5	28125094
32 x 32	B (KSP1)	5	28125096

Press fittings Gerpex Gas



Vertical intermediate reducing union joint

Size	Profile	Pcs. pack	Code
20 x 16	B (KSP1)	10	28125100
26 x 20	B (KSP1)	5	28125104
32 x 26	B (KSP1)	5	28125110



Intermediate elbow

Size	Profile	Pcs. pack	Code
16 x 16	B (KSP1)	10	28125120
20 x 20	B (KSP1)	10	28125122
26 x 26	B (KSP1)	5	28125124
32 x 32	B (KSP1)	5	28125126



Intermediate Tee joint

Size	Profile	Pcs. pack	Code
16 x 16 x 16	B (KSP1)	10	28125130
20 x 20 x 20	B (KSP1)	10	28125132
26 x 26 x 26	B (KSP1)	5	28125134
32 x 32 x 32	B (KSP1)	5	28125230



Intermediate reducing Tee joint

Size	Profile	Pcs. pack	Code
16 x 20 x 16	B (KSP1)	10	28125136
20 x 16 x 16	B (KSP1)	10	28125138
20 x 16 x 20	B (KSP1)	10	28125140
20 x 20 x 16	B (KSP1)	10	28125142
20 x 26 x 20	B (KSP1)	5	28125144
20 x 32 x 20	B (KSP1)	5	28125146
26 x 20 x 20	B (KSP1)	5	28125154
26 x 20 x 26	B (KSP1)	5	28125156
26 x 32 x 26	B (KSP1)	5	28125162
32 x 20 x 20	B (KSP1)	5	28125166
32 x 20 x 26	B (KSP1)	5	28125168
32 x 20 x 32	B (KSP1)	5	28125170
32 x 26 x 26	B (KSP1)	5	28125174
32 x 26 x 32	B (KSP1)	5	28125176



Straight with female swivel nut, flat seal

Size	Profile	Pcs. pack	Code
16 x 1/2"	B (KSP1)	1	28125200
16 x 3/4"	B (KSP1)	1	28125202
20 x 1/2"	B (KSP1)	1	28125204
20 x 3/4"	B (KSP1)	1	28125206
26 x 3/4"	B (KSP1)	1	28125208
26 x 1"	B (KSP1)	1	28125210
32 x 1"	B (KSP1)	1	28125212



Straight with female swivel nut, o-ring fitting

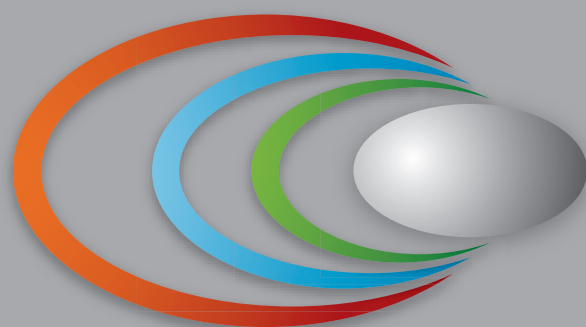
Size	Profile	Pcs. pack	Code
Ø 16 - 24x19	B (KSP1)	10	28125220
Ø 20 - 24x19	B (KSP1)	10	28125222
16x2 - 3/4 EK	B (KSP1)	10	28125240
20x2 - 3/4 EK	B (KSP1)	10	28125242



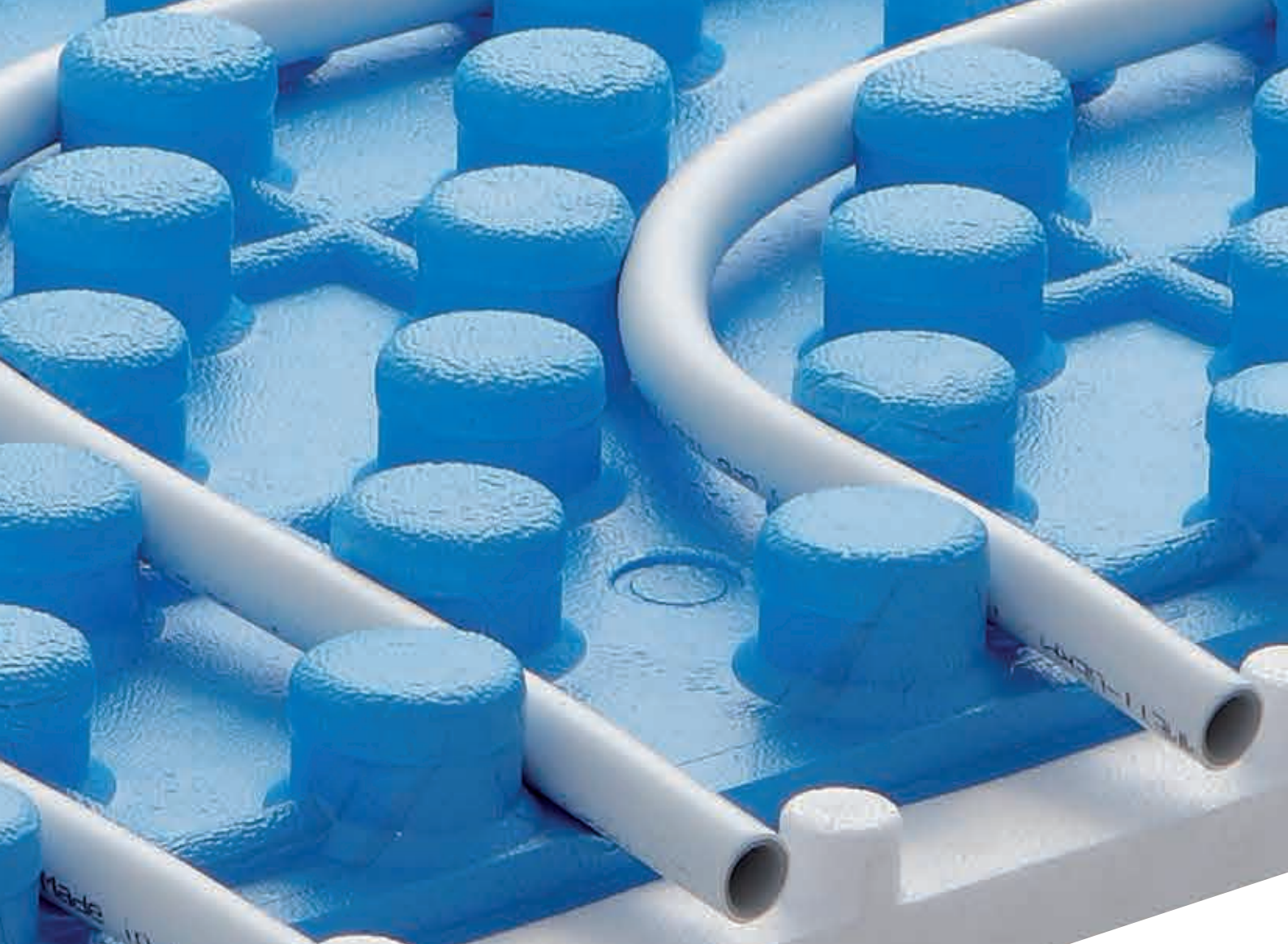
Built-in box for flanged elbows

Size	Pcs. pack	Code
	1	13010010

Built-in box for installation of Gerpex Gas flanged elbows



EMMETI HOME



Emmeti clima floor

Floor heating and cooling systems



> Insulating panels



212

> Pipes



224

> Accessories



225

> Floor heating and cooling industrial system



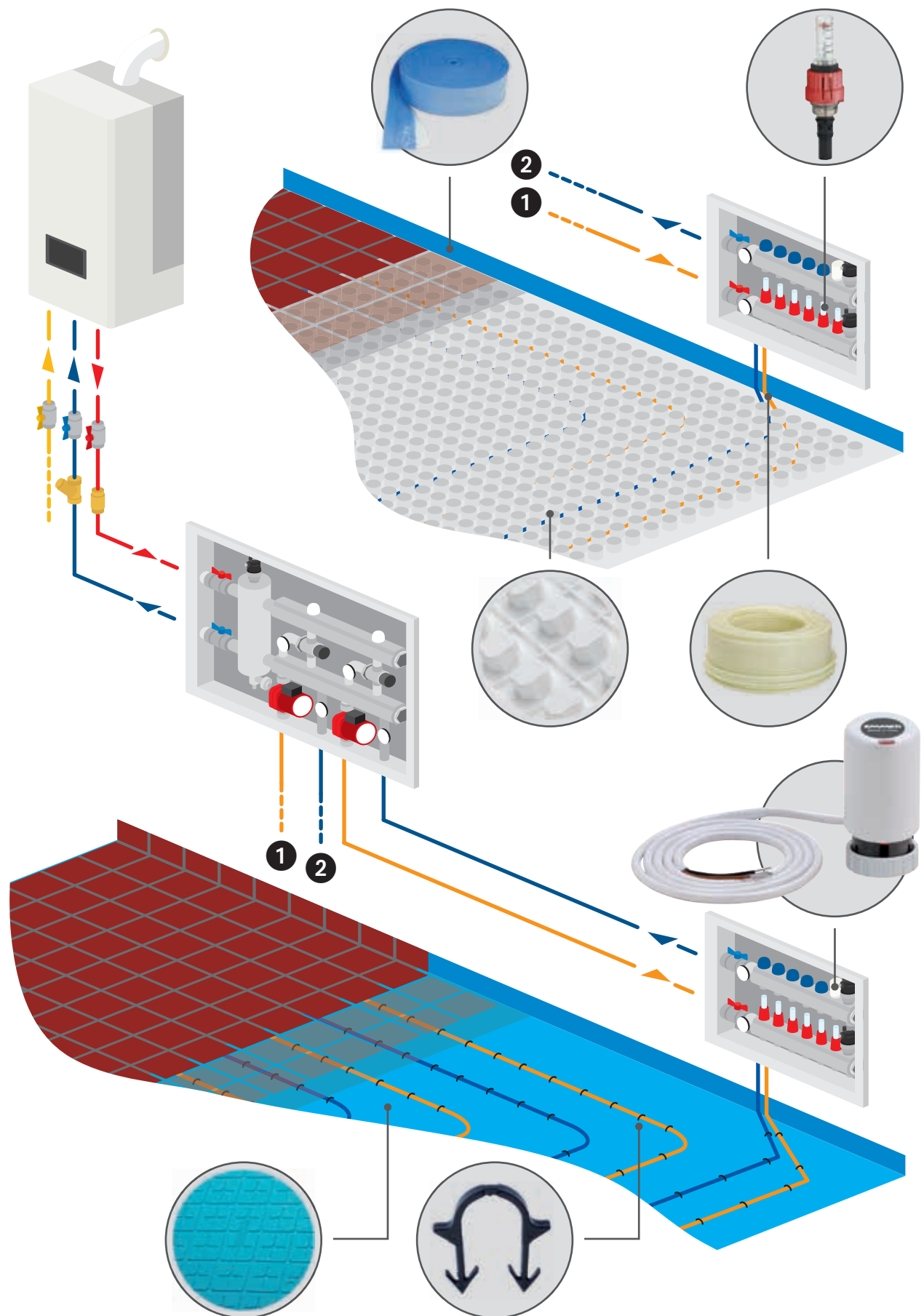
230

> Accessories for floor heating and cooling

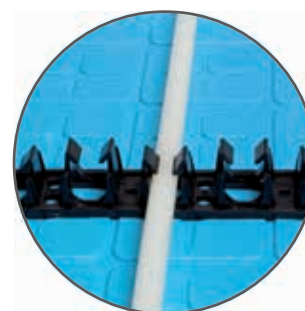


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Example of installation



Floor heating and cooling system



TECHNICAL SHEET 81

The growing success which underfloor heating is obtaining on a world level is logical and well-deserved.

Modern calculation systems, proved constructional techniques, innovative materials and improved thermal insulation conditions in buildings, are the requirements which have made possible the unstoppable advance of this heating solution.

The distribution of heated air in the room is uniform, the heat radiated from the floor transmits energy to the walls, which disperse it, reducing the thermal load affecting the people occupying the room.

The low temperature of the floor, around 23 °C, avoids the circulation and decomposition of dust in the rooms, a source of irritation to the respiratory tract and of the characteristic black smudges on the walls.

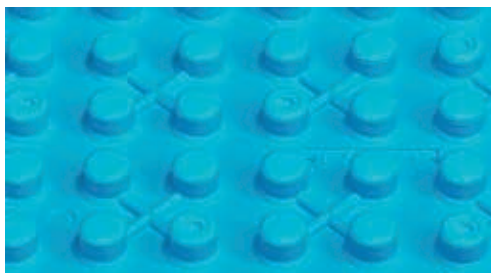
The Emmeti underfloor heating plant range offers special components for the simple and rapid creation of durable and reliable systems which provide excellent standards of comfort.

The high quality of the products, the technical characteristics of the materials used and the extreme flexibility of fittings, make it possible to install underfloor heating in any type of building for domestic, commercial, industrial or sporting use, in offices, places of worship and buildings of historical value.

The Emmeti Floor system is invisible and does not limit furnishing options in the rooms.

Floor system

Insulating panels



Standard Floor insulating panel

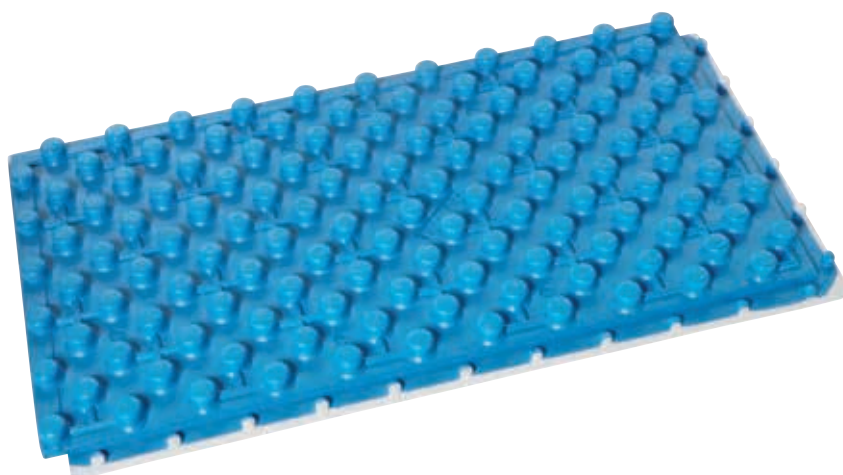
Size	Density	Pack m ²	Code
1100 x 600 x 32 / H10	40 kg/m ³	14,52	28130079
1100 x 600 x 48 / H20	30 kg/m ³	7,92	28134060
1100 x 600 x 63 / H30	30 kg/m ³	6,6	28134050

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



UNI EN 13163

Technical data	Norm	Model H10	Model H20	Model H30
Type	UNI EN 13163	EPS 250	EPS 200	EPS 200
Density	UNI EN 1602	40 kg/m ³	30 kg/m ³	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 250 kPa	≥ 200 kPa	≥ 200 kPa
Thermal conductivity	EN 12939	0,034 W/mK	0,035 W/mK	0,035 W/mK
Thermic resistance RD	EN 12939	0,45 m ² K/W	0,75 m ² K/W	1,05 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	0,29 m ² K/W	0,57 m ² K/W	0,86 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%	< 5%
Useful thickness Sins	UNI EN 1264	10 mm	20 mm	30 mm
Total lenght		1135 mm	1135 mm	1135 mm
Total width		635 mm	635 mm	635 mm
Total thickness		32 mm	48 mm	63 mm
Film thickness		0,16 mm	0,16 mm	0,16 mm
Pipe spacing		50 mm	50 mm	50 mm
External Ø of installing pipes		16-17 mm	16-17 mm	16-17 mm
Pack		14,52 m ²	7,92 m ²	6,6 m ²



H = 10/20/30 mm



UNI EN 13163

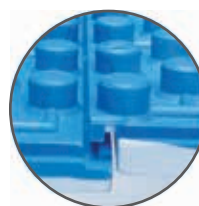
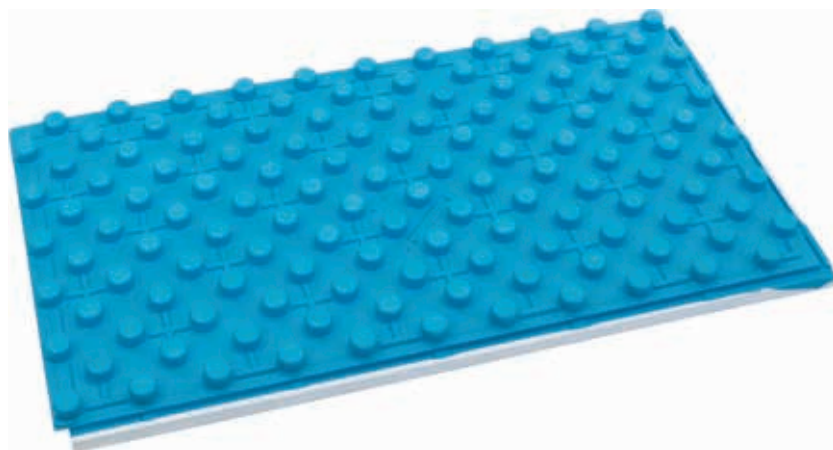
Standard Floor insulating panel

Size	Density	Pack m ²	Code
1100 x 600 x 78 / H40 (*)	30 kg/m ³	5,28	28134062
1100 x 600 x 78 / H50	30 kg/m ³	4,62	28130093
1100 x 600 x 88 / H60 (*)	30 kg/m ³	3,96	28134064

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

(*) Available on request: 30 days to order confirm

Technical data	Norm	Model H40	Model H50	Model H60
Type	UNI EN 13163	EPS 200	EPS 200	EPS 200
Density	UNI EN 1602	30 kg/m ³	30 kg/m ³	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa	≥ 200 kPa	≥ 200 kPa
Thermal conductivity	EN 12939	0,035 W/mK	0,035 W/mK	0,035 W/mK
Thermic resistance RD	EN 12939	1,35 m ² K/W	1,65 m ² K/W	1,90 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	1,15 m ² K/W	1,42 m ² K/W	1,71 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%	< 5%
Useful thickness Sins	UNI EN 1264	40 mm	50 mm	60 mm
Total lenght		1120 mm	1120 mm	1120 mm
Total width		620 mm	620 mm	620 mm
Total thickness		68 mm	78 mm	88 mm
Film thickness		0,16 mm	0,16 mm	0,16 mm
Pipe spacing		50 mm	50 mm	50 mm
External Ø of installing pipes			16-17 mm	
Pack		5,28 m ²	4,62 m ²	3,96 m ²



H = 40/50/60 mm

Floor system



Standard Combi Floor insulating panel

Size	Density	Pack m ²	Code
1200 x 800 x 32 / H10	30 kg/m ³	17,28	28134074
1200 x 800 x 42 / H20	25 kg/m ³	12,48	28134076
1200 x 800 x 52 / H30	25 kg/m ³	8,64	28134078

Panel in expanded polystyrene (EPS), with surface bosses and cylindrical edges, coupled with a moulded film of rigid polystyrene. Pipe spacing 5 cm.



UNI EN 13163

Technical data	Norm	Model H10	Model H20	Model H30
Type	UNI EN 13163	EPS 200	EPS 150	EPS 150
Density	UNI EN 1602	30 kg/m ³	25 kg/m ³	25 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa	≥ 150 kPa	≥ 150 kPa
Thermal conductivity	EN 12939	0,035 W/mK	0,035 W/mK	0,035 W/mK
Thermic resistance RD	EN 12939	0,45 m ² K/W	0,75 m ² K/W	1,00 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	0,29 m ² K/W	0,57 m ² K/W	0,86 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%	< 5%
Useful thickness Sins	UNI EN 1264	10 mm	20 mm	30 mm
Total lenght		1250 mm	1250 mm	1250 mm
Total width		850 mm	850 mm	850 mm
Total thickness		32 mm	42 mm	52 mm
Film thickness		0,65 mm	0,65 mm	0,65 mm
Pipe spacing		50 mm	50 mm	50 mm
External Ø installed pipes		16-17 mm	16-17 mm	16-17 mm
Pack		17,28 m ²	12,48 m ²	8,64 m ²





Classic Floor insulating panel without film

Size	Density	Pack m ²	Code
1200 x 750 x 65 / H30 (*)	25 kg/m ³	9	28130096
1200 x 750 x 50 / H20	25 kg/m ³	10,8	28130097

Panel in polystyrene (EPS), with surface bosses and tongue-and-groove edges, pipe spacing: 7,5 cm.
(*) Available on request: 30 days to order confirm



UNI EN 13163

Technical data	Norm	Model H20	Model H20	Model H30	Model H30
Type	UNI EN 13163	EPS 150	EPS 200	EPS 150	EPS 200
Density	UNI EN 1602	25 kg/m ³	30 kg/m ³	25 kg/m ³	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 150 kPa	≥ 200 kPa	≥ 150 kPa	≥ 200 kPa
Thermal conductivity	EN 12939	0,035 W/mK	0,035 W/mK	0,035 W/mK	0,035 W/mK
Thermic resistance RD	EN 12939	0,8 m ² K/W	0,8 m ² K/W	1,10 m ² K/W	1,10 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	0,57 m ² K/W	0,57 m ² K/W	0,86 m ² K/W	0,86 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%	< 5%	< 5%
Useful thickness Sins	UNI EN 1264	20 mm	20 mm	30 mm	30 mm
Total lenght		1220 mm	1220 mm	1220 mm	1220 mm
Total width		770 mm	770 mm	770 mm	770 mm
Total thickness		50 mm	50 mm	65 mm	65 mm
Pipe spacing		75 mm	75 mm	75 mm	75 mm
External Ø installed pipes		16-17-20 mm	16-17-20 mm	16-17-20 mm	16-17-20 mm
Pack		10,8 m ²	10,8 m ²	9 m ²	9 m ²



Floor system



Classic Floor insulating panel with film (thickness 0,16 mm)

Size	Density	Pack m ²	Code
1200 x 750 x 65 / H30 (*)	30 kg/m ³	9	28130099
1200 x 750 x 65 / H30 (*)	25 kg/m ³	9	28134024

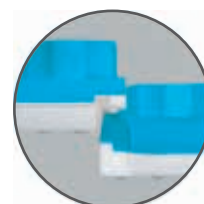
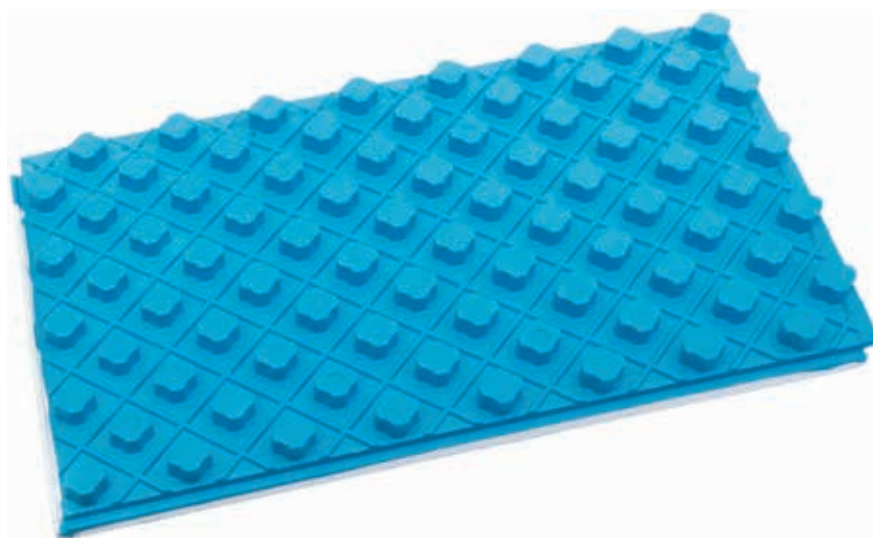
Panel in polystyrene (EPS), with surfaced bosses and tongue-and-groove edges, with PS film, pipe spacing: 7,5 cm

(*) Available on request: 30 days to order confirm



UNI EN 13163

Technical data	Norm	Model H20	Model H30	Model H30
Type	UNI EN 13163	EPS 200	EPS 150	EPS 200
Density	UNI EN 1602	30 kg/m ³	25 kg/m ³	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 200 kPa	≥ 150 kPa	≥ 200 kPa
Thermal conductivity	EN 12939	0,035 W/mK	0,035 W/mK	0,035 W/mK
Thermic resistance RD	EN 12939	0,8 m ² K/W	1,10 m ² K/W	1,10 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	0,57 m ² K/W	0,86 m ² K/W	0,86 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%	< 5%
Useful thickness Sins	UNI EN 1264	20 mm	30 mm	30 mm
Total lenght		1220 mm	1220 mm	1220 mm
Total width		770 mm	770 mm	770 mm
Total thickness		50 mm	65 mm	65 mm
Pipe spacing		75 mm	75 mm	75 mm
External Ø installed pipes		16-17-20 mm	16-17-20 mm	16-17-20 mm
Pack		10,8 m ²	9 m ²	9 m ²





UNI EN 13163

Step Floor phono-insulating panel

Size	Density	Pack m ²	Code
1000 x 500 x 57 / H30	23 kg/m ³	6	28134096

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

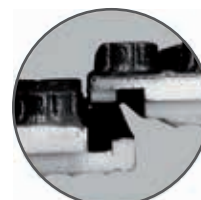
Technical data	Norm	Model H50
Type	UNI EN 13163	EPS-T
Density	UNI EN 1602	23 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 100 kPa
Dinamic stiffness	EN 29052-1 / UNI EN 13163	≤ 30 MN/m ³ /SD30
Compressibility	EN 12431 / UNI EN 13163	≤ 2 mm/CP2
Delta Lw ** (Index of evaluation of attenuation of the level of sound pressure on the walkway)	UNI EN 12354-2	26 dB
Thermal conductivity	EN 12939	0,04 W/mK
Thermic resistance RD	EN 12939	0,9 m ² K/W
Thermal resistance (Sins/kins)	UNI EN 1264	0,75 m ² K/W
Class of reaction at fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Useful thickness Sins	UNI EN 1264	30 mm
Total lenght		1030 mm
Total width		530 mm
Total thickness		57 mm
Film thickness		0,4 mm
Pipe spacing		50 mm
External Ø pipes		16-17 mm
Pack		6 m ²

Reference to technical data table:

**** forecast calculation for systems with "slab + resilient layer" system (floating flooring), valid for concrete and cement block floors, as per the simplified model set forth by standard EN 12354-2, table C1.**

Conditions:

mass per unit of area of the slab: 100 kg/m² - dynamic rigidity of the resilient slab: 30MN/m³



Floor system



Step Combi Floor phono-insulating panel

Size	Density	Pack m ²	Code
1400 x 800 x 54 / H35 (*)	23 kg/m ³	6,72	28134090

Panel in elastic expanded polystyrene (EPS-T) , thermic and acoustic insulated, with surface bosses and cylindrical edges, coupled with a moulded film of rigid polystyrene. Pipe spacing 5 cm.

(*) Available on request: 30 days to order confirm



UNI EN 13163

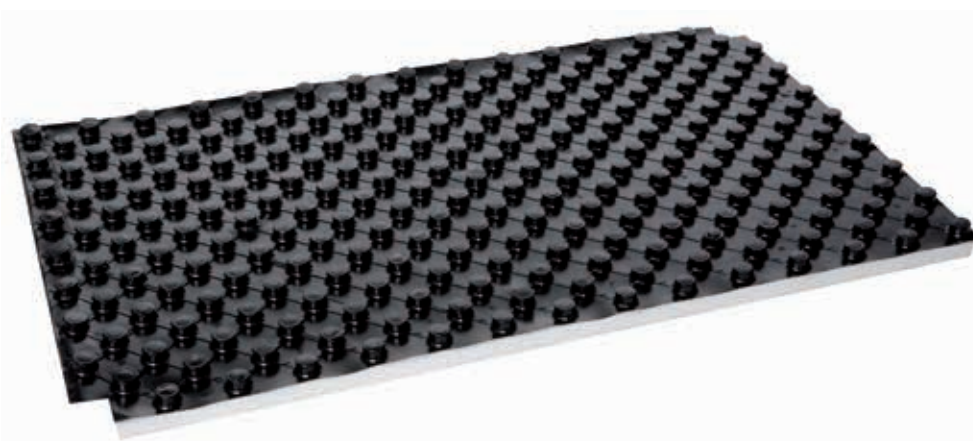
Technical data	Norm	Model H35
Type	UNI EN 13163	EPS-T
Density	UNI EN 1602	23 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 100 kPa
Dinamic stiffness	EN 29052-1 / UNI EN 13163	< 30 MN/m ³ /SD30
Compressibility	EN 12431 / UNI EN 13163	≤ 2 mm/CP2
Delta Lw ** (Index of evaluation of attenuation of the level of sound pressure on the walkway)	UNI EN 12354-2	26 dB
Thermal conductivity	EN 12939	0,04 W/mK
Thermic resistance RD	EN 12939	0,9 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	0,87 m ² K/W
Class of reaction at fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Useful thickness Sins	UNI EN 1264	35 mm
Total lenght		1450 mm
Total width		850 mm
Total thickness		54 mm
Film thickness		0,6 mm
Pipe spacing		50 mm
External Ø pipes		16 mm
Pack		6,72 m ²

Reference to technical data table:

**** forecast calculation for systems with "slab + resilient layer" system (floating flooring), valid for concrete and cement block floors, as per the simplified model set forth by standard EN 12354-2, table C1.**

Conditions:

mass per unit of area of the slab: 100 kg/m² - dynamic rigidity of the resilient slab: 30MN/m³





Plan Floor insulating panel

Size	Density	Pack m ²	Code
1100 x 600 x 30 / H30	30 kg/m ³	10,56	28130072
1100 x 600 x 30 / H30 (*)	25 kg/m ³	10,56	28130075

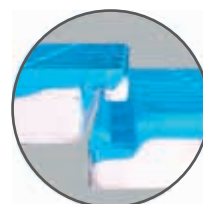
Smooth panel in polystyrene (EPS) for thermic insulating, with surface marks for laying pipes and perimetral slots. Coated in stiff polystyrene film. Bosses passage 5 cm

(*) Available on request: 30 days to order confirm

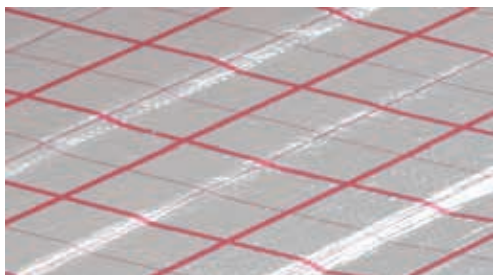


UNI EN 13163

Technical data	Norm	Model H30	Model H30
Type	UNI EN 13163	EPS 150	EPS 200
Density	UNI EN 1602	25 kg/m ³	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 150 kPa	≥ 200 kPa
Thermal conductivity	EN 12939	0,035 W/mK	0,035 W/mK
Thermic resistance RD	EN 12939	0,85 m ² K/W	0,85 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	0,85 m ² K/W	0,85 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%
Useful thickness Sins	UNI EN 1264	30 mm	30 mm
Total lenght		1120 mm	1120 mm
Total width		620 mm	620 mm
Total thickness		30 mm	30 mm
Film thickness		0,16 mm	0,16 mm
Pipe spacing		50 mm	50 mm
Pack		10,56 m ²	10,56 m ²



Floor system



Roll Floor insulating panel

Size	Density	Pack m ²	Code
10000 x 1000 x 30 / H30	25 kg/m ³	10	28134250
10000 x 1000 x 40 / H40 (*)	25 kg/m ³	10	28134252
10000 x 1000 x 50 / H50 (*)	25 kg/m ³	10	28134254

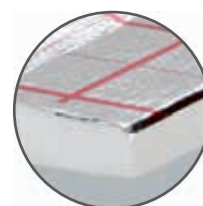
Smooth roll panel consisting of slats (dimensions: 1000 x 1000 mm) made with moulded expanded polystyrene (EPS) for thermal insulation, combined with an aluminium HDPE film with red laying mark, 5 cm interval and self-adhesive edge.

(*) Available on request: 30 days to order confirm



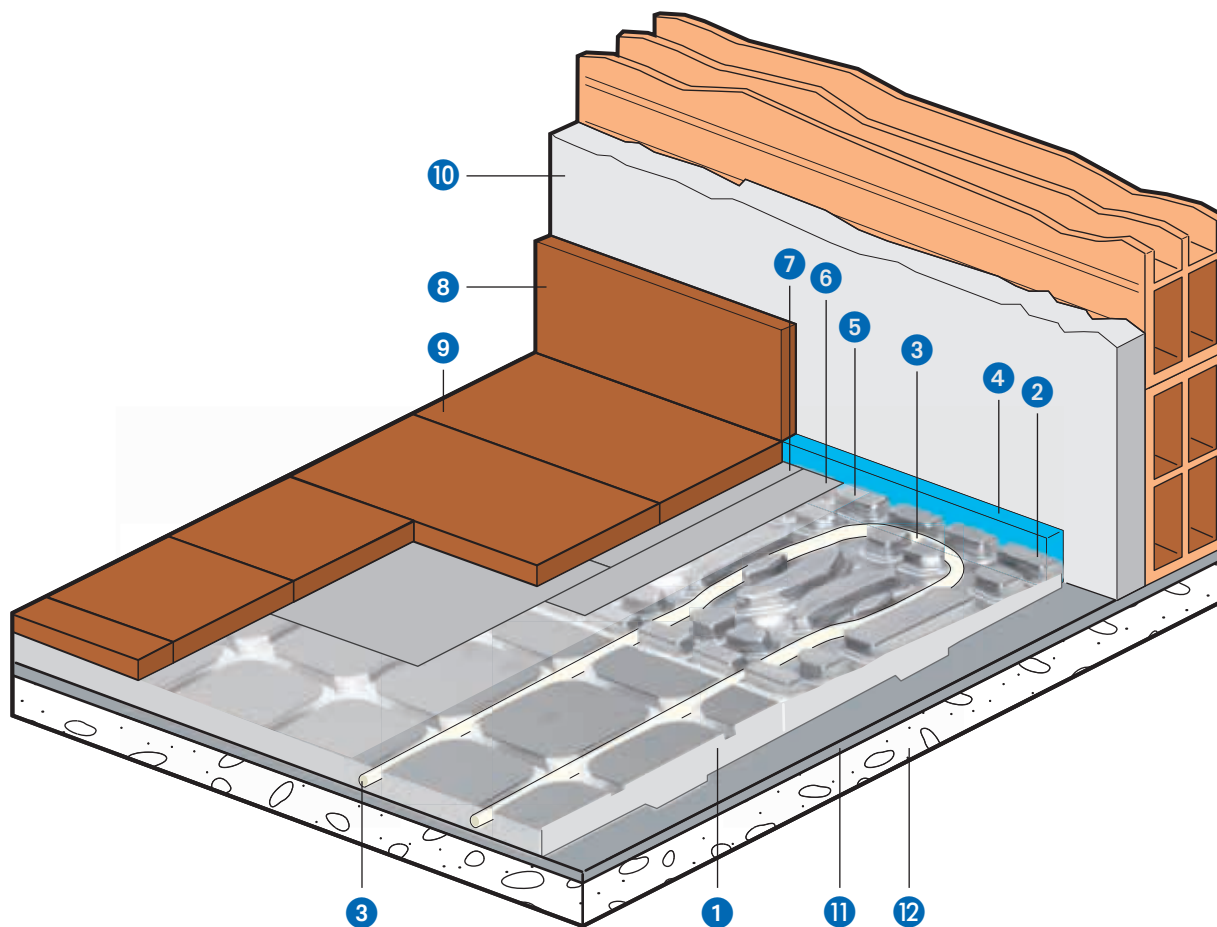
UNI EN 13163

Technical data	Norm	Model H30	Model H40	Model H50
Type	UNI EN 13163	EPS 150	EPS 150	EPS 150
Density	UNI EN 1602	25 kg/m ³	25 kg/m ³	25 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 150 kPa	≥ 150 kPa	≥ 150 kPa
Thermal conductivity	EN 12939	0,035 W/mK	0,035 W/mK	0,035 W/mK
Thermic resistance RD	EN 12939	0,85 m ² K/W	1,15 m ² K/W	1,45 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	0,85 m ² K/W	1,15 m ² K/W	1,45 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%	< 5%
Useful thickness Sins	UNI EN 1264	30 mm	40 mm	50 mm
Total lenght		10.000 mm	10.000 mm	10.000 mm
Total width		1.000 mm	1.000 mm	1.000 mm
Total thickness		30 mm	40 mm	50 mm
Coating thickness		0,16 mm	0,16 mm	0,16 mm
Pipe spacing		50 mm	50 mm	50 mm
Pack		10 m ²	10 m ²	10 m ²





Dry System - Emmeti Dry Alu Floor



The new Emmeti Dry Alu Floor system represents the ideal solution for installations that require minimum thicknesses, reduced weight on the floors and quick operational start-up of the system.

In fact, Emmeti Dry Alu Floor has been designed for installations with dry application, without screed, applicable above existing floors or completely flat sub-bases.

The pipes are laid in coils.

Available in two different thicknesses (30 and 40 mm total) it's particularly suited for application in building renovations.

The system is composed of:

- A moulded expanded polystyrene panel (type EPS 200) for thermal insulation, with shaped surface with longitudinal and orthogonal chases (pitch 150 mm) for 17x2 pipe, coupled with an aluminium conductive foil (thickness 0.3 mm).
- A moulded expanded polystyrene panel (type EPS 200) for thermal insulation, with shaped surface with longitudinal, orthogonal and curved chases for 17x2 pipe, coupled with a rigid polystyrene film, for the realization of the head curves and the crossings corresponding to the doors and collectors.
- A polyethylene separation sheet
- Two galvanized steel plates (with and without adhesive side), for the realization of the dual upper layer for thermal conduction and distribution of the load.

Flooring

In the case of flooring, it is recommended that the type underlayment with joints, laid without glue.

For the adhesion of floor coverings of ceramic or stone type, it is necessary to use specialized adhesives for metal surfaces (typically a polyurethane glues), providing the joints of at least 4/5 mm and grouting with suitable fillers elastic. It should the tiles are of no larger than 40 cm per side.

Construction

- 1 Dry Alu Floor panel with aluminium foil
- 2 Dry Alu Floor head panel
- 3 Emmeti pipe PE-Xa 17x2
- 4 Perimeter insulation strip
- 5 Polyethylene separation sheet
- 6 Galvanized steel plate (first layer)
- 7 Galvanized steel plate with adhesive (second layer) glued to the first
- 8 Skirting
- 9 Floor
- 10 Plaster
- 11 Self-levelling layer
- 12 Slab

Floor system



Dry Alu Floor insulating panel

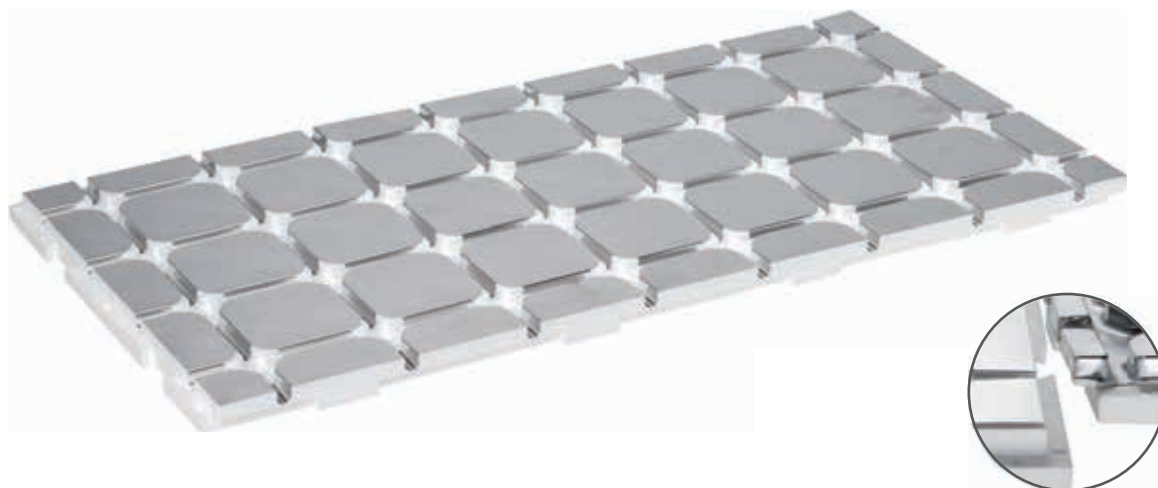
Size	Pack m ²	Code
1200 x 600 x 28 / H10	11,52	28134100
1200 x 600 x 38 / H20	8,64	28134102

Polystyrene panel type EPS 200, conforming to UNI EN 13163, with dovetail joints on the 4 sides and upper aluminium foil. Laying pitch 150 mm. Suitable for coil circuits.



UNI EN 13163

Technical data	Norm	Model H10 (panel)	Model H20 (panel)
Type	UNI EN 13163	EPS 200	EPS 200
Density	UNI EN 1602	30 kg/m ³	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 250 kPa	≥ 200 kPa
Thermal conductivity	EN 12939	0,034 W/mK	0,035 W/mK
Thermic resistance RD	EN 12939	0,59 m ² K/W	0,88 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	0,29 m ² K/W	0,57 m ² K/W
Class of reaction of fire	UNI EN ISO 11925	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%
Useful thickness Sins	UNI EN 1264	10 mm	20 mm
Total lenght		1215 mm	1215 mm
Total width		615 mm	615 mm
Total thickness		28 mm	38 mm
Al thickness		0,3 mm	0,3 mm
Pipe spacing		150 mm	150 mm
External Ø installed pipes		17 mm	17 mm
Pack		11,52 m ²	8,64 m ²





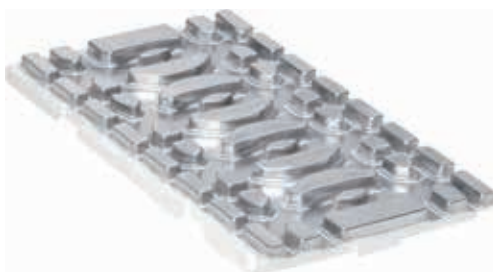
UNI EN 13163

Head Dry Alu Floor insulating panel

Size	Pack m ²	Code
600 x 300 x 28 / H10	5,76	28134104
600 x 300 x 38 / H20	4,32	28134106

Polystyrene panel type EPS 200, conforming to UNI EN 13163, with dovetail joints on the 4 sides and upper rigid PS foil. Suitable for realizing the head curves of the coil circuits, with pitch 150 mm.

Technical data	Norm	Model H10 (headI)	Model H20 (headI)
Type	UNI EN 13163	EPS 200	EPS 200
Density	UNI EN 1602	30 kg/m ³	30 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 250 kPa	≥ 200 kPa
Thermal conductivity	EN 12939	0,034 W/mK	0,035 W/mK
Thermic resistance RD	EN 12939	0,59 m ² K/W	0,88 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	0,29 m ² K/W	0,57 m ² K/W
Class of reaction of fire	UNI EN ISO 11925	Euroclass E	Euroclass E
Water absorption	EN 12087	< 5%	< 5%
Useful thickness Sins	UNI EN 1264	10 mm	20 mm
Total lenght		615 mm	615 mm
Total width		315 mm	315 mm
Total thickness		28 mm	38 mm
Film Thickness		0,3 mm	0,3 mm
Pipe spacing		150 mm	150 mm
External Ø installed pipes		17 mm	17 mm
Pack		5,76 m ²	4,32 m ²



Galvanized steel plate, thickness 1 mm

Size	Pack m ²	Code
600 x 600 x 1 (*)	3,6	28134108
600 x 300 x 1 (*)	3,6	28134112
600 x 600 x 1 (**)	3,6	28134110
600 x 300 x 1 (**)	3,6	28134114

Nota: per la posa dei pavimenti finiti, utilizzare colle di tipo bicomponente epossipoliuretaniche specifiche per sottofondi metallici riscaldati, la cui scelta spetta comunque al posatore, in funzione del tipo di pavimentazione. Sono esclusi i parquet flottanti, che non richiedono l'incollaggio.

(*) Without adhesive side - (**) With adhesive side

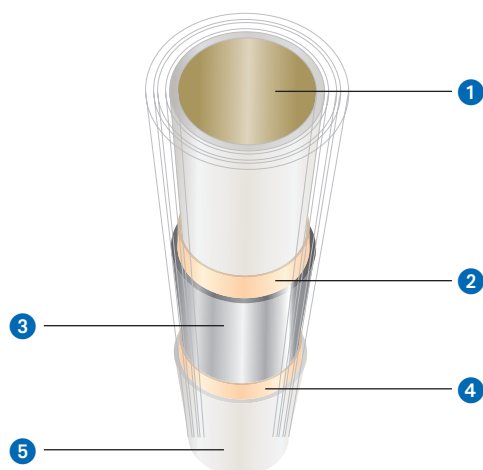


Insulating perimeter strip

Size	Mts. pack	Code
5 x 100 mm	50	28130492

In closed-cell expanded polyethylene, with adhesive band for fixing to a wall.

Floor system



UNI EN ISO 21003

Emmeti Alpert pipe

Classes of application (UNI EN ISO 21003 / Operating pressures (bar): 2/10 bar, 5/10 bar - Maximum operating temperature: 70 °C - Maximum operating pressure: 10 bar - Thermal conductivity: 0,45 W/m K - Coefficient of linear expansion: 0,026 mm/m °C - Minimum radius of bending: 5 x D pipe - Pipe roughness: 7 µm - Water capacity: 0,11 l/m - Application: heating / sanitary plants

Construction

- 1 Inner pipe PE-RT
- 2 Bonding layer connecting the inner pipe to the aluminium pipe
- 3 Horizontal-roller-position welding
- 4 Bonding layer connecting the outer pipe to the aluminium pipe
- 5 External pipe PE-RT

Size	Mts. pack	Code
16 x 2	100	28107002
16 x 2	200	28107000
16 x 2	500	28107004

Multi-layer pipe for thermosanitary system, in appliance to UNI EN ISO 21003 and made from composite material using a technologically advanced processing during which PE-RT (polyethylene of raised temperature resistance) pipe is coupled with a 0.2 mm thick aluminium core, soldered at the head and externally coated with another layer of PE-RT.



PE-Xc pipe oxygen barrier

Classes of application / Operating pressures (bar): Cl. 1/10 bar - Cl. 2/8 bar - Cl. 4/10 bar - Cl. 5/8 bar - Oxygen permeability: < 0.1 g/m³ 24h - Density: 0.95 gr/m³ - Degree of reticulation: ≥60% - Softening temperature: 135 °C - Breaking load: 18 MPa - Thermal conductivity: 0.38 W/mK - Average coefficient of linear expansion: 0.19 mm/m °C - Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm - Water capacity: 0,133 l/m - Application: heating/plumbing systems

Size	Mts. pack	Code
17 x 2 mm	200	28130702
17 x 2 mm	600	28130706

Pipe in high-density polyethylene, with electronic system crosslinking, certified according to standards UNI EN ISO 15875/2 and provided with an oxygen barrier in conformity with standard DIN 4726



UNI EN ISO 15875-2

PE-Xa pipe oxygen barrier

Classes of application / Operating pressures (bar): Cl. 4/6 bar - Cl. 5/6 bar - Oxygen permeability: < 0.1 g/m³ 24h - Density: 0.95 gr/m³ - Degree of reticulation: ≥70% - Softening temperature: 135 °C - Breaking load: 18 MPa - Thermal conductivity: 0.41 W/mK - Average coefficient of linear expansion: 0.14 mm/m °C - Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm - Water capacity: 0,133 l/m - Application: heating systems (not suitable for plumbing systems)

Size	Mts. pack	Code
17 x 2 mm	240	28130674
17 x 2 mm	600	28130676

Pipe in high-density polyethylene, with peroxide crosslinking, certified according to standards UNI EN ISO 15875/2 and provided with an oxygen barrier in conformity with standard DIN 4726.



Accessories Emmeti Floor



Fluidising additive for concrete footings

Size	l/pack	Code
	10	28130073
	25	28130071

It reduces considerably the mixing water required, significantly accelerates the mechanical strength of the concrete and raises its thermal conductivity. Comforms with standard UNI 10765. Ratio: 1 litre for 100 kg cement.



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)

Kg/pack	Pcs. pack	Code
5	1	02706396



Regenerating

Kg/pack	l/pack	Code
10 (*)	9,43	02706300

Regenerating, anti-incrustation, anti-corrosive, lubricating, passivating, for heating systems in operation.

Dispensing: 1% up to 20 °F, 2% up to 30 °F, 3% over 30 °F.

(*) Item to be out of range



Regenerating liquid for new or old low-temperature heating systems

Suitable for removing biomasses and metal oxides inside low temperature heating systems, even with heating installations. It contains specific biodispersant bioacids to thoroughly remove any bacterial deposits and metal oxides. It is recommended for cleaning old systems before or during the installation of a new boiler. Non-acid and non-corrosive for metals and plastic material. The product does not alter pH levels. Suitable for all heating systems, including systems with aluminium parts.

Technical data

Appearance: Clear colourless liquid-yellow - pH: 5.5±0.5 - Density (20 °C): 1.035 kg/l - Dosage 5% (5 kg every 100 litres of water)

Size	Pcs. pack	Code
5 kg	1	02706304



System loading station

NEW

Delivery capacity: 5,2 - 50 litres/min - Static pressure H: 5 - 52 m. c. H₂O - Power supply: 230 V - 50 Hz - Current = 2,6 A - Electric power absorbed: 500 W max - Spin speed: 2900 rpm - Protection: IP44 - Tank volume: 50 litres

Size	Pcs. pack	Code
50 litres	1	02706862

Fitted with two connection pipes L = 3 m



Insulating perimeter strip

Size	Mts. pack	Code
5 x 150 mm	60	28130480
7 x 150 mm	60	28130482

In closed-cell expanded polyethylene, with adhesive surface for fixing to a wall and moveable polyethylene strip on the panel side, to seal possible interstices.



Profile for plastic expansion connection

Size	Mts. pack	Code
2000 x 35 x 20 mm (LxHxW)	50	28130032

With adhesive back and housing for insulating strip thickness 7-8 mm



Insulating strip for plastic expansion connection

Size	Mts. pack	Code
7 x 150 mm	60	28130486

In closed-cell expanded polyethylene, for profile for plastic expansion connection (cod. 28130032)



H = 45



H = 39

Pipe-fixing clip for taker

Size		Pcs. pack	Code
Ø pipes 16-20 mm	H = 45	240	28130020
Ø pipes 16-20 mm (*)	H = 39	240	28130742

In plastic material, for fixing pipes to the Plan Floor panel

(*) For plan panels H=20 mm



Reinforced pipe-fixing clip for taker

Size		Pcs. pack	Code
Ø pipes 16-20 mm	H = 42	240	28130744



Straddle clip

Size	Pcs. pack	Code
90 x 29 x 14 mm (LxHxW)	50	28130022

In plastic material, for applying to the bosses of panels to hold pipes down at critical points.
Not suitable for panels with rigid thermoformed film (type Combi).



Manual pipe-fixing clip

Size	Pcs. pack	Code
30 x 50 x 4 mm (LxHxW)	50	28130024

In plastic material, for fixing pipes at critical points.



Support bends

Size	Pcs. pack	Code
Ø pipes 16 ÷ 18 mm	10	28130026

In synthetic material, reinforced with glass fibre. They support PE-X pipes at the base of Topway manifolds.



Grille clip

Size	Pipe	Pcs. pack	Code
Grille Ø wire 3	Ø 16 ÷ 17 mm	200	28130720

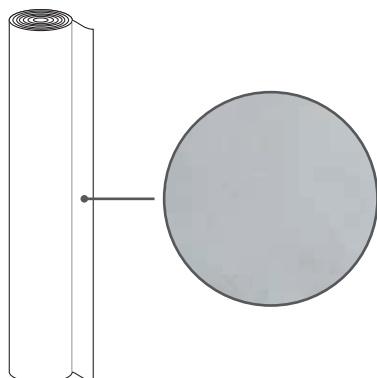
To be used with wire netting code 28141000



Guide for pipe anchoring Ø 17-20-25

Size	Pcs. pack	Code
1000 x 40 x 50 mm (LxHxW)	50	28130725
1000 x 40 x 50 mm (LxHxW) (*)	50	28130740

Modular guide for pipe anchoring Ø 17-20-25. Minimum passage 10 cm.
(*) with adhesive base



Cloth-non cloth felt

Size	m² pack	Code
2x25 m	50	28130048

In polypropylene. Thickness 4 mm. Density: 500 gr/m²

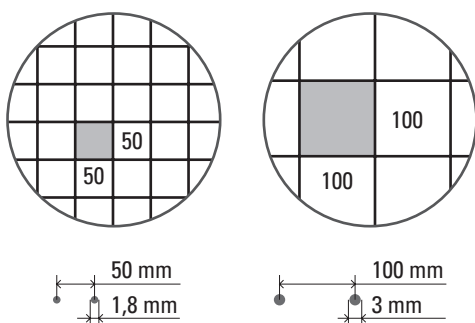
Floor system



Clip-fixing tackler

Size	Pcs. pack	Code
	1	28130042

It allows fixing of pipes to the Plan Floor panes from upright position without efforts.



Wire netting (sheets)

Size	m ² pack	Code
1 x 2 m Ø wire 1,8 mm	40	28130074
1 x 2 m Ø wire 3 mm	30	28141000

Electrowelded mesh in galvanized steel:

- Ø 1.8 mm wire with 50x50 mm mesh, pack of 20 sheets.
- Ø 3 mm wire with 100x100 mm mesh, suitable for use with the appropriate 3-wire mesh clips code 28130720, pack of 15 sheets.



Polymetric fibres for screeds

NEW

Synthetic macro fibres obtained through extrusion of synthetic polypropylene polymers with a "corrugated" profile optimised to increase the adhesion to the cement matrix of the conglomerate. They are used to reinforce "moist soil" concrete by increasing its ductility and toughness and countering shrinkage. Suitable to create heated screeds. Recommended dosage: 1kg/m³.

Size	Pcs. pack	Code
1.5 kg bag	2	28130754



Fixing clip

Size	Pcs. pack	Code
Ø 50 x L 70	50	28130037

For Ø 10 mm hole



Polyethylene sheet (in roll)

Size	Pack m ²	Code
2 x 50 m	100	28130850

Single fold sheet width 2 x 1 mt, roll of 50 mts, in polyethylene, thickness 0,2 mm



Roll dispenser

Completely dismountable, for rolls up to 600 mts long.

Size of rolls: minimum Ø 35 cm, maximum Ø 100 cm, maximum h 50 cm

Size	Pcs. pack	Code
	1	28130041

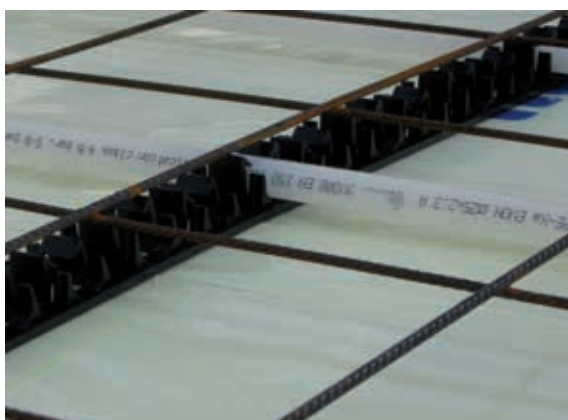
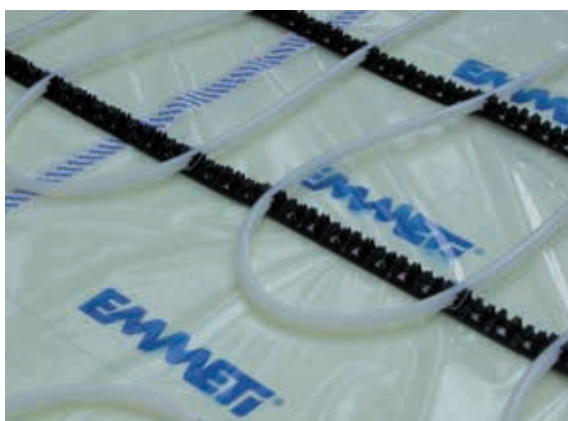
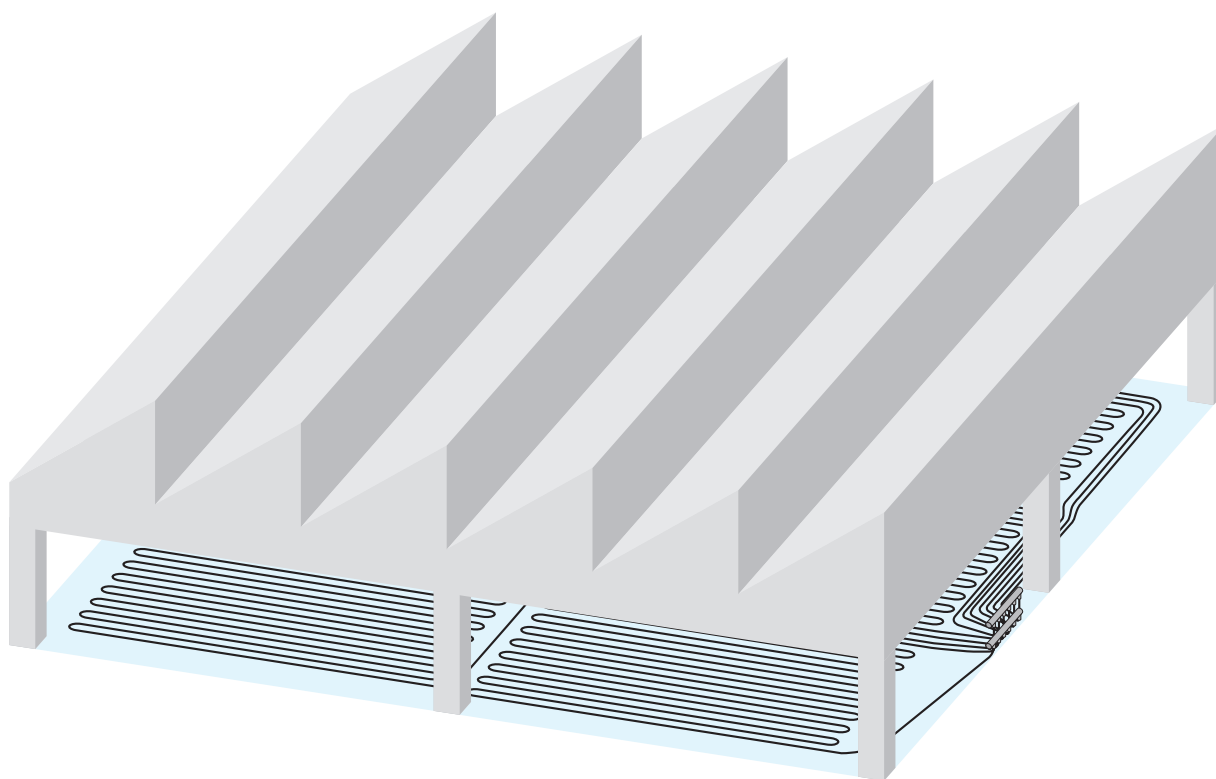


Emmeti adhesive tape

Size	Pcs. pack	Code
75 mm x 132 m	1	90200033

Emmeti Industrial Floor

Floor heating and cooling industrial system





UNI EN 13164

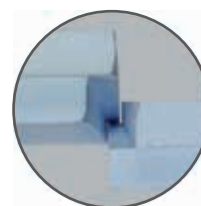
FloorMate 500-A insulating panel in extruded polystyrene

Size	Slabs pack	Pack m ²	Code
1250 x 600 x 50 (*)	8	6	28134082

Insulating plates in single-layer extruded expanded polystyrene(XPS) with smooth surface and moulded profiles on 4 sides.

(*) Available on request: 30 days to order confirm

Technical data	Norm	Model H30	Model H50
Type	UNI EN 13164	XPS500	XPS500
Density	UNI EN 1602	38-40 kg/m ³	38-40 kg/m ³
Compression resistance at 10% of crushing	UNI EN 826	≥ 500 kPa	≥ 500 kPa
Resistance to sustained compressive loads at max 2% strain after 50 years	UNI EN 1606	180 kPa	180 kPa
Modulus of elasticity in compression	UNI EN 826	25 MPa	25 MPa
Thermal conductivity	EN 12939	0,036 W/mK	0,036 W/mK
Thermic resistance RD	EN 12939	0,80 m ² K/W	1,35 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E	Euroclass E
Water absorption	UNI EN 12088	≤ 3%	≤ 3%
Freeze-thaw resistance	UNI EN 12091	≤ 1%	≤ 1%
Water vapour diffusion resistance factor	UNI EN 12086	μ=220-150	μ=220-150
Dimensional stability to temperature and conditioned humidity (23 °C; 90%)	UNI EN 1604	< 2%	< 2%
Deformation under compression load and temperature conditioned	UNI EN 1605	≤ 5%	≤ 5%
Useful thickness Sins	UNI EN 1264	30 mm	50 mm
Total lenght		1250 mm	1250 mm
Total width		600 mm	600 mm
Total thickness		30 mm	50 mm
Pack		10,5 m ²	6 m ²



Emmeti Industrial Floor



Plan Floor insulating panel

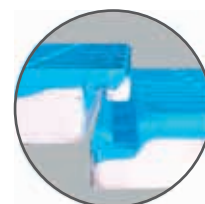
Size	Density	Pack m ²	Code
1100 x 600 x 30 / H30	30 kg/m ³	10,56	28130072

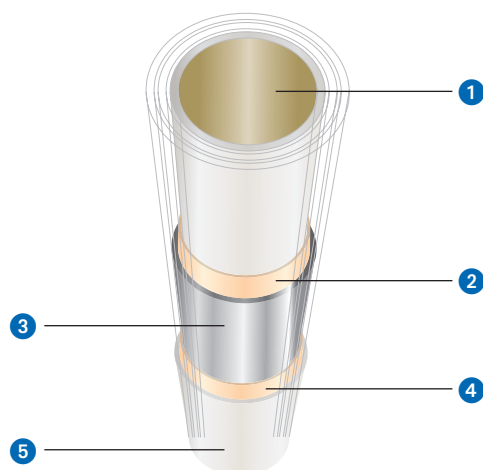
Smooth panel in polystyrene (EPS) for thermic insulating, with surface marks for laying pipes and perimetral slots. Coated in stiff polystyrene film. Bosses passage 5 cm



UNI EN 13163

Technical data	Norm	Model H30
Type	UNI EN 13163	EPS 200
Density	UNI EN 1602	30 Kg/m ³
Compression resistance an 10% of crushing	UNI EN 826	≥ 200 kPa
Thermal conductivity	EN 12939	0,035 W/mK
Thermic resistance RD	EN 12939	0,85 m ² K/W
Thermal resistance (Sins/λins)	UNI EN 1264	0,85 m ² K/W
Class of reaction to fire	UNI EN ISO 11925	Euroclass E
Water absorption	EN 12087	< 5%
Useful thickness Sins	UNI EN 1264	30 mm
Total lenght		1120 mm
Total width		620 mm
Total thickness		30 mm
Film thickness		0,16 mm
Distance between pipes		50 mm
Pack		10,56 m ²





UNI EN ISO 21003

Emmeti Alpert pipe

NEW

Classes of application (UNI EN ISO 21003 / Operating pressures (bar): 2/10 bar, 5/10 bar - Maximum operating temperature: 70 °C - Maximum operating pressure: 10 bar - Thermal conductivity: 0,45 W/m K - Coefficient of linear expansion: 0,026 mm/m °C - Minimum radius of bending: 5 x D pipe - Pipe roughness: 7 µm - Water capacity: 0,2 l/m - Application: heating / sanitary plants

Construction

- 1 Inner pipe PE-RT
- 2 Bonding layer connecting the inner pipe to the aluminium pipe
- 3 Horizontal-roller-position welding
- 4 Bonding layer connecting the outer pipe to the aluminium pipe
- 5 External pipe PE-RT

Size	Mts. pack	Code
20 x 2 mm	100	28107016
20 x 2 mm	240	28107018

Multi-layer pipe for thermosanitary system, in appliance to UNI EN ISO 21003 and made from composite material using a technologically advanced processing during which PE-RT (polyethylene of raised temperature resistance) pipe is coupled with a 0.25 mm thick aluminium core, soldered at the head and externally coated with another layer of PE-RT.



PE-Xc pipe oxygen barrier

Classes of application / Operating pressures (bar): Cl. 1/8 bar - Cl. 2/6 bar - Cl. 4/8 bar - Cl. 5/6 bar

Oxygen permeability: < 0.1 g/m³ 24h - Density: 0.95 gr/m³ - Degree of reticulation: ≥60% - Softening temperature: 135 °C - Breaking load: 18 MPa - Thermal conductivity: 0.38 W/mK - Average coefficient of linear expansion: 0.19 mm/m °C - Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm - Water capacity: l/m 0,201 l/m (20x2) - Water capacity: l/m 0,327 l/m (25x2,3) - Application: heating/plumbing systems

Size	Mts. pack	Code
20 x 2 mm	500	28130708

Pipe in high-density polyethylene, with electronic system crosslinking, certified according to standards UNI EN ISO 15875/2 and provided with an oxygen barrier in conformity with standard DIN 4726



UNI EN ISO 15875-2

PE-Xa pipe oxygen barrier

Classes of application / Operating pressures (bar): Cl. 4/6 bar - Cl. 5/6 bar - Oxygen permeability: < 0.1 g/m³ 24h - Density: 0.95 gr/m³ - Degree of reticulation: ≥70% - Softening temperature: 135 °C - Breaking load: 18 MPa - Thermal conductivity: 0.41 W/mK - Average coefficient of linear expansion: 0.14 mm/m °C - Minimum bending radius: 5 x D pipe - Internal roughness: 7 µm - Water capacity: l/m 0,201 l/m (20x2) - Water capacity: l/m 0,327 l/m (25x2,3) - Application: heating systems

Size	Mts. pack	Code
20 x 2 mm	500	28130684
25 x 2,3 mm	500	28130686

Pipe in high-density polyethylene, with peroxide crosslinking, certified according to standards UNI EN ISO 15875/2 and provided with an oxygen barrier in conformity with standard DIN 4726.

Emmeti Industrial Floor Accessories



Insulating perimeter strip

Size	Mt. pack	Code
10 x 250 mm	50	28130484

In close-cell expanded polyethylene, with adhesive surface for fixing to a wall and moveable polyethylene strip on the panel side, to seal possible interstices



Reinforced pipe-fixing clip for taker

Size		Pcs. pack	Code
Ø pipes 16-20 mm	H = 42	240	28130744



Manual pipe-fixing clip

Size	Pcs. pack	Code
30 x 50 x 4 mm (LxHxW)	50	28130024

In plastic material, for fixing pipes at critical points.



Straddle clip

Size	Pcs. pack	Code
90 x 29 x 14 mm (LxHxW)	50	28130022

In plastic material, for applying to the bosses of panels to hold pipes down at critical points.



Grille clip

Size	Pipe	Pcs. pack	Code
Grille Ø 6	Ø 20 mm	100	28130028
Grille Ø 6	Ø 25 mm	100	28130746



H = 45



H = 39

Pipe-fixing clip for taker

Size		Pcs. pack	Code
Ø pipes 16-20 mm	H = 45	240	28130020
Ø pipes 16-20 mm (*)	H = 39	240	28130742

In plastic material, for fixing pipes to the Plan Floor panel

(*) For plan panels H=20 mm



Guide for pipe anchoring Ø 17-20-25

Size	Pcs. pack	Code
1000 x 40 x 50 mm (LxHxW)	50	28130725
1000 x 40 x 50 mm (LxHxW) (*)	50	28130740

Modular guide for pipe anchoring Ø 17-20-25. Minimum passage 10 cm.
(*) with adhesive base



Polyethylene sheet (in roll)

Size	Pack m²	Code
2 x 50 m	100	28130850

Single fold sheet width 2 x 1 mt, roll of 50 mts, in polyethylene, thickness 0,2 mm



Emmeti adhesive tape

Size	Pcs. pack	Code
75 mm x 132 m	1	90200033



Support bends

Size	Pcs. pack	Code
Ø pipes 25 mm	10	28130748
Ø pipes 20 mm	10	28130027

In synthetic material, reinforced with glass fibre. They support PE-X pipes at the base of Topway manifolds.



EPD24PM dehumidifier with floor-standing casing

Size	Pcs. pack	Code
	1	07300110

Dimensions of installed unit: W 796 x H 649 x D 229 mm



EPD24PI dehumidifier for recessed wall mounting

Size	Pcs. pack	Code
	1	07300210

Dimensions unit: W 721,5 x H 573 x D 201,5 mm



Recessed wall box for EPD24PI

Size	Pcs. pack	Code
	1	07301010

Made from galvanised steel sheet thickness 0,8 mm. Dimensions: W 760 x H 620 x D 209 mm



Front panel for EPD24PI

Size	Pcs. pack	Code
	1	07301020

For built-in wall mounted.
Made from white wood lacquered MDF. Dimensions: W 790 x H 630 x D 18 mm



Anodised aluminium grille for EPD24PI

Size	Pcs. pack	Code
	1	07301030

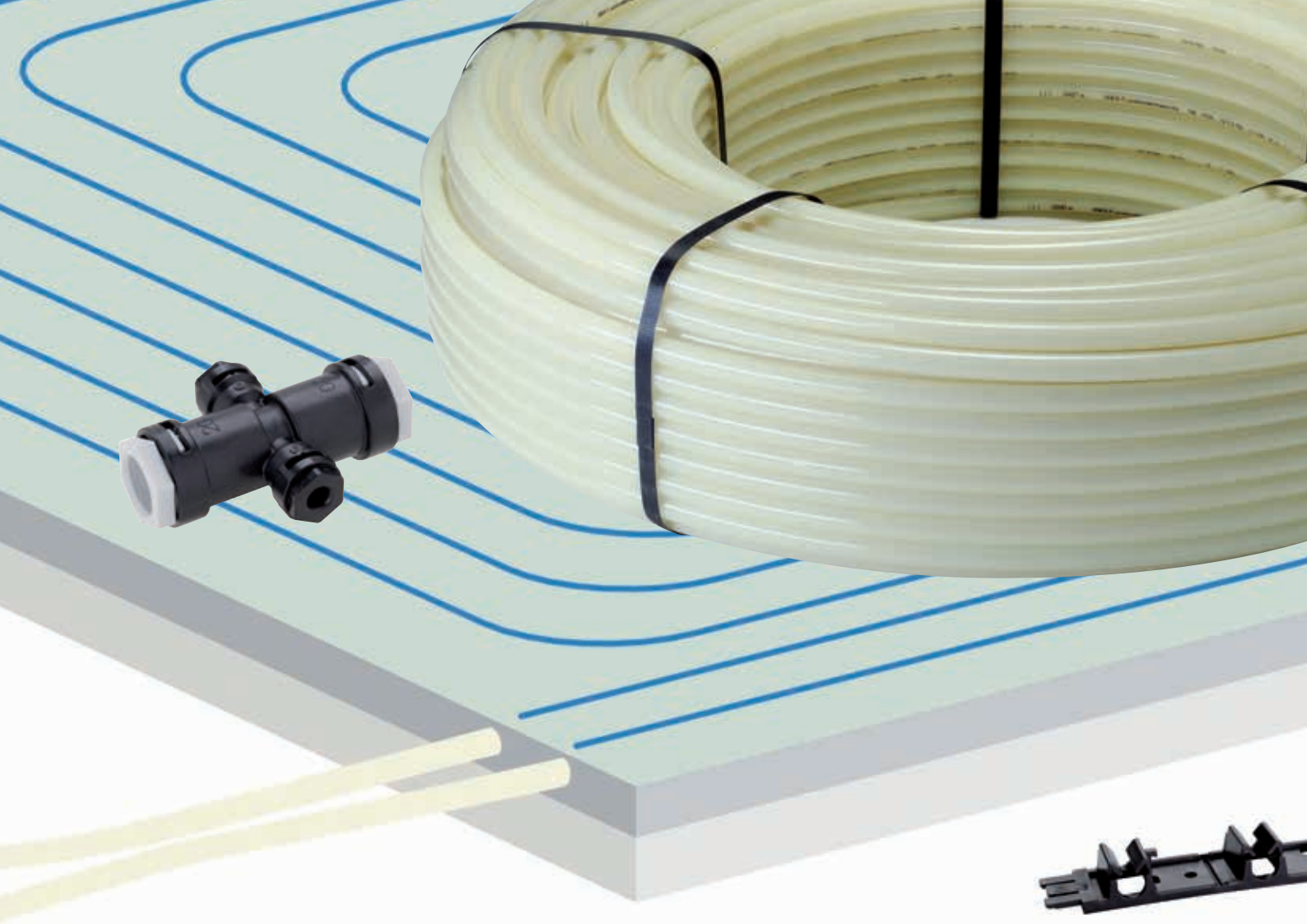
For hole W=670 x H=300 mm



EPD26SI dehumidifier for recessed and ceiling mounting

Size	Pcs. pack	Code
	1	07300520

Dimensions unit: W 668 x H 247 x D 550 mm



Emmeti wall and ceiling

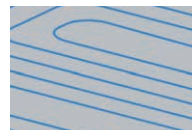
Wall and ceiling heating and cooling systems

> Under plaster system



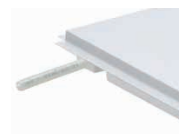
241

> Plasterboard heating and cooling system



244

> Metal modules heating and cooling system

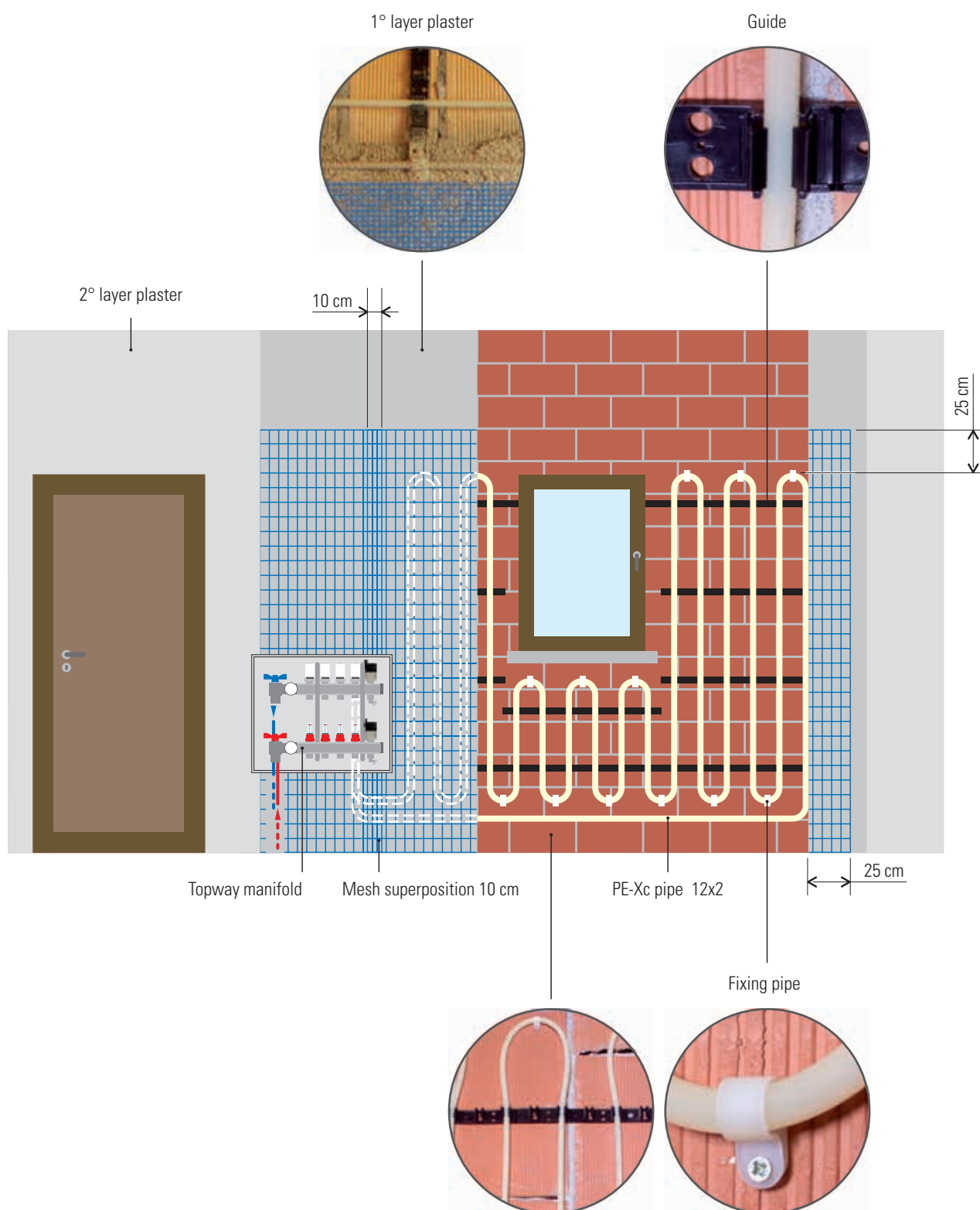


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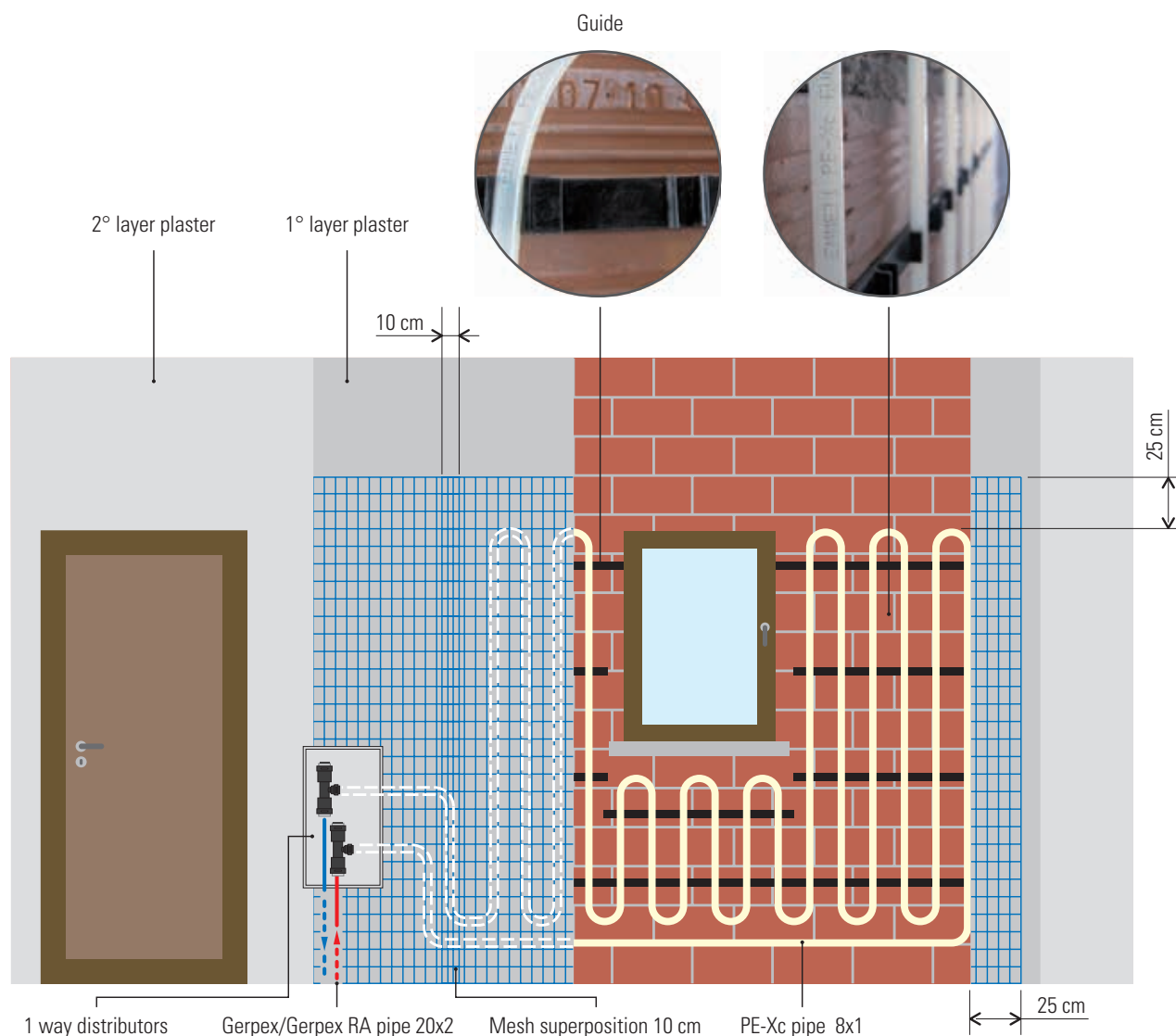


System 12



Under plaster system

System 8

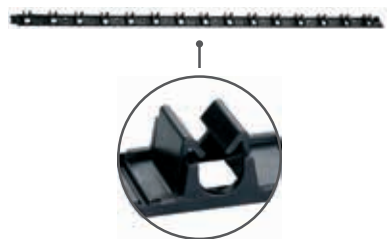


PE-Xc pipe oxygen barrier

Classes of application / Operating pressures (bar): Cl. 1/8 bar - Cl. 2/8 bar - Cl. 4/10 bar - Cl. 5/8 bar (5/10 bar for size 12x1) - Oxygen permeability: $< 0.1 \text{ g/m}^3 \text{ 24h}$ - Density: 0.95 gr/m^3 - Degree of reticulation: $\geq 60\%$ - Range of use: $-100 / +110^\circ \text{C}$ - Softening temperature: 135°C - Breaking load: 18 MPa - Thermal conductivity: 0.38 W/mK - Average coefficient of linear expansion: $0.19 \text{ mm/m } ^\circ \text{C}$ - Minimum bending radius: $5 \times D \text{ pipe}$ - Surface roughness of the inner pipe: $7 \text{ } \mu\text{m}$ - Water capacity: 0.05 l/m - Application: heating/plumbing systems

Size	Mts. pack	Code
8 x 1 mm	100	28130750
12 x 2 mm	240	28130718

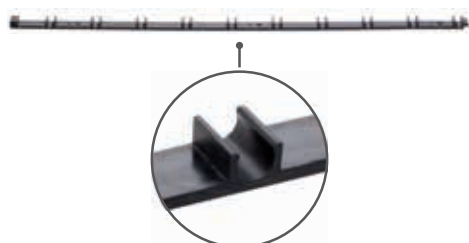
Pipe in high-density polyethylene, with electronic system crosslinking, certified according to standards EN ISO 15875/2 and UNI 9338 and provided with an oxygen barrier in conformity with standard DIN 4726



Guide for pipe anchoring Ø 12 mm

Size	Pcs. pack	Code
900 x 20 x 35 mm (LxHxW)	30	28130724

Modular guide for pipe anchoring Ø 12 mm, with minimum step 60 mm



Guide for pipe anchoring Ø 8 mm

Size	Pcs. pack	Code
500 x 9 x 15 mm (LxHxW)	150	28130752

Modular guide for pipe anchoring Ø 8 mm, with minimum step 50 mm



Fixing pipe for pipe Ø 12 mm

Size	Pcs. pack	Code
For pipe Ø 12 mm	50	28130723



Roll of mesh in fibreglass for plaster

Size	Conf. m ²	Code
50 x 1 mm	50	28130726



Heat-sensitive sheet

Size	Pcs. pack	Code
300 x 90 mm (L x H)	1	28130730

Minimum takeable temperature: 25°C

Range of temperature for optimally reading: 25-30°C



Shear for plastic pipe

Size	Pcs. pack	Code
Ø 8-25	1	28130760
Spare blade for cutter	1	28130761

Shears to cut thin-wall rigid plastic pipes without chippings.



1-way distributor

Size	Pcs. pack	Code
20x8x20	2	28134306



2-ways distributor

Size	Pcs. pack	Code
20x8x8x20	2	28134308



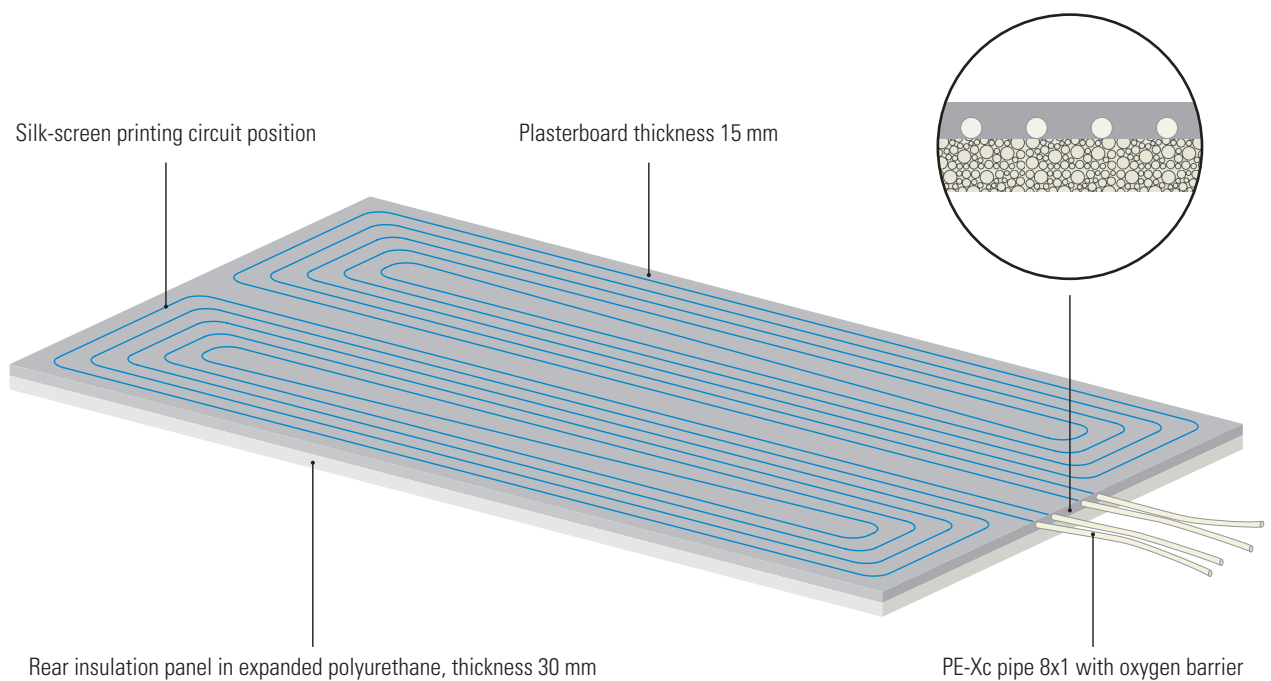
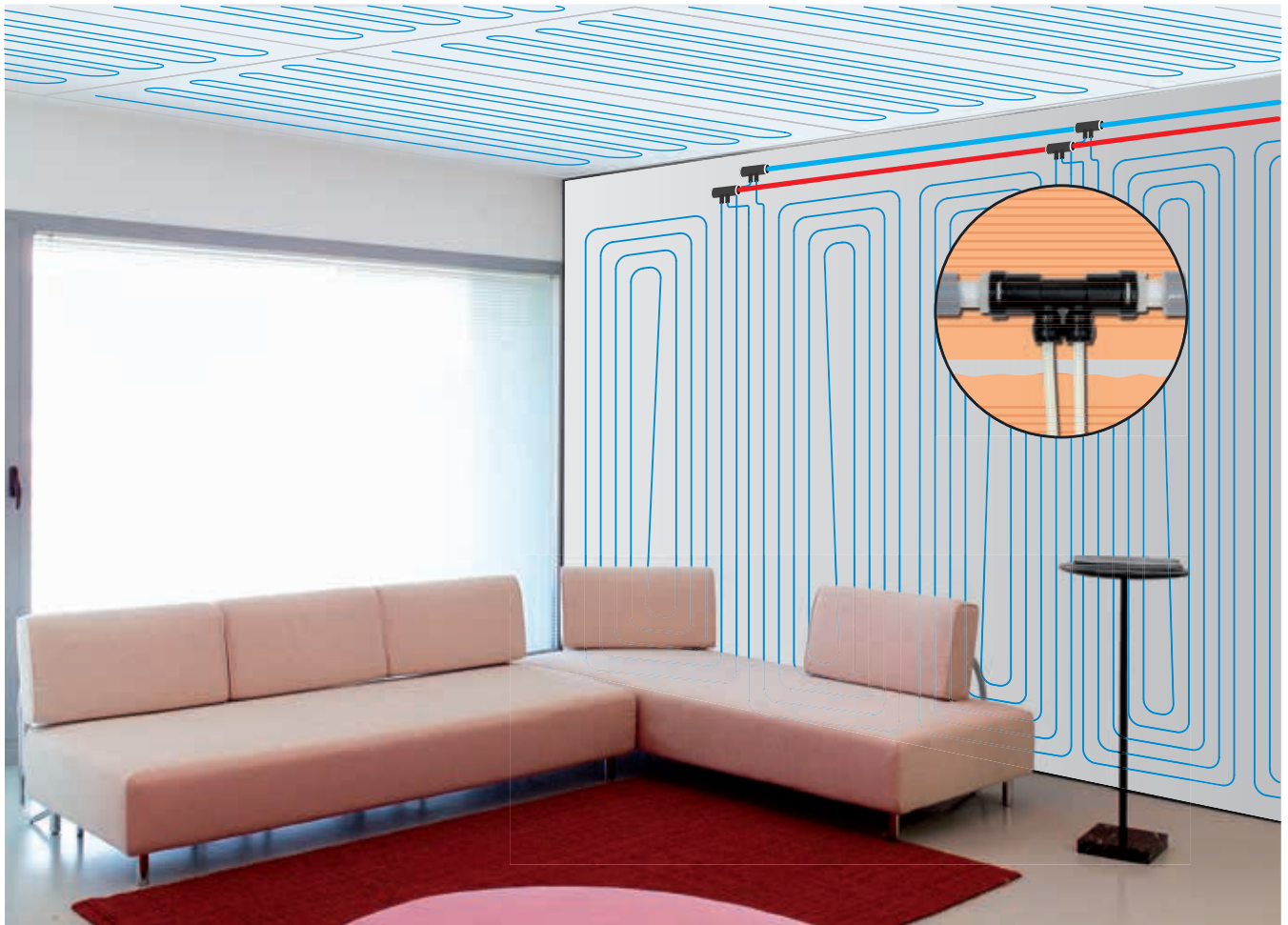
Plug

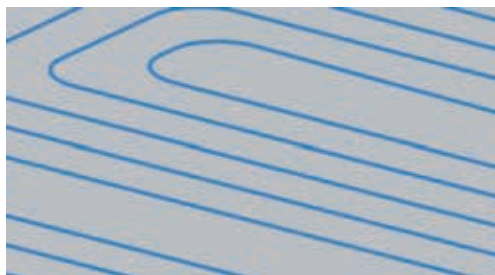
Size	Pcs. pack	Code
20	20	28134314
8	20	28134316

Suitable for plugging unused holes of fittings and distributors of a matching size

Emmeti Plasterboard

Plasterboard heating and cooling system





UNI EN 13163/EN 520

Radiant panels prefabricated in plasterboard type A and EPS

Size	Nr. internal circuits	m ² /panel	Code
2000 x 1200 x 45 mm	2	2,40	28134340
1000 x 1200 x 45 mm	1	1,20	28134342
500 x 1200 x 45 mm	1	0,60	28134352
2000 x 600 x 45 mm	1	1,20	28134344

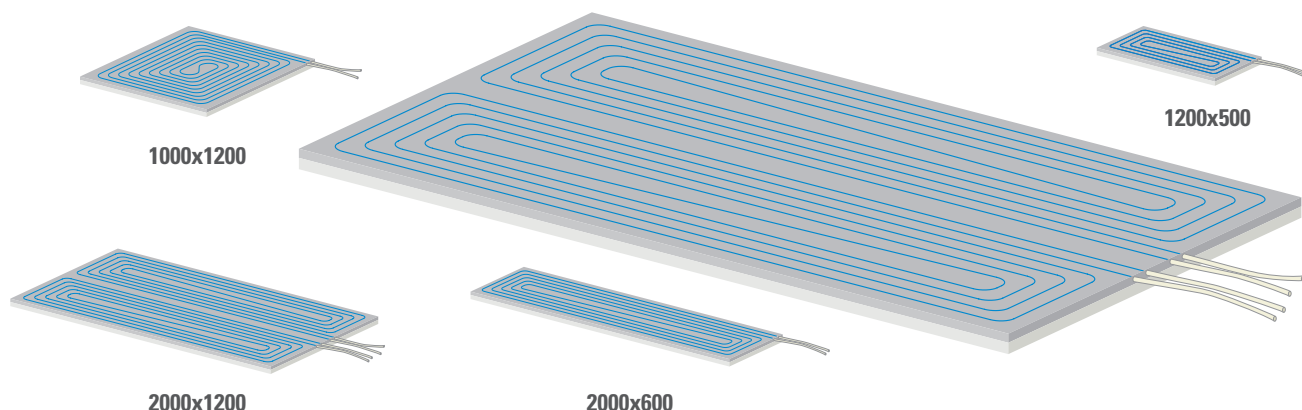
Prefabricated radiant panel consisting of 1 or 2 spiral circuits in a PE-Xc DN 8x1 pipe with a DIN 4726 standard compliant oxygen barrier, built into a type A plasterboard slab, thickness 15 mm and coupled with an insulating panel in EPS 250, thickness 30 mm.

Plasterboard technical data	Norm	U.M.	Referring
Type	EN 520 - 3.2	-	Type A
Thickness	EN 520 - 5.4	mm	15 ± 0,5
Out of squareness	EN 520 - 5.5	mm/m	≤ 2,5
Weight		Kg/m ²	11,90
Class of reaction to fire	EN 13501-1	-	A2-s1,d0 (B)
Flexural breaking load	EN 520 - 5.7	N	Long. 650 - Transv. 250
Surface hardness	EN 1520 - 5.12	mm	-
Thermal conductivity λ	EN 12524	W/mK	0,25
Resistance factor upon diffusion of steam μ	EN 12524	-	Dry range: 10 - Wet range: 4

Edges	Longitudinal	Head
2000 x 1200	2 thinned	2 straight
1000 x 1200	2 thinned	2 straight
500 x 1200	2 straight	2 thinned
2000 x 600	1 thinned - 1 straight	2 straight

EPS technical data	Norm	U.M.	Referring
Type	EN 13163	-	EPS 250
Compression resistance	EN 826	KPa	≥250
Thermal conductivity λ	EN 12939	W/mK	0,032
Water absorption due to partial immersion	EN 12087	%	WL(T)3 ≤ 3,0
Fire classification	EN 13501-1	Euroclass	E

Pipe technical data	Norm	U.M.	Referring
Type	UNI EN ISO 15875/2		PE-Xc
Size		mm	8 x 1
Oxygen permeability	DIN 4726	g/m ³ 24h	< 0,1
Thermal conductivity λ	DIN 52612	W/m K	0,38
Average linear expansion coefficient		mm/m °C	0,19
Degree of reticulation	UNI EN 579	%	≥ 60
Minimum radius of curvature		mm	5 x D pipe
Medium surface roughness		μ	7
Length of individual circuit		m	20,8 (panel 2000x1200 and 2000x600) 21,5 (panel 1000x1200) 9,5 (panel 500x1200)
Circuit/passage length		cm	Spiral/5
Water capacity		l/m	0,028



Plasterboard system



UNI EN 13163/EN 520

Radiant panels prefabricated in plasterboard type H2 and EPS

Size	Nr. internal circuits	m ² /panel	Code
1000 x 1200 x 45 mm	1	1,20	28134348

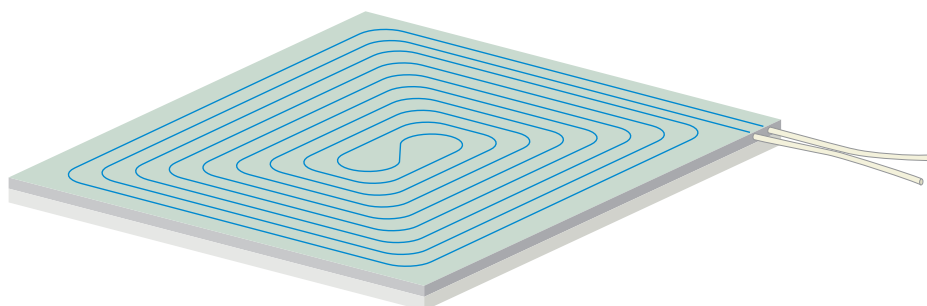
Prefabricated radiant panel consisting of 1 or 2 spiral circuits in a PE-Xc DN 8x1 pipe with a DIN 4726 standard compliant oxygen barrier, built into a type H2 (low water absorption) plasterboard slab, thickness 15 mm and coupled with an insulating panel in EPS 250, thickness 30 mm.

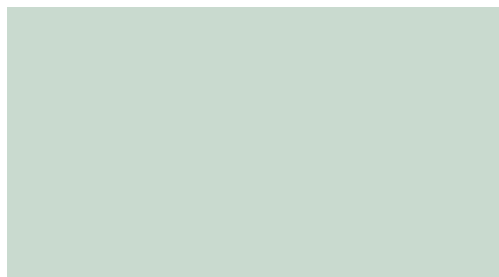
Plasterboard technical data	Norm	U.M.	Referring
Type	EN 520 - 3.2	-	Type A
Thickness	EN 520 - 5.4	mm	15 ± 0,5
Out of squareness	EN 520 - 5.5	mm/m	≤ 2,5
Weight		Kg/m ²	11,80
Class of reaction to fire	EN 13501-1	-	A2-s1,d0 (B)
Flexural breaking load	EN 520 - 5.7	N	Long. 650 - Transv. 250
Surface hardness	EN 1520 - 5.12	mm	-
Thermal conductivity λ	EN 12524	W/mK	0,25
Resistance factor upon diffusion of steam μ	EN 12524	-	Dry range: 10 - Wet range: 4

Edges	Longitudinal	Head
1000 x 1200	2 thinned	2 straight

EPS technical data	Norm	U.M.	Referring
Type	EN 13163	-	EPS 250
Compression resistance	EN 826	KPa	≥ 250
Thermal conductivity λ	EN 12939	W/m K	0,036
Water absorption due to partial immersion	EN 12087	%	WL(T)3 ≤ 3,0
Fire classification	EN 13501-1	Euroclass	E

Pipe technical data	Norm	U.M.	Referring
Type	UNI EN ISO 15875/2		PE-Xc
Size		mm	8 x 1
Oxygen permeability	DIN 4726	g/m ³ 24h	< 0,1
Thermal conductivity λ	DIN 52612	W/m K	0,38
Average linear expansion coefficient		mm/m °C	0,19
Degree of reticulation	UNI EN 579	%	≥ 60
Minimum radius of curvature		mm	5 x D pipe
Medium surface roughness		μ	7
Length of individual circuit		m	21,5
Circuit/passage length		cm	Spiral/5
Water capacity		l/m	0,028





Buffering panel prefabricated in plasterboard type H2 and EPS

Size	m ² /panel	Code
2000 x 1200 x 45 mm	2,40	28134350

Prefabricated panels consisting of a normal plasterboard slab, Type H2, thickness 15mm, coupled with a slab in EPS 250, thickness 30 mm.

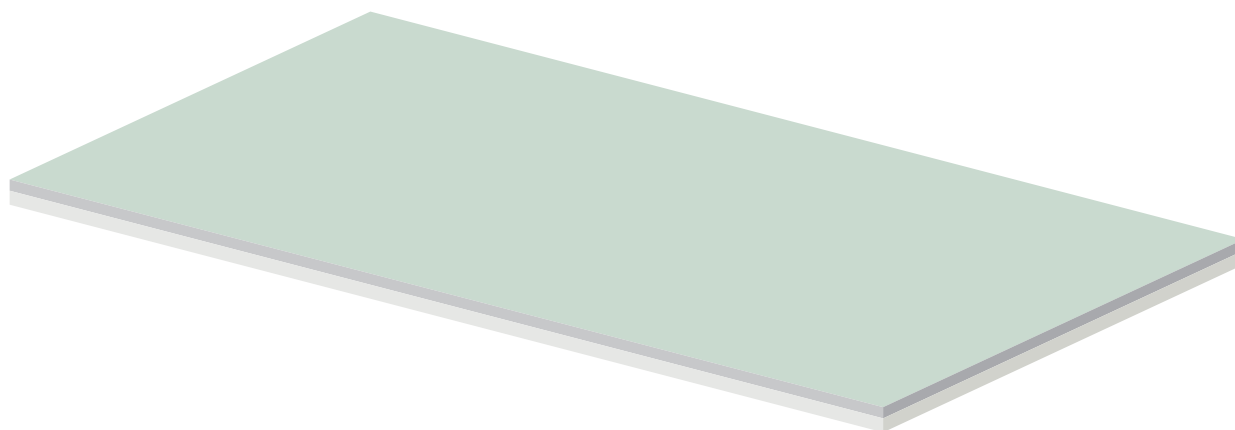


UNI EN 13163/EN 520

Plasterboard technical data	Norm	U.M.	Referring
Type	EN 520 - 3.2	-	Type H2
Thickness	EN 520 - 5.4	mm	15 ± 0,5
Out of squareness	EN 520 - 5.5	mm/m	≤ 2,5
Weight		Kg/m ²	11,80
Class of reaction to fire	EN 13501-1	-	A2-s1,d0 (B)
Flexural breaking load	EN 520 - 5.7	N	Long. 650 - Transv. 250
Surface hardness	EN 520 - 5.12	mm	-
Thermal conductivity λ	EN 12524	W/mK	0,25
Resistance factor upon diffusion of steam μ	EN 12524	-	Dry range: 10 - Wet range: 4

Edges	Longitudinal	Head
2000 x 1200	2 thinned	2 straight

EPS technical data	Norm	U.M.	Referring
Type	EN 13163	-	EPS 250
Compression resistance	EN 826	KPa	≥250
Thermal conductivity λ	EN 12939	W/m K	0,032
Water absorption due to partial immersion	EN 12087	%	WL(T)3 ≤ 3,0
Fire classification	EN 13501-1	Euroclass	E



Plasterboard system



UNI EN 13163/EN 520

Buffering panel prefabricated in plasterboard type A and EPS

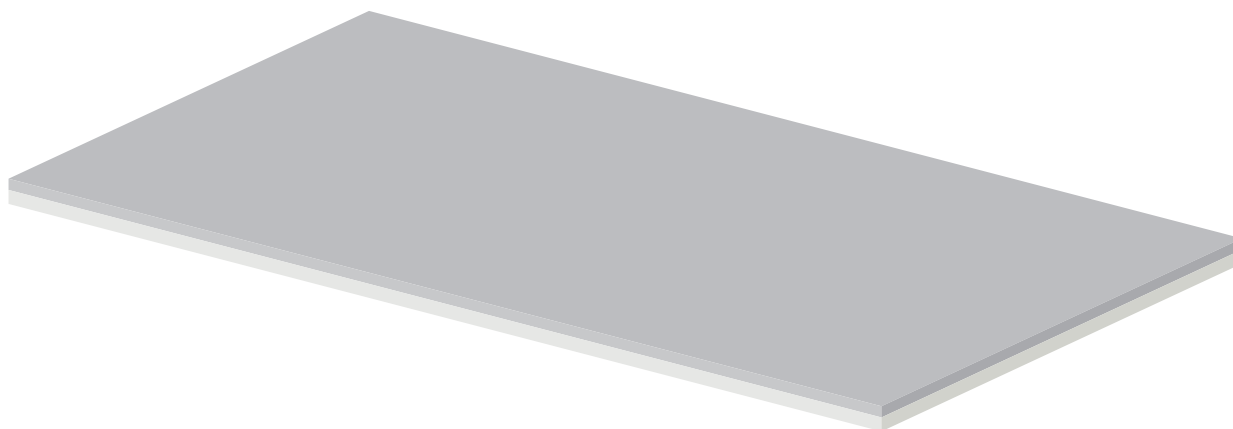
Size	m ² /panel	Code
2000 x 1200 mm	2,40	28134346

Prefabricated panels consisting of a normal plasterboard slab, Type A, thickness 15mm, coupled with a slab in EPS 250, thickness 30 mm

Plasterboard technical data	Norm	U.M.	Referring
Type	EN 520 - 3.2	-	Type A
Thickness	EN 520 - 5.4	mm	15 ± 0,5
Out of squareness	EN 520 - 5.5	mm/m	≤ 2,5
Weight		Kg/m ²	11,90
Class of reaction to fire	EN 13501-1	-	A2-s1,d0 (B)
Flexural breaking load	EN 520 - 5.7	N	Long. 650 - Transv. 250
Surface hardness	EN 520 - 5.12	mm	-
Thermal conductivity λ	EN 12524	W/mK	0,25
Resistance factor upon diffusion of steam μ	EN 12524	-	Dry range: 10 - Wet range: 4

Edges	Longitudinal	Head
2000 x 1200	2 thinned	2 straight

EPS technical data	Norm	U.M.	Referring
Type	EN 13163	-	EPS 250
Compression resistance	EN 826	KPa	≥250
Thermal conductivity λ	EN 12939	W/m K	0,032
Water absorption due to partial immersion	EN 12087	%	WL(T)3 ≤ 3,0
Fire classification	EN 13501-1	Euroclass	E





PE-Xc pipe oxygen barrier

Classes of application / Operating pressures (bar): Cl. 1/8 bar - Cl. 2/8 bar - Cl. 4/10 bar - Cl. 5/8 bar - Oxygen permeability: < 0.1 g/m³ 24h - Density: 0.95 gr/cm³ - Degree of reticulation: ≥60% - Range of use: -100 / +110 °C - Softening temperature: 135 °C - Breaking load: 18 MPa - Thermal conductivity: 0.38 W/mK - Average coefficient of linear expansion: 0.19 mm/m °C - Minimum bending radius: 5 x D pipe - Surface roughness of the inner pipe: 7 µm - Water capacity: l/m 0,028
Application: heating/plumbing systems

Size	Mts. pack	Code
8 x 1 mm	100	28130750

Pipe in high-density polyethylene, with electronic system crosslinking, product in accordance to standards EN ISO 15875/2, provided with an oxygen barrier in conformity with standard DIN 4726



Insulating pipe in roll in elastomer foam

Maximum operation temperature: +105 °C
Thermal conductivity: (at 0 °C) 0,033 W/mK, (at 40 °C) 0,040 W/mK
Permeability: µ= 3000 W/m °C - Fire reaction class: B₁ - s₃ - d₀

Size	Thickness	Mts. pack	Code
Ø 8	6 mm	80	02967902



Shear for plastic pipe

Size	Pcs. pack	Code
Ø 8÷25	1	28130760
Spare blade for cutter	1	28130761

Shears to cut thin-wall rigid plastic pipes without chippings.

Connectors and distributors for multi-layer pipe Gerpex/Gerpex RA 20x2 and single-layer pipe PE-Xc 8x1

Description

Push in connection fittings (push-fit) with double hydraulic seal o-rings (inside the pipe PEX/AL/PEX 20x2, outside the pipe PE-Xc 8x1) and pipe guide adaptor that does not require the insertion of the reinforcement bushes. The mechanical seal is guaranteed by a stainless steel ring with teeth that catch hold onto the external pipe walls, positioned behind the o-rings to prevent damaging the pipe surfaces. If necessary, the pipe can be disconnected from the fitting using the patented bayonet system.

Technical data

- Body: in fibreglass reinforced nylon 6.6
- O-ring: in EPDM
- Tube clip: in stainless steel
- Maximum temperature: 60°C
- Minimum temperature: 2°C
- Maximum pressure at 60°C: 2 bar
- Maximum pressure at 20°C: 5 bar



Straight connector

Size	Pcs. pack	Code
20x20	2	28134300
8x8	10	28134302



Kit 2 straight fittings intercepted

Size	Pcs. pack	Code
8x8	1	28134328

Suitable to intercept a circuit without draining the system

Plasterboard system



Tee connector

Size	Pcs. pack	Code
20x20x20	2	28134304



1-way distributor

Size	Pcs. pack	Code
20x8x20	2	28134306



2-ways distributor

Size	Pcs. pack	Code
20x8x8x20	2	28134308



1 way opposed distributor

Size	Pcs. pack	Code
20x8x8x20	2	28134310



2 way opposed distributor

Size	Pcs. pack	Code
20x8x8x8x20	2	28134312



Plug

Size	Pcs. pack	Code
20	20	28134314
8	20	28134316

Suitable for plugging unused holes of fittings and distributors of a matching size



Pipe drilling

Size	Pcs. pack	Code
8/20	1	28134329

Suitable to mark on the pipes 20:08 the correct insertion depth. Also provided in the manual supplied with the system, with each shipment.



Two insulating shells for fittings and distributors

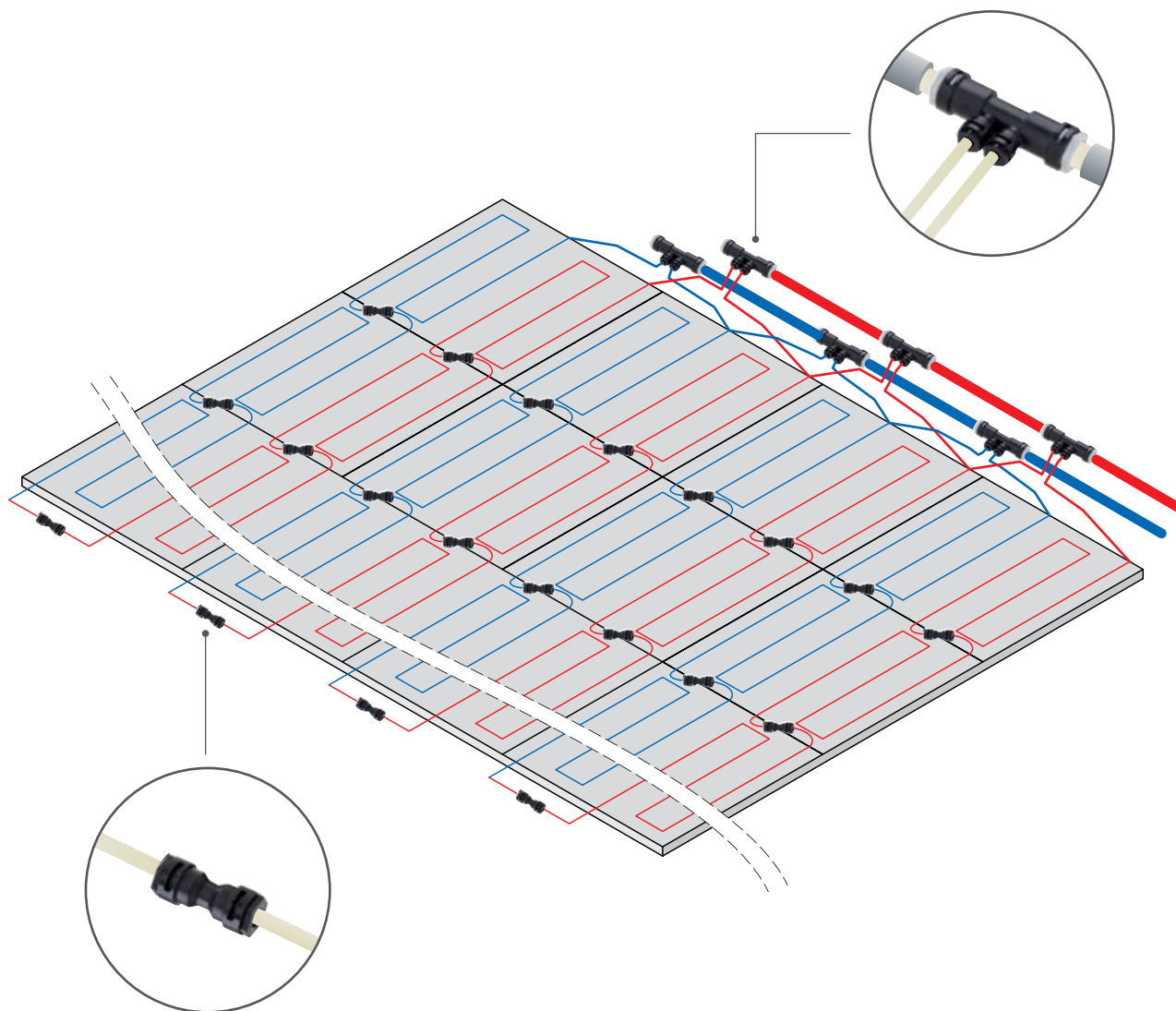
Size	Pcs. pack	Code
For straight connector 20x20	1	28135000
For Tee connector	1	28135004
For 1-way distributor	1	28135006
For 2-ways distributor	1	28135008
For 1-way opposed distributor	1	28135010
For 2-ways opposed distributor	1	28135012

Closed-cell expanded polyurethane, edges with adhesive.

Emmeti Ray Module



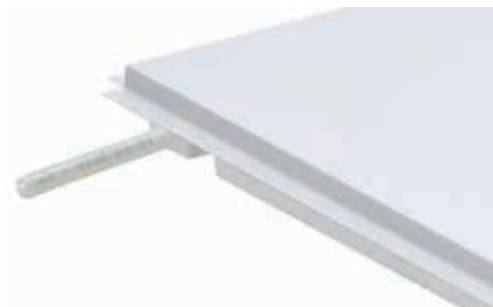
Metal modules heating and cooling system



Ray Module is the new radiant ceiling climate control system intended for buildings for tertiary and commercial use and for use in hospitals, schools and exhibitions where there is a suspended false ceiling accessible for inspection. The reduced thermal needs of new buildings allows to obtain the high thermohygrometric comfort level produced by cold radiant ceilings also for heating purposes. With the radiant ceiling, the air treatment system will be designed for reduced capacities with clear benefits in terms of overall dimensions of the conduits, sensation of well-being in the rooms and energy savings.

Ray Module consists of two circuits made with a PE-Xc 8x1 pipe with oxygen barrier combined with an aluminium thin sheet glued to the coating panel, to be installed on a 24 mm T-shaped suspended structure. The upper part of the exchanger is insulated by means of a 30 mm thick EPS slab. The panels are connected with push-fit fittings up to max. 6 elements for each series.

Metal modules system



Metal radiant square panel

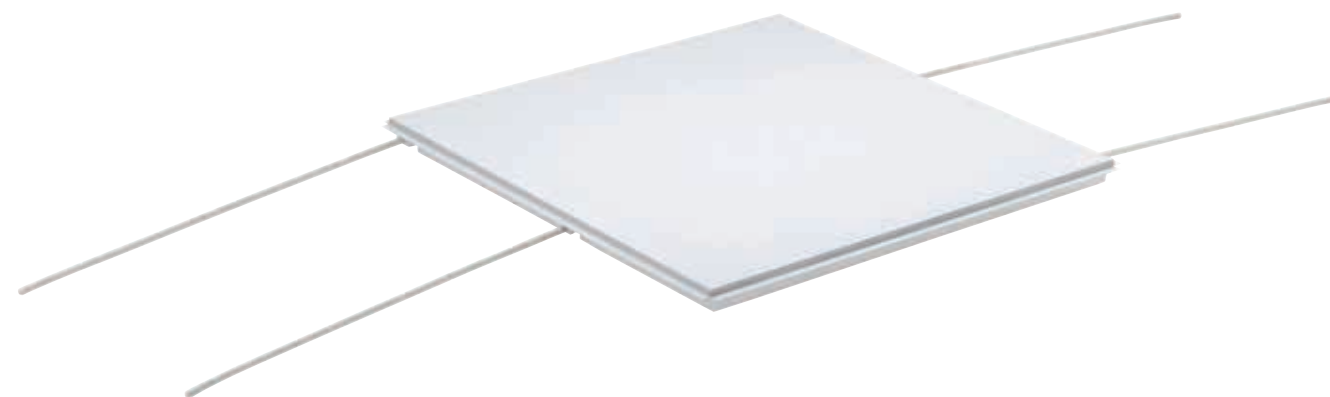
Size	Nr. internal circuits	m ² /square panel	Code
600x600 white lower	2	0,36	28134331

600x600 mm metal square panel used for radiant false ceilings accessible for inspection and consisting of standard 600x600 mm square panels installed on T-shaped exposed structures with a 24 mm base. It consists of a white 6/10 thick aluminium radiant surface, with a lower 8 mm 90° profile, combined with a 30 mm EPS 100 insulating layer, containing 2 PE-Xc 8x1c/oxygen battier pipe circuits.

(*) Colours and holes can be customised upon request with dedicated offers.

EPS technical data	Norm	U.M.	Referring
Type	EN 13163		EPS 100
Compression resistance	EN 826	kPa	≥100
Thermal conductivity λ	EN 12939	W/mK	0.036
Water absorption due to partial immersion	EN 12087	%	WL(T) 3 ≤ 3
Fire classification	EN 13501-1	Euroclass	E

Pipe technical data	Norm	U.M.	Referring
Type	UNI EN ISO 15875/2		PE-Xc
Size		mm	8x1
Oxygen permeability	DIN 4726	g/m ³ 24 h	< 0.1
Thermal conductivity λ	DIN 52612	W/mK	0.38
Average linear expansion coefficient		mm/m °C	0.19
Degree of reticulation	UNI EN 579	%	≥ 60
Minimum radius of curvature		mm	5 x D pipe
Medium surface roughness		μ	7
Length of individual circuit		m	1.7 (2.2 includes free ends)
Circuit/passage length		cm	Serpentine 10
Water capacity		l/m	0.028



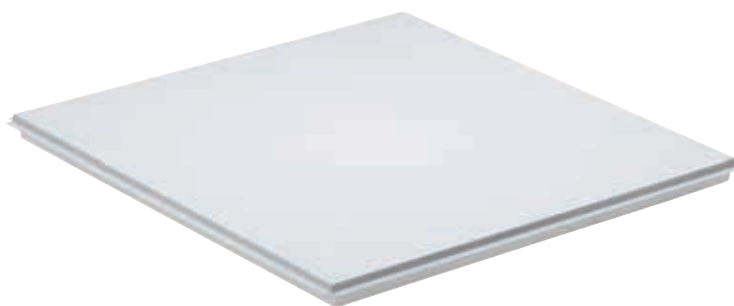


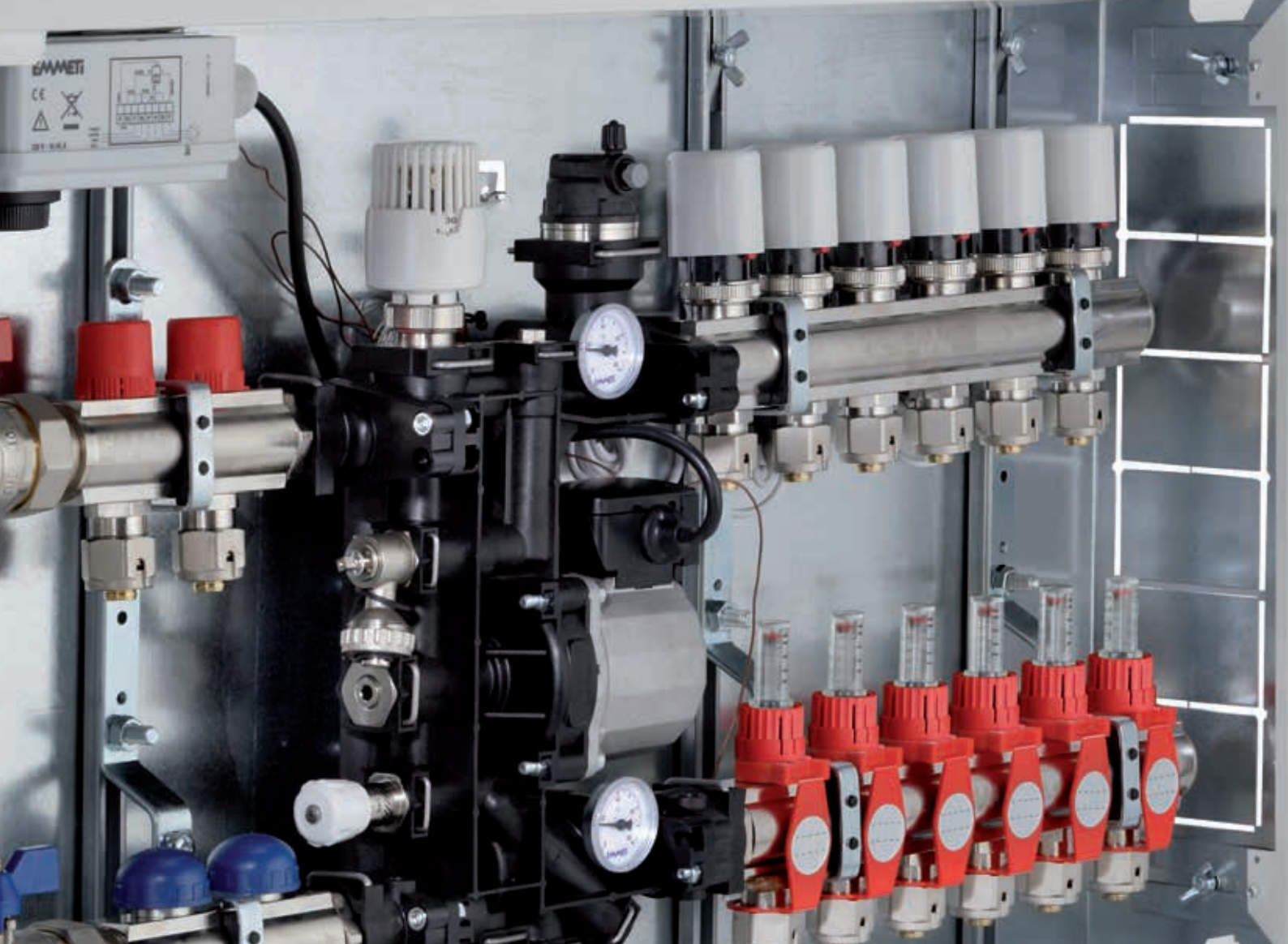
Metal passive square panel

Size	Nr. internal circuits	m ² /square panel	Code
600x600 white lower	-	0,36	28134333

600x600 mm metal square panel used for false ceilings accessible for inspection consisting of standard 600x600 mm square panels installed on T-shaped exposed structures with a 24 mm base. It consists of a white 6/10 thick aluminium surface, with a lower 8 mm 90° profile combined with a 30 mm EPS 100 insulating layer.

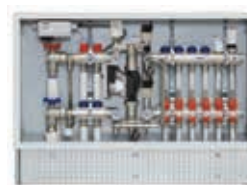
EPS technical data	Norm	U.M.	Referring
Type	EN 13163		EPS 100
Compression resistance	EN 826	kPa	≥100
Thermal conductivity λ	EN 12939	W/mK	0.036
Water absorption due to partial immersion	EN 12087	%	WL(T) 3 ≤ 3
Fire classification	EN 13501-1	Euroclass	E





Regulation groups

> Floor Control Box - Regulation group



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> Floor Control Unit - Regulation group



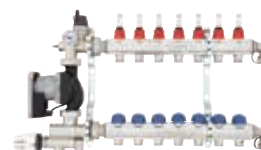
262

> Floor Control Unit Plus - Regulation group



268

> TM3 Mixing Unit - Regulation group



273

> Firstbox - Under boiler kit



280

> Accessories for under boiler kit



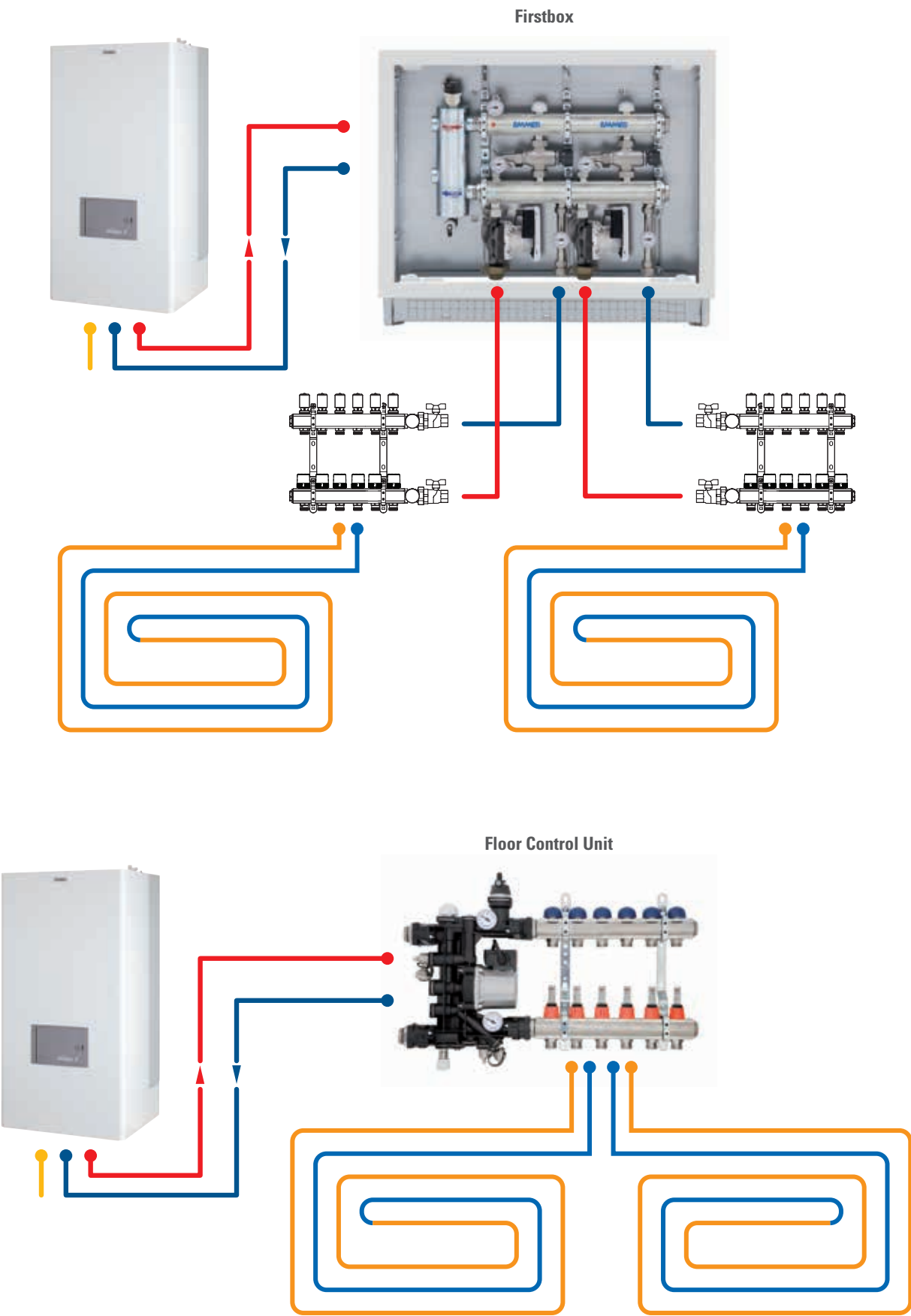
289

> Accessories for groups

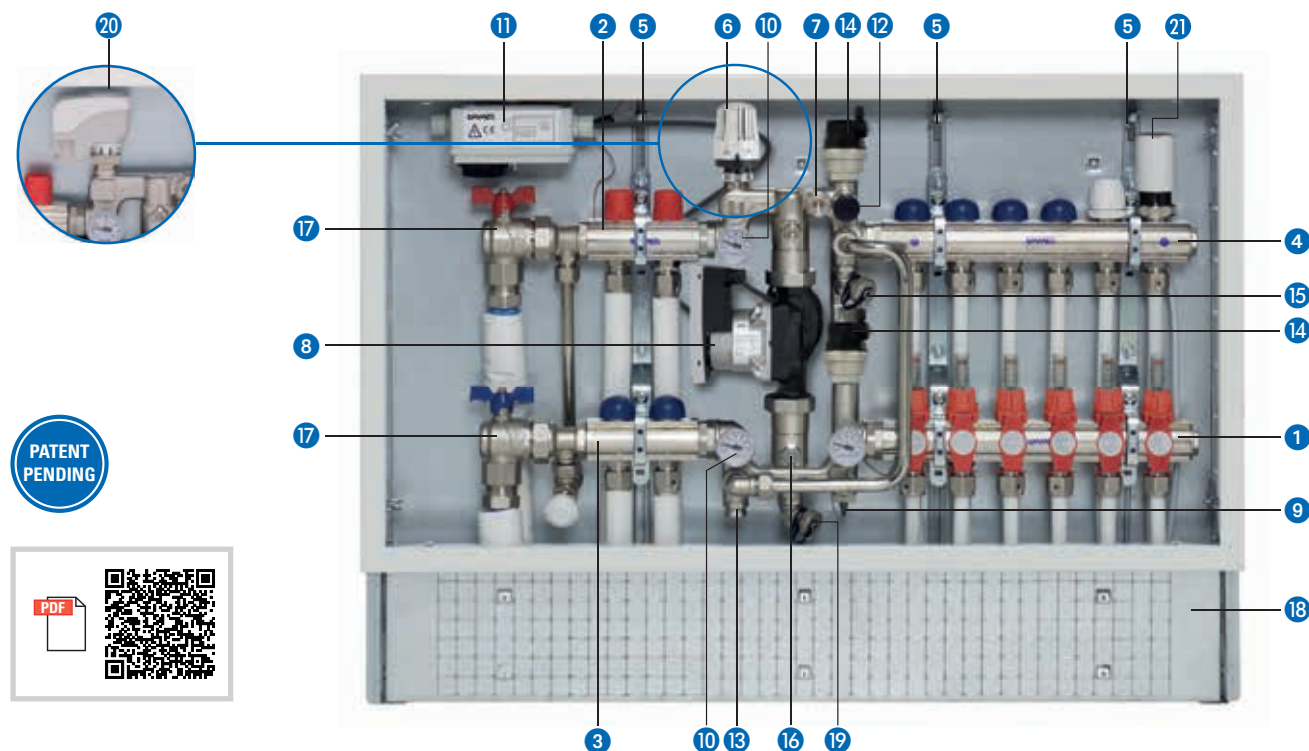


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Example of installation



Pre-assembled (thermostatic or climatic electronic) regulation group and distribution, for low temperature heating systems and mixed systems with two temperature levels (radiators + radiant panels)



TECHNICAL SHEET 81

Construction

- 1 nr. 1 flow bar for floor heating plant with flow meters
- 2 nr. 1 flow bar for radiator/fancoils heating plant with regulation lockshields
- 3 nr. 1 return bar set up to take thermoelectric heads (radiator/fancoils plant)
- 4 nr. 1 return bar set up to take thermoelectric heads (floor plant)
- 5 nr. 3 brackets for fixing bar
- 6 nr. 1 regulation valve with thermostatic head and immersion probe holder from 20 to 65 °C (for thermostatic regulation, only for heating, not supplied as standard)
- 7 nr. 1 adjusting valve and by-pass
- 8 nr. 1 Wilo Yonos Para RS 25/6 electronic circulator pump
- 9 nr. 1 flow pipe probe with 1/2" connection
- 10 nr. 3 control thermometers from 0 to 80 °C

- 11 nr. 1 box with safety thermostat for cable of circulator pump low temperature (optional) or nr. 1 basic wiring box 6T for electrothermic heads (optional)
- 12 nr. 1 overpressure valve (from 0,1 to 0,5 bar)
- 13 nr. 1 cut-off and balancing lockshield
- 14 nr. 2 automatic bleed valves 1/2"
- 15 nr. 1 filling bibcock with adjustable connection and safety plug
- 16 nr. 2 circulator pump interception ball valves
- 17 nr. 1 kit valves with by-pass (optional)
- 18 nr. 1 manifold cabinet in galvanised steel (optional)
- 19 nr. 1 drain bibcock with adjustable connection and safety plug
- 20 nr. 1 3-points or 0-10 V DC electric servomotor (alternative to thermostatic head), for operation with electronic climatic regulator in heating and/or cooling, not supplied as standard
- 21 Electro-thermic head (optional)

Floor Controlbox - Regulation group

Technical data

Max temperature for primary circuit: 90 °C
 Max operating pressure: 6 bar (10 bar*)
 Attachments to primary: G 1"
 (*) con circolatori idonei a tali prestazioni

Material of miscellaneous kit

Brass OTS 60 Pb2 UNI EN 1982-00
 Brass CW 617N UNI EN 12165-98
 Annealed copper
 Gasket o-rings EPDM 70 SH
 Elements in AISI 303 stainless steel

Manifold materials

Manifolds obtained from drawn bar TN UNI EN 12164N
 Manifold seals EPDM 70SH

The range

Floor Controlbox B
 distribution and regulation group low temperature (from 3 to 13 ways)

Floor Controlbox 2A + B
 distribution and regulation group with 2 high temperature ways + low temperature (from 3 to 13 ways)

Floor Controlbox 3A + B
 distribution and regulation group with 3 high temperature ways + low temperature (from 3 to 13 ways)

The group is pre-assembled complete with:

Manifolds

Size 1"
 Threads G 1" female
 Takeoffs 24 x 19 male, takeoff 50 mm

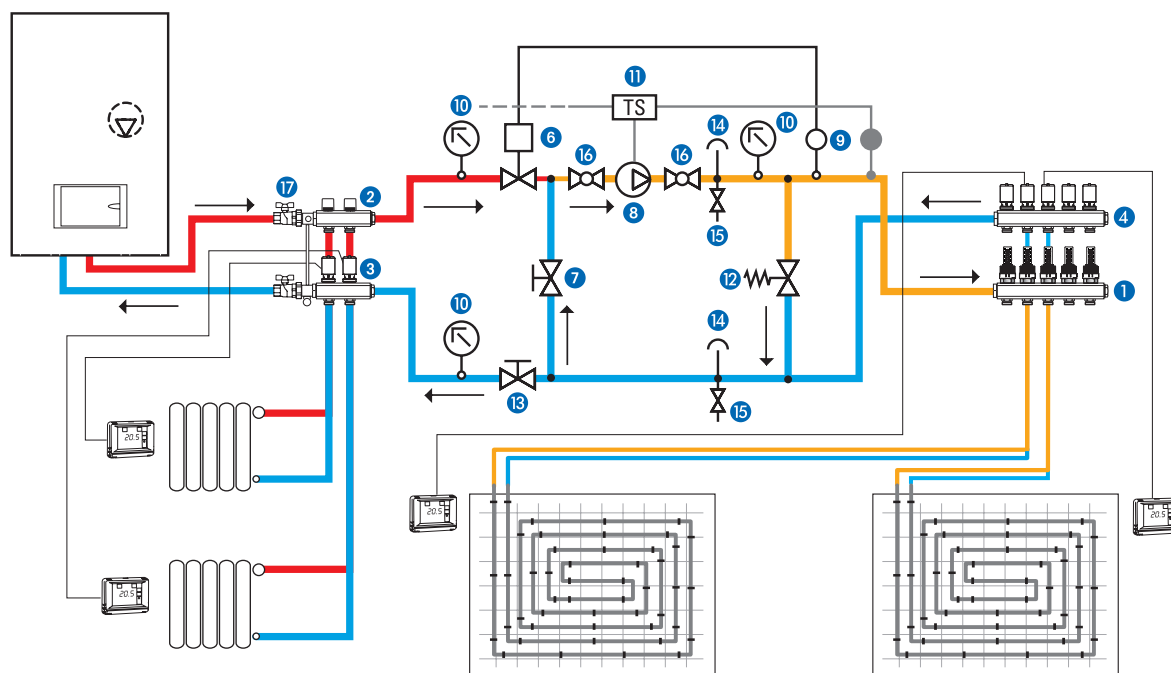
Regulation group

Connections G 1"
 Range of regulation thermostatic head (low temperature) 20÷65 °C
 Range of regulation overpressure valve 0,1÷0,5 bar
 Thermometers 0÷80°C

Yonos Wilo Para pump RS 25/6

Connections - takeoffs G1 1/2 - 130 mm.
 Variable rotation speed: 800 to 4250 rpm.
 Fluids used:
 Water cooling and heating.
 Water and glycol: max 1:1
 Maximum static pressure: 6.2 m
 Maximum capacity: 3.3 m³ / h
 Max water temperature 95 °C at room temperatures of 57 °C
 Max water temperature 90 °C at room temperatures of 59 °C
 Max water temperature 70 °C at room temperatures of 70 °C
 Electrical connection 1 ~ 230 V, 50/60 Hz
 Protection class IPX 4D, F insulation
 Nominal engine Power: 37 W
 Energy consumption by 1 ~ 230 V 3 to 45 W
 Current consumption at 1 ~ 230V: 0.03 to 0.44 A
 Energy Class A
 In conform to:
 ErP Directive
 EN61800-3
 EN 61000-6-3 / EN 61000-6-4
 EN 61000-6-2 / EN 61000-6-1

Hydraulic scheme for thermostatic regulation group

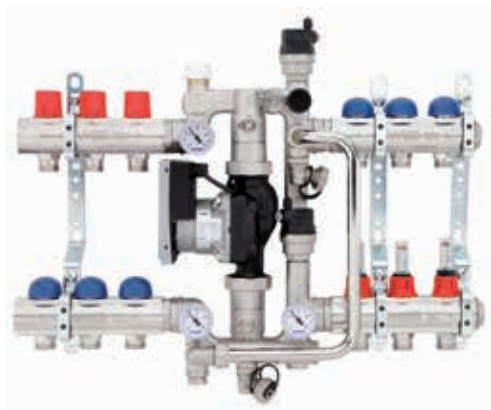


This schematic diagram illustrates a building heating system featuring a three-way valve and two parallel pumps. The system includes a boiler, a three-way valve (17), two parallel pumps (2 and 3), a motor (M), a temperature sensor (TS), and various flow meters (10, 11, 12, 13, 14, 15, 16). The system is connected to a network of pipes (red, blue, orange) and includes a control unit (C) and a thermostat (B). The diagram shows the flow of water through the system, including a bypass loop (7) and a return loop (13). The system is connected to a network of pipes (red, blue, orange) and includes a control unit (C) and a thermostat (B). The diagram shows the flow of water through the system, including a bypass loop (7) and a return loop (13).

-

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Floor Controlbox - Regulation group



Floor Controlbox high and low temperature with flow meters

Size	Box	Pcs. pack	Code
2H + 3L	L 700	1	28155930
2H + 4L	L 850	1	28155932
2H + 5L	L 850	1	28155934
2H + 6L	L 850	1	28155936
2H + 7L	L 1000	1	28155938
2H + 8L	L 1000	1	28155940
2H + 9L	L 1000	1	28155942
2H + 10L	L 1200	1	28155944
2H + 11L	L 1200	1	28155946
2H + 12L	L 1200	1	28155948
2H + 13L	L 1200	1	28155950
3H + 3L	L 850	1	28155960
3H + 4L	L 850	1	28155962
3H + 5L	L 850	1	28155964
3H + 6L	L 1000	1	28155966
3H + 7L	L 1000	1	28155968
3H + 8L	L 1000	1	28155970
3H + 9L	L 1200	1	28155972
3H + 10L	L 1200	1	28155974
3H + 11L	L 1200	1	28155976
3H + 12L	L 1200	1	28155978
3H + 13L	L 1200	1	28155980

To completed with:

- Thermostatic head with immersion probe code 90046750

or

- 3 points electric servomotor code 28157210

In the case of installation of an electric servomotor, combined with electronic climatic regulation kit for heating code 28139060 or PCO regulators for heating and cooling



Cabinet in galvanised steel with enamelled door, white colour, for 120 mm brick thickness. Suitable for 1" 1/4 Topway manifold.

Box for manifolds, flush fitting with adjustable depth. Supplied complete with locking catch, feet adjustable for height from 0 to 130 mm and cover for protection during site work.

Size	Pcs. pack	Code
L 500 (540x630x110/160)	1	01301030
L 700 (740x630x110/160)	1	01301032
L 850 (890x630x110/160)	1	01301038
L 1000 (1040x630x110/160)	1	01301034
L 1200 (1240x630x110/160)	1	01301036

Surface-mounting door thickness 15 mm

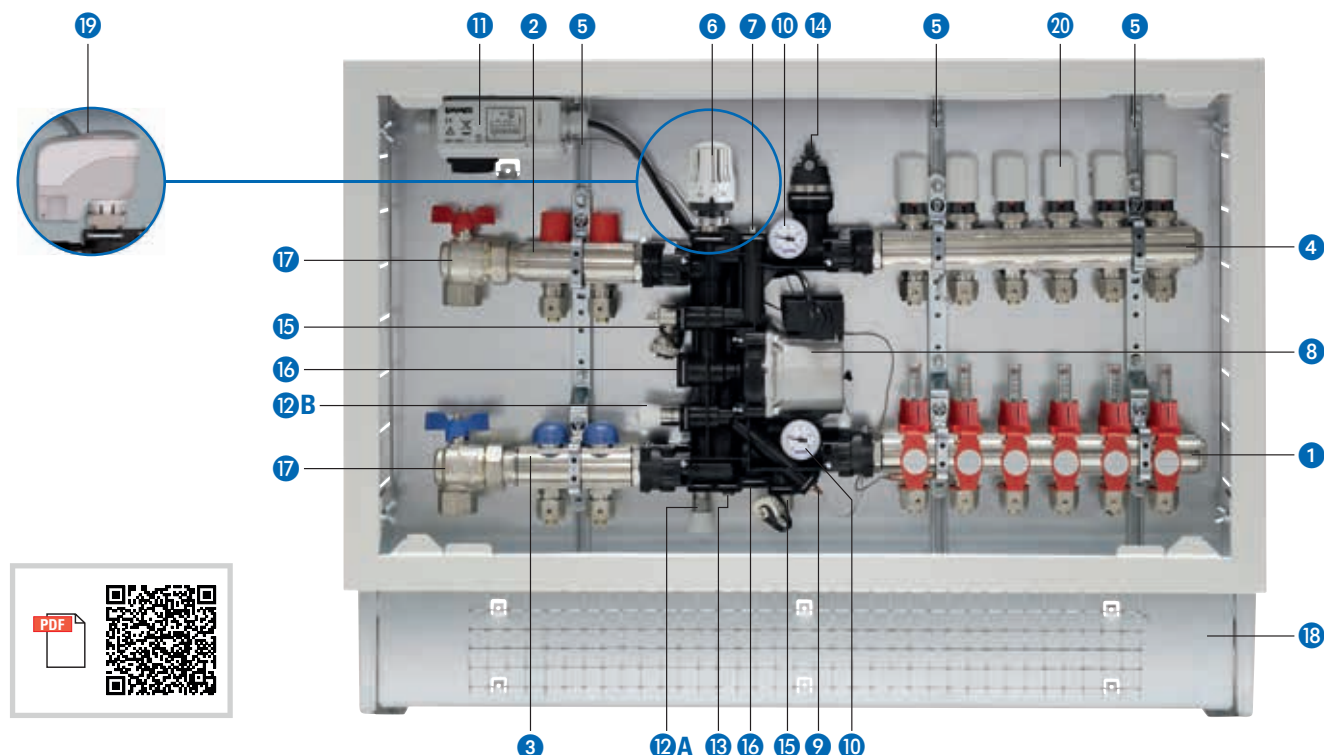


Selection guide of metal box for Floor Controlbox groups

Floor Controlbox		Metalbox	
Size	Code	Size	Code
3L	28155900	L700	01301032
4L	28155902	L700	01301032
5L	28155904	L700	01301032
6L	28155906	L700	01301032
7L	28155908	L850	01301038
8L	28155910	L850	01301038
9L	28155912	L850	01301038
10L	28155914	L1000	01301034
11L	28155916	L1000	01301034
12L	28155918	L1000	01301034
13L	28155920	L1200	01301036
2H+3L	28155930	L700	01301032
2H+4L	28155932	L850	01301038
2H+5L	28155934	L850	01301038
2H+6L	28155936	L850	01301038
2H+7L	28155938	L1000	01301034
2H+8L	28155940	L1000	01301034
2H+9L	28155942	L1000	01301034
2H+10L	28155944	L1200	01301036
2H+11L	28155946	L1200	01301036
2H+12L	28155948	L1200	01301036
2H+13L	28155950	L1200	01301036
3H+3L	28155960	L850	01301038
3H+4L	28155962	L850	01301038
3H+5L	28155964	L850	01301038
3H+6L	20155966	L1000	01301034
3H+7L	28155968	L1000	01301034
3H+8L	28155970	L1000	01301034
3H+9L	28155972	L1200	01301036
3H+10L	28155974	L1200	01301036
3H+11L	28155976	L1200	01301036
3H+12L	28155978	L1200	01301036
3H+13L	28155980	L1200	01301036

Floor Control Unit

Pre-assembled regulation group (thermostatic or climatic electronic) and distribution, for low temperature heating systems and mixed systems with two temperature levels (radiators + radiant panels), with three-speed circulator pump.



TECHNICAL SHEET 81

Construction

- ① nr. 1 flow bar for floor heating plant with flow meters
- ② nr. 1 flow bar for radiator heating plant with regulation lockshields
- ③ nr. 1 return bar set up to take thermoelectric heads (radiator plant)
- ④ nr. 1 return bar set up to take thermoelectric heads (floor plant)
- ⑤ nr. 3 brackets for fixing bar
- ⑥ nr. 1 mixing valve with thermostatic head and immersion probe holder from 20 to 65 °C (fixing point versions, to order separately)
- ⑦ nr. 1 adjusting valve and by-pass
- ⑧ nr. 1 Wilo Hu circulator pump 15/6 with cable (pipe L = 500 mm)
- ⑨ nr. 1 flow pipe probe
- ⑩ nr. 2 control thermometers from 0 to 80 °C
- ⑪ nr. 1 box with safety thermostat for cable of circulator pump low temperature (optional) or nr. 1 basic wiring box 6T for electrothermic heads (optional)
- ⑫ nr. 2 overpressure valves (from 0,1 to 0,6 bar) - 1 for Low temperature and 1 for High temperature
- ⑬ nr. 1 cut-off and balancing lockshield
- ⑭ nr. 1 automatic bleed valve 1/2"

- ⑮ nr. 2 filling bibcocks with adjustable connection and safety plug
- ⑯ nr. 2 circulator pump interception lockshields
- ⑰ nr. 1 kit valves (optional)
- ⑱ nr. 1 manifold cabinet in galvanised steel (to buy separately)
- ⑲ nr. 1 mixing valve with 3 points or 0-10 V DC electric servomotor (climatic versions, to buy separately)
- ⑳ Electro-thermic head (optional)

Technical data

Max temperature for primary circuit: 90° C
Max operating pressure: 10 bar

Material of miscellaneous kit

Resin PPA (35% FV)
Brass UNI EN 12164 CW 614N
Gasket o-rings EPDM 70 SH
Elements in AISI 304 stainless steel

Manifold materials

Manifolds obtained from drawn bar UNI EN 12168 CW617
Manifold seals EPDM 70SH



The range

Floor Control Unit A
distribution and regulation group with 2 or 3 high temperature ways and three-speed circulator pump

Floor Control Unit B
distribution and regulation group low temperature (from 3 to 13 ways) and three-speed circulator pump

Floor Control Unit 2A + B
distribution and regulation group with 2 high temperature ways + low temperature (from 3 to 13 ways) and three-speed circulator pump

Floor Control Unit 3A + B
distribution and regulation group with 3 high temperature ways + low temperature (from 3 to 12 ways) and three-speed circulator pump

Mixing Unit M3V-F: regulation group with three-speed circulator pump

Topway manifolds

Size 1"
Threads G 1" F
Takeoffs M 24 x 19, takeoff 50 mm

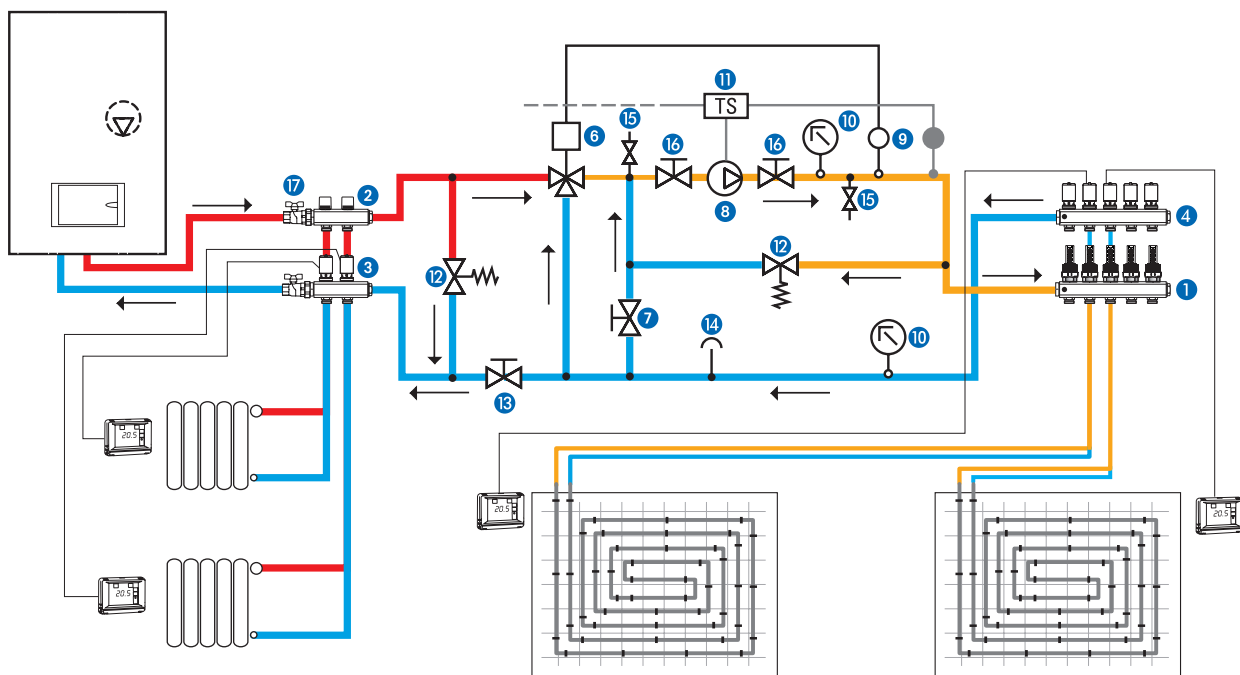
Regulation group

Connections G 1" M (for Mixing Unit M3V-F also G 1 1/4 M)
Range of regulation thermostatic head (low temperature): 20÷65 °C
Range of regulation overpressure valve: 0,1÷0,6 bar
Thermometers: 0÷80 °C

Wilco Hu 15/6 three-speed circulator pump

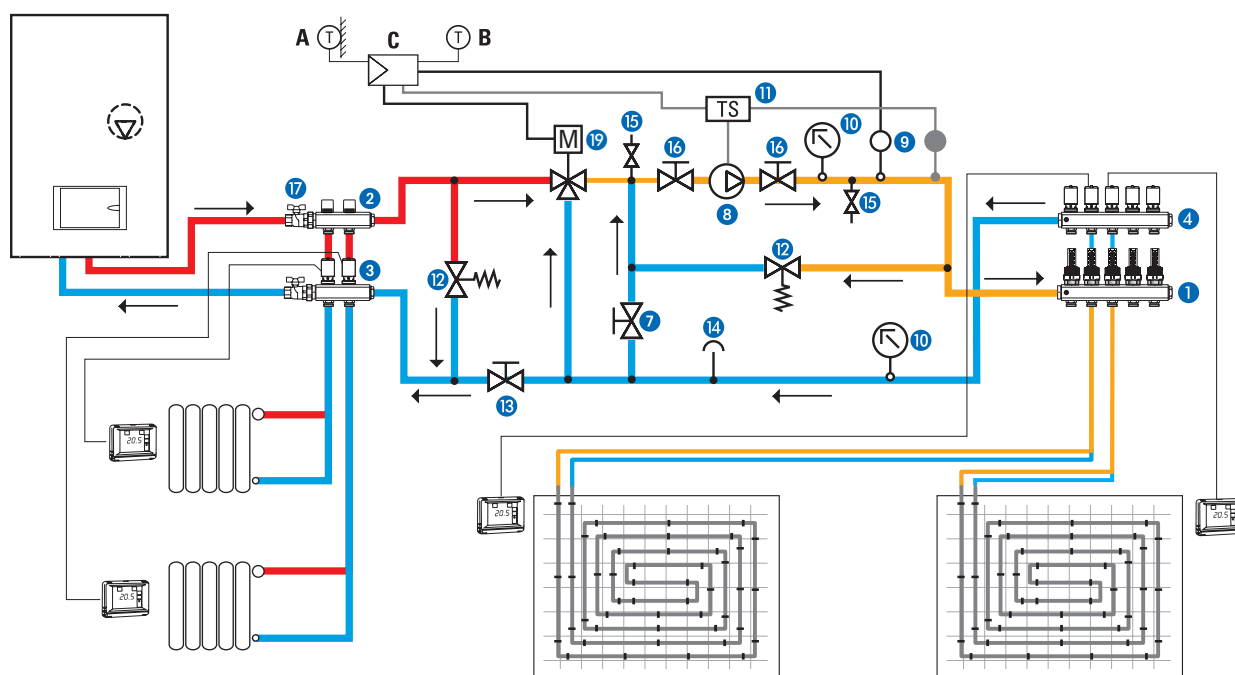
Max environmental temperature: 60 °C
Max operating pressure: 10 bar
Power supply: 230 Vac, 50 Hz
Insulation class: F
Absorption: 86 W

Hydraulic scheme for thermostatic regulation group



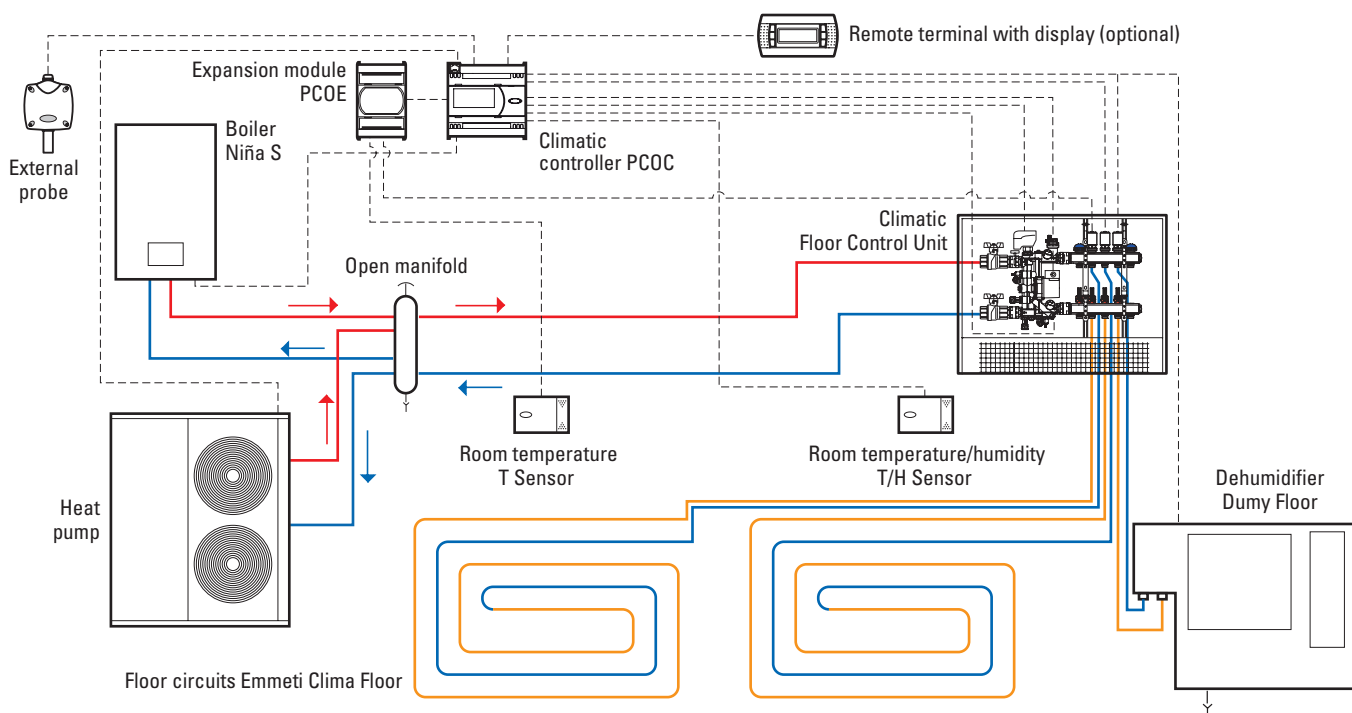
Floor Control Unit - Regulation group

Hydraulic scheme for climatic regulation group - only heating



- A** external probe
- B** remote control with room sensor
- C** electronic climatic regulator

Hydraulic scheme for climatic regulation group - heating and cooling



Note:
the volume of the open manifold/storage tank must be defined according to the working capacity of the chiller.



Floor Control Unit only high temperature with lockshields

Size	Box	Pcs. pack	Code
2H	L 700	1	28158000
3H	L 700	1	28158002

To completed with:

- Thermostatic head with immersion probe code 90046750

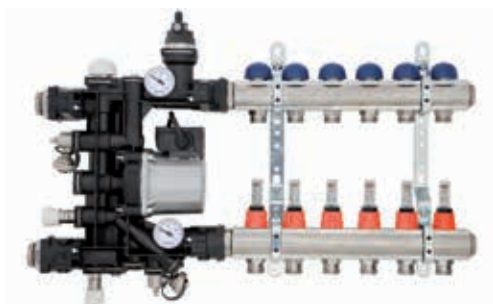
or

- 3 points electric servomotor code 28157210

or

- 0-10 V DC electric servomotor code 28157220

In the case of installation of an electric servomotor, combined with electronic climatic regulation kit for heating code 28139060 or PCO regulators for heating and cooling.



Floor Control Unit only low temperature with flow meters

Size	Box	Pcs. pack	Code
3L	L 700	1	28158010
4L	L 700	1	28158012
5L	L 700	1	28158014
6L	L 700	1	28158016
7L	L 850	1	28158018
8L	L 850	1	28158020
9L	L 850	1	28158022
10L	L 1000	1	28158024
11L	L 1000	1	28158026
12L	L 1000	1	28158028
13L	L 1200	1	28158030

To completed with:

- Thermostatic head with immersion probe code 90046750

or

- 3 points electric servomotor code 28157210

or

- 0-10 V DC electric servomotor code 28157220

In the case of installation of an electric servomotor, combined with electronic climatic regulation kit for heating code 28139060 or PCO regulators for heating and cooling.



Floor Control Unit high and low temperature with flow meters

Size	Box	Pcs. pack	Code
2H + 3L	L 700	1	28158040
2H + 4L	L 850	1	28158042
2H + 5L	L 850	1	28158044
2H + 6L	L 850	1	28158046
2H + 7L	L 1000	1	28158048
2H + 8L	L 1000	1	28158050
2H + 9L	L 1000	1	28158052
2H + 10L	L 1200	1	28158054
2H + 11L	L 1200	1	28158056
2H + 12L	L 1200	1	28158058
2H + 13L	L 1200	1	28158060
3H + 3L	L 850	1	28158070
3H + 4L	L 850	1	28158072
3H + 5L	L 850	1	28158074
3H + 6L	L 1000	1	28158076
3H + 7L	L 1000	1	28158078
3H + 8L	L 1000	1	28158080
3H + 9L	L 1200	1	28158082
3H + 10L	L 1200	1	28158084
3H + 11L	L 1200	1	28158086
3H + 12L	L 1200	1	28158088

To completed with:

- Thermostatic head with immersion probe code 90046750

or

- 3 points electric servomotor code 28157210

or

- 0-10 V DC electric servomotor code 28157220

In the case of installation of an electric servomotor, combined with electronic climatic regulation kit for heating code 28139060 or PCO regulators for heating and cooling.

Floor Control Unit - Regulation group



Mixing Unit M3V-F

Size	Pcs. pack	Code
1" (*)	1	28131800
1"1/4 (**)	1	28131810

(*) Size thread connections: G 1"

(**) Size thread connections: G 1"1/4

To completed with:

- Thermostatic head with immersion probe code 90046750

or

- 3 points electric servomotor code 28157210

or

- 0-10 V DC electric servomotor code 28157220

In the case of installation of an electric servomotor, combined with electronic climatic regulation kit for heating code 28139060 or PCO regulators for heating and cooling.



1" Right-angle Progress ball valves with pipe union for Floor Control Unit

Size	Pcs. pack	Code
F 1" - F 1" revolving nut	1	01306270

Suitable kit for installing the Floor Control Unit on the mixing unit, in the event Topway collectors are missing.

Equipped with 2 gaskets.



1" Straight Progress ball valves with pipe union for Floor Control Unit

Size	Pcs. pack	Code
F 1" - F 1" revolving nut	1	01306272

Suitable kit for installing the Floor Control Unit on the mixing unit, in the event Topway collectors are missing.

Equipped with 2 gaskets.



Cabinet in galvanised steel with enamelled door, white colour, for 120 mm brick thickness. Suitable for 1" 1/4 Topway manifold.

Box for manifolds, flush fitting with adjustable depth. Supplied complete with locking catch, feet adjustable for height from 0 to 130 mm and cover for protection during site work.

Size	Pcs. pack	Code
L 500 (540x630x110/160)	1	01301030
L 700 (740x630x110/160)	1	01301032
L 850 (890x630x110/160)	1	01301038
L 1000 (1040x630x110/160)	1	01301034
L 1200 (1240x630x110/160)	1	01301036

Surface-mounting door thickness 15 mm

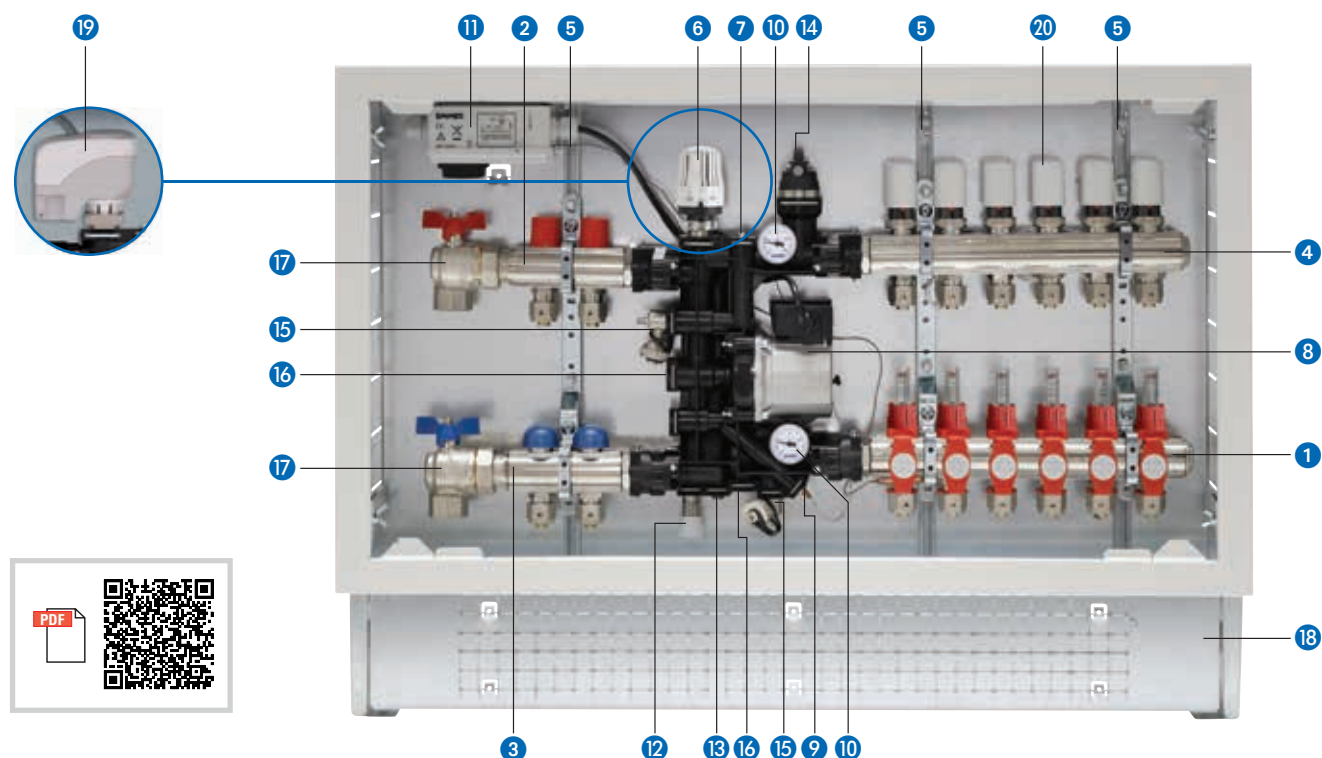


Selection guide of metal box for Floor Control Unit groups

Floor Control Unit		Metalbox	
Size	Code	Size	Code
2H	28158000	L700	01301032
3H	28158002	L700	01301032
3L	28158010	L700	01301032
4L	28158012	L700	01301032
5L	28158014	L700	01301032
6L	28158016	L700	01301032
7L	28158018	L850	01301038
8L	28158020	L850	01301038
9L	28158022	L850	01301038
10L	28158024	L1000	01301034
11L	28158026	L1000	01301034
12L	28158028	L1000	01301034
13L	28158030	L1200	01301036
2H+3L	28158040	L700	01301032
2H+4L	28158042	L850	01301038
2H+5L	28158044	L850	01301038
2H+6L	28158046	L850	01301038
2H+7L	28158048	L1000	01301034
2H+8L	28158050	L1000	01301034
2H+9L	28158052	L1000	01301034
2H+10L	28158054	L1200	01301036
2H+11L	28158056	L1200	01301036
2H+12L	28158058	L1200	01301036
2H+13L	28158060	L1200	01301036
3H+3L	28158070	L850	01301038
3H+4L	28158072	L850	01301038
3H+5L	28158074	L850	01301038
3H+6L	20158076	L1000	01301034
3H+7L	28158078	L1000	01301034
3H+8L	28158080	L1000	01301034
3H+9L	28158082	L1200	01301036
3H+10L	28158084	L1200	01301036
3H+11L	28158086	L1200	01301036
3H+12L	28158088	L1200	01301036

Floor Control Unit Plus

Pre-assembled regulation group (thermostatic or climatic electronic) and distribution, for low temperature heating systems and mixed systems with two temperature levels (radiators + radiant panels), with electronic circulator pump



TECHNICAL SHEET 81

Construction

- ① nr. 1 flow bar for floor heating plant with flow meters
- ② nr. 1 flow bar for radiator heating plant with regulation lockshields
- ③ nr. 1 return bar set up to take thermoelectric heads (radiator plant)
- ④ nr. 1 return bar set up to take thermoelectric heads (floor plant)
- ⑤ nr. 3 brackets for fixing bar
- ⑥ nr. 1 mixing valve with thermostatic head and immersion probe holder from 20 to 65 °C (fixing point versions, to order separately)
- ⑦ nr. 1 adjusting valve and by-pass
- ⑧ nr. 1 Wilo Hu circulator pump E15/1-5 with cable (pipe L = 1000 mm)
- ⑨ nr. 1 flow pipe probe
- ⑩ nr. 2 control thermometers from 0 to 80 °C
- ⑪ nr. 1 box with safety thermostat for cable of circulator pump low temperature (optional) or nr. 1 basic wiring box 6T for electrothermic heads (optional)
- ⑫ nr. 1 overpressure valve (from 0,1 to 0,6 bar) for High temperature
- ⑬ nr. 1 cut-off and balancing lockshield
- ⑭ nr. 1 automatic bleed valve 1/2"

- ⑮ nr. 2 filling bibcocks with adjustable connection and safety plug
- ⑯ nr. 2 circulator pump interception lockshields
- ⑰ nr. 1 kit valves (optional)
- ⑱ nr. 1 manifold cabinet in galvanised steel (to buy separately)
- ⑲ nr. 1 mixing valve with 3 points or 0-10 V DC electric servomotor (climatic versions, to buy separately)
- ⑳ Electro-thermic head (optional)

Technical data

Max temperature for primary circuit: 90° C
Max operating pressure: 10 bar

Material of miscellaneous kit

Resin PPA (35% FV)
Brass UNI EN 12164 CW 614N
Gasket o-rings EPDM 70 SH
Elements in AISI 304 stainless steel

Manifold materials

Manifolds obtained from drawn bar UNI EN 12168 CW617
Manifold seals EPDM 70SH



The range

Floor Control Unit Plus A
distribution and regulation group with 2 or 3 high temperature ways and electronic circulator pump

Floor Control Unit Plus B
distribution and regulation group low temperature (from 3 to 13 ways) and electronic circulator pump

Floor Control Unit Plus 2A + B
distribution and regulation group with 2 high temperature ways + low temperature (from 3 to 13 ways) and electronic circulator pump

Floor Control Unit Plus 3A + B
distribution and regulation group with 3 high temperature ways + low temperature (from 3 to 12 ways) and electronic circulator pump

Mixing Unit M3V-V: regulation group with electronic circulator pump

Topway manifolds

Size 1"
Threads G 1" F
Takeoffs M 24 x 19, takeoff 50 mm

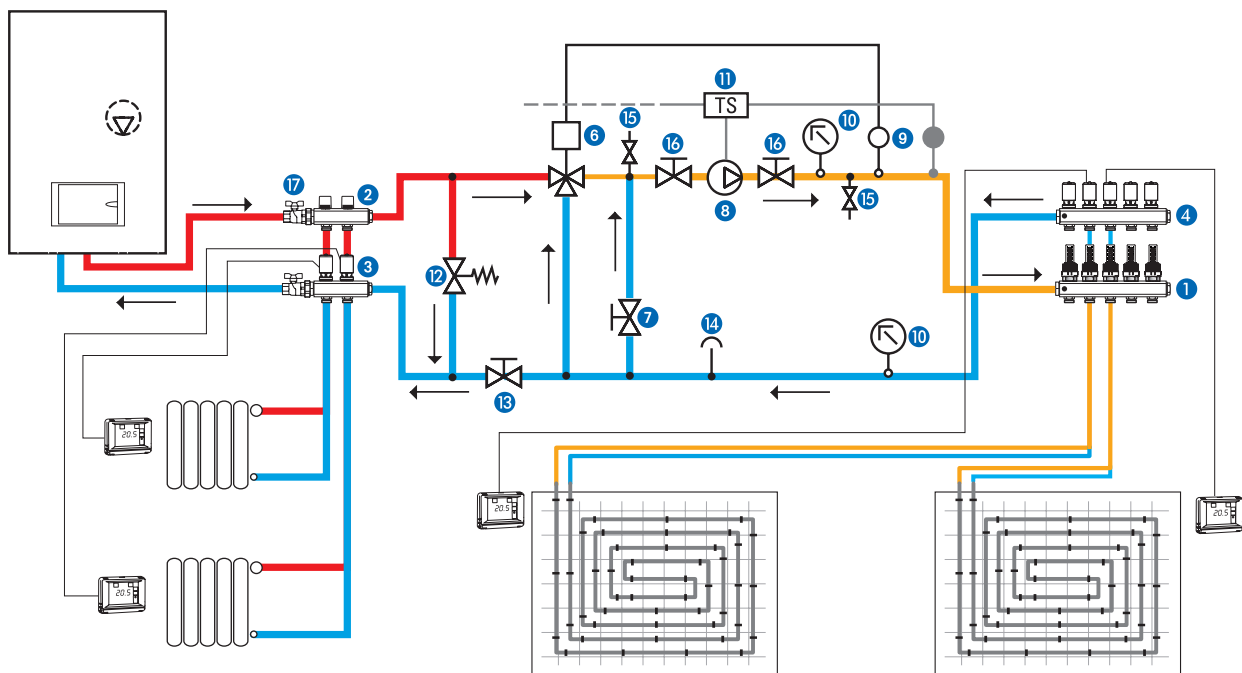
Regulation group

Connections: G 1" M (for Mixing Unit M3V-V also G 1 1/4 M)
Range of regulation thermostatic head (low temperature): 20÷65 °C
Range of regulation overpressure valve: 0,1÷0,6 bar
Thermometers: 0÷80 °C

Wilco E15/1-5 circulator pump

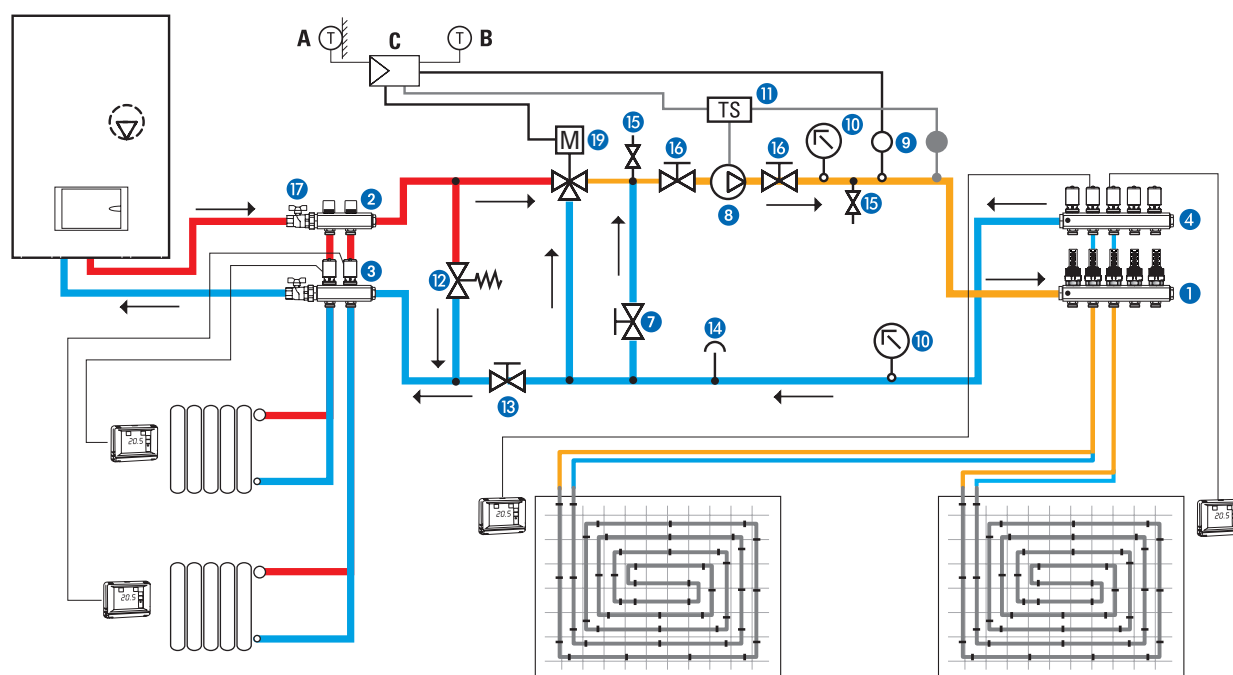
Max environmental temperature: 60 °C
Max operating pressure: 10 bar
Power supply: 230 Vac, 50 Hz
Energetic class: B
Insulation class: F
Max absorption: 90 W
Max current consumption: 0.40 A

Hydraulic scheme for thermostatic regulation group

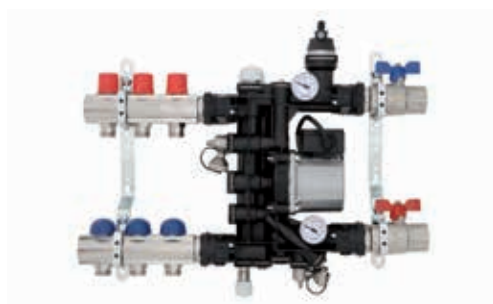


Floor Control Unit Plus - Regulation group

Hydraulic scheme for climatic regulation group - only heating



A external probe - **B** remote control with room sensor - **C** electronic climatic regulator



Floor Control Unit Plus only high temperature with lockshields, electronic circulator pump

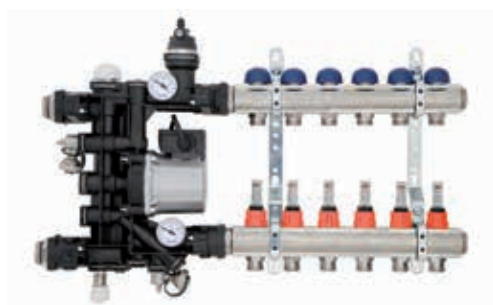
Size	Box	Pcs. pack	Code
2H	L 700	1	28158100
3H	L 700	1	28158102

When installing the module in a metal box, for a correct installation it's recommended maintaining a distance of 135 mm between the back of the box and the wall.

To completed with:

- Thermostatic head with immersion probe code 90046750 or
- 3 points electric servomotor code 28157210 or
- 0-10 V DC electric servomotor code 28157220

In the case of installation of an electric servomotor, combined with electronic climatic regulation kit for heating code 28139060 or PCO regulators for heating and cooling.



Floor Control Unit Plus only low temperature with flow meters, electronic circulator pump

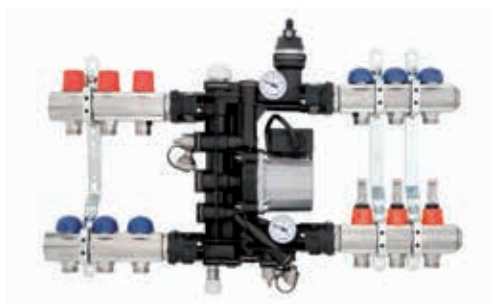
Size	Box	Pcs. pack	Code
3L	L 700	1	28158110
4L	L 700	1	28158112
5L	L 700	1	28158114
6L	L 700	1	28158116
7L	L 850	1	28158118
8L	L 850	1	28158120
9L	L 850	1	28158122
10L	L 1000	1	28158124
11L	L 1000	1	28158126
12L	L 1000	1	28158128
13L	L 1200	1	28158130

When installing the module in a metal box, for a correct installation it's recommended maintaining a distance of 135 mm between the back of the box and the wall.

To completed with:

- Thermostatic head with immersion probe code 90046750 or
- 3 points electric servomotor code 28157210 or
- 0-10 V DC electric servomotor code 28157220

In the case of installation of an electric servomotor, combined with electronic climatic regulation kit for heating code 28139060 or PCO regulators for heating and cooling.



Floor Control Unit Plus high and low temperature with flow meters, electronic circulator pump

Size	Box	Pcs. pack	Code
2H + 3L	L 700	1	28158140
2H + 4L	L 850	1	28158142
2H + 5L	L 850	1	28158144
2H + 6L	L 850	1	28158146
2H + 7L	L 1000	1	28158148
2H + 8L	L 1000	1	28158150
2H + 9L	L 1000	1	28158152
2H + 10L	L 1200	1	28158154
2H + 11L	L 1200	1	28158156
2H + 12L	L 1200	1	28158158
2H + 13L	L 1200	1	28158160
3H + 3L	L 850	1	28158170
3H + 4L	L 850	1	28158172
3H + 5L	L 850	1	28158174
3H + 6L	L 1000	1	28158176
3H + 7L	L 1000	1	28158178
3H + 8L	L 1000	1	28158180
3H + 9L	L 1200	1	28158182
3H + 10L	L 1200	1	28158184
3H + 11L	L 1200	1	28158186
3H + 12L	L 1200	1	28158188

When installing the module in a metal box, for a correct installation it's recommended maintaining a distance of 135 mm between the back of the box and the wall.

To be completed with:

- Thermostatic head with immersion probe code 90046750 or
- 3 points electric servomotor code 28157210 or
- 0-10 V DC electric servomotor code 28157220

In the case of installation of an electric servomotor, combined with electronic climatic regulation kit for heating code 28139060 or PCO regulators for heating and cooling.



Mixing Unit M3V-V with electronic circulator pump

Size	Pcs. pack	Code
1" (*)	1	28131820
1"1/4 (**)	1	28131830

(*) Threaded fittings size: G 1"

(**) Threaded fittings size: G 1"1/4

To be completed with:

- thermostatic head with immersion probe code 90046750
- or
- 3-point electric servomotor code 28157210
- or
- 0-10 V DC electric servomotor code 28157220

If installing an electric servomotor, combine with the electronic climatic regulation kit for heating only code 28139060 or PCO regulators for heating and cooling

Note: for correct built-in installation inside a Metalbox metal box, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the box and the wall.

Floor Control Unit Plus - Regulation group

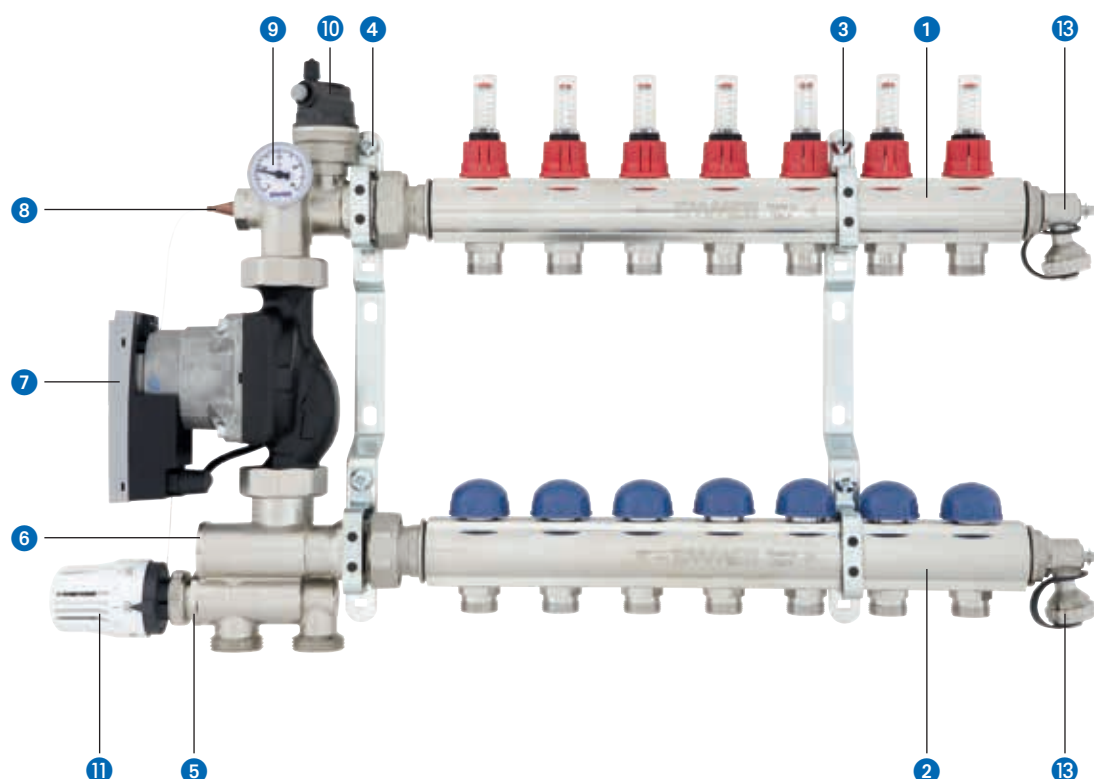
Selection guide of metal box for Floor Control Unit Plus groups

Floor Control Unit Plus		Metalbox	
Size	Code	Size	Code
2H	28158100	L700	01301032
3H	28158102	L700	01301032
3L	28158110	L700	01301032
4L	28158112	L700	01301032
5L	28158114	L700	01301032
6L	28158116	L700	01301032
7L	28158118	L850	01301038
8L	28158120	L850	01301038
9L	28158122	L850	01301038
10L	28158124	L1000	01301034
11L	28158126	L1000	01301034
12L	28158128	L1000	01301034
13L	28158130	L1200	01301036
2H+3L	28158140	L700	01301032
2H+4L	28158142	L850	01301038
2H+5L	28158144	L850	01301038
2H+6L	28158146	L850	01301038
2H+7L	28158148	L1000	01301034
2H+8L	28158150	L1000	01301034
2H+9L	28158152	L1000	01301034
2H+10L	28158154	L1200	01301036
2H+11L	28158156	L1200	01301036
2H+12L	28158158	L1200	01301036
2H+13L	28158160	L1200	01301036
3H+3L	28158170	L850	01301038
3H+4L	28158172	L850	01301038
3H+5L	28158174	L850	01301038
3H+6L	20158176	L1000	01301034
3H+7L	28158178	L1000	01301034
3H+8L	28158180	L1000	01301034
3H+9L	28158182	L1200	01301036
3H+10L	28158184	L1200	01301036
3H+11L	28158186	L1200	01301036
3H+12L	28158188	L1200	01301036

TM3 Mixing Unit



Pre-assembled regulation group (thermostatic or climatic electronic), for low temperature heating systems complete with brackets for installation on wall or in Metalbox (for 120 mm brick thickness)



Construction

- 1 Nr. 1 flow bar for floor heating system with lockshields or flow meters (where required);
 - 2 Nr. 1 return bar for floor heating system set up to take thermoelectric heads (where required);
 - 3 Nr. 1 bracket for fixing manifolds (where required);
 - 4 Nr. 1 bracket for fixing mixing group;
 - 5 Nr. 1 mixing valve thread M30x1,5 set up to thermoelectric head with immersion probe from 20 to 65 °C (where required) electric servomotor (not supplied);
 - 6 Nr. 1 adjusting valve and by-pass (fixed-point adjustment) - nr. 1 housing for return probe (climatic regulation);
 - 7 Nr. 1 Wilo Yonos PARA RS 25/6 circulator pump with cable (tripolar cable L = 1000 mm)
 - 8 Nr. 1 housing for temperature flow probe;
 - 9 Nr. 1 control thermometer from 0 to 80 °C;
 - 10 Nr. 1 automatic bleed valve 1/2"
 - 11 Nr. 1 thermostatic head with immersion probe from 20 to 65 °C (fixed-point adjustment)
 - 12 Nr. 1 check valve (not shown in the figure)
 - 13 Nr. 2 fill and discharge adjustable bibcocks with safety plug (where required);
 - 14 Nr. 1 kit ball valve (not supplied);
- Nr. 1 box with safety thermostat for cable circulator pump low temperature (optional) or nr. 1 basic wiring box 6T for electrothermic heads (optional).

Technical data

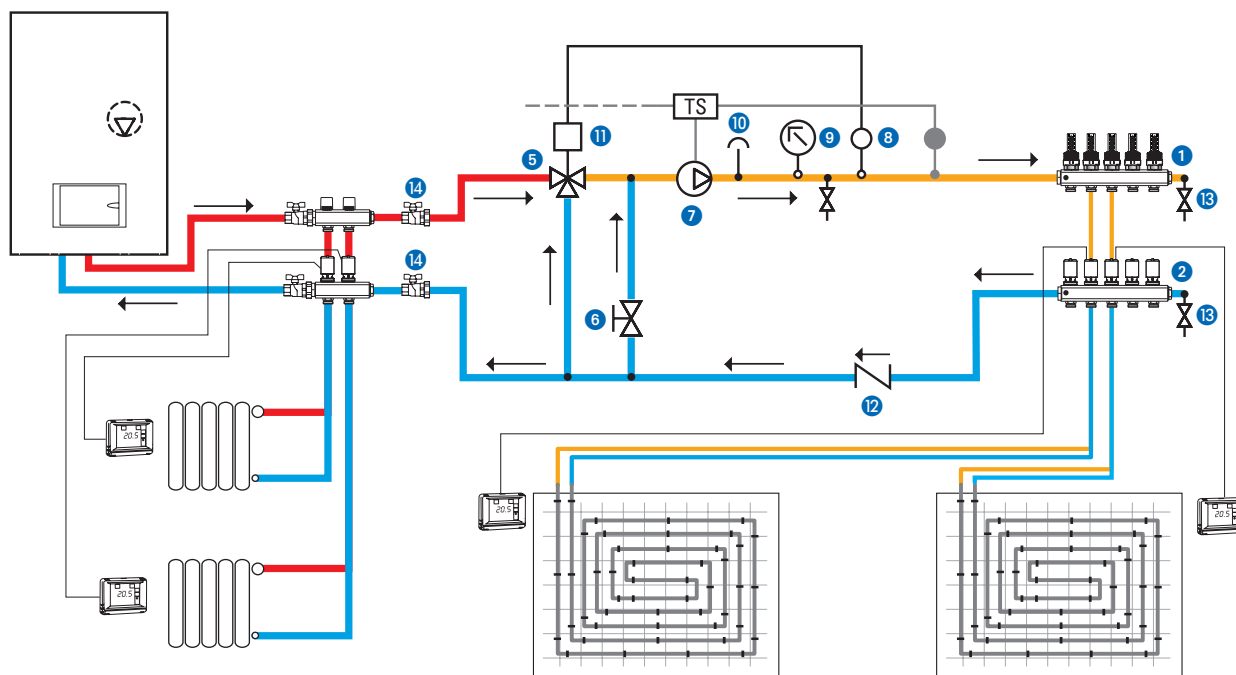
Max temperature for primary circuit: 90 °C
 Max operating pressure: 6 bar - Δ max for primary circuit: 1 bar
 Secondary range: 20÷65 °C (fixed-point regulation)
 Thermal power exchangeable Δ 7°C, Δ useful 0,25 bar
 - Fixed-point regulation: 10 kW by-pass position 0
 - Fixed-point regulation: 12.5 kW by-pass position 5
 Climatic regulation: 11.5 kW
 Mixing valve pressure drop (fixed-point regulation): Kv 3
 Pressure drop with by-pass valve position 5 (fixed-point regulation): Kvmax=4,8
 Mixing valve pressure drop (climatic regulation): Kv 4
 Thermometer scale: 0÷80 °C
 Mixing group head threads: 1" male
 Topway manifolds head threads (where required): 1" Female
 Topway manifolds takeoffs threads: 24x19 tekeoffs 50 mm
 Circulator pump connection: pipe union 1"1/2 - takeoffs 130 mm

Wilo Yonos Para RS 25/6 circulator pump

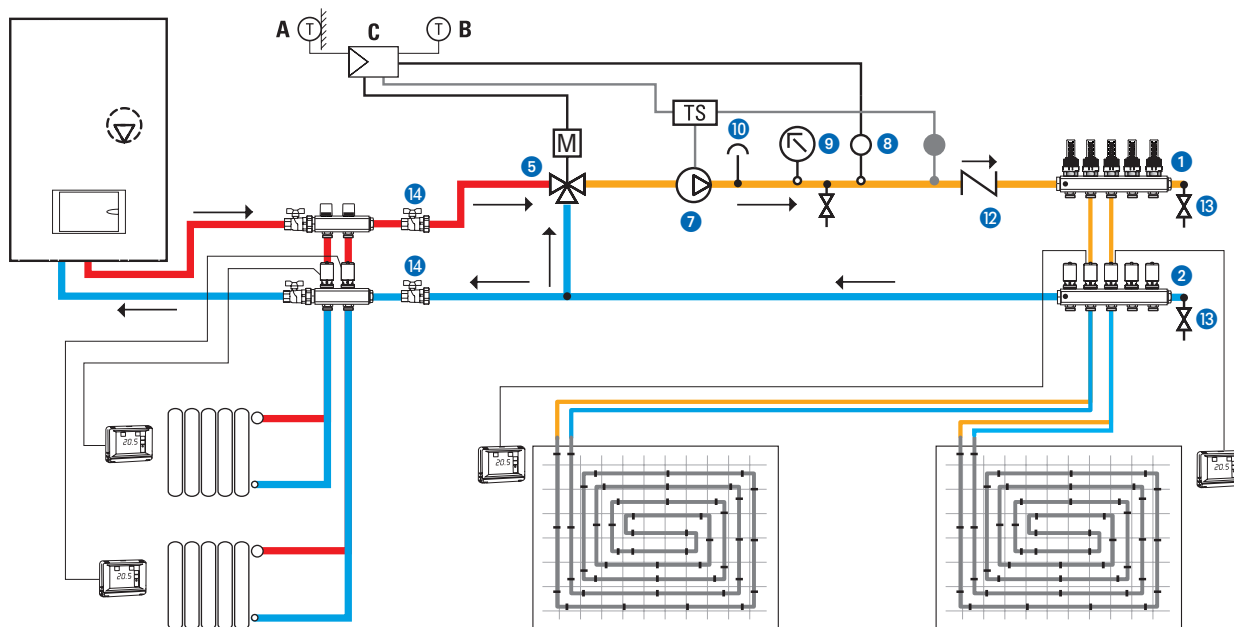
Connections - takeoffs: G1"1/2 - 130 mm
 Rotation speed: 800÷4250 rpm
 Fluids that can be used:
 Water cooling and heating - Water and glycol: max 1:1
 Max static pressure: 6.2 m - Max delivery capacity: 3.3 m³/h
 Max temperature water: 95 °C (at room temperature of 57 °C)
 Max temperature water: 90 °C (at room temperature of 59 °C)
 Max temperature water: 70 °C (at room temperature of 70 °C)
 Electrical connection 1~230 V, 50/60 Hz
 Protection class IPX 4D, of insulation F
 Nominal motor power: 37 W Electrical consumption from 1~230V: 3÷45 W
 Power absorbed from 1~230V: 0.03 ÷ 0.44 A
 Energetic class: A

TM3 Mixing Unit

Hydraulic scheme for thermostatic regulation group



Hydraulic scheme for climatic regulation group - only heating



- A** External probe
- B** Remote control with room sensor
- C** Electronic climatic regulator



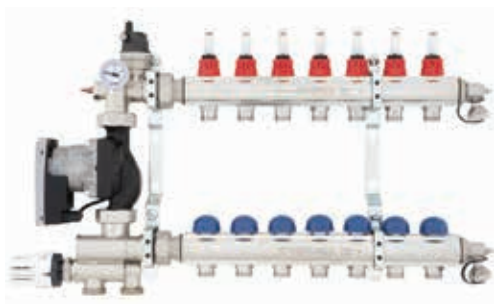
TM3 thermostatic with manifolds with lockshields, low temperature

Size	Ways	Pcs. pack	Code
1"	2L	1	28131960
1"	3L	1	28131962
1"	4L	1	28131964
1"	5L	1	28131966
1"	6L	1	28131968
1"	7L	1	28131970
1"	8L	1	28131972
1"	9L	1	28131974
1"	10L	1	28131976
1"	11L	1	28131978
1"	12L	1	28131980

Complete with thermostatic head with immersion probe

Wilco Yonos Para RS 25/6

Connections - takeoffs: G1"1/2 - 130 mm - Rotation speed: 800÷4250 rpm



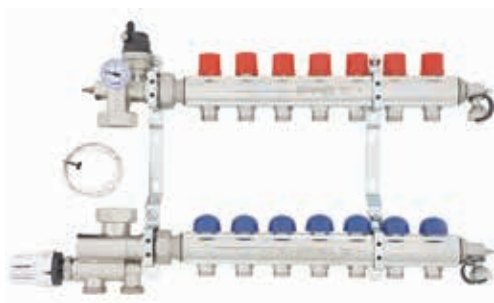
TM3 thermostatic with manifolds with flow meters (4 l/min), low temperature

Size	Ways	Pcs. pack	Code
1"	2L	1	28131990
1"	3L	1	28131992
1"	4L	1	28131994
1"	5L	1	28131996
1"	6L	1	28131998
1"	7L	1	28132000
1"	8L	1	28132002
1"	9L	1	28132004
1"	10L	1	28132006
1"	11L	1	28132008
1"	12L	1	28132010

Complete with thermostatic head with immersion probe

Wilco Yonos Para RS 25/6

Connections - takeoffs: G1"1/2 - 130 mm - Rotation speed: 800÷4250 rpm



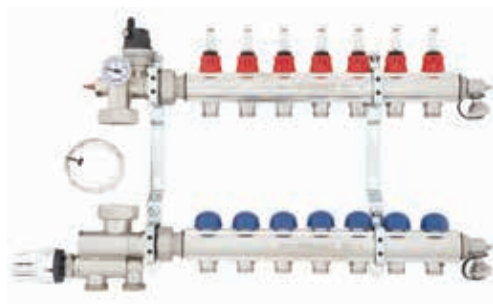
TM3 thermostatic with manifolds with lockshields, low temperature without circulator pump

NEW

Size	Ways	Pcs. pack	Code
1"	2L	1	28132020
1"	3L	1	28132022
1"	4L	1	28132024
1"	5L	1	28132026
1"	6L	1	28132028
1"	7L	1	28132030
1"	8L	1	28132032
1"	9L	1	28132034
1"	10L	1	28132036
1"	11L	1	28132038
1"	12L	1	28132040

Complete with thermostatic head with immersion probe

TM3 Mixing Unit - Regulation group



TM3 thermostatic with manifolds with flow meters (4 l/min), low temperature without circulator pump

NEW

Size	Ways	Pcs. pack	Code
1"	2L	1	28132050
1"	3L	1	28132052
1"	4L	1	28132054
1"	5L	1	28132056
1"	6L	1	28132058
1"	7L	1	28132060
1"	8L	1	28132062
1"	9L	1	28132064
1"	10L	1	28132066
1"	11L	1	28132068
1"	12L	1	28132070

Complete with thermostatic head with immersion probe



TM3 thermostatic without circulator pump

Size	Pcs. pack	Code
1"	1	28131900

Complete with thermostatic head with immersion probe



TM3 thermostatic with Wilo Yonos Para RS 25/6 electronic circulator pump

Size	Pcs. pack	Code
1"	1	28131910

Complete with thermostatic head with immersion probe

Wilo Yonos Para RS 25/6

Connections - takeoffs: G1"1/2 - 130 mm - Rotation speed: 800÷4250 rpm



TM3 electronic without circulator pump

Size	Pcs. pack	Code
1"	1	28131930



TM3 electronic with Wilo Yonos Para RS 25/6 electronic circulator pump

Size	Pcs. pack	Code
	1	28131940

Wilo Yonos Para RS 25/6

Connections - takeoffs: G1"1/2 - 130 mm - Rotation speed: 800÷4250 rpm



Pre-assembled distribution manifolds takeoffs 24x19 with lockshields with flow meters

Size	Ways	Pcs. pack	Code
1"	2	1	01297340
1"	3	1	01297342
1"	4	1	01297344
1"	5	1	01297346
1"	6	1	01297348
1"	7	1	01297350
1"	8	1	01297352
1"	9	1	01297354
1"	10	1	01297356
1"	11	1	01297358
1"	12	1	01297360

Complete with:

Lockshields with built-in flow meters (0÷4 l/min)

Manual adjustment valves set up to take thermoelectric heads

Nr. 2 reductions 1" M - 1/2" F

Nr. 2 drain water valves 1/2"

Nr. 2 dual metal holders 1"

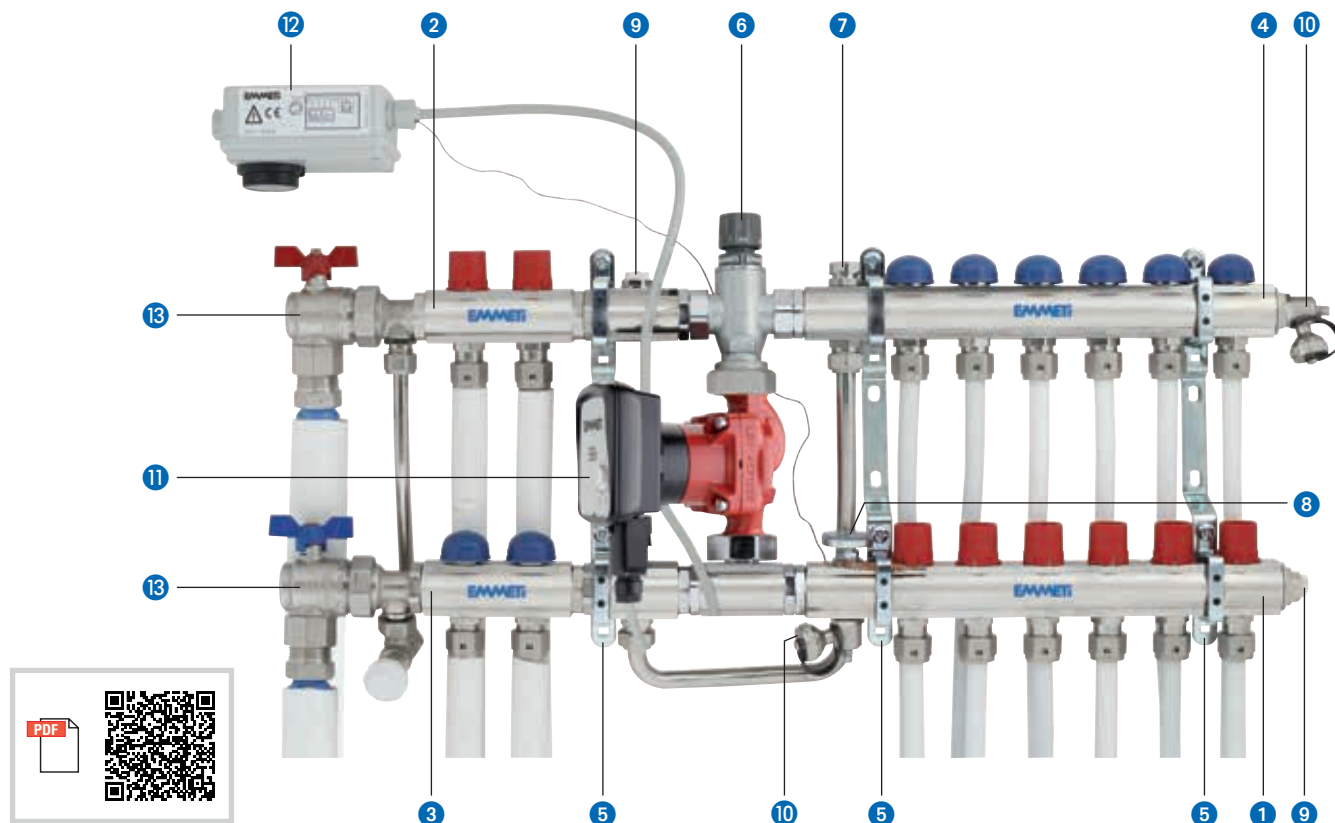


Progress straight ball valves kit female-revolving nut with butterfly handle

Size	Pcs. pack	Code
3/4" x 1"	1	01306280

Floor Mixing Unit

Pre-assembled regulation group with thermostatic mixing three-ways valve, for heating system, low temperature complete with brackets for installation on wall or in Metalbox (for 120 mm brick thickness)



Construction

- 1 nr. 1 flow bar for floor heating system with regulation lockshields
- 2 nr. 1 flow bar for radiators heating with regulation manifolds (kit 2A optional)
- 3 nr. 1 return bar for radiators heating set up to take thermoelectric heads (kit 2A optional)
- 4 nr. 1 return bar for floor heating system set up to take thermoelectric heads
- 5 nr. 3 brackets for fixing bar
- 6 nr. 1 thermostatic mixing valve three ways
- 7 nr. 1 cut-off and balancing lockshield
- 8 nr. 1 control thermometer 0-80 °C
- 9 nr. 2 manually air vent valves 1/2"
- 10 nr. 2 drain bibcocks with adjustable connection and safety plug
- 11 nr. 1 Shark E 25/4-130 or 25/6-130 or 25/8-130 circulator pump (or similar, with same dimensions and characteristics) optional*
- 12 nr. 1 box with safety thermostat for cable circulator pump low temperature (optional) or nr. 1 basic wiring box 6T for electrothermic heads (optional)
- 13 nr. 1 kit valves with by-pass (optional)

* scelta del circolatore in funzione del numero di vie di bassa temperatura e della portata richiesta

Technical data

Max temperature for primary circuit: 90 °C
 Max operating pressure: 10 bar
 Circulator pump connection: pipe union 1 1/2 - 130 mm

Manifolds

Size: 1"
 Connect to primary circuit: G 1"
 Connection pipes: M 24X19

Mixing thermostatic three-ways valve

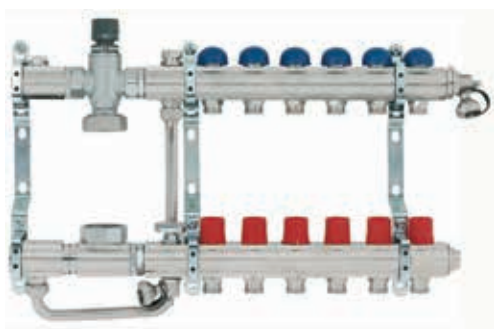
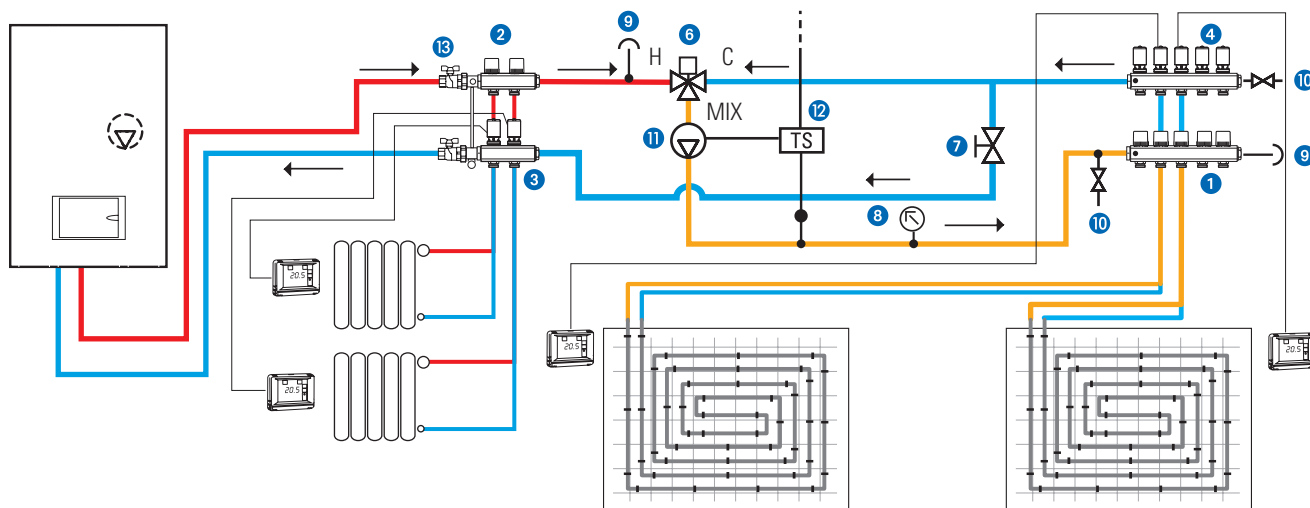
Size: 1"
 Range of regulation: 25 °C - 55 °C*
 * Nominal conditions: $T_H = 65\text{ °C}$; $T_C = 15\text{ °C}$;
 $\Delta p_{H-MIX} = \Delta p_{C-MIX}$
 $K_v = 1,8 \div 3,3$

H, C, Mix: see hydraulic scheme

Floor Mixing Unit - Regulation group



Hydraulic scheme



Floor Mixing Unit

Size	Pcs. pack	Code
2L	1	28152100
3L	1	28152102
4L	1	28152104
5L	1	28152106
6L	1	28152108
7L	1	28152110
8L	1	28152112
9L	1	28152114
10L	1	28152116
11L	1	28152118
12L	1	28152120

Note: when installing the module complete with optional pump in a metal box, for a correct installation maintain a distance not less than 135 mm between the back of the box and the wall.
Items to be out of range



Accessories kit high temperature for Floor Mixing Unit

Size	Pcs. pack	Code
(2+2)H	1	01292316
(3+3)H	1	01292318
(4+4)H	1	01292320
(5+5)H	1	01292322
(6+6)H	1	01292324

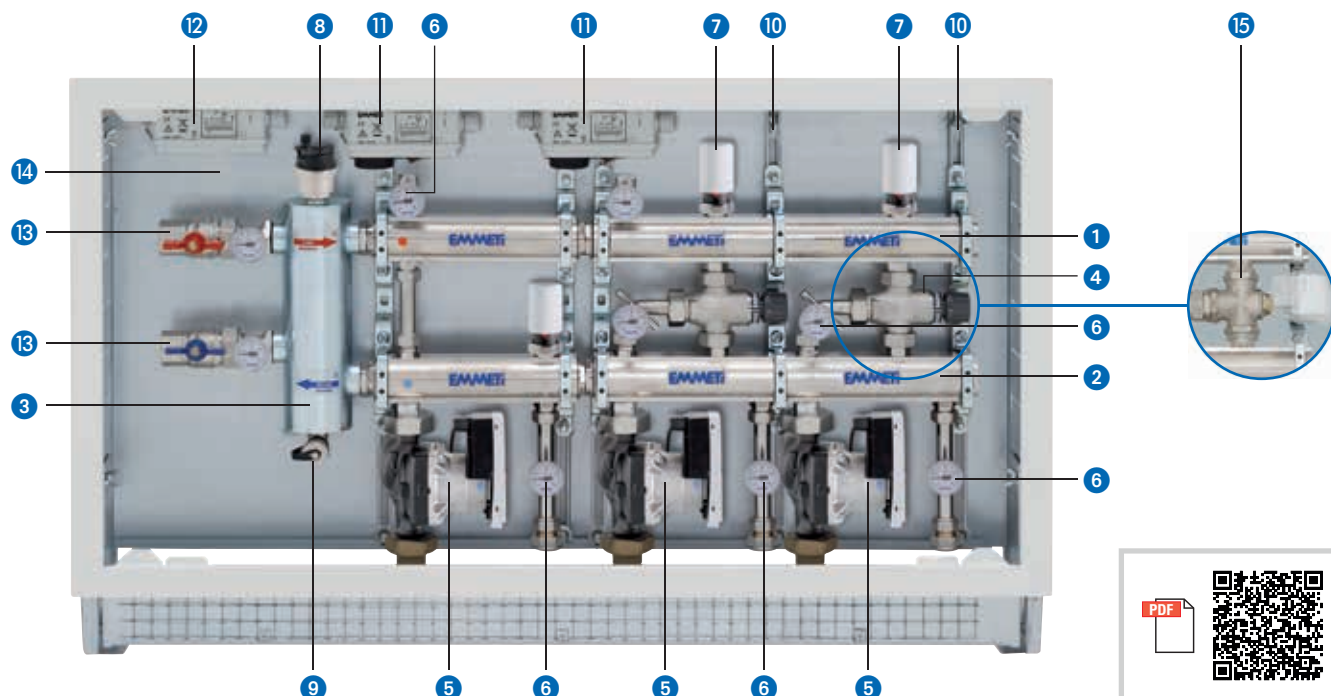


Thermal kit with by-pass for Floor Mixing Unit

Size	Pcs. pack	Code
	1	01306178

Item to be out of range

Distribution groups for high-low temperature systems, with electronic circulation pumps



TECHNICAL SHEET 81

Construction

- ① nr. 1 flow bar
- ② nr. 1 return bar
- ③ Open manifold
- ④ 3-ways thermostatic mixing valve (fixing point versions)
- ⑤ Electronic circulator pump Wilo Yonos Para RS 25/6
- ⑥ Control thermometers 0-80 °C
- ⑦ Regulation valves for electric heads (optional)
- ⑧ Automatic air vent valve 1/2"
- ⑨ Drain bibcocks with adjustable connection and safety plug
- ⑩ Fixing bar brackets
- ⑪ Electric box with capillary safety thermostat for regulation low temperature pump (optional)
- ⑫ Electric box for regulation height temperature pump (optional)
- ⑬ Progress kit valve (optional)
- ⑭ Manifold cabinet in galvanised steel
- ⑮ Mixing valve with electric servomotor (climatic versions, 3 points or 0-10 V DC electric servomotor to buy separately)

Function conditions

Max operating temperature 90 °C (110 °C*)
 Max operating pressure 6 bar (10 bar*)
 (*) con circolatori idonei a tali prestazioni

Technical data of thermostatic mixer valve

Range of regulation: 25 °C - 55 °C*
 * Nominal conditions: TH = 65 °C; TC = 15 °C;
 $\Delta p_H - MIX = \Delta p_C - MIX$
 $K_v = 1,8 \div 3,3$

H; C; Mix: see hydraulic scheme

Technical data for mixer valve activated by 3-point electric servomotor

$K_v = 3$
 Range of adjustment: 15 ÷ 60 °C (*)
 (*) with the following conditions:
 TH = 65 °C
 TC = 15 °C
 $\Delta p_H - MIX = \Delta p_C - MIX$
H; C; Mix: see hydraulic scheme

Connections

Thread (built-in modules/Open manifold side): 1"
 Thread (auxiliary connections for 2 or 3 high-temperature heating bodies): 1" F
 Thread (single modules): 1 1/4" F
 Zone connections thread: 3/4" F
 Branch connections thread for high-temperature heating bodies: M 24x19

Material of distribution modules

Brass from drawn bar TN UNI EN 12168 CW614N
 Brass UNI EN 12165 CW 617 N
 Annealed copper
 Gasket o-rings EPDM 70 Sh

Flow and return manifolds

Size: 1 1/4"
 Thread: G 1 1/4"

Open manifold

Zinc-plated sandblasted steel UNI EN 13134
 Lateral connections 1" F
 Auxiliary connections 1/2" F



Yonos Wilo Para pump RS 25/6

Connections - takeoffs G1 1/2 - 130 mm.

Variable rotation speed: 800 to 4250 rpm.

Fluids used:

Water cooling and heating.

Water and glycol: max 1:1

Maximum static pressure: 6.2 m

Maximum capacity: 3.3 m³ / h

Max water temperature 95 °C at room temperatures of 57 °C

Max water temperature 90 °C at room temperatures of 59 °C

Max water temperature 70 °C at room temperatures of 70 °C

Electrical connection 1 ~ 230 V, 50/60 Hz

Protection class IPX 4D, F insulation

Nominal engine Power: 37 W

Energy consumption by 1 ~ 230 V 3 to 45 W

Current consumption at 1 ~ 230V: 0.03 to 0.44 A

Energy Class A

In conform to:

ErP Directive

EN61800-3

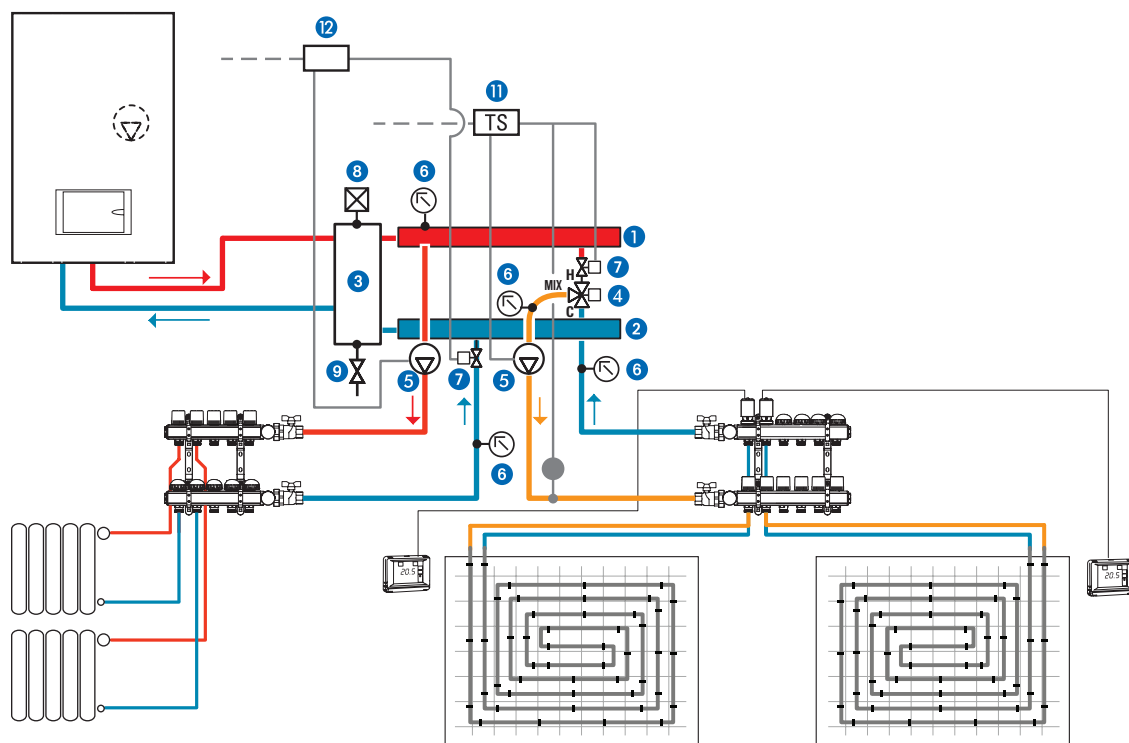
EN 61000-6-3 / EN 61000-6-4

EN 61000-6-2 / EN 61000-6-1

The range

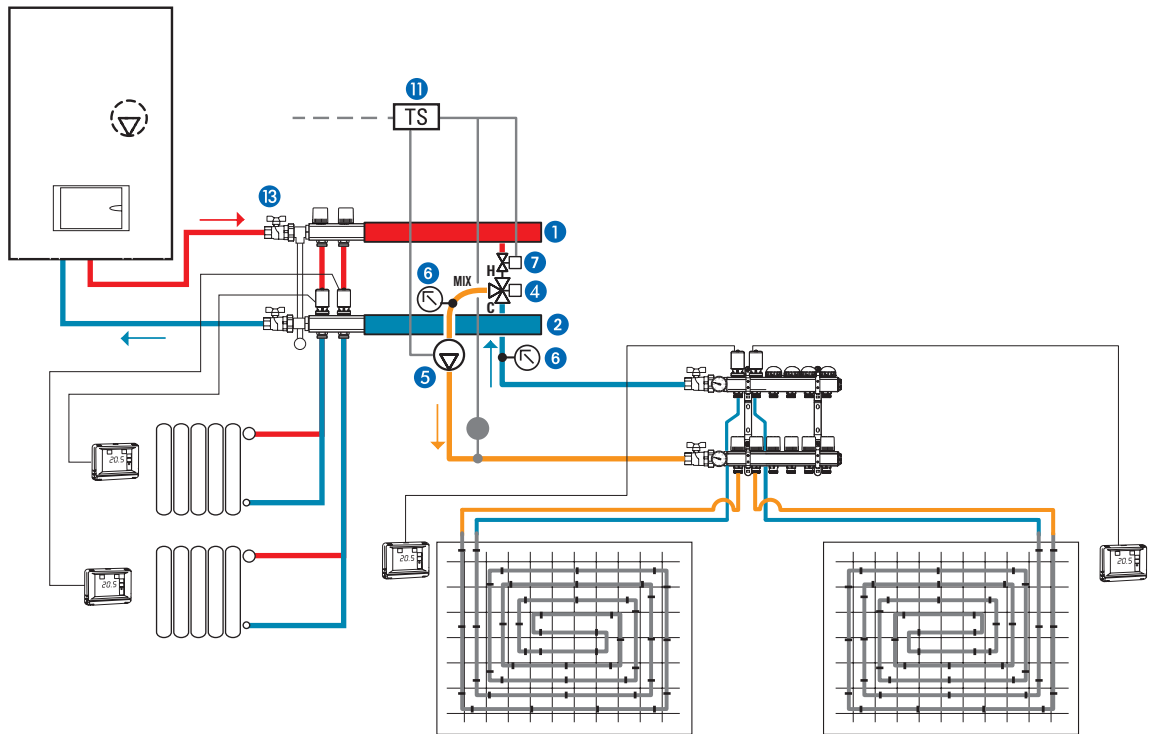
- Firstbox H - distribution modules for high temperature zones
- Firstbox L - distribution modules for low temperature zones
- Firstbox H+L - distribution modules for high and low temperature zones
- Recessed distribution modules for high/low temperature systems, provided pre-assembled in recessed metallic box complete with enamelled door and frame
- Single distribution modules, provided with fastening brackets, to be assembled using joint nipples M-M 1"1/4

Hydraulic scheme - Modules with open manifold - Thermostatic regulation

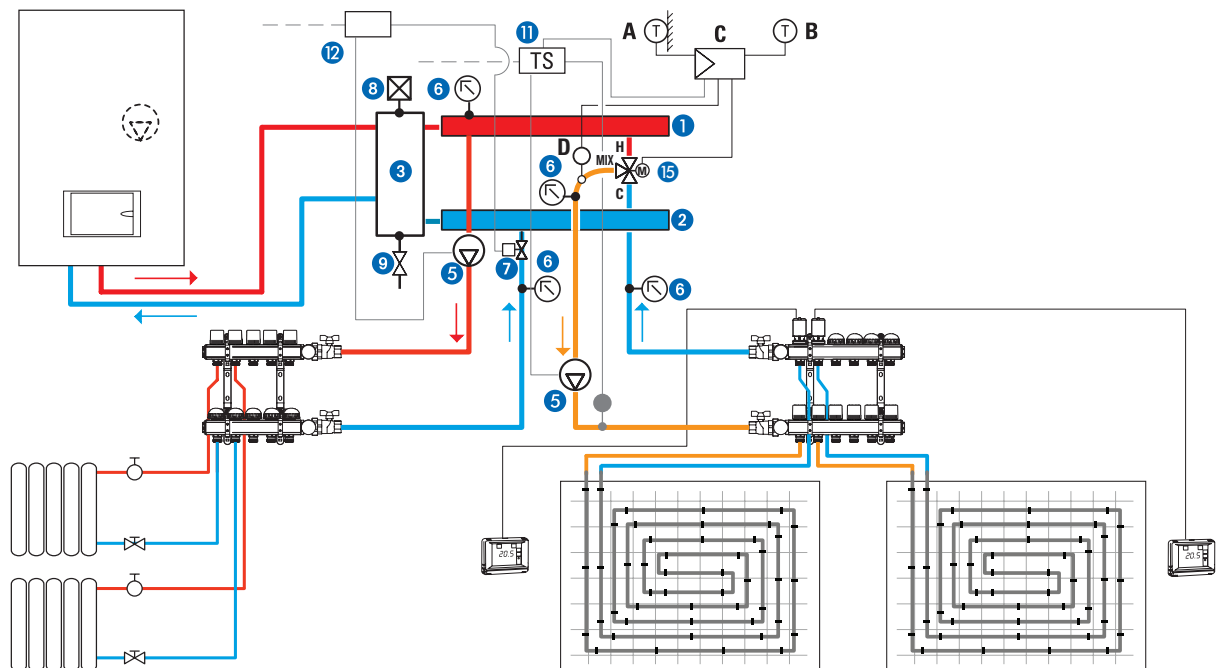


Firstbox - under boiler kit

Hydraulic scheme - Modules for low temperature heating systems with auxiliary connections for high temperature terminals. Thermostatic regulation



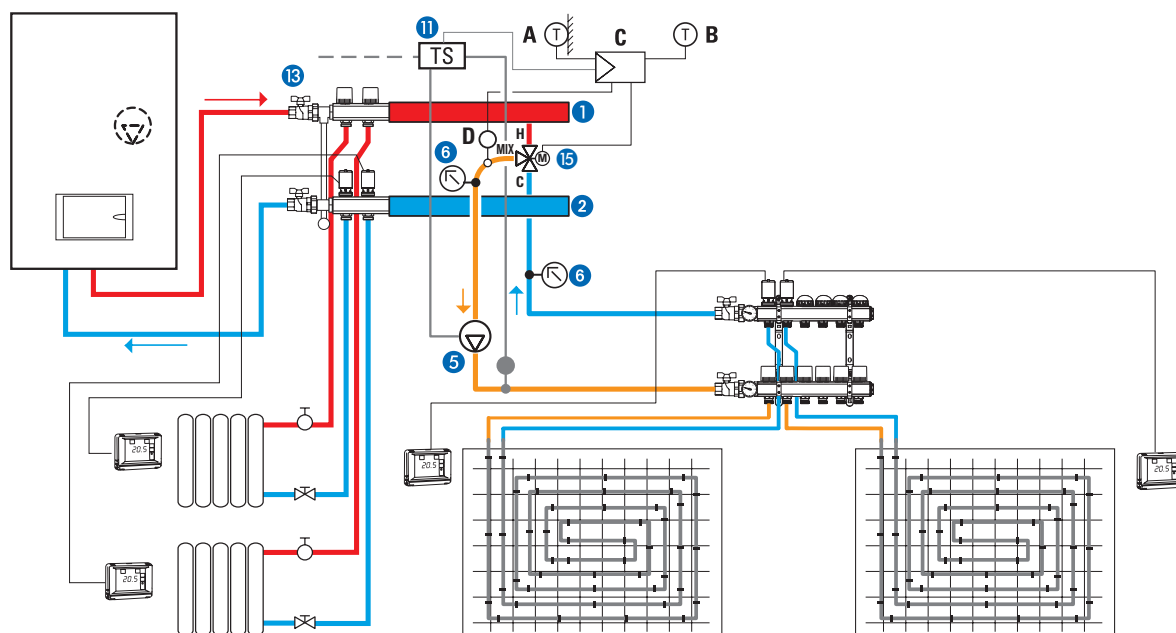
Hydraulic scheme - Modules with open manifold - Climatic regulation



- A** external probe
- B** remote control room sensor
- C** electronic climatic regulator
- D** flow pipe probe



Hydraulic scheme - Modules for low temperature heating systems with auxiliary connections for high temperature terminals. Climatic regulation



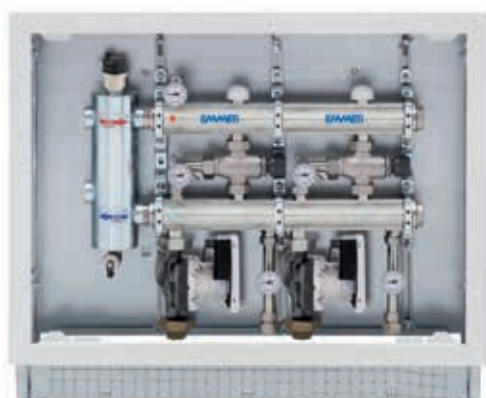
- A** external probe
- B** remote control room sensor
- C** electronic climatic regulator
- D** flow pipe probe



Distribution groups for high temperature systems with electronic circulation pumps and open manifolds

Size	Box	Pcs. pack	Code
1H	L 500	1	28151640
2H	L 700	1	28151642
3H	L 1000	1	28151644

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the cassette and the wall.

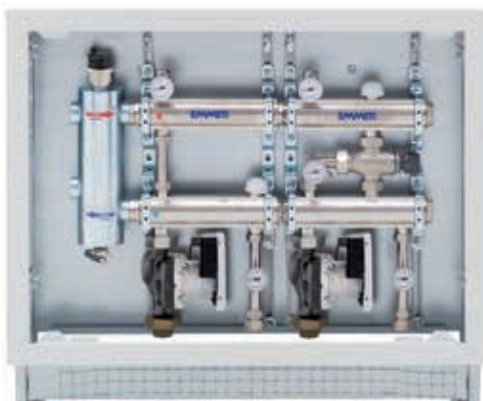


Distribution groups for low temperature systems with mixing valve, electronic circulation pumps and open manifold. Thermostatic regulation

Size	Box	Pcs. pack	Code
1L	L 500	1	28151646
2L	L 700	1	28151648
3L	L 1000	1	28151650

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the cassette and the wall.

Firstbox - under boiler kit



Distribution groups for combined systems (high + low temperature) with mixing valve, electronic circulation pumps and open manifold. Thermostatic regulation

Size	Box	Pcs. pack	Code
1H + 1L	L 700	1	28151652
1H + 2L	L 1000	1	28151654
2H + 1L	L 1000	1	28151656

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the cassette and the wall.



Distribution group for low temperature system with auxiliary connections for 2 or 3 high temperature heating units and electronic circulator pumps. Thermostatic regulation

Size	Box	Pcs. pack	Code
(2+2)H + 1L	L 500	1	28151658
(3+3)H + 1L (*)	L 700	1	28151660
(2+2)H + 2L (*)	L 850	1	28151662
(3+3)H + 2L (*)	L 850	1	28151664

(*) it is possible to install Progress kit valves with thermometers or by-pass, square or right-angle type.

Do not use terminal by-pass.

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the cassette and the wall.



Distribution groups for low temperature systems with mixing valve actionable by electric servomotor, electronic circulation pump and open manifold.

Size	Box	Pcs. pack	Code
1L	L700	1	28151666
2L	L850	1	28151668
3L	L1000	1	28151670

To be completed with:

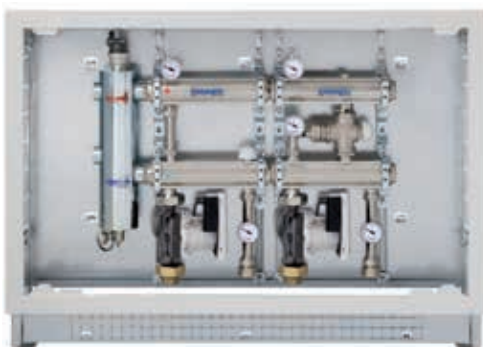
- 3-point electric servomotor(s) code 28157210

or

- 0-10 V DC electric servomotor(s) code 28157220

Combine with the electronic climatic regulation kit for heating only code 28139060 or PCO regulators for heating and cooling.

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the box and the wall.



Distribution modules for combined heating systems (high+low temperature) with mixer valve set up for operation by means of electric servomotor, electronic circulation pumps and open collector.

Size	Box	Pcs. pack	Code
1H+1L	L850	1	28151672
1H+2L	L1000	1	28151674
2H+1L	L1000	1	28151676

To be completed with:

- 3-point electric servomotor(s) code 28157210

or

- 0-10 V DC electric servomotor(s) code 28157220

Combine with the electronic climatic regulation kit for heating only code 28139060 or PCO regulators for heating and cooling.

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the box and the wall.



Distribution modules for low-temperature heating systems with auxiliary connections for 2 or 3 high-temperature heating bodies, with mixer valve set up for operation by means of electric servomotor and electronic circulation pumps.

Size	Box	Pcs. pack	Code
(2+2)H + 1L	L700	1	28151678
(3+3)H + 1L	L700	1	28151680
(2+2)H + 2L	L850	1	28151682
(3+3)H + 2L	L850	1	28151684

To be completed with:

- 3-point electric servomotor(s) code 28157210

or

- 0-10 V DC electric servomotor(s) code 28157220

Combine with the electronic climatic regulation kit for heating only code 28139060 or PCO regulators for heating and cooling.

Note: for correct built-in installation, it's recommended that the module be installed maintaining a distance of 135 mm between the back of the box and the wall.



**Single distribution groups with above electronic circulator pumps.
High temperature**

Size	Pcs. pack	Code
1H	1	28151686
2H	1	28151688

Keep the high temperature modules near the open manifold or boiler.



**Single distribution groups with above electronic circulator pumps.
Low temperature. Thermostatic regulation**

Size	Pcs. pack	Code
1L	1	28151690
2L	1	28151692

Keep the high temperature modules near the open manifold or boiler.



**Single distribution groups with above circulator pump. Low temperature.
Mixing valve actionable by electric servomotor.**

Size	Pcs. pack	Code
1L	1	28151694

Keep the high-temperature modules near the open collector or boiler.

To be completed with:

- 3-point electric servomotor code 28157210 or

- 0-10 V DC electric servomotor code 28157220

Combine with the electronic climatic regulation kit for heating only code 28139060 or PCO regulators for heating and cooling.



**Single distribution groups with below electronic circulator pumps.
High temperature**

Size	Pcs. pack	Code
1H	1	28151696
2H	1	28151698

Keep the high temperature modules near the open manifold or boiler.

Firstbox - under boiler kit



**Single distribution groups with below electronic circulator pumps.
Low temperature. Thermostatic regulation**

Size	Pcs. pack	Code
1L	1	28151700
2L	1	28151702

Keep the high temperature modules near the open manifold or boiler.



**Single distribution modules with lower electronic circulation pump.
Low temperature. Mixer valve set up for operation by means of electric servomotor.**

Size	Pcs. pack	Code
1L	1	28151704

Keep the high-temperature modules near the open collector or boiler.

To be completed with:

- 3-point electric servomotor(s) code 28157210

or

- 0-10 V DC electric servomotor(s) code 28157220

Combine with the electronic climatic regulation kit for heating only code 28139060 or PCO regulators for heating and cooling.



**Single distribution groups with predisposition for above circulator pump.
High temperature.**

Size	Pcs. pack	Code
1H	1	28151310
2H	1	28151314

Keep the high temperature modules near the open manifold or boiler.

Supplied with pipe union to install below the circulator pump/s.

Connections for circulator pumps: 1"1/2 flat seal



**Single distribution group with predisposition for above circulator pump.
Low temperature. Thermostatic regulation**

Size	Pcs. pack	Code
1L	1	28151312
2L	1	28151316

Keep the high temperature modules near the open manifold or boiler.

Supplied with pipe union to install below the circulator pump/s.

Connections for circulator pumps: 1"1/2 flat seal



**Single distribution group with predisposition for above circulator pump .
Low temperature. Mixing valve actionable by electric servomotor.**

Size	Pcs. pack	Code
1L	1	28151630

Keep the high-temperature modules near the open collector or boiler.

To be completed with:

- 3-point electric servomotor code 28157210 or

- 0-10 V DC electric servomotor code 28157220

Combine with the electronic climatic regulation kit for heating only code 28139060 or PCO regulators for heating and cooling.

Complete with pipe union to be installed downstream of the circuoation pump.

Connections for circulation pump: 1"1/2 F flat edge.



Single distribution groups with predisposition for below circulator pump. High temperature.

Size	Pcs. pack	Code
1H	1	28151300
2H	1	28151304

Keep the high temperature modules near the open manifold or boiler.
Supplied with pipe union to install below the circulator pump/s.
Connections for circulator pumps: 1"1/2 flat seal



Single distribution groups with predisposition for below circulator pump. Low temperature. Thermostatic regulation

Size	Pcs. pack	Code
1L	1	28151302
2L	1	28151306

Keep the high temperature modules near the open manifold or boiler.
Supplied with pipe union to install below the circulator pump/s.
Connections for circulator pumps: 1"1/2 flat seal



Single distribution group with predisposition for below circulator pump. Low temperature. Mixing valve actionable by electric servomotor.

Size	Pcs. pack	Code
1L	1	28151602

Keep the high-temperature modules near the open collector or boiler.
To be completed with:
- 3-point electric servomotor code 28157210
or
- 0-10 V DC electric servomotor code 28157220
Complete with pipe union to be installed downstream of the circulation pump.
Connections for circulation pump: 1"1/2 F flat edge.
Combine with the electronic climatic regulation kit for heating only code 28139060 or PCO regulators for heating and cooling.



SPES 192 - 24P heat exchanger kit for firstbox with couplings on opposite sides

Plate exchanger for use in the following kinds of systems:

- with Boiler, to prevent any dirt deposits in the primary circuit
- with Chiller to use water and glycol solutions in the primary circuit
- with Fireplace connected to the central heating system to separate the closed cup from the open-cup primary circuit.

Technical Data

Exchange area: 0.264 m²
KA exchange coefficient: 1.955 W/K
Kv (primary = secondary): 5.0 (m³/h) / (bar)^{0.5}
Plate material: AISI 316 stainless steel
Brazing material: pure copper
Minimum operating temperature: -196 °C
Maximum operating temperature: 225 °C
Maximum operating temperature 45 bar on the primary and secondary circuit at 135°C
Maximum operating temperature 36 bar on the primary and secondary circuit at 225 °C
3/4" M primary and secondary couplings made with AISI 316 stainless steel, centre-to-centre distance 154 mm

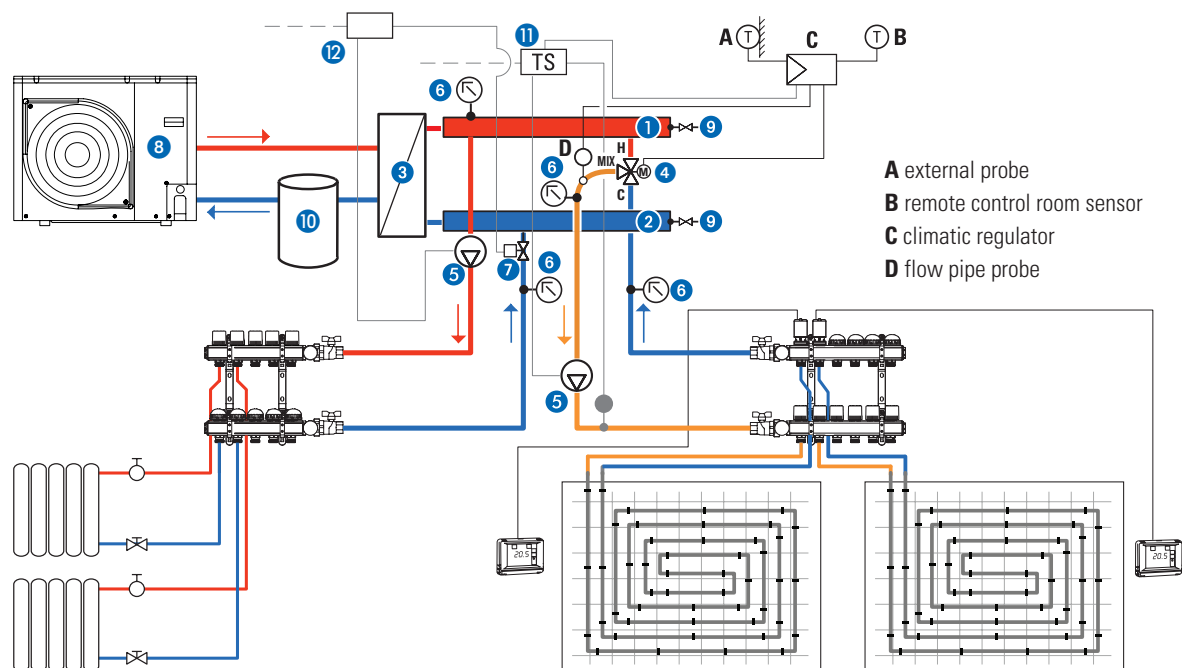
Size	Pcs. pack	Code
	1	28151044

Comes with:
no. 2 brass nickel-plated reducer with 1"1/4 x 1" MM O-ring seal; no. 2 Ø 18 copper pipes with wads featuring 3/4" G and 1" G nuts; no. 1 insulating shell for the exchanger; no. 2 1"1/4 x 1/2" MF reductions for O-ring seal; no. 2 1/2" inlet and outlet valves; no. 1 Ø 6 probe holder kit; no. 1 guide + fixing bracket in the metal box.

Note: can be used in a metal box with up to 3 distribution modules.

Firstbox - under boiler kit

Example of hydraulic scheme with plate exchanger SPES 192 - 24P kit - Climatic regulation



Construction

- 1 no. 1 delivery bar
- 2 no. 1 return bar
- 3 SPES192-24P braze-welded plate exchanger
- 4 Mixing valve with electric servomotor (climatic versions)
- 5 Wilo Yonos Para RS 25/6 electronic circulator
- 6 Scale control thermometers 0-80 °C
- 7 Control/shut-off valves set for electrothermal heads
- 8 Chiller or heat pump
- 9 Discharge taps with adjustable connection and safety plug
- 10 ETW accumulator
- 11 Electrical box with capillary safety thermostat for low temperature circulator cabling
- 12 Electrical box for high temperature circulator cabling



Righ-angle valves kit

Size	Pcs. pack	Code
1"	1	01306190



Open manifold 2+2

Size	Pcs. pack	Code
2"1/2	1	28151040

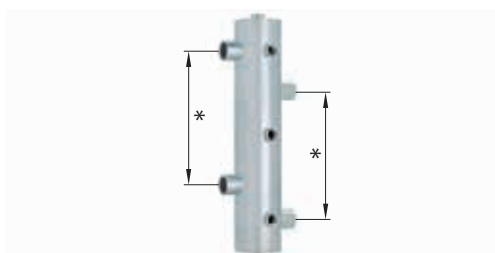
Supplied with nr. 2 connection nipples reduced 1"1/4 - 1", air vent valve and drain valve
Volume: 1 lt



Open manifold 4+2

Size	Pcs. pack	Code
2"1/2 - 4+2	1	28151042

Complete with: nr. 2 reduced nipple joint 1"1/4 - 1", air vent valve and adjustable drain bibcocks



Open manifold 2+2 S, takeoff Firstbox

Size	Ways	Pcs. pack	Code
3"	2+2+5 S	1	07400284

Made in zinc-plated steel welding UNI EN13134. Lateral connections Female 1"1/4 - Auxiliar connection Female 1/2". Max operating pressure: 8 bar.
(*) Takeoff Firstbox 159 mm



Connection nipple

Size	Pcs. pack	Code
M - M 1"1/4	6	01306430
Reduced 1"1/4 - 1"	4	01306432



Nickel-plated blind plug

Size	Pcs. pack	Code
1"1/4 M (*)	10	90005070

(*) with o-ring

Accessories for groups



Thermostatic head with immersion probe for thermostatic regulation group

Setting: 20 ÷ 65 °C - Size thread connection: M30x1,5

Size	Pcs. pack	Code
	1	90046750

Not for Firstbox groups



Electric servomotor

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 (at 50/60 Hz, regarding a stroke of 2.5 mm): 150 s - Nominal force: 100 N - Degree of protection: IP40 according to EN 60529 - Insulation class: II according to EN 60730 - Threaded fitting size: M30x1.5

0-10 V 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 5.5 mm) - Stroke time (at 50/60 Hz, regarding a stroke of 2.5 mm): 150 s - Nominal force: 100 N - Degree of protection: IP40 according to EN 60529 - Insulation class: III according to EN 60730 - Threaded fitting size: M30x1.5

Size	Pcs. pack	Code
3 points (*)	1	28157210
0-10 V DC (**)	1	28157220

Suitable for installation in the Floor Control Unit, Mixing Unit M3V-F and M3V-V, and Firstbox assemblies. Complete with adapter for installation of the flow probe (for climatic temperature control) inside the Floor Control Unit, Mixing Unit M3V-F and M3V-V assemblies

(*) to be combined with the "RCFH electronic climatic regulation Kit" code 28139060 for heating only, or with PCO climatic regulators for heating and cooling.

(**) to be combined only with the PCO climatic regulators for heating and cooling.



Insulating shell for Floor Controlbox

Size	Pcs. pack	Code
	1	01306506

In closed-cell crosslinked expanded polyethylene.

For installation of the insulating shell, it's necessary to first remove the hydraulic assembly from the box (thus do not make the hydraulic and electrical connections before having installed the insulating shell). Suitable for installation in the Floor Control Unit, Mixing Unit M3V-F and M3V-V, and Firstbox assemblies. Complete with adapter for installation of the flow probe (for climatic temperature control) inside the Floor Control Unit, Mixing Unit M3V-F and M3V-V assemblies.

To be combined with the "RCFH electronic climatic regulation Kit" code 28139060 for heating only, or with PCO climatic regulators for heating and cooling.



Insulating shell Floor Control Unit, Mixing Unit M3V-F and Mixing Unit M3V-V

Size	Pcs. pack	Code
	1	01306510

In closed-cell crosslinked expanded polyethylene.

For installation of the insulating shell, it's necessary to first remove the hydraulic assembly from the box (thus do not make the hydraulic and electrical connections before having installed the insulating shell). If the shell is being installed on an assembly inside a Metalbox metal box, it's recommended that the assembly be installed maintaining a distance of 135 mm between the back of the box and the wall.



Insulating shell for Firstbox open manifold

Size	Pcs. pack	Code
	1	01306512

In mesh expanded closed cell polyethylene.

For the installation of the insulating shell, you must first remove the plumbing assembly from the box. Therefore, do not make plumbing and electrical connections before installing the insulating shell. Also position the frame of the box at a distance of at least 135 mm from the bottom of the box itself.



Insulating shell for Firstbox distribution groups

Size	Pcs. pack	Code
1H pump below	1	01306514
1L pump below	1	01306516

In closed-cell crosslinked expanded polyethylene.

For installation of the insulating shell, it's necessary to first remove the hydraulic assembly from the box (thus do not make the hydraulic and electrical connections before having installed the insulating shell). If the shell is being installed on an assembly inside a Metalbox metal box, it's recommended that the assembly be installed maintaining a distance of 135 mm between the back of the box and the wall. To be combined with the "RCFH electronic climatic regulation Kit" code 28139060 for heating only, or with PCO climatic regulators for heating and cooling.

Guidelines for choosing the climatic regulation components to be combined with the pre-assembled Floor Control Unit, Floor Control Unit Plus, Mixing Unit M3V and Firstbox assemblies

Components	Type of application		
	Only heating with 3 points servomotor	Heating/Cooling with 3 points servomotor	Heating/Cooling with 0-10 Vdc servomotor
 28139070 - Section 4		1	1
 PCO - Section 4		1	1
 28139060 (*) - Section 4	1		
 28157210 Section 11	1	1	
 28157220 Section 11			1
 28130632 - Section 3	1	1	1

(*) Item to be out of range



Consumption measuring systems

> Box
modules



294

> Under-boiler
kit



307

> Single module



297

> Accessories



322

> Compact
modules



299

> Accessories
M-Bus



324

> Built-in
cabinet



303

> Accessories
M-Bus

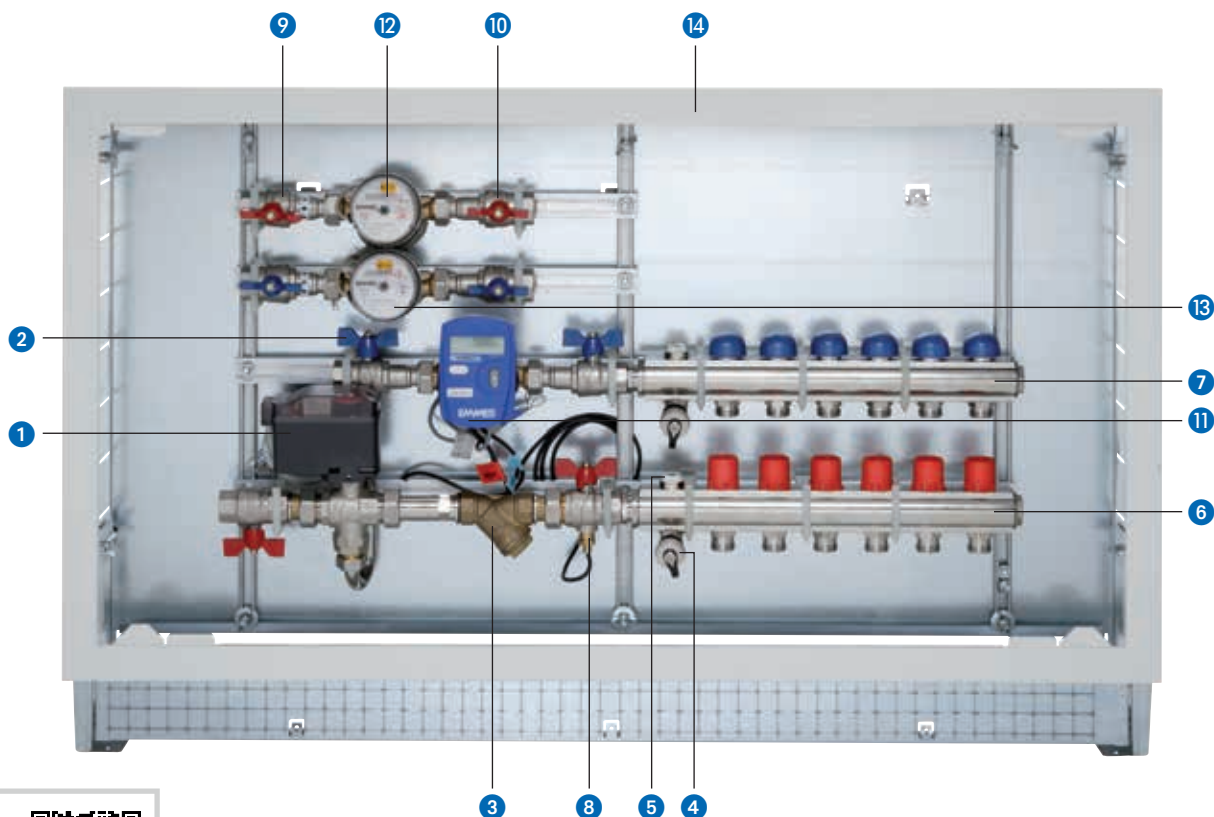


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Energy Box

Modules for accounting of heating and plumbing consumption



TECHNICAL SHEET 130

Construction

- ① Motorized valve DN20 4-way with by-pass passage
- ② Ball valve DN20 with 3rd by-pass way
- ③ Impurity collection filter DN20
- ④ Discharge bibcock
- ⑤ Manual vent valve
- ⑥ Delivery manifold
- ⑦ Return manifold
- ⑧ Ball valve DN20 with probe connection M10x1
- ⑨ Ball valve DN20 with integrated check cartridge
- ⑩ Ball valve DN20 with swivel joint for accounting instruments
- ⑪ Measuring device for thermal energy with 2 impulsive input and M-Bus output
- ⑫ Hot water impulse launch volumetric counter
- ⑬ Cold water impulse launch volumetric counter
- ⑭ Painted galvanized metal box with key-operated lock for partition of 120 mm

Technical data

Heat carrier fluid: water
 Maximum operating temperature, heating circuit: 90 °C
 Maximum operating pressure, heating circuit: 6 bar
 Maximum temperature of domestic hot water: 90 °C
 Maximum temperature of domestic cold water: 30 °C
 Maximum domestic water pressure: 6 bar

Operation

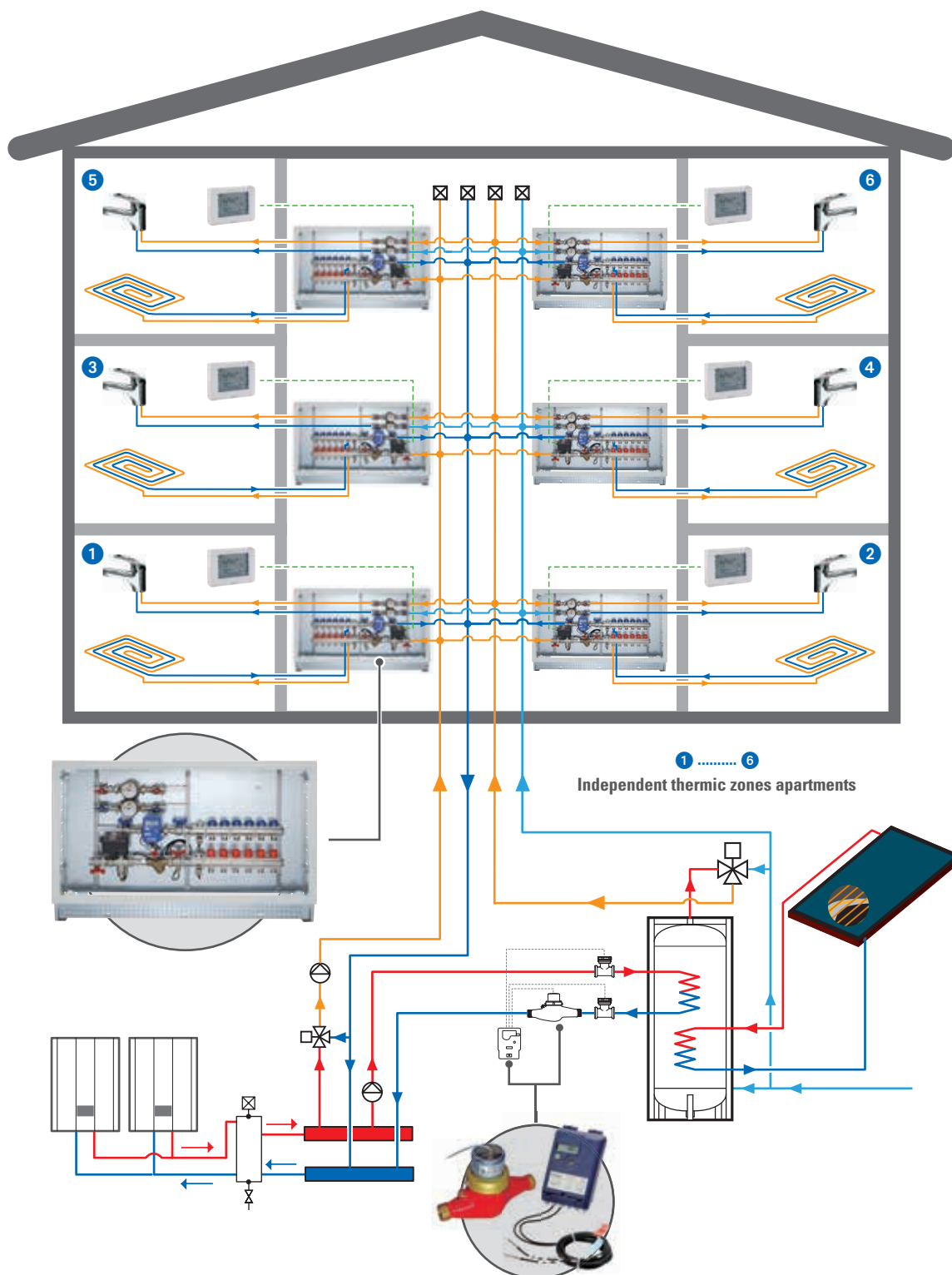
Thermal and domestic water heating consumption measuring modules (with centralized production of hot water), equipped with 4-way zone valve, set up for installation of a DN15 energy meter and DN15 volumetric meter, with distribution collectors: available in a box for built-in installation or with brackets for direct wall-mounted installation. The zone valve is controlled by the temperature control thermostat of the individual residential unit, and this allows complete separation of the thermal zone of each flat on the centralized distribution network; the by-pass passage realizes the pressure drops when the 4-way valve is open, so as to stabilize the operating conditions of the centralized system. Furthermore, to facilitate the balancing of the condominium distribution system and to avoid any problems of poor service caused by the greater transit of fluid in some modules to the disadvantage of others, a balancing valve kit is supplied, as an accessory to be installed on the fluid flow line in the housing instead of the impurity collection filter, in order to guarantee the transit of the design flow for each individual residential unit.

Plant expansion

N.B. Testing and starting up the system are not included in the sales price.



Example of installation





Heating/cooling consumption measuring with flow-return manifolds of 1" (2÷12 vie) equipped with valves and lockshields

Composition

Painted galvanized metal box with key-operated lock - Zone valve DN20 4-way with bypass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Charge/discharge bibcocks - Manual vent valve - Ball valve DN20 with pipe union - Flow-return manifolds 1" (2÷12 ways) equipped with valves and lockshields - Setup for thermal energy counter, size DN15 (connection 3/4")

A flow rate meter can be installed instead of the stoppers once all of the hydraulic connections have been made on site. This must be done by the installer

Size	Box size	Pcs. pack	Code
2 ways	L 700	1	28170300
3 ways	L 850	1	28170302
4 ways	L 850	1	28170304
5 ways	L 850	1	28170306
6 ways	L 1000	1	28170308
7 ways	L 1000	1	28170310
8 ways	L 1000	1	28170312
9 ways	L 1200	1	28170314
10 ways	L 1200	1	28170316
11 ways	L 1200	1	28170318
12 ways	L 1200	1	28170320

The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system.

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 5 days to order confirm



Heating/cooling and hot/cold domestic water consumption measuring with flow-return manifolds of 1" (2÷12 vie) equipped with valves and lockshields

Composition

Painted galvanized metal box with key-operated lock - Zone valve DN20 4-way with bypass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Charge/discharge bibcocks - Manual vent valve - Ball valve DN20 with pipe union - Ball valve DN20 with check valve on sanitary water line - Flow-return manifolds 1" (2÷12 ways) equipped with valves and lockshields - Setup for thermal energy counter, size DN15 (connection 3/4") - Setup for volumetric counters of domestic water, size DN15 (connection 3/4")

A flow rate meter can be installed instead of the stoppers once all of the hydraulic connections have been made on site. This must be done by the installer

Size	Box size	Pcs. pack	Code
2 ways	L 700	1	28170400
3 ways	L 850	1	28170402
4 ways	L 850	1	28170404
5 ways	L 850	1	28170406
6 ways	L 1000	1	28170408
7 ways	L 1000	1	28170410
8 ways	L 1000	1	28170412
9 ways	L 1200	1	28170414
10 ways	L 1200	1	28170416
11 ways	L 1200	1	28170418
12 ways	L 1200	1	28170420

The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system.

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.



Single heating/cooling accounting module with 4-way zone valve with bypass passage

Composition

Zone valve DN20 4-way with bypass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20

Size	Pcs. pack	Code
DN 15 (*)	1	28170906
DN 20 (**)	1	28170908

(*) Prepared for installation of energy meter DN15 (3/4" connection)

(**) Prepared for installation of energy meter DN20 (1" connection)

It is not possible to install the "balancing valve kit" instead of the impurity collection filter inside the module. The assembly thus assembled is suitable for connection on the left side of the main pipelines of the centralized system



Single heating/cooling accounting module with 2-way zone valve

Composition

Zone valve DN20 2-way - Servomotor: 230 Vac, 50 Hz - Ball valve DN20 - Setup for thermal energy counter, size DN15 (connection 3/4")

Size	Pcs. pack	Code
	1	28170904



Domestic cold water single accounting module

Composition

Ball valve DN20 with check valve and pipe union - Ball valve DN20 with pipe union - Setup for volumetric counters of domestic cold water, size DN15 (connection 3/4")

Size	Pcs. pack	Code
	1	28170900



Domestic hot water single accounting module

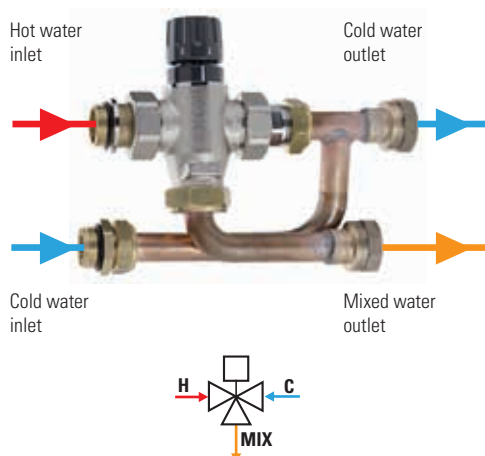
Composition

Ball valve DN20 with check valve and pipe union - Ball valve DN20 with pipe union - Setup for volumetric counters of domestic hot water, size DN15 (connection 3/4")

Size	Pcs. pack	Code
	1	28170902

Modules for accounting

Accessories for Energy Box



Thermostatic mixer kit for domestic water

Dimensional data

Inlet connections: 3/4" male (O-Ring seal) - Outlet connections: 3/4" female - Connection centre distances: 75 mm - Maximum length of kit: 205 mm

Thermostatic mixer valve technical data

Maximum static pressure: 10 bar - Dynamic working pressure: 0 ÷ 5 bar - Maximum input temperature: 85 °C - Range of adjustment: 15 ÷ 45 °C* - Kv = 1.82 ÷ 2.90*

* Ideal conditions:

$$T_H = 45\text{ °C}$$

$$T_C = 15\text{ °C}$$

$$\Delta p_{H-MIX} = \Delta p_{C-MIX}$$

where:

H= hot water inlet - C= cold water inlet - MIX= mixed water outlet

Size	Pcs. pack	Code
	1	02708192

Accessory kit to be installed on the domestic hot and cold water lines downstream from the volumetric counters.



Balance valve kit

Uses

Fixed Kvs balance valve for correct calibration and adjustment of heating, cooling, and plumbing systems

Technical data

Dimensions: 3/4" - Kvs = 5,33 (coefficient at pressure points) - Kv = 3,66 (coefficient at valve totally open) - Maximum operating pressure - 25 bar (-10 °C* ÷ 100 °C); 20 bar (100 °C** ÷ 130 °C)

(*) for sub-freezing temperatures, the water is intended as being in an anti-freeze solution (glycol)

(**) above 100 °C the water is intended as including anti-boiling additives

Note: kit are setup for installation of temperature delivery sensor of thermal energy counter

Size	Pcs. pack	Code
3/4"	1	01306324

The kit is to be installed in place of the impurity collection filter (if present) once the system has been cleaned

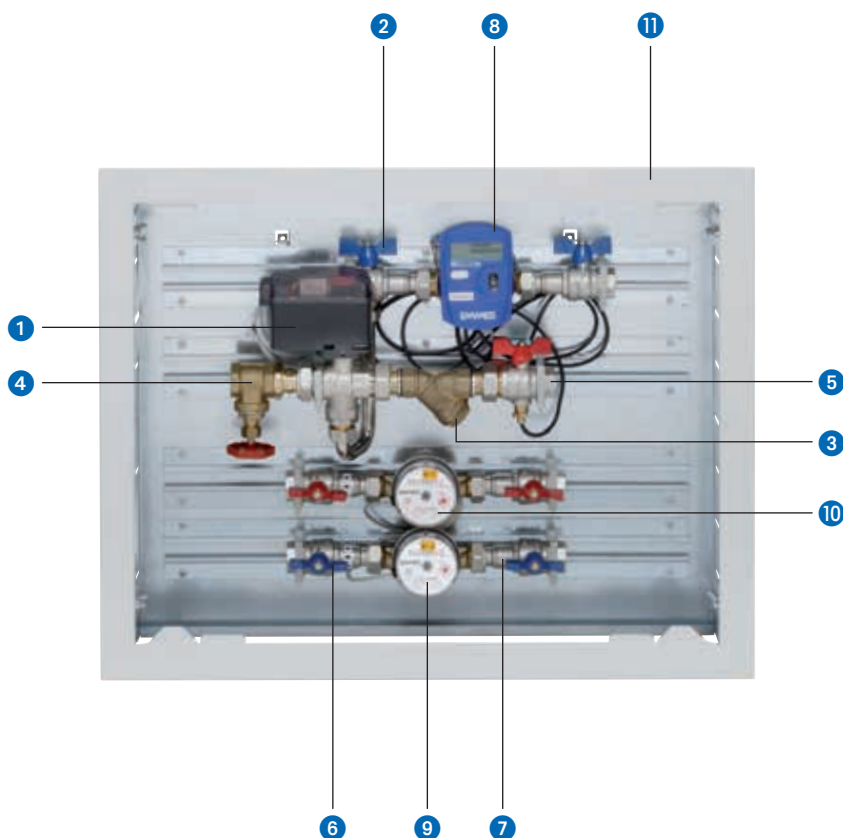


Kit flow meter

Size	Pcs. pack	Code
0÷2,5 l/min	4	01306304
0÷4 l/min	4	01306306
0÷6 l/min	4	01306308

The flow-rate meters can be installed on the Topway collectors in the place of the shut-off valves, once all the hydraulic connections have been made in the building site. This operation is performed by the installer

Compact modules for accounting of heating and plumbing consumption



TECHNICAL SHEET 130

Construction

- ① Motorized ball valve DN20 4-way with by-pass passage (or 2-way depending on the model)
- ② Ball valve DN20 with 3rd by-pass way
- ③ Impurity collection filter DN20
- ④ Gate valve DN20 for calibration and balancing
- ⑤ Ball valve DN20 with probe connection M10x1
- ⑥ Ball valve DN20 with integrated retaining cartridge
- ⑦ Ball valve DN20 with swivel nut for measuring instruments
- ⑧ Thermal energy meter with 2 pulse inputs and M-Bus output.
- ⑨ Cold water pulse-emitting volumetric meter
- ⑩ Hot water pulse-emitting volumetric meter
- ⑪ Painted galvanised metal box with key-operated lock for 120 mm partition

Technical data

Heat carrier fluid: water
 Maximum operating temperature, heating circuit: 90 °C
 Maximum operating pressure, heating circuit: 6 bar
 Maximum temperature of domestic hot water: 85 °C
 Maximum temperature of domestic cold water: 30 °C
 Maximum domestic water pressure: 6 bar

Operation

Compact thermal and domestic water heating consumption measuring modules (with centralized production of hot water), equipped with 2- or 4-way zone valve, set up for installation of a DN15 or DN20 energy meter and DN15 volumetric meter.

The zone valve is controlled by the temperature control thermostat of the individual residential unit, and this allows complete separation of the thermal zone of each flat on the centralized distribution network. In the models equipped with a 4-way zone valve, the by-pass passage realizes the pressure drops when the 4-way valve is open, so as to stabilize the operating conditions of the centralized system.

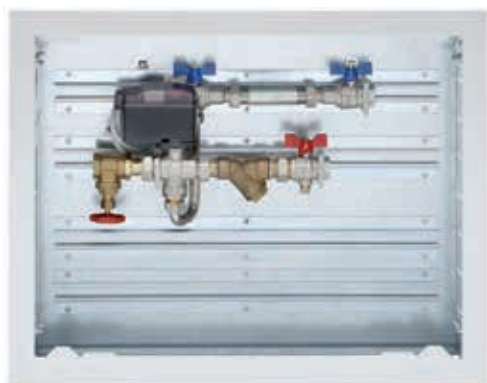
Furthermore, to facilitate the balancing of the condominium distribution system and to avoid any problems of poor service caused by the greater transit of fluid in some modules to the disadvantage of others, a calibration and balancing gate valve is supplied installed on the fluid flow line in the housing in order to guarantee the transit of the design flow for each individual residential unit.

Plant expansion

N.B. Testing and starting up the system are not included in the sales price.

Example of installation





Heating/cooling compsumption measuring, 4-way zone valve

Composition

Painted galvanized metal box with key-operated lock - Zone valve DN20 4-way with by-pass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with pipe union - Gate valve DN20 to calibrate and balance the heating/cooling circuit

Size	Box size	Pcs. pack	Code
DN 15 (*)	L 600	1	28170030
DN 20 (**)	L 600	1	28170034

(*) setup for thermal energy counter size DN15 (connection 3/4")

(**) setup for thermal energy counter size DN20 (connection 1")

The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system.



Heating/cooling and hot/cold domestic water consumption measuring, 4-way zone valve

Composition

Painted galvanized metal box with key-operated lock - Zone valve DN20 4-way with by-pass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with pipe union - Ball valve DN20 with integrated retaining cartridge on domestic water line - Gate valve DN20 to calibrate and balance the heating/cooling circuit

Size	Box size	Pcs. pack	Code
DN15 (*)	L 600	1	28170032
DN20 (**)	L 600	1	28170036

(*) setup for thermal energy meter size DN15 (connection 3/4")

(**) setup for thermal energy meter size 1" (connection 1")

Setup for domestic water volumetric meters, size DN15 (connection 3/4"). The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system



Heating/cooling and hot/cold domestic water consumption measuring, 4-way zone valve

Composition

Painted galvanized metal box with key-operated lock - Zone valve DN20 4-way with by-pass passage - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with pipe union - Ball valve DN20 with integrated retaining cartridge on domestic water line - Gate valve DN20 to calibrate and balance the heating/cooling circuit

Size	Box size	Pcs. pack	Code
DN15 (*)	L 600	1	28170060
DN20 (**)	L 600	1	28170062

(*) setup for thermal energy meter size DN15 (connection 3/4")

(**) setup for thermal energy meter size 1" (connection 1")

Setup for water volumetric meters, size DN15 (connection 3/4"). The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system



Heating/cooling consumption measuring, 2-way zone valve

Composition

Painted galvanized metal box with key-operated lock - Zone valve DN20 2-way - Servomotor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with pipe union - Gate valve DN20 to calibrate and balance the heating/cooling circuit

Size	Box size	Pcs. pack	Code
DN15 (*)	L 600	1	28170040
DN20 (**)	L 600	1	28170044

(*) setup for thermal energy counter, size DN15 (connection 3/4")

(**) setup for thermal energy counter, size DN20 (connection 1")

The boxes thus assembled are suitable for connection on the left side of the main pipelines of centralized system

Compact modules for accounting



Heating/cooling and hot/cold domestic water consumption measuring, 2-way zone valve

Composition

Painted galvanized metal box with key-operated lock - Zone valve DN20 2-way - Servo-motor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with pipe union - Ball valve DN20 with integrated retaining cartridge on domestic water line - Gate valve DN20 to calibrate and balance the heating/cooling circuit

Size	Box size	Pcs. pack	Code
DN15 (*)	L 600	1	28170042
DN20 (**)	L 600	1	28170046

(*) setup for thermal energy meter size DN15 (connection 3/4")

(**) setup for thermal energy meter size 1" (connection 1")

Setup for domestic water volumetric meters, size DN15 (connection 3/4"). The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system



Heating/cooling and hot/cold domestic water consumption measuring, 2-way zone valve

Composition

Painted galvanized metal box with key-operated lock - Zone valve DN20 2-way - Servo-motor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with pipe union - Ball valve DN20 with integrated retaining cartridge on domestic water line - Gate valve DN20 to calibrate and balance the heating/cooling circuit

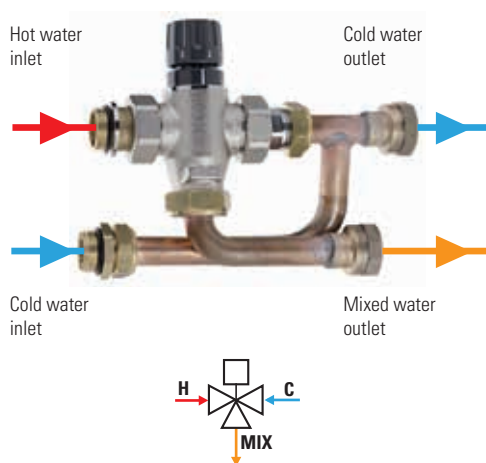
Size	Box size	Pcs. pack	Code
DN15 (*)	L 600	1	28170064
DN20 (**)	L 600	1	28170066

(*) setup for thermal energy meter size DN15 (connection 3/4")

(**) setup for thermal energy meter size 1" (connection 1")

Setup for domestic water volumetric meters, size DN15 (connection 3/4"). The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system

Accessories for Energy Box Compact



Thermostatic mixer kit for domestic water

Dimensional data

Inlet connections: 3/4" male (O-Ring seal) - Outlet connections: 3/4" female - Connection centre distances: 75 mm - Maximum length of kit: 205 mm

Thermostatic mixer valve technical data

Maximum static pressure: 10 bar - Dynamic working pressure: 0 ÷ 5 bar - Maximum input temperature: 85 °C - Range of adjustment: 15 ÷ 45 °C* - Kv = 1.82 ÷ 2.90*

* Ideal conditions:

$T_H = 45\text{ °C}$

$T_C = 15\text{ °C}$

$\Delta p_{H-MIX} = \Delta p_{C-MIX}$

where:

H= hot water inlet - C= cold water inlet - MIX= mixed water outlet

Size	Pcs. pack	Code
	1	02708192

Accessory kit to be installed on the domestic hot and cold water lines downstream from the volumetric counters.

Built-in or off-track cabinet meters for domestic water use consumption



TECHNICAL SHEET 130

Built-in or surface-mounted water heating consumption measuring cabinets for several users (up to 3 flats for the “max 3 users” model, up to 4 flats for the “max 4 users” model, up to 6 flats for the “max 6 users” model).

The cabinet can be built-in (recessed) or surface-mounted, and is fixed to the wall (as a shell) once the hydraulic modules are installed on the 2 vertical aluminium tracks supplied with the cabinet (and previously fixed to the wall with the plugs provided) and the hydraulic connections have been made; these connections can be made by passing the pipes through the lateral sides of the cabinet (using the precuts located on the cabinet) or having the pipes come out of the wall and then go back into it without exceeding the lateral dimension of the cabinet (in this case it's recommended that you use the “Templates Kit” and “Fittings for wall connection Kit”).

The small individual doors with key-operated lock guarantee that each user can only access the reading of his own consumption, without learning the consumptions of others (thus guaranteeing the users' privacy); furthermore the presence of a main lock on the door facilitates the reading of all the instruments installed by the assigned person (e.g.: condominium administrator).

Inside a cabinet for “max 3 users” it's possible to simultaneously install:

- max 3 “heating/cooling” assemblies, with setup for installation of a DN15 or DN20 thermal energy meter (depending on the model);
- max 3 “domestic hot water lines”, with setup for installation of a DN15 volumetric meter for domestic hot water;
- max 3 “domestic cold water lines”, with setup for installation of a DN15 volumetric meter for domestic cold water.

The analogous holds for the “max 4 users” and “max 6 users” models

Product ordering instructions

Order the desired cabinet (max 3 users, max 4 users or max 6 users) and order separately the “heating/cooling” assemblies and the “domestic hot water” and “domestic cold water” lines, depending on the number of flats for which the thermal and domestic water heating consumption must be measured.

Technical data

Heat carrier fluid: water

Maximum operating temperature, heating circuit: 90 °C

Maximum operating pressure, heating circuit: 6 bar

Maximum temperature of domestic hot water: 85 °C

Maximum temperature of domestic cold water: 30 °C

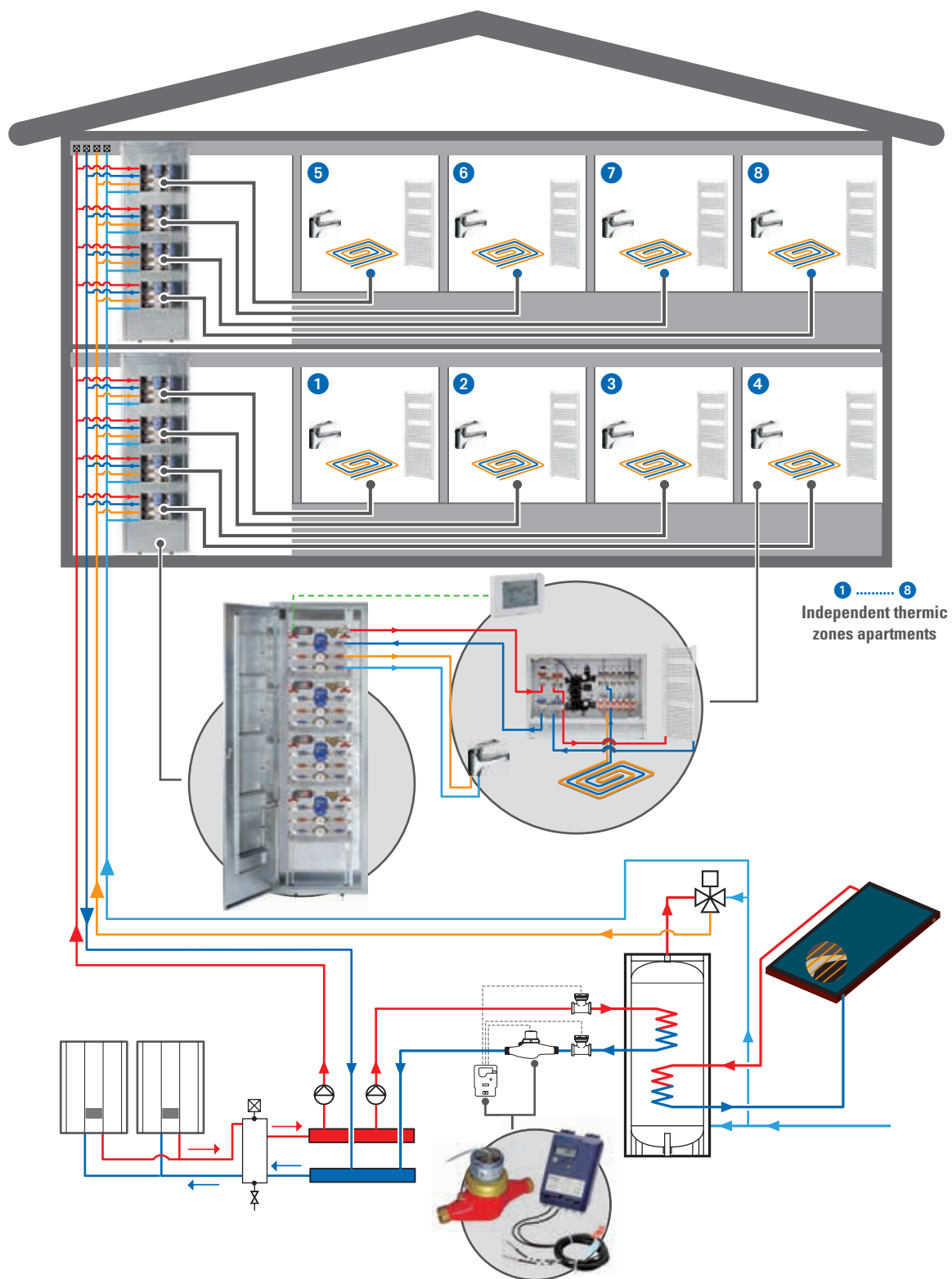
Maximum domestic water pressure: 6 bar

Plant expansion

N.B. Testing and starting up the system are not included in the sales price.

Energy Wall

Example of installation





Cabinet for metering units

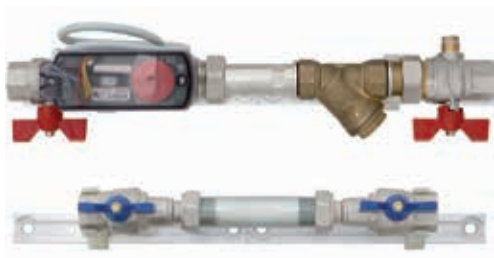
Material: metal sheeting in galvanized steel, depth 12/10 mm, paintable, complete with 2 vertical aluminium guides (for wall mounting the hydraulic modules for the various utilities) and 10 blocks with screws. Prepared for installation of impulse adaptors on the inside of the hatch door. The cabinet should be wall mounted only after installing the utility units and executing hydraulic connections.

Size	Pcs. pack	Code
Max 3 utilities (*)	1	01301204
Max 4 utilities (**)	1	01301200
Max 6 utilities (***)	1	01301202

(*) Allows simultaneous installation of:
 - max 3 "heating/cooling" units DN15 or DN20
 - max 3 "domestic hot water lines"
 - max 3 "domestic cold water" lines

(**) Allows simultaneous installation of:
 - max 4 "heating/cooling" units DN15 or DN20
 - max 4 "domestic hot water lines"
 - max 4 "domestic cold water" lines

(***) Allows simultaneous installation of: max 6 "heating/cooling" units DN15 or DN20
 - max 6 "domestic hot water lines"
 - max 6 "domestic cold water lines"



Heating/cooling unit for cabinets

Composition

2-way valve for area DN20 - Servo-motor: 230 Vac, 50 Hz - Impurity collection filter DN20 - Ball valve DN20 with plug

Size	Pcs. pack	Code
DN15 (*)	1	01301210
DN20 (**)	1	01301212

(*) prepared for installation of energy meter DN15 (coupling 3/4")

(**) prepared for installation of energy meter DN20 (coupling 1")

Main couplings: 3/4" F. Complete with 2 aluminium crosspieces and 4 plastic supports for mounting the unit to the vertical guides provided with the cabinet



Domestic hot water line for cabinets

Composition

Ball valve DN20 with no-return cartridge built-in and plug - Ball valve DN20 with plug

Size	Connection	Pcs. pack	Code
DN15	3/4" F	1	01301220

Main couplings: 3/4" F. Prepared for installation of domestic hot water volumetric meter, measure DN15 (couplings 3/4").



Domestic cold water line for cabinets

Composition

Ball valve DN20 with no-return cartridge built-in and plug - Ball valve DN20 with plug

Size	Connection	Pcs. pack	Code
DN15	3/4" F	1	01301222

Main couplings: 3/4" F. Prepared for installation of domestic cold water volumetric meter, measure DN15 (couplings 3/4").

Accessories for Energy Wall



Condensation collection tank kit + electronic unit support kit for cabinets

The kit consists of 1 tank complete with drain trap and metal sheet support necessary for detaching the energy meter electronic unit from the brass body of the meter. It is recommended to use this kit (1 for each utility installed in the cabinet) in the case of cooling unit functioning.

Size	Pcs. pack	Code
	1	01301224

Cabinet meters



Balance valve kit

Uses

Fixed Kvs balance valve for correct calibration and adjustment of heating, cooling, and plumbing systems.

Technical data

Dimensions: 3/4" - Kvs = 5,33 (coefficient at pressure points) - Kv = 3,66 (coefficient at valve totally open) - Maximum operating pressure: 25 bar (-10 °C* ÷ 100 °C); 20 bar (100 °C** ÷ 130 °C)

(*) for sub-freezing temperatures, the water is intended as being in an anti-freeze solution (glycol)

(**) above 100 °C the water is intended as including anti-boiling additives

Note: kit are setup for installation of temperature delivery sensor of thermal energy counter

Size	Pcs. pack	Code
3/4"	1	01306324

The kit is to be installed in place of the impurity collection filter (if present) once the system has been cleaned.



Dime Kit for cabinet installation

The kit facilitates installation of modules. If the hydraulic connections are to be executed directly on the wall (preventing any bulk on the side of the cabinet) without passing tubes through the side slots on the cabinet. The dime kit is the first component that should be mounted onto the wall; next, mount the guides provided with the cabinet, install the utility units, execute hydraulic connections and finally, mount the cabinet to the wall. If the hydraulic connections of the utility modules are executed by passing through the tubes on the side slots of the cabinet, the "dime kit" is not necessary.

Size	Pcs. pack	Code
For cabinet max 3 utilities	1	01301232
For cabinet max 4 utilities	1	01301226
For cabinet max 6 utilities	1	01301228

Available on request: 30 days to order confirm



Wall mounting fittings kit

The "fittings kit", combined with the "dime kit", permits hydraulic connection of the units 1 utility (heating/cooling unit + domestic hot water line + domestic cold water line) directly on the wall (without passing through the tubes on the side slots of the cabinet). It is therefore necessary to purchase a quantity of kits that is equal to the number of units being metered in the cabinet. The copper tubes must be custom cut to size. This must be done by the installer. If the hydraulic connections of the utility modules are executed by passing through the tubes on the side slots of the cabinet, the "fittings kit" is not necessary.

Size	Pcs. pack	Code
	1	01301230



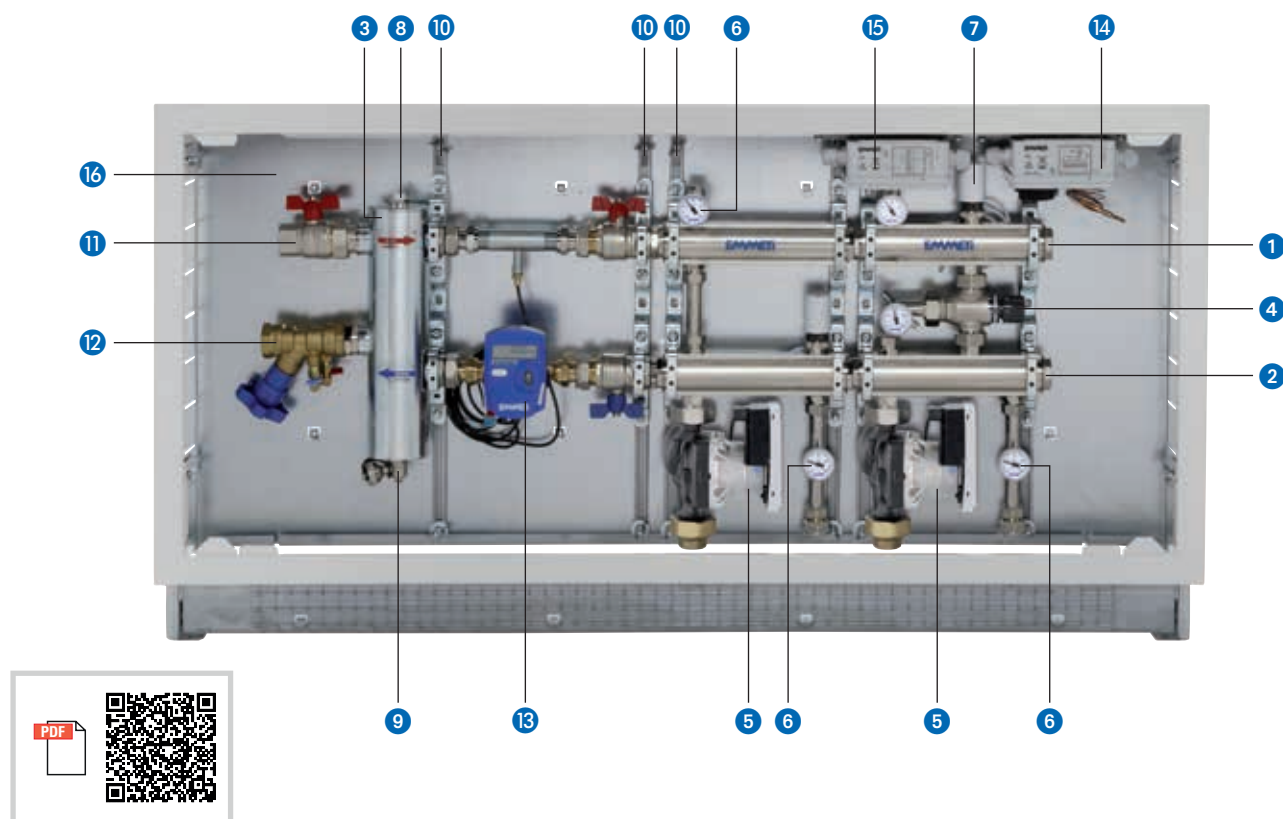
Fittings Kit containing a pair of fittings for connecting the users to the rising pipes

Size	Pcs. pack	Code
24x19 - 1"1/4 (*)	1	01301234
M32x1,5 - 1"1/4 (**)	1	01301236

(*) to be combined with the monobloc seals 24x19

(**) to be combined with the monobloc seals for multilayer pipe size 26x3

Under-boiler kit complete with accounting module



TECHNICAL SHEET 130

Construction

- ① Flow bar
- ② Return bar
- ③ Open manifold
- ④ Three-ways thermostatic mixing valve
- ⑤ Wilo Yonos Para RS 25/6 electronic circulator pump
- ⑥ Control thermometers 0-80 °C
- ⑦ Regulation valves for electric heads (optional)
- ⑧ 1/2" manual vent valve
- ⑨ Drain bibcocks with adjustable connection and safety plug
- ⑩ Fixing bar brackets
- ⑪ 1" Progress ball valve with pipe union
- ⑫ 1" balance valve
- ⑬ Thermal energy counter (not equipped)
- ⑭ Electric box with capillary safety thermostat for regulation low temperature pump (optional)
- ⑮ Electric box for regulation height temperature pump (optional)
- ⑯ Painted galvanized metal box with key-operated lock for partition of 120 mm

Operation

Energy Firstbox is a modular system that allows you to create systems with distribution to high-temperature zones (radiators, fan coils) and low-temperature zones (floor heating systems), and it is set up for the installation of a thermal energy meter to calculate the energy consumption for heating the rooms, and the installation of volumetric meters (only in some versions) to calculate the domestic hot and cold water consumption. The main characteristic is the "modular" construction which allows one or more modules to be assembled together as needed. In addition to the standard line of pre-assembled and optimized built-in modules, it is also possible to use single modules and the measuring unit supplied separately to construct the distribution system best suited to your specific needs. Some models are equipped with an open collector that hydraulically separates the primary circuit from the secondary circuits. The balancing valve (if present) facilitates the balancing of the condominium distribution system and prevents any problems of poor service caused by the greater transit of fluid in some user systems to the disadvantage of others; by regulating the opening of this valve, the transit of the design flow is guaranteed in each individual residential unit. The models with auxiliary connections for connecting 2 or 3 high-temperature heating bodies are equipped with a zone valve which hydraulically cuts off the user in the event thermal energy is not requested. The assemblies are also set up for the exclusion of individual circuits with the pumps stopped in order to prevent recirculation and parasitic currents that keep the terminals and the floor system supply circuits hot when the pumps are not working: in this regard it is recommended that the electrothermal heads be installed on the regulation/shut-off valves, so as to automate the entire management of the Energy Firstbox by means of the room thermostats, using the electrical boxes for wiring the high- and low-temperature circulation pumps (not standard supplied).

Under-boiler kit complete with accounting module

Note:

It is advisable to install electrothermal heads on the adjustment/cut-off valves to prevent parasite circulation when the zone circulator pumps are off.

Conditions of use

Heat carrier fluid: water

Heating circuit maximum operating temperature: 90 °C

Domestic hot water circuit maximum operating temperature: 85 °C

Domestic cold water circuit maximum operating temperature: 30 °C

Maximum operating pressure: 6 bar

Range of adjustment: 25 °C ÷ 55 °C *

* nominal conditions: $T_H=65\text{ °C}$, $T_C=15\text{ °C}$, $p_H=p_C=3\text{ bar}$

$K_v=1.8\div3.3$

H; C; Mix: see hydraulic diagram

Connections

Main heating circuit connections: G 1" female

Heating circuit zone connections: G 3/4" female

Auxiliary connections for connecting 2 or 3 high-temperature heating bodies: 24x19 male, centre distance 50 mm

Main domestic circuit connections (only on some models): G 3/4" female

Material of distribution groups

Brass from drawn bar TN UNI EN 12168 CW614N

Brass UNI EN 12165 CW 617 N

Annealed copper - Gasket o-rings EPDM 70 Sh

Flow and return manifolds

Size 1 1/4" - Thread G 1 1/4"

Open manifold

Zinc-plated sandblasted steel UNI EN 13134

Lateral connections 1" F - Auxiliary connections 1/2" F

Yonos Wilo Para pump RS 25/6

Connections - takeoffs G1 1/2 - 130 mm.

Variable rotation speed: 800 to 4250 rpm.

Fluids used:

Water cooling and heating.

Water and glycol: max 1:1

Maximum static pressure: 6.2 m

Maximum capacity: 3.3 m³ / h

Max water temperature 95 °C at room temperatures of 57 °C

Max water temperature 90 °C at room temperatures of 59 °C

Max water temperature 70 °C at room temperatures of 70 °C

Electrical connection 1 ~ 230 V, 50/60 Hz

Protection class IPX 4D, F insulation

Nominal engine Power: 37 W

Energy consumption by 1 ~ 230 V 3 to 45 W

Current consumption at 1 ~ 230V: 0.03 to 0.44 A

Energy Class A

In confirm to:

ErP Directive

EN61800-3

EN 61000-6-3 / EN 61000-6-4

EN 61000-6-2 / EN 61000-6-1

Balance valve

Dimensions: 1"

$K_v = 6,25$ (coefficient at valve totally open)

$K_{vs} = 9,72$ (coefficient at pressure points)

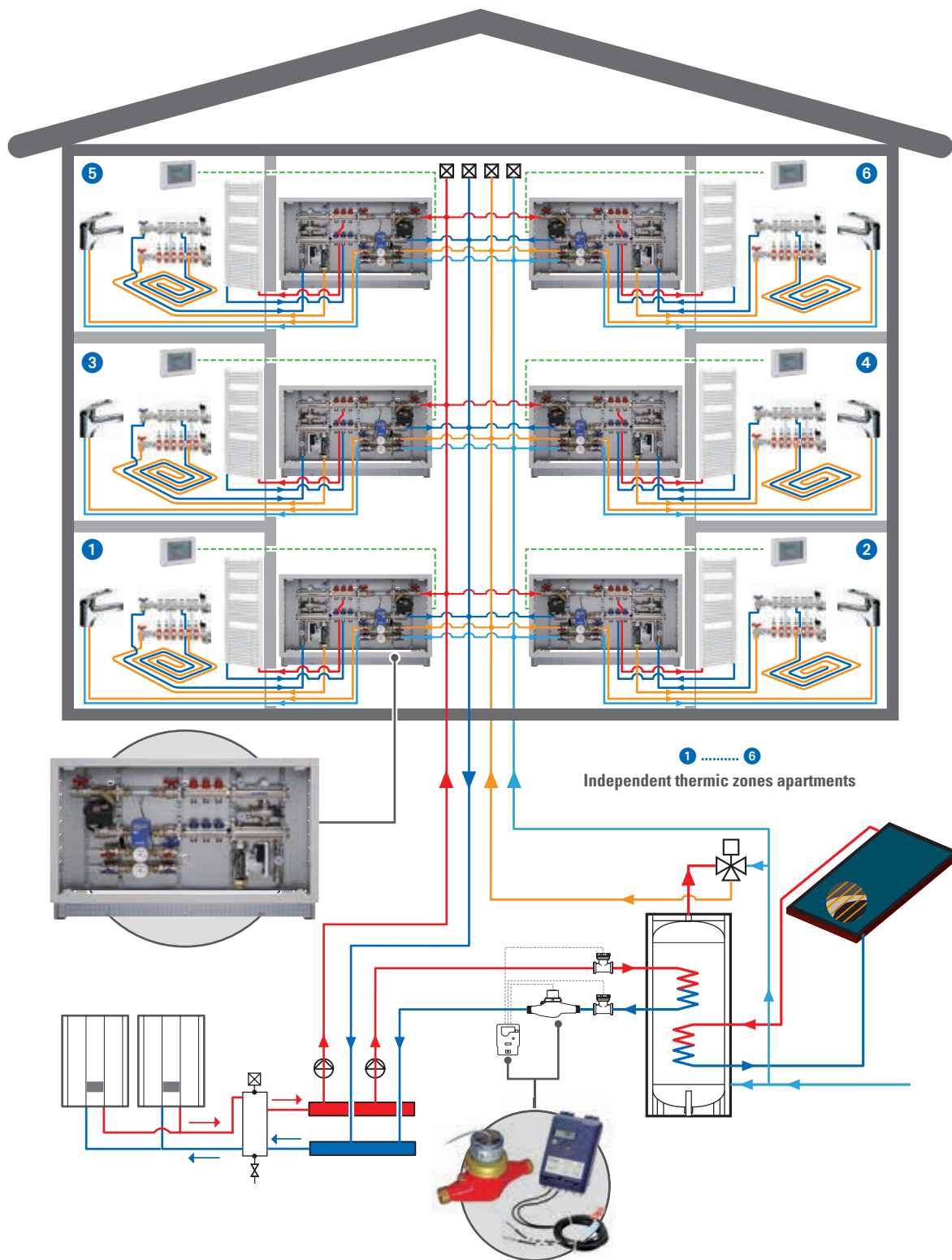
Plant expansion

N.B.: testing and starting up the system are not included in the sales price

Under-boiler kit complete with accounting module

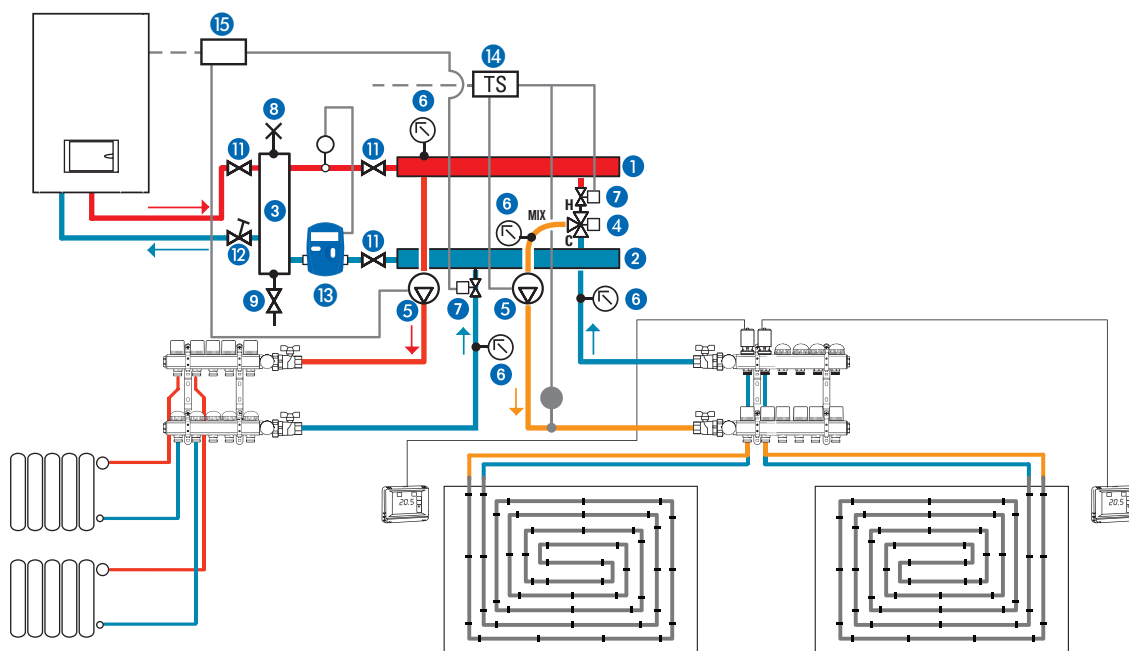


Example of installation



Under-boiler kit complete with accounting module

Hydraulic scheme



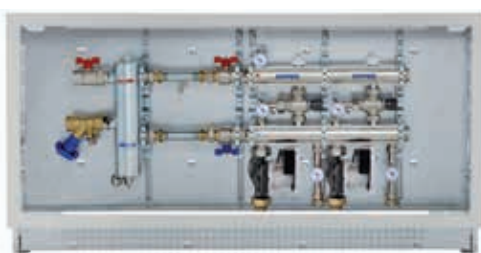
Distribution module for high-temperature heating systems with circulation pumps and open manifold, complete with accounting module

Size	Box size	Pcs. pack	Code
2A	1200	1	28151250

Setup for thermal energy counter, size DN15 (connection 3/4").

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 5 days to order confirm



Distribution modules for low-temperature heating systems with mixer valve, circulation pumps and open manifold, complete with accounting module

Size	Box size	Pcs. pack	Code
1B	850	1	28151252
2B	1200	1	28151254

Setup for thermal energy counter, size DN15 (connection 3/4").

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 5 days to order confirm



Distribution module for combined heating systems (high+ low temperature) with mixer valve, circulation pumps and open manifold, complete with accounting module

Size	Box size	Pcs. pack	Code
1A + 1B	1200	1	28151256

Setup for thermal energy counter, size DN15 (connection 3/4").

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 5 days to order confirm



Distribution modules for low-temperature heating systems, with mixer valve, circulation pump and filter, complete with accounting module

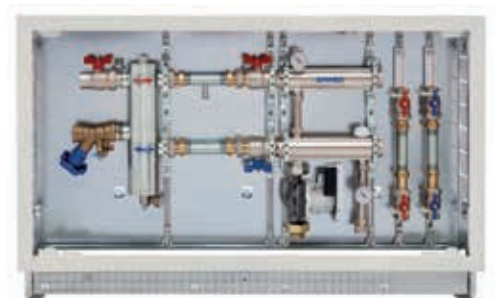
Size	Box size	Pcs. pack	Code
1B	850	1	28151258

Setup for thermal energy counter, size DN15 (connection 3/4").

Electrothermic head NC, 230 V, 50 Hz, supplied of series.

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 5 days to order confirm



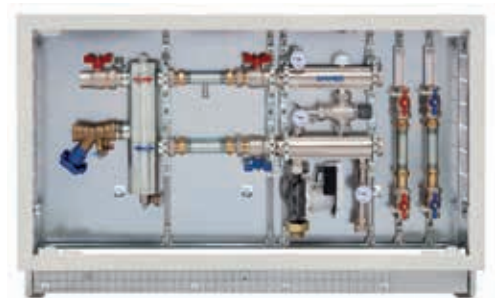
Energy Firstbox 1 high-temperature zone, with open collector and domestic hot and cold water circuit

Size	Box size	Pcs. pack	Code
1A	1000	1	28151260

Set-up for the installation of a DN15 energy measurement device, set-up for the installation of a DN15 volumetric meter.

Note: for a correct built-in installation, it is recommended to install the module keeping a distance of 135 mm between the back of the box and the wall.

Available on request: 5 days to order confirm



Distribution module for low-temperature thermal systems with mixing valve, circulation pump and open manifold, complete with metering module for energy consumption in heating mode and metering lines for hot and cold domestic water consumption

Size	Box size	Pcs. pack	Code
1B	1000	1	28151262

Set-up for installation of an energy meter and hot and cold domestic water volumetric counters, DN15 size, (3/4" connections).

Note: for correct recessed installation, it is recommended to install the module by maintaining a distance of 135 mm between the back of the box and the wall.

Available on request: 5 days to order confirm



Energy Firstbox 1 high-temperature zone, with open collector and domestic hot and cold water circuit

Size	Box size	Pcs. pack	Code
1A	850	1	28151264

Set-up for the installation of a DN15 energy measurement device, set-up for the installation of a DN15 volumetric meter.

Note: for a correct built-in installation, it is recommended to install the module keeping a distance of 135 mm between the back of the box and the wall.

Available on request: 5 days to order confirm

Under-boiler kit complete with accounting module



Accounting module for under-boiler kit

Size	Pcs. pack	Code
	1	28151200

To be used in conjunction with single distribution modules complete with circulator pump (max 2 zones).

Setup for thermal energy counter, size DN15 (connection 3/4").

Available on request: 5 days to order confirm



Distribution module for low-temperature thermal systems with auxiliary connections for 2 or 3 high-temperature heating bodies, fixed-point adjustment, complete with metering module for energy consumption in heating mode, 2-way DN25 zone valve and metering modules for hot and cold domestic water consumption with integrated retaining cartridges. Three-speed circulator

Size	Box size	Pcs. pack	Code
(2+2)A + 1B - DN15 (*)	1000	1	28151266
(3+3)A + 1B - DN15 (*)	1000	1	28151268
(2+2)A + 1B - DN20 (**)	1000	1	28151270
(3+3)A + 1B - DN20 (**)	1000	1	28151272

(*) prepared for installation of energy meter DN15, prepared for installation for volumetric meters DN15.

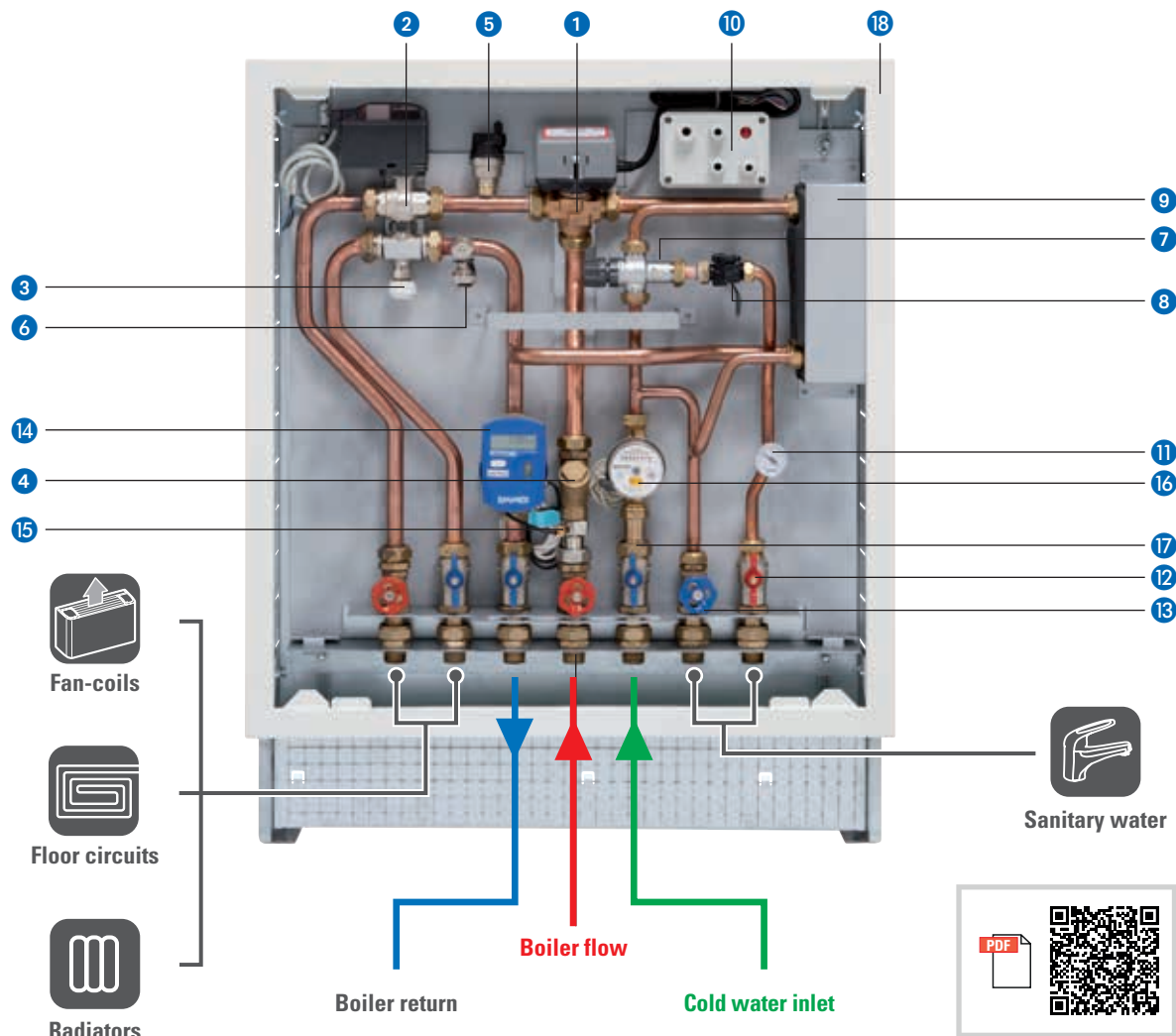
(**) prepared for installation of energy meter DN20, prepared for installation of volumetric meters DN15.

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 5 days to order confirm



Built-in modules for accounting of heating and plumbing consumption with instant production of sanitary hot water



TECHNICAL SHEET 130

"Energy Combibox" was designed to be split into two parts (supplied pre-assembled):

- The external casing, with fittings for connection to the system, which can be installed separately at first, to prevent theft or soiling of components;
- The internal module, which all components are secured to, and which is easy to install at a later date, since it features rapid fittings and lifting handles.

Construction

- 1 Motorized diverter valve DN25 for domestic water priority
- 2 Motorized zone valve DN20 4-way with bypass passage
- 3 Differential bypass valve
- 4 Impurity collection filter DN20
- 5 Automatic air vent valve
- 6 Drain/filling valve with adjustable connection and safety cap
- 7 Thermostatic mixer valve DN15 for domestic water
- 8 Priority flow switch for instantaneous production of domestic hot water
- 9 Braze-welded heat exchanger
- 10 Box for electrical wiring
- 11 Control thermometer with scale 0÷80 °C
- 12 Ball valves DN20
- 13 Gate valves DN20
- 14 Measuring device for thermal energy with 2 impulsive input and M-Bus output
- 15 Energy measurement device flow probe fitting, size M10x1
- 16 Impulse launch domestic cold water volumetric meter
- 17 Pipe union with non-return cartridge DN20 built-in
- 18 Painted galvanized metal box with key-operated lock for partition of 120 mm.

Built-in modules for accounting

Operation

The Energy Combibox module can work in 3 different conditions:

- 1 - Operation in heating mode: the priority valve (ref. n. 1 introductory figure) is diverted normally to the heating side and the zone valve (ref. n. 2 introductory figure), powered by the room thermostat, is open and conveys the heat carrier fluid into the user system.
- 2 - Operation in domestic hot water production mode: when domestic hot water is requested by the user system, the flow switch (ref. n. 8 introductory figure) switches the position of the priority valve (ref. n. 1 introductory figure), diverting the heat carrier fluid into the primary circuit of the plate exchanger (ref. n. 9 introductory figure). When the domestic hot water request ends, the flow switch returns to its original position (contact open) and the priority valve directs the heat carrier fluid normally to the heating circuit.
- 3 - Operation in by-pass mode: in the case in which neither domestic hot water nor thermal energy for heating the rooms is requested, the priority valve (ref. n. 1 introductory figure) is diverted normally to the heating circuit, while the zone valve (ref. 2 introductory figure) is in the by-pass position; in this manner the heat carrier fluid coming from the central heating plant is not directed to either the user heating system or the plate exchanger, but is redirected to the central heating plant once again.

Conditions of use

Heat carrier fluid: water

Maximum heating-side fluid temperature: 90 °C

Maximum heating-side operating pressure: 6 bar

Maximum domestic hot water-side operating temperature: 85 °C

Maximum domestic hot water-side operating pressure: 6 bar

Maximum inlet temperature of domestic cold water: 30 °C

Hydraulic performance

- Operation in heating mode:
 - Model DN15: $K_v=2.5$ with gate valves completely open
 - Model DN20: $K_v=3.2$ with gate valves completely open
- Operation in domestic hot water production mode, primary side:
 - Model DN15: $K_v=2.45$ with gate valves completely open
 - Model DN20: $K_v=3$ with gate valves completely open
- Operation in domestic hot water production mode, secondary side (domestic hot water): refer to the technical data of the braze-welded heat exchanger and the thermostatic mixer valve
- Operation in bypass mode:
 - Model DN15: $K_v=0.82$ with bypass differential valve completely open
 - Model DN20: $K_v=0.84$ with bypass differential valve completely open.

Domestic hot water priority valve technical data

Power supply: 230 Vac, 50/60 Hz

Maximum absorption: 6 W

Nominal travel time: 7.2 s at 50 Hz, 6 s at 60 Hz

Maximum operating differential pressure: 4 bar

Zone valve technical data

Power supply: 230 Vac, 50/60 Hz

Absorption: 4 VA

Maximum differential pressure: 6 bar

Rotation angle: 90° (in closing), 270° (in opening)

Rotation time: 60" (in closing), 180" (in opening)

Auxiliary contact: 1 - free 5 A, 230 Vac (on/off)

Braze-welded heat exchanger technical data

Plates material: stainless steel 316L

Brazing material: copper

No. plates: 24

Exchange area: 0.308 m²

Exchange coefficient KA: 2156 W/K

K_v (primary = secondary): 6,6 (m³/h)/bar^{0.5} at a temperature of 15 °C

Thermostatic mixer valve technical data

Maximum pressure (static): 10 bar

Operating pressure (dynamic): 0÷5 bar

Maximum inlet temperature: 85 °C

Range of adjustment: 15÷45 °C

K_v maximum: 1.8*

K_v minimum: 1.3*

*values obtained with the following conditions:

TH = 45 °C

TC = 15 °C

$\Delta p_{H-MIX} = \Delta p_{C-MIX}$

where:

H= hot water inlet

C= cold water inlet

MIX= mixed water outlet

Flow switch technical data

Material: reinforced 66 nylon GF 30%

Maximum operating temperature: 88 °C

Maximum operating pressure: 15 bar

Flow rate: 1.7±0.3 l/min

Contact capacity: 0.2 A

Contact resistance: max 100 mΩ

Installation: horizontal

Box technical data

Box material: galvanized steel sheet, thickness 8/10 mm

Frame material: painted galvanized steel sheet (RAL 9010), thickness 8/10 mm

Lock: key

Dimensions (width x height x depth): 740x900x110 mm

Feet with adjustable height from 0 to 130 mm.

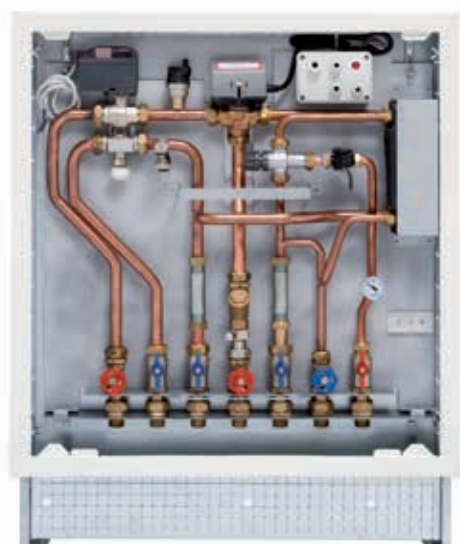
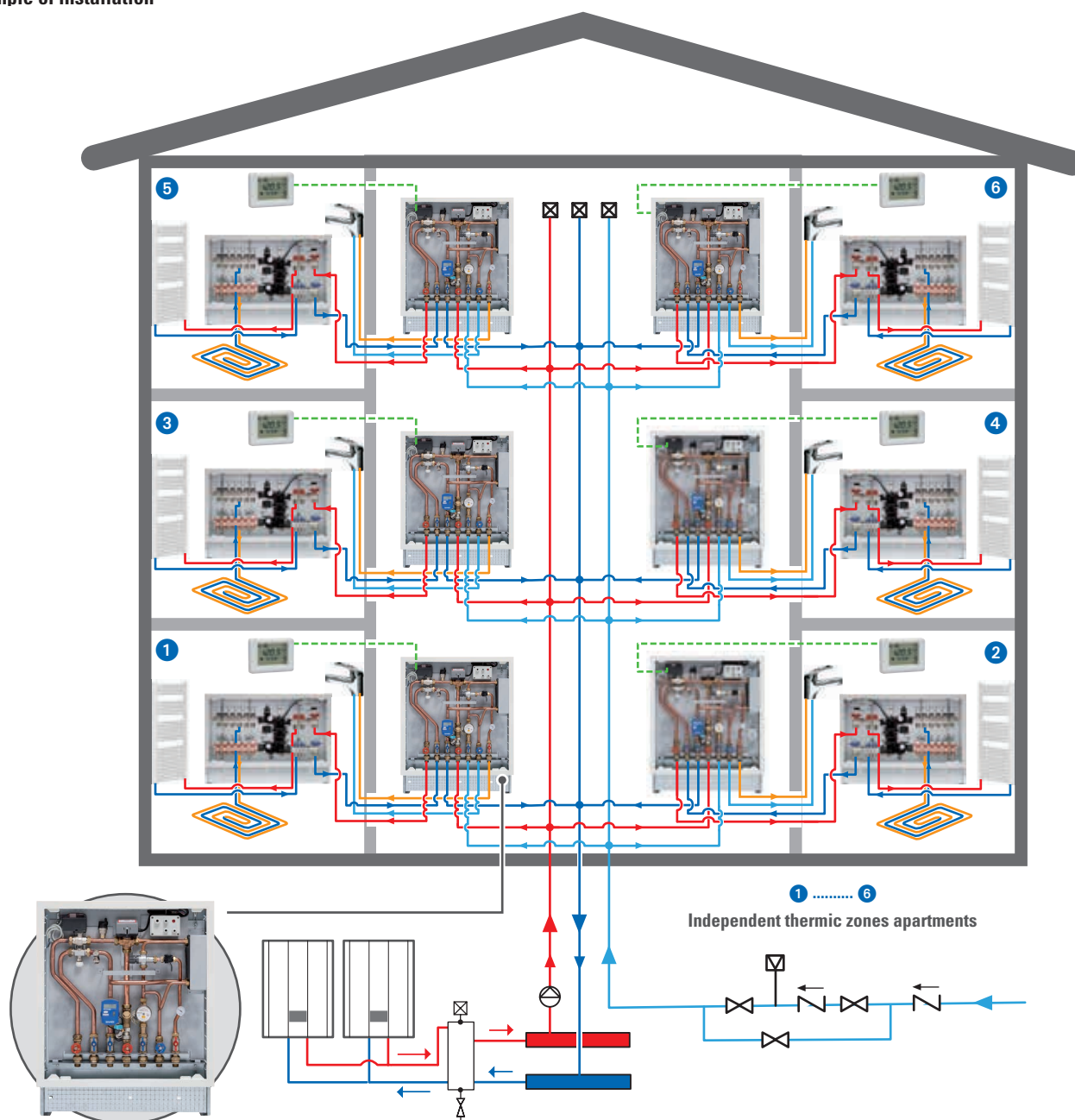
Complete with worksite cardboard protection.

Plant expansion

N.B.: testing and starting up the system are not included in the sales price



Example of installation



Accounting substations with instantaneous production of domestic water with sections

Size	Box size	Pcs. pack	Code
DN15 (*)	700	1	28170500
DN20 (**)	700	1	28170502

(*) Prepared for installation of energy meter DN15 and volumetric meter DN15 for domestic cold water.

(**) Prepared for installation of energy meter DN20 and volumetric meter DN15 for domestic cold water DN15.

Main connections: male 3/4" ISO 7/1 R (tapered thread), interval 70 mm.

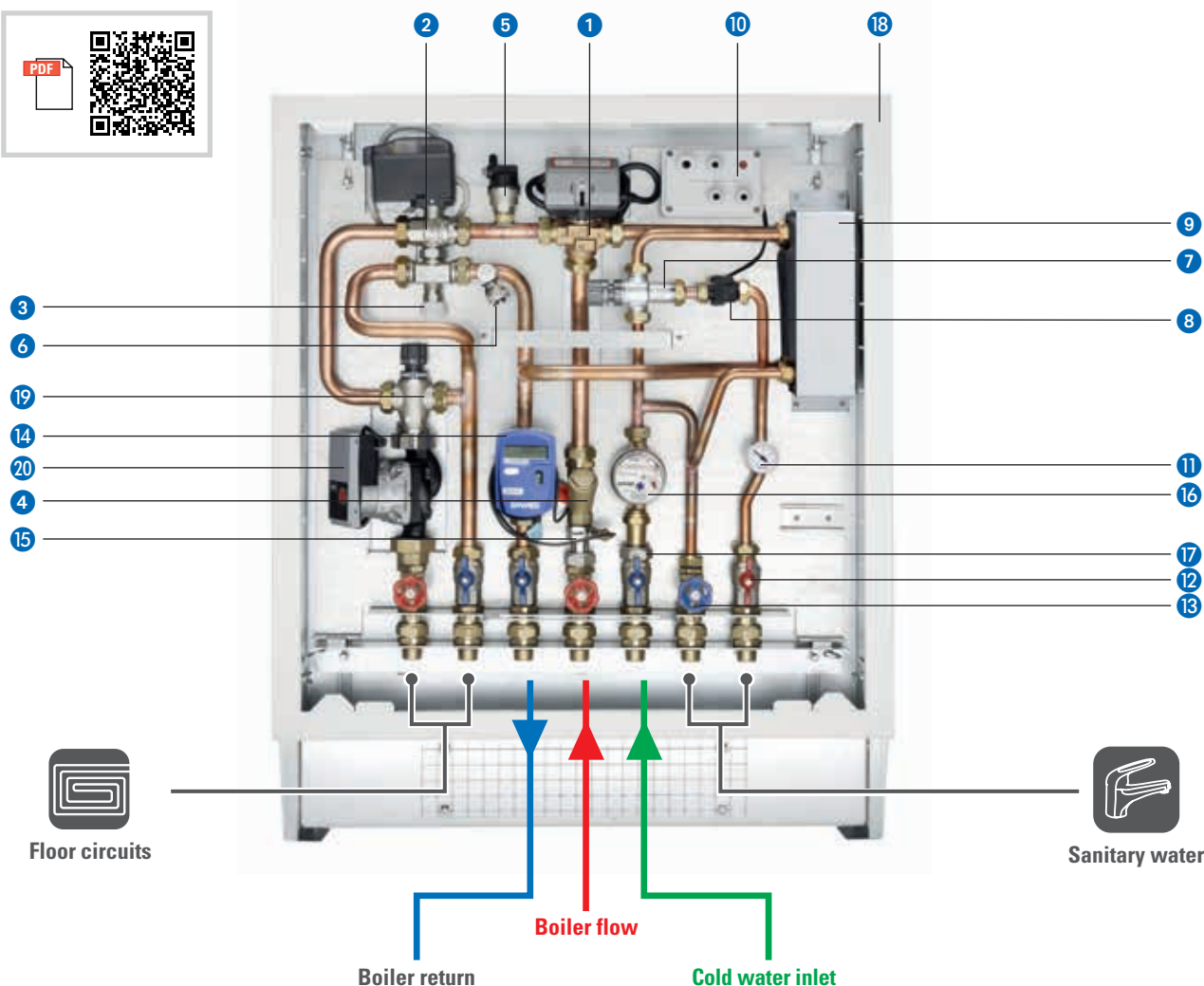
Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 10 days to order confirm

Energy Combibox Floor

Built-in modules for accounting of heating and plumbing consumption with instant production of sanitary hot water

NEW



TECHNICAL SHEET 130

"Energy Combibox Floor" was designed to be split into two parts (supplied pre-assembled):

- The external casing, with fittings for connection to the system, which can be installed separately at first, to prevent theft or soiling of components;
- The internal module, which all components are secured to, and which is easy to install at a later date, since it features rapid fittings and lifting handles.

Construction

- 1 Motorized diverter valve DN25 for domestic water priority
- 2 Motorized zone valve DN20 4-way with bypass passage
- 3 Differential bypass valve
- 4 Impurity collection filter DN20
- 5 Automatic air vent valve
- 6 Drain/filling valve with adjustable connection and safety cap
- 7 Thermostatic mixer valve DN15 for domestic water
- 8 Priority flow switch for instantaneous production of domestic hot water
- 9 Braze-welded heat exchanger
- 10 Box for electrical wiring
- 11 Control thermometer with scale 0÷80 °C
- 12 Ball valves DN20
- 13 Gate valves DN20
- 14 Measuring device for thermal energy with 2 impulsive input and M-Bus output
- 15 Energy measurement device flow probe fitting, size M10x1
- 16 Impulse launch domestic cold water volumetric meter
- 17 Pipe union with non-return cartridge DN20 built-in
- 18 Painted galvanized metal box with key-operated lock for partition of 120 mm.
- 19 Thermostatic mixing valve
- 20 Wilo Yonos Para RS 25/6 electronic circulator pump



Operation

The Energy Combibox Floor module can work in 3 different conditions:

- 1 - Operation in heating mode: the priority valve (ref. n. 1 introductory figure) is diverted normally to the heating side and the zone valve (ref. n. 2 introductory figure), powered by the room thermostat, is open and conveys the heat carrier fluid into the user system.
- 2 - Operation in domestic hot water production mode: when domestic hot water is requested by the user system, the flow switch (ref. n. 8 introductory figure) switches the position of the priority valve (ref. n. 1 introductory figure), diverting the heat carrier fluid into the primary circuit of the plate exchanger (ref. n. 9 introductory figure). When the domestic hot water request ends, the flow switch returns to its original position (contact open) and the priority valve directs the heat carrier fluid normally to the heating circuit.
- 3 - Operation in by-pass mode: in the case in which neither domestic hot water nor thermal energy for heating the rooms is requested, the priority valve (ref. n. 1 introductory figure) is diverted normally to the heating circuit, while the zone valve (ref. 2 introductory figure) is in the by-pass position; in this manner the heat carrier fluid coming from the central heating plant is not directed to either the user heating system or the plate exchanger, but is redirected to the central heating plant once again.

Conditions of use

Heat carrier fluid: water

Maximum heating-side fluid temperature: 90 °C

Maximum heating-side operating pressure: 6 bar

Maximum domestic hot water-side operating temperature: 85 °C

Maximum domestic hot water-side operating pressure: 6 bar

Maximum inlet temperature of domestic cold water: 30 °C

Hydraulic performance

- Operation in heating mode:
Model DN15: Kv=2.16 with gate valves completely open
- Operation in domestic hot water production mode, primary side:
Model DN15: Kv=2.45 with gate valves completely open
- Operation in domestic hot water production mode, secondary side (domestic hot water): refer to the technical data of the braze-welded heat exchanger and the thermostatic mixer valve
- Operation in bypass mode:
Model DN15: Kv=0.82 with bypass differential valve completely open

Domestic hot water priority valve technical data

Power supply: 230 Vac, 50/60 Hz

Maximum absorption: 6 W

Nominal travel time: 7.2 s at 50 Hz, 6 s at 60 Hz

Maximum operating differential pressure: 4 bar

Technical data for thermostatic mixing valve for heating water

Range of adjustment: 25 °C - 55 °C*

*Nominal conditions: TH= 65 °C;

TC=15 °C; $\Delta p_{H-MIX} = \Delta p_{C-MIX}$

Kw=1,8÷3,3

H= hot water inlet; C= cold water inlet; MIX= mixed water outlet

Zone valve technical data

Power supply: 230 Vac, 50/60 Hz

Absorption: 4 VA

Maximum differential pressure: 6 bar

Rotation angle: 90° (in closing), 270° (in opening)

Rotation time: 60" (in closing), 180" (in opening)

Auxiliary contact: 1 - free 5 A, 230 Vac (on/off)

Braze-welded heat exchanger technical data

Plates material: stainless steel 316L

Brazing material: copper

No. plates: 24

Exchange area: 0.28 m²

Exchange coefficient KA: 2200 W/K

Kv (primary = secondary): 8,1 (m³/h)/bar^{0.5} at a temperature of 15 °C

Thermostatic mixing valve for domestic water technical data

Maximum pressure (static): 10 bar

Operating pressure (dynamic): 0÷5 bar

Maximum inlet temperature: 85 °C

Range of adjustment: 15÷45 °C

Kv maximum: 1.8*

Kv minimum: 1.3*

*values obtained with the following conditions:

TH = 45 °C; TC = 15 °C;

$\Delta p_{H-MIX} = \Delta p_{C-MIX}$

where: H= hot water inlet; C= cold water inlet; MIX= mixed water outlet

Flow switch technical data

Material: reinforced 66 nylon GF 30%

Maximum operating temperature: 88 °C

Maximum operating pressure: 15 bar

Flow rate: 1.7±0.3 l/min

Contact capacity: 0.2 A

Contact resistance: max 100 mΩ

Installation: horizontal

Box technical data

Box material: galvanized steel sheet, thickness 8/10 mm

Frame material: painted galvanized steel sheet (RAL 9010), thickness 8/10 mm

Lock: key

Dimensions (width x height x depth): 740x900x110 mm

Feet with adjustable height from 0 to 130 mm.

Complete with worksite cardboard protection.

Yonos Wilo Para pump RS 25/6

Connections - takeoffs G1 "1/2 - 130 mm.

Variable rotation speed: 800 to 4250 rpm.

Fluids used: Water cooling and heating; Water and glycol: max 1:1

Maximum static pressure: 6.2 m - Maximum capacity: 3.3 m³ / h

Max water temperature 95 °C at room temperatures of 57 °C

Max water temperature 90 °C at room temperatures of 59 °C

Max water temperature 70 °C at room temperatures of 70 °C

Electrical connection 1 ~ 230 V, 50/60 Hz

Protection class IPX 4D, F insulation

Nominal engine Power: 37 W

Energy consumption by 1 ~ 230 V 3 to 45 W

Current consumption at 1 ~ 230V: 0.03 to 0.44 A

Energy Class A

In confirm to:

ErP Directive

EN61800-3

EN 61000-6-3 / EN 61000-6-4

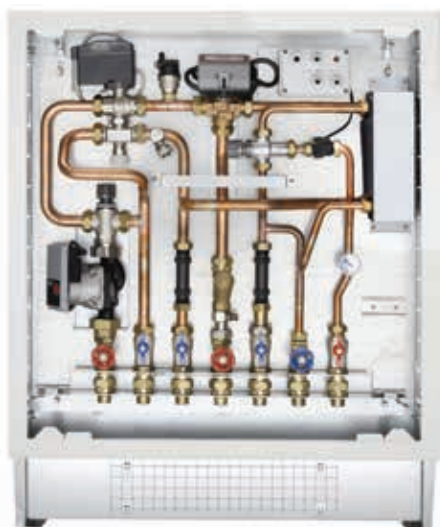
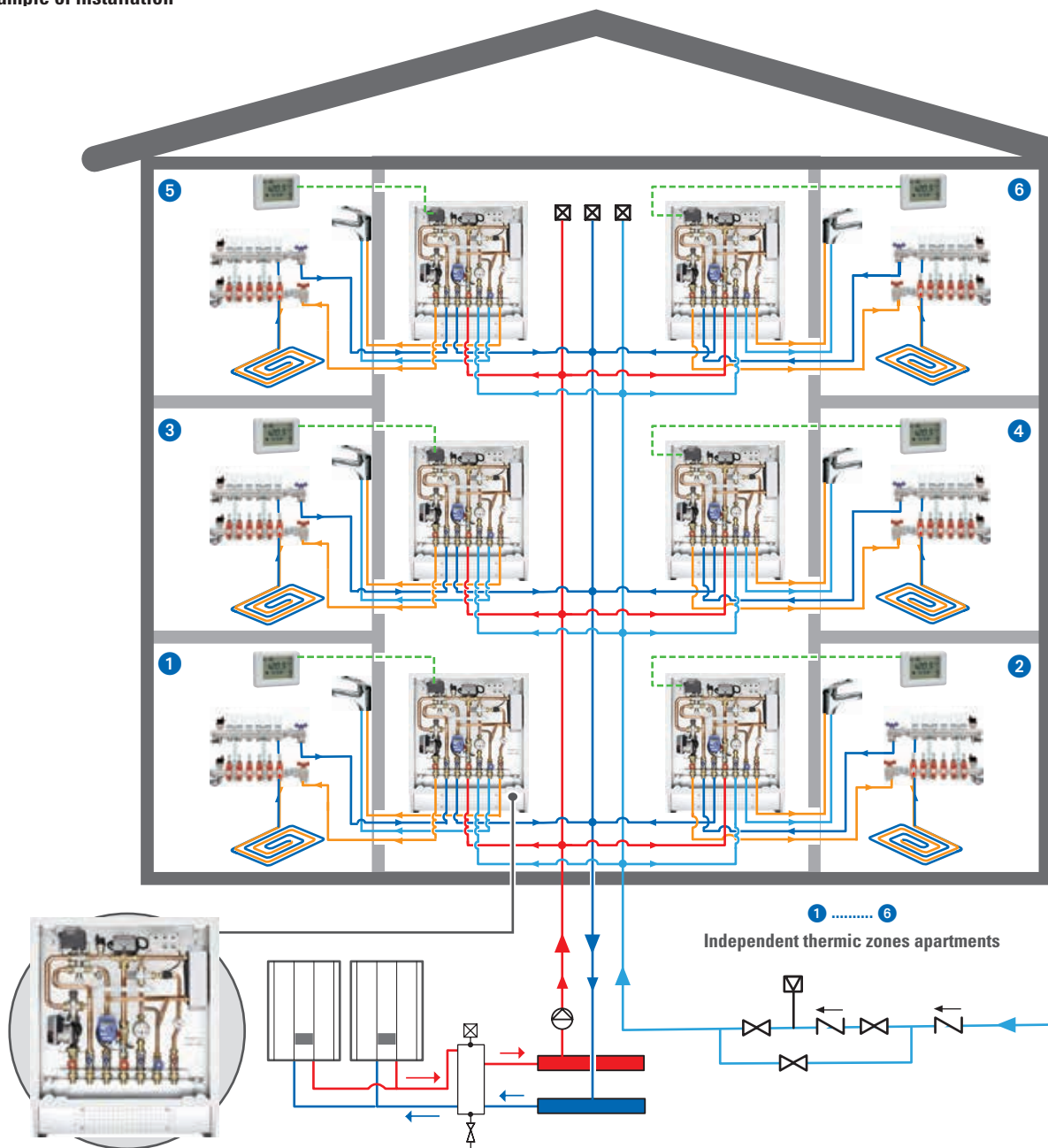
EN 61000-6-2 / EN 61000-6-1

Plant expansion

N.B.: testing and starting up the system are not included in the sales price

Built-in modules for accounting

Example of installation



Accounting substations with instantaneous production of domestic water with sections

NEW

Size	Box size	Pcs. pack	Code
DN15 (*)	700	1	28170508

(*) Prepared for installation of energy meter DN15 and volumetric meter DN15 for domestic cold water. Main connections: male 3/4" ISO 7/1 R (tapered thread), interval 70 mm.

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 10 days to order confirm

Energy Tankbox



Built-in water heating consumption measuring modules with the production of domestic hot water in a separate external boiler for each utility



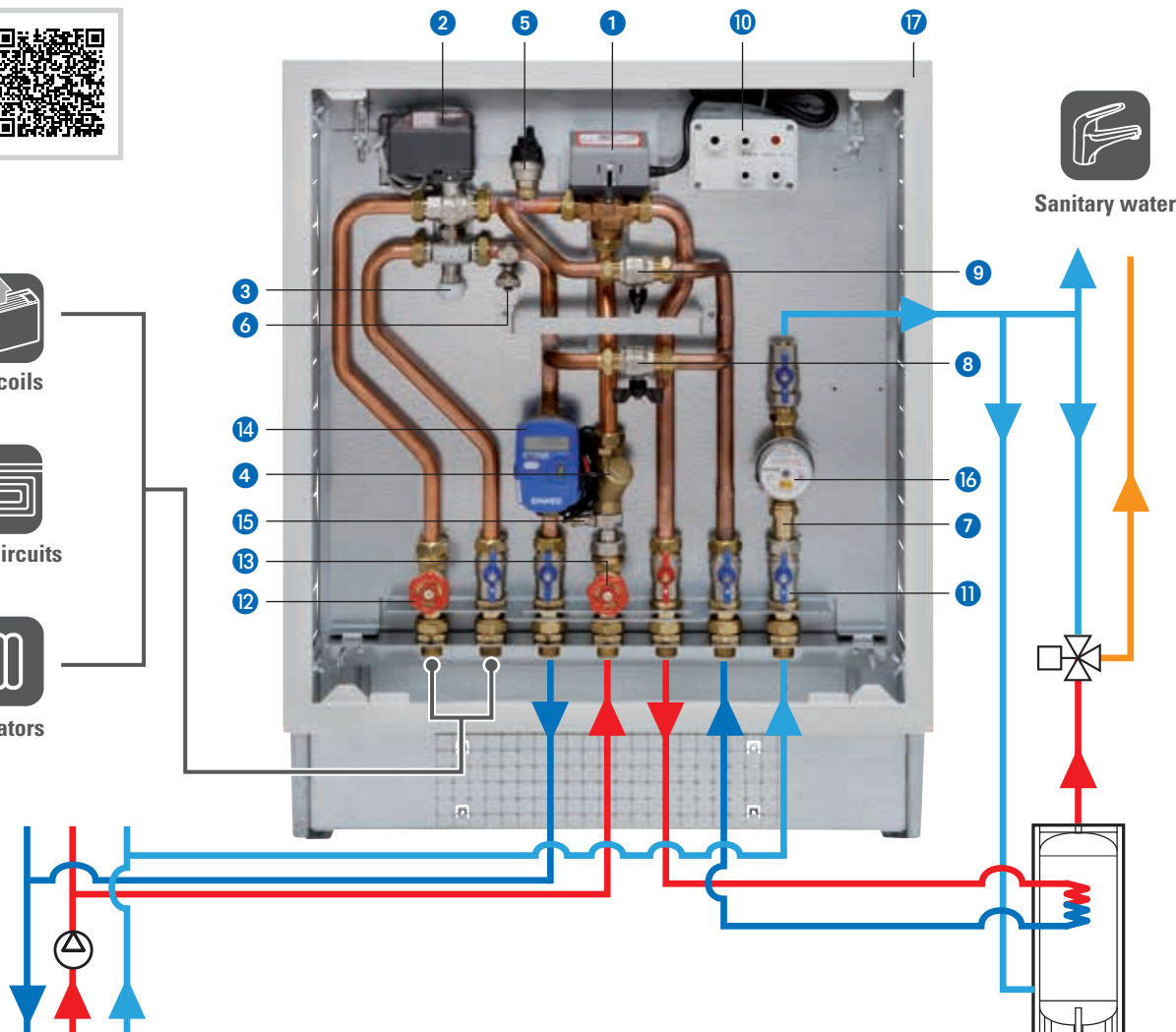
Fan-coils



Floor circuits



Radiators



TECHNICAL SHEET 130

"Energy Tankbox" was designed to be split into two parts (supplied pre-assembled):

- The external casing, with fittings for connection to the system, which can be installed separately at first, to prevent theft or soiling of components;
- The internal module, which all components are secured to, and which is easy to install at a later date, since it features rapid fittings and lifting handles.

Construction

- 1 Motorised diverter valve for DHW priority, DN25, 230 VAC, 50 Hz
- 2 Motorised 4-way zone valve DN20 with by-pass, 230 VAC, 50 Hz
- 3 Differential by-pass valve
- 4 Dust filter DN20
- 5 Automatic air-relief valve
- 6 Fill/discharge tap with adjustable fitting and safety cap
- 7 Pipe union with integrated retaining cartridge DN20
- 8 Shut-off valve 1
- 9 Shut-off valve 2
- 10 Electrical wiring box
- 11 Ball valve DN20
- 12 Gate valve DN20 to calibrate and balance the central heating circuit
- 13 Gate valve DN20 to calibrate and balance the primary circuit
- 14 Thermal energy meter with 2 compulsive input and M-Bus output
- 15 Energy meter flow sensor fitting, M10x1
- 16 Domestic cold water volumetric pulse-emitting gauge
- 17 Painted galvanised metal cassette with lock and key for 120 mm partition wall

Built-in water heating consumption

Operation

The Energy Tankbox module can work in 3 different conditions:

- 1 - Operation in heating mode: the priority valve (ref. n. 1 introductory figure) is normally diverted to the heating side and the zone valve (ref. n. 2 introductory figure), powered by the room thermostat, is open and conveys the heat carrier fluid into the user system.
- 2 - Operation in domestic hot water production mode: when the temperature of the boiler drops below the set value, the boiler thermostat (not included) switches the position of the priority valve (ref. n. 1 introductory figure), diverting the heat carrier fluid into the boiler circuit. When the temperature of the boiler reaches the set value, the boiler thermostat opens the contact and the priority valve directs the heat carrier fluid normally to the heating circuit.
In the event the shut-off valve n. 1 (ref. n. 8 introductory figure) is open and the shut-off valve (ref. n. 2 (ref. n. 9 introductory figure) is closed, the fluid returns to the boiler once it has passed through the boiling device.
In the event the shut-off valve n. 1 (ref. n. 8 introductory figure) is closed and the shut-off valve (ref. n. 2 (ref. n. 9 introductory figure) is open, the fluid is sent to the user heating circuit once it has passed through the boiling device. When thermal energy is requested, the zone valve (ref. n. 1 introductory figure) is open and the flow passes through the heating circuit; otherwise the zone valve is in the by-pass position and the flow returns to the boiler.
- 3 - Operation in by-pass mode: in the case in which neither domestic hot water nor thermal energy for heating the rooms is requested, the priority valve (ref. n. 1 introductory figure) is diverted normally to the heating circuit, while the zone valve (ref. n. 2 introductory figure) is in the by-pass position; in this manner the heat carrier fluid coming from the central heating plant is not directed to either the user heating system or the plate exchanger, but is redirected to the central heating plant once again.

Conditions of use

Heat carrier fluid: water

Maximum fluid temperature on central heating side: 90 °C

Maximum operating pressure on central heating side: 6 bar

Maximum operating temperature on boiler side: 90 °C

Maximum operating pressure on boiler side: 6 bar

Maximum domestic cold water inlet temperature: 30 °C

Hydraulic performance

- Operation in heating mode:
Model DN15: Kv=2.5 with gate valves completely open
Model DN20: Kv=3.2 with gate valves completely open
- Operation in domestic hot water production mode, primary side:
Model DN15: Kv=1.75 with gate valves completely open
Model DN20: Kv=1.90 with gate valves completely open
- Operation in bypass mode:
Model DN15: Kv=0.82 with bypass differential valve completely open
Model DN20: Kv=0.84 with bypass differential valve completely open.

Domestic hot water priority valve technical data

Power supply: 230 Vac, 50/60 Hz

Maximum absorption: 6 W

Nominal travel time: 7.2 s at 50 Hz, 6 s at 60 Hz

Maximum operating differential pressure: 4 bar

Zone valve technical data

Power supply: 230 Vac, 50/60 Hz

Absorption: 4 VA

Maximum differential pressure: 6 bar

Rotation angle: 90° (in closing), 270° (in opening)

Rotation time: 60" (in closing), 180" (in opening)

Auxiliary contact: 1 - free 5 A, 230 Vac (on/off)

Cassette technical data

Cassette material: galvanised sheet, 8/10 mm thick

Frame material: painted (RAL 9010) galvanised sheet, 8/10 mm thick

Lock: key-operated

Dimensions (width x height x depth): 740x900x110 mm

Height-adjustable feet from 0 to 130 mm.

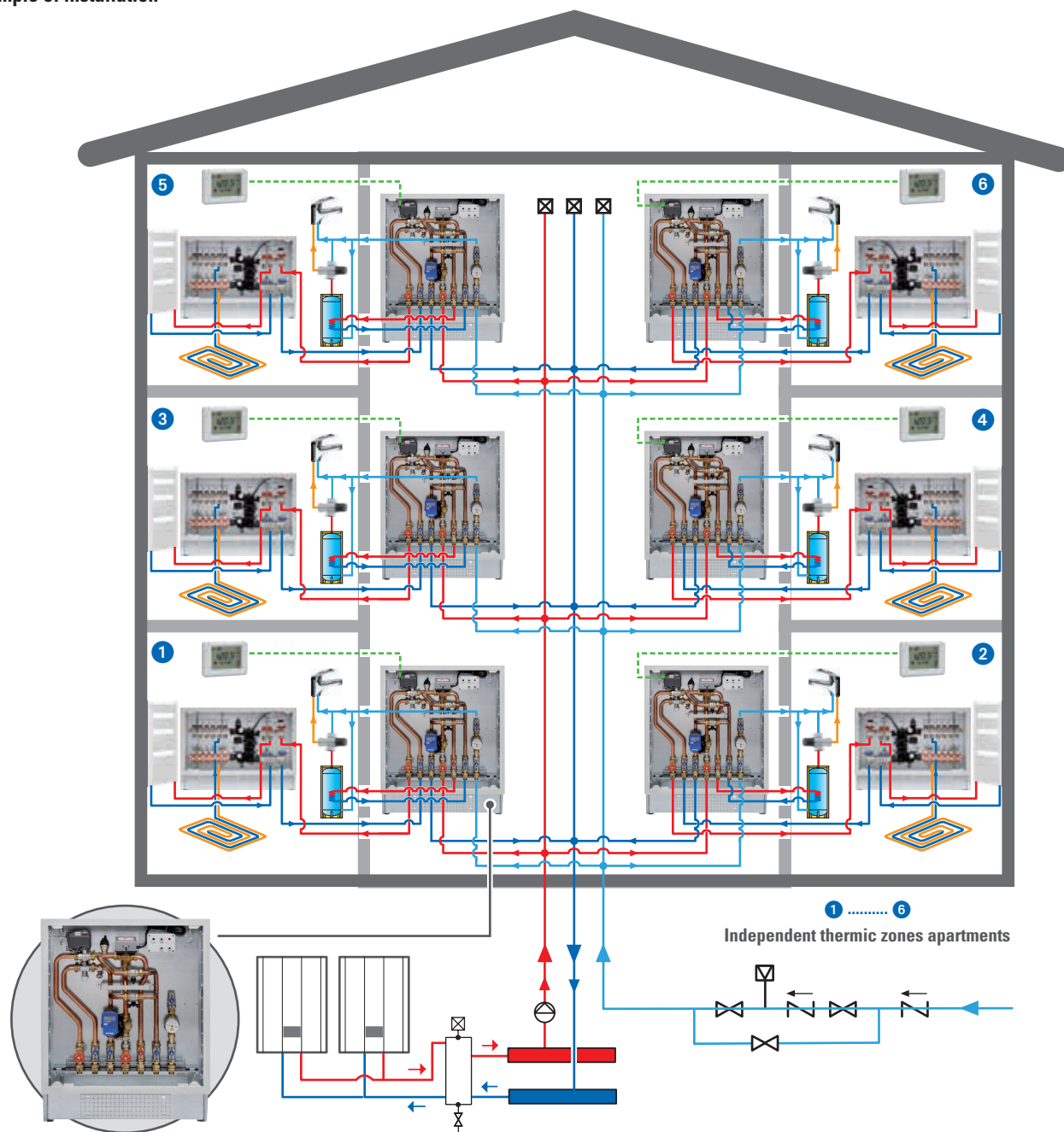
Complete with box for protection on building site.

Plant expansion

N.B.: testing and starting up the system are not included in the sales price



Example of installation



Built-in water heating consumption measuring modules, with the production of domestic hot water in a separate external boiler for each utility, with stub pipes.

Size	Box size	Pcs. pack	Code
DN15 (*)	700	1	28170504
DN20 (**)	700	1	28170506

(*) Prepared for installation of energy meter DN15 and volumetric meter DN15 for domestic cold water.

(**) Prepared for installation of energy meter DN20 and volumetric meter DN15 for domestic cold water DN15.

Main connections: male 3/4" ISO 7/1 R (tapered thread), interval 70 mm.

Note: for correct built-in installation, the module should be installed with a distance of 135 mm between the back of the box and the wall.

Available on request: 10 days to order confirm

Consumption measuring accessories

Components and accessories for direct reading consumption measuring



Direct reading energy meter

Class of precision in accordance with UNI EN 1434: 3 - Environmental class as per UNI EN 1434: C - Permanent flow rate: 1.5 m³/h (version DN15), 2.5 m³/h (version DN20) - Maximum flow rate: 3 m³/h (version DN15), 5 m³/h (version DN20) - Minimum flow rate size DN15: horizontal installation 30 l/h, vertical installation 60 l/h - Minimum flow rate size DN20: horizontal installation 50 l/h, -vertical installation 100 l/h - Nominal pressure: 16 bar - Temperature range of flow rate measuring device: 3 ÷ 90 °C - Temperature range of electronic unit: 1 ÷ 130 °C - Flow-return temperature difference: 3÷100K - Type of sensors: Pt500 - Ø 5.2 mm - cable 1.5 m - Battery powered, maximum battery life, not guaranteed, 10+1 years - Product compliant with UNI EN 1434 and compliant with MID Directive 2004/22/EC

Size	Type	Pcs. pack	Code
DN15 Conn. M 3/4" - 1,5/3,0 m ³ /h	H/C (*)	1	02708208
DN20 Conn. M 1" - 2,5/5,0 m ³ /h	H/C (*)	1	02708226

(*) Hot/Cold



Sensor-holder Tee assembly

Size	Pcs. pack	Code
1/2" x (M10x1) x 1/2"	1	02708188
3/4" x (M10x1) x 3/4"	1	02708190

Complete with male plug M10x1 to perform the system test run, before installing the energy meter. The assemblies are not necessary for the installation of the energy meters in individual and cassette Emmeti modules.



Direct reading volumetric counter for hot water

Meter with single jet and dry dial - Horizontal or vertical installation - Minimum Q1 flow rate: 31,25 l/h (horizontal installation) - Minimum Q1 flow rate: 62,5 l/h (vertical installation) - Permanent Q3 flow rate: 2.5 m³/h - Maximum Q4 flow rate: 3.13 m³/h - MID metrological class: R (Q3/Q1)= 80 H (horizontal installation), R (Q3/Q1)= 40 V (vertical installation) - Operating temperature: from 30 °C to 90 °C - Operating pressure (PN): 16 bar - Certified product in accordance with Leg. Decree no. 22 dated 2/2/2007 (implementation of MID European Directive 2004/22/EC)

Size	Pcs. pack	Code
DN15 Connection M 3/4"	1	02708202



Direct reading volumetric counter for hot water

Meter with single jet and dry dial - Fitting size: M 1" - Counter length: 130 mm - Horizontal or vertical installation - Minimum Q1 flow rate: 50 l/h (horizontal installation) - Minimum Q1 flow rate: 100 l/h (vertical installation) - Permanent Q3 flow rate: 4 m³/h - Maximum Q4 flow rate: 5 m³/h - MID metrological class: R (Q3/Q1)= 80 H (horizontal installation), R (Q3/Q1)= 40 V (vertical installation) - Operating temperature: from 30 °C to 90 °C - Operating pressure (PN): 16 bar - Kv=6,13 (m³/h)/bar 0,5 - Certified product in accordance with Leg. Decree no. 22 dated 2/2/2007 (implementation of MID European Directive 2004/22/EC)

NOTE: Not suitable for installation in single and in-box Emmeti pre-assembled hydraulic units.

Size	Pcs. pack	Code
DN20 Connection M 1"	1	02709166

Available on request: 30 days to order confirm



Direct reading volumetric counter for cold water

Meter with single jet and dry dial - Horizontal or vertical installation - Minimum Q1 flow rate: 31,25 l/h (horizontal installation) - Minimum Q1 flow rate: 62,5 l/h (vertical installation) - Permanent Q3 flow rate: 2.5 m³/h - Maximum Q4 flow rate: 3.13 m³/h - MID metrological class: R (Q3/Q1)= 80 H (horizontal installation), R (Q3/Q1)= 40 V (vertical installation) - Maximum operating temperature: 50 °C - Operating pressure (PN): 16 bar - Certified product in accordance with Leg. Decree no. 22 dated 2/2/2007 (implementation of MID European Directive 2004/22/EC)

Size	Pcs. pack	Code
DN15 Connection M 3/4"	1	02708200



Direct reading volumetric counter for cold water

Meter with single jet and dry dial - Fitting size: M 1" - Counter length: 130 mm - Horizontal or vertical installation - Minimum Q1 flow rate: 50 l/h (horizontal installation) - Minimum Q1 flow rate: 100 l/h (vertical installation) - Permanent Q3 flow rate: 4 m³/h - Maximum Q4 flow rate: 5 m³/h - MID metrological class: R (Q3/Q1)= 80 H (horizontal installation), R (Q3/Q1)= 40 V (vertical installation) - Maximum operating temperature: 50 °C - Operating pressure (PN): 16 bar - Kv=6,13 (m³/h)/bar0,5 - Certified product in accordance with Leg. Decree no. 22 dated 2/2/2007 (implementation of MID European Directive 2004/22/EC)

NOTE: Not suitable for installation in single and in-box Emmeti pre-assembled hydraulic units.

Size	Pcs. pack	Code
DN20 Connection M 1"	1	02709164

Available on request: 30 days to order confirm



Pipes

Size	Connections	Pcs. pack	Code
L=110 mm for heating/cooling water (*)	3/4"	1	01306354
L=130 mm for heating/cooling water (**)	1"	1	01306358
L=110 mm for sanitary water (***)	3/4"	1	01306356

(*) Set-up for installation of an energy meter, DN15 size

(**) Set-up for installation of an energy meter, DN20 size

(***) Set-up for installation of volumetric counter, DN15 size

Complete with no. 2 gaskets



Pipe union connections kit

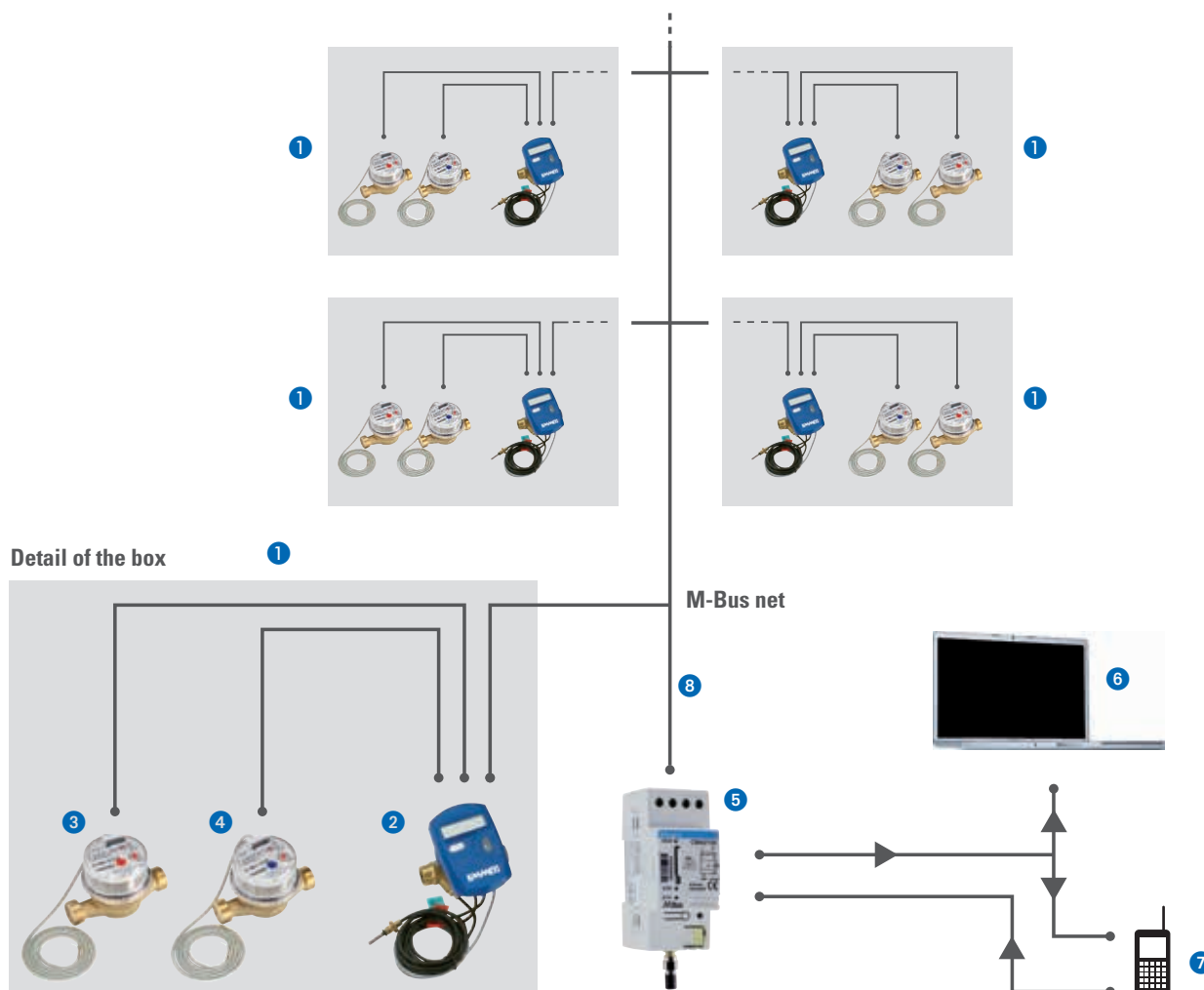
Size	Pcs. pack	Code
3/4" F - 1/2" M	1	02708098
1" F - 3/4" M	1	02708110

The kit is not needed for the installation of the heat meter and water meters in the Emmeti modules singles or in boxes.

Consumption measuring accessories

Components and accessories for consumption measuring with data transmission

Installation scheme with energy meters with dual pulse input and M-Bus GSM concentrator



Total N. of devices per box: 1 (n. 1 energy meter) - Total N. of M-Bus addresses per box: 1.

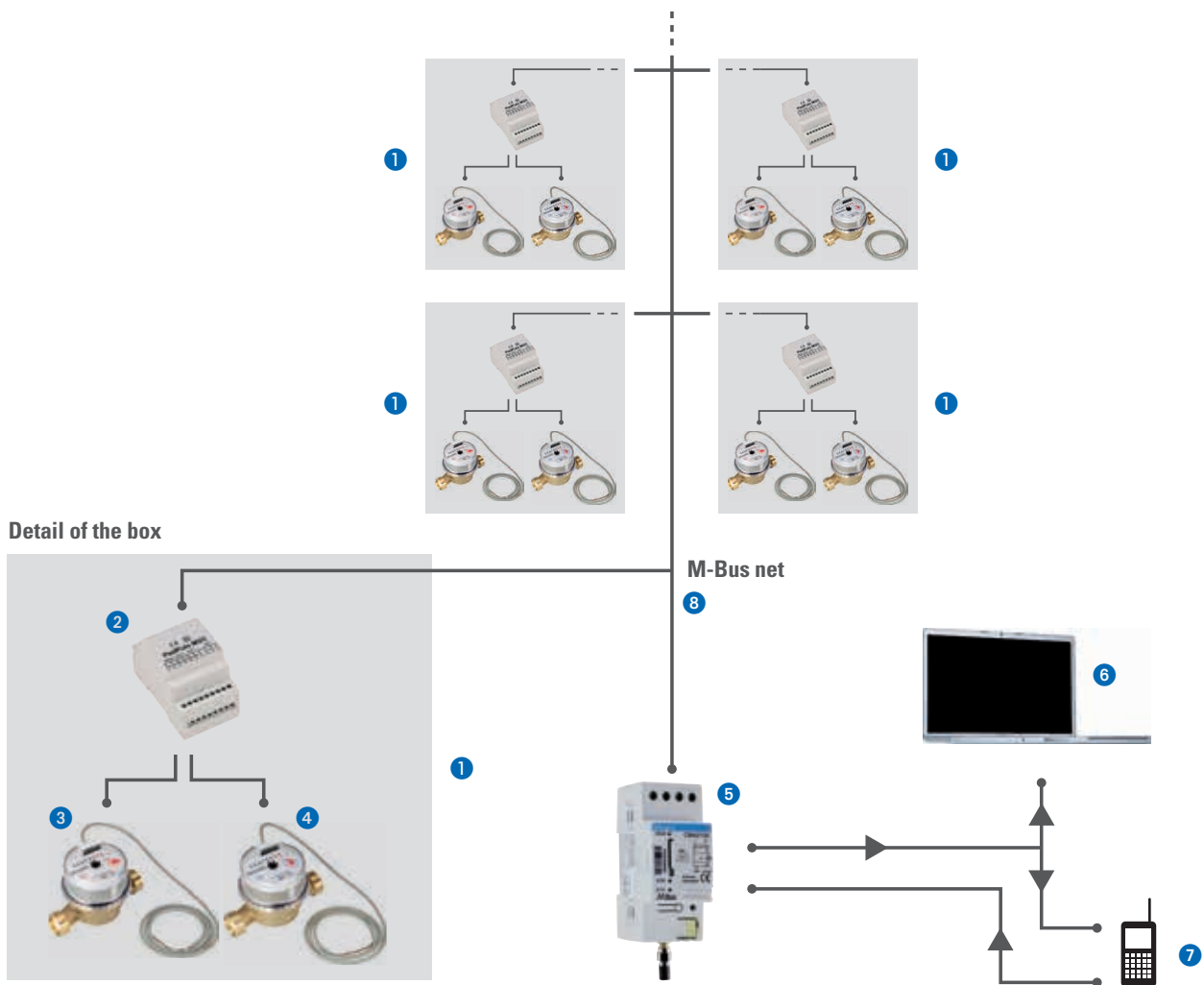
Nr. of addresses connected to an M-Bus Concentrator and its expansion: 72 (M-Bus concentrator coupled to an expansion up to 64 addresses).

Construction

- ① Consumption measuring box
- ② Energy meter with remote reading with dual pulse input
- ③ Hot water meter with pulse output
- ④ Cold water meter with pulse output
- ⑤ M-Bus GSM concentrator
- ⑥ PC
- ⑦ Mobile phone
- ⑧ Unshielded twisted pair cable for data transmission with M-Bus



Installation scheme with double pulse adapters and M-Bus GSM concentrator



Total N. of devices per box: 1 (n. 1 pulse adapter) - Total N. of M-Bus addresses per box: 2 (1 address for each port of the pulse adapter, to which the volumetric meter is connected).

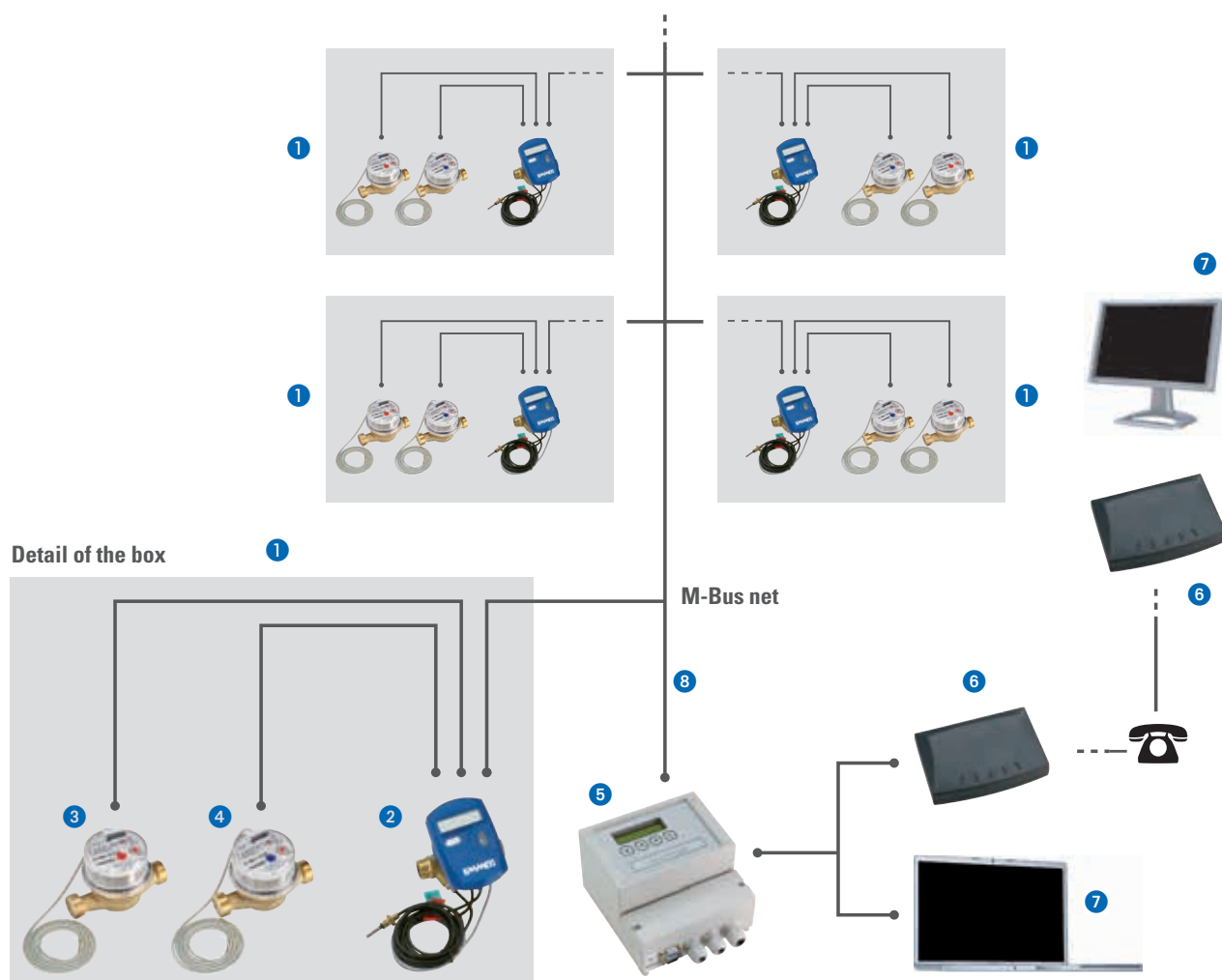
Nr. of addresses connected to an M-Bus Concentrator and its expansion: 72 (M-Bus concentrator coupled to an expansion up to 64 addresses).

Construction

- ① Consumption measuring box
- ② Impulse adapter
- ③ Hot water meter with pulse output
- ④ Cold water meter with pulse output
- ⑤ M-Bus GSM concentrator
- ⑥ PC
- ⑦ Mobile phone
- ⑧ Unshielded twisted pair cable for data transmission with M-Bus

Consumption measuring accessories

Installation scheme with energy meters with dual pulse input and M-Bus concentrator



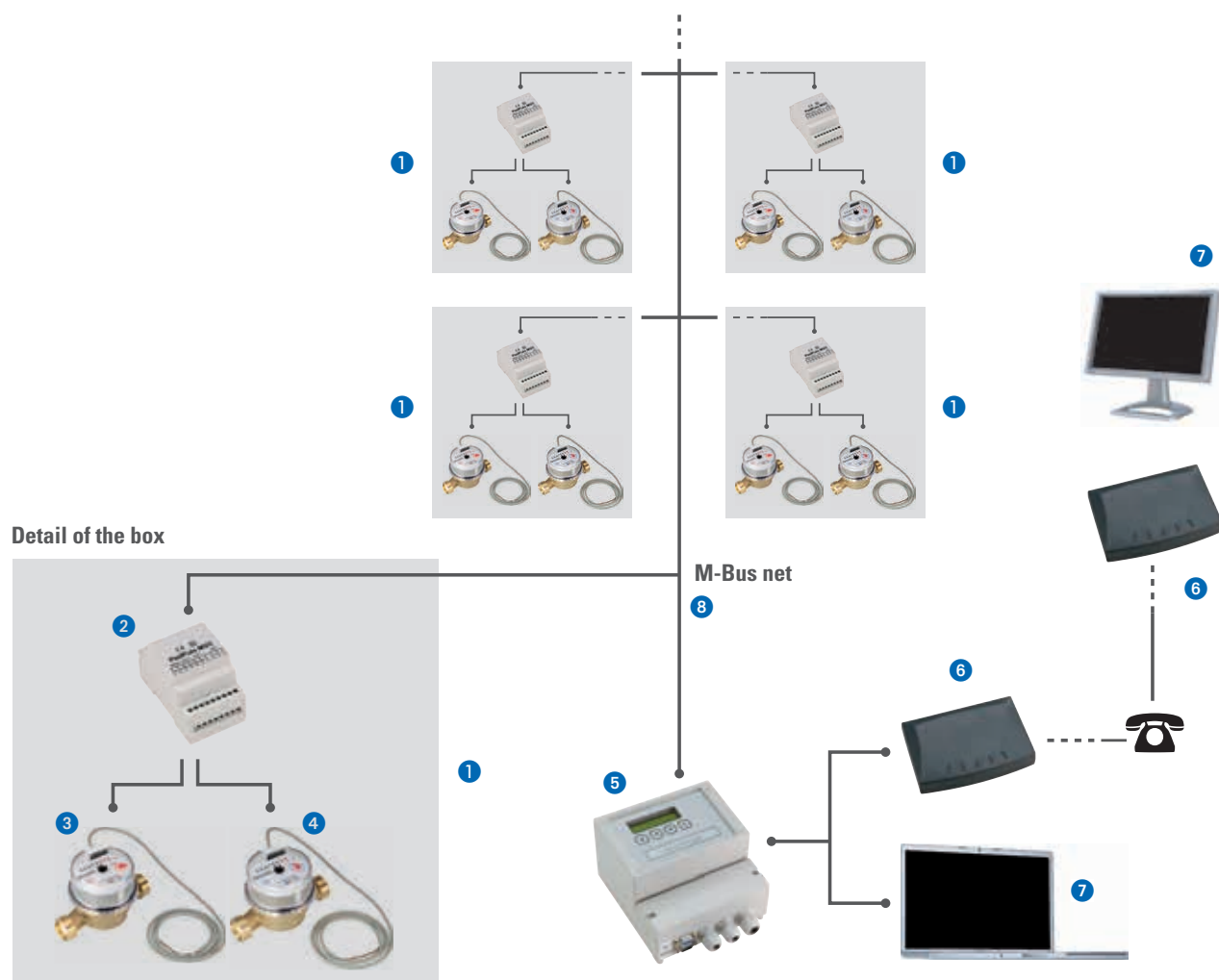
Total N. of devices per box: 1 (n. 1 energy meter) - Total N. of M-Bus addresses per box: 1

Construction

- ① Consumption measuring box
- ② Energy meter with remote reading with dual pulse input
- ③ Hot water meter with pulse output
- ④ Cold water meter with pulse output
- ⑤ M-Bus concentrator
- ⑥ Modem (analogic 56K o GSM)
- ⑦ PC + software
- ⑧ Unshielded twisted pair cable for data transmission with M-Bus



Installation scheme with pulse adapter and M-Bus concentrator



Total N. of devices per box: 1 (n. 1 pulse adapter) - Total N. of M-Bus addresses per box: 2 (n. 1 address for each port of the pulse adapter, to which the volumetric meter is connected)

Construction

- ① Consumption measuring box
- ② Impulse adaptor
- ③ Hot water meter with pulse output
- ④ Cold water meter with pulse output
- ⑤ M-Bus concentrator
- ⑥ Modem (analogic 56K o GSM)
- ⑦ PC + software
- ⑧ Unshielded twisted pair cable for data transmission with M-Bus

Consumption measuring accessories



Hot/cold energy meter with data transmission with dual pulse input for connection to up to 2 volumetric pulse-emitting meters

Accuracy class compliant with UNI EN 1434: 3 - Environmental class compliant with UNI EN 1434: C - Permanent flow rate: 1.5 m³/h (size DN15), 2.5 m³/h (size DN20) - Maximum flow rate: 3 m³/h (size DN15), 5 m³/h (size DN20) - Minimum flow rate DN15: Horizontal installation: 30 l/h, Vertical installation: 60 l/h - Minimum flow rate size DN20: Horizontal installation: 50 l/h, Vertical installation: 100 l/h - Nominal pressure: 16 bar - Flow meter temperature range: 3÷90 °C - Electronic unit temperature range: 1÷130 °C - Difference in flow-return temperature: 3÷100 K - Type of sensors: Pt500 - Ø 5.2 mm - cable 1.5 mm - Power supply: battery-operated, maximum battery life, not guaranteed, 10+1 years; M-Bus, if the instrument is connected to a M-Bus network - Communication via M-Bus protocol in compliance with UNI EN 1434-3.

The energy meter is recognised by an M-Bus concentrator as a single device with a single address even if two pulse-emitting volumetric meters are linked up to it.

Use the "USB optical feeler kit" to configure the primary M-Bus address and the two pulse inputs on the meter.

Product compliant with UNI EN 1434 and certified in compliance with Italian Law Decree no. 22 dated 02/02/07 (implementation of European Directive MID 2004/22/EC).

Size	Type	Pcs. pack	Code
DN15 Conn. M 3/4" - 1,5/3,0 m ³ /h	H/C (*)	1	02708540
DN20 Conn. M 1" - 2,5/5,0 m ³ /h	H/C (*)	1	02708542

(*) Hot/Cold



Sensor-holder Tee assembly

Size	Pcs. pack	Code
1/2" x (M10x1) x 1/2"	1	02708188
3/4" x (M10x1) x 3/4"	1	02708190

Complete with male plug M10x1 to perform the system test run, before installing the energy meter. The assemblies are not necessary for the installation of the energy meters in individual and cassette Emmeti modules.



Hot water meter with pulse output

Meter with single jet and dry dial - Horizontal or vertical installation - Minimum Q1 flow rate: 31,25 l/h (horizontal installation)

Minimum Q1 flow rate: 62,5 l/h (vertical installation) - Permanent Q3 flow rate: 2.5 m³/h - Maximum Q4 flow rate: 3.13 m³/h

MID metrological class: R (Q3/Q1)=80 H (horizontal installation), R (Q3/Q1)=40 V (vertical installation) - Operating temperature: from 30 °C to 90 °C - Operating pressure (PN): 16 bar - Supplied with reed-switch pulse emitter 1 pulse/10 litres.

Note: the pulse emitters used to interface with the M-Bus network must be connected to an energy meter with a double pulse inlet or with a pulse adaptor.

Certified product in accordance with Leg. Decree no. 22 dated 2/2/2007 (implementation of MID European Directive 2004/22/EC)

Size	Pcs. pack	Code
DN15 Connection M 3/4"	1	02708206



Hot water meter with pulse output

Meter with single jet and dry dial - Fitting size: M 1" - Counter length: 130 mm - Horizontal or vertical installation - Minimum Q1 flow rate: 50 l/h (horizontal installation) - Minimum Q1 flow rate: 100 l/h (vertical installation) - Permanent Q3 flow rate: 4 m³/h - Maximum Q4 flow rate: 5 m³/h - MID metrological class: R (Q3/Q1)=80 H (horizontal installation), R (Q3/Q1)=40 V (vertical installation) - Operating temperature: from 30 °C to 90 °C - Operating pressure (PN): 16 bar - Kv=6,13 (m³/h)/bar 0,5 - Supplied with reed-switch pulse emitter 1 pulse/10 litres.

Note: the pulse emitters used to interface with the M-Bus network must be connected to an energy meter with a double pulse inlet or with a pulse adaptor.

Certified product in accordance with Leg. Decree no. 22 dated 2/2/2007 (implementation of MID European Directive 2004/22/EC).

NOTE: Not suitable for installation in single and in-box Emmeti pre-assembled hydraulic units.

Size	Pcs. pack	Code
DN20 Connection M 1"	1	02709162



Cold water meter with pulse output

Meter with single jet and dry dial - Horizontal or vertical installation - Minimum Q1 flow rate: 31,25 l/h (horizontal installation) - Minimum Q1 flow rate: 62,5 l/h (vertical installation) - Permanent Q3 flow rate: 2.5 m³/h - Maximum Q4 flow rate: 3.13 m³/h - MID metrological class: R (Q3/Q1)=80 H (horizontal installation), R (Q3/Q1)=40 V (vertical installation) - Maximum operating temperature: 50 °C - Operating pressure (PN): 16 bar - Supplied with reed-switch pulse emitter 1 pulse/10 litres.

Note: the pulse emitters used to interface with the M-Bus network must be connected to an energy meter with a double pulse inlet or with a pulse adaptor.

Certified product in accordance with Leg. Decree no. 22 dated 2/2/2007 (implementation of MID European Directive 2004/22/EC).

Size	Pcs. pack	Code
DN15 Connection M 3/4"	1	02708204



Cold water meter with pulse output

Meter with single jet and dry dial - Fitting size: M 1" - Counter length: 130 mm - Horizontal or vertical installation - Minimum Q1 flow rate: 50 l/h (horizontal installation) - Minimum Q1 flow rate: 100 l/h (vertical installation) - Permanent Q3 flow rate: 4 m³/h - Maximum Q4 flow rate: 5 m³/h - MID metrological class: R (Q3/Q1)=80 H (horizontal installation), R (Q3/Q1)=40 V (vertical installation) - Maximum operating temperature: 50 °C - Operating pressure (PN): 16 bar - Kv=6,13 (m³/h)/bar 0,5 - Supplied with reed-switch pulse emitter 1 pulse/10 litres.

Note: the pulse emitters used to interface with the M-Bus network must be connected to an energy meter with a double pulse inlet or with a pulse adaptor.

Certified product in accordance with Leg. Decree no. 22 dated 2/2/2007 (implementation of MID European Directive 2004/22/EC).

NOTE: Not suitable for installation in single and in-box Emmeti pre-assembled hydraulic units.

Size	Pcs. pack	Code
DN20 Connection M 1"	1	02709160



Pipes

Size	Connections	Pcs. pack	Code
L=110 mm for heating/cooling water (*)	3/4"	1	01306354
L=130 mm for heating/cooling water (**)	1"	1	01306358
L=110 mm for sanitary water (***)	3/4"	1	01306356

(*) Set-up for installation of an energy meter, DN15 size

(**) Set-up for installation of an energy meter, DN20 size

(***) Set-up for installation of volumetric counter, DN15 size

Complete with no. 2 gaskets

Consumption measuring accessories



Pipe union connections kit

Size	Pcs. pack	Code
3/4" F - 1/2" M	1	02708098
1" F - 3/4" M	1	02708110

The kit is not needed for the installation of the heat meter and water meters in the Emmeti modules singles or in boxes.



Energy measurement device hot/cold for high flow rates with threaded fitting and data transmission

Type

Multiple-jet counter with magnetic transmission.

Electronic unit technical data

Temperature range: 1÷150 °C - Temperature difference in heating phase: 3÷100 K - Temperature difference in cooling phase: -3÷-50 K - Storage temperature: 0÷55 °C - Minimum temperature difference in heating phase: 0.05 K - Minimum temperature difference in cooling phase: -0.05 K - Temperature measurement resolution: 0.01 °C - Measurement frequency: every 30 seconds

Impulses: 10 litres/impulse - Display: LCD with 8 digits + special characters - Energy measurement unit: MWh - Power supply: battery 3.6 V lithium, estimated maximum battery life 6+1 years, not guaranteed, M-Bus (if the instrument is connect to an M-Bus network) - Data storage EEPROM / daily - Reading data: settable - Protection class: IP65 - Electromagnetic class: E1 - Mechanical class: M1 - Temperature probes: Pt500, Ø 5 mm (for measurement DN25), Ø 6 mm (for measurement DN32 and DN40), cable length: 3 m

Dimensions (Length x Width x Height): 198 x 123,7 x 45,8 mm

Communication via M-bus protocol in compliance with standard UNI EN 1434.

Use "Kit USB optical head" to set the primary address of the measuring device.

Energy measurement device for high flow rates is confirm to MID 2004/22/CE.

Size	Connection	Pcs. pack	Code
DN 25	M 1"1/4	1	02708594
DN 32	M 1"1/2	1	02708596
DN 40	M 2"	1	02708598

Item available on request: 30 days from order confirm.

Technical data of flow rete measurement device

Size		DN25	DN32	DN40
Nominal flow rate	m³/h	3,5	6	10
Minimum flow rate	l/h	70	120	200
Maximum flow rate	m³/h	7	12	20
Max operating temperature	°C	90	90	90
Max operating pressure	bar	16	16	16
Weight	kg	2,7	2,8	5,2
Impulses (reed)	Litres/imp	10	10	10
Kv	(m³/h)/bar 0,5	10	13	21



Pipe union connections kit

Size	Pcs. pack	Code
1"1/4 F - 1" M	1	02708160
1"1/2 F - 1"1/4 M	1	02708162
2" F - 1"1/2 M	1	02708164



Sensor holder Tee group for measurement devices DN25

Size	Pcs. pack	Code
1" x 1" x 1"	1	02708166



Probe holder kit for energy measurement devices DN32 and DN40

Size	Pcs. pack	Code
	1	02708296

Note: to be used in conjunction with energy measurement devices DN32 and DN40.

A kit is composed of:

- 2 sleeves to be welded for installation at right angles
- 2 wells of 1/2", L = 40 mm



Energy measurement hot/cold for high flow rates with flanged fitting and data transmission

Typology

Woltmann mill counter for water heated up to 120 °C

Electronic unit technical data

Temperature range: 1÷150 °C - Temperature difference in heating phase: 3÷100 K - Temperature difference in cooling phase: -3÷-50 K - Storage temperature: 0÷55 °C - Minimum temperature difference in heating phase: 0.05 K - Minimum temperature difference in cooling phase: -0.05 K - Temperature measurement resolution: 0.01 °C - Measurement frequency: every 30 seconds

Impulses: 100 litres/impulse - Display: LCD with 8 digits + special characters - Energy measurement unit: MWh - Power supply: - battery 3.6 V lithium, estimated maximum battery life 6+1 years, not guaranteed, M-Bus (if the instrument is connect to an M-Bus network) - Data storage EEPROM/daily

Reading data: settable - Protection class: IP65 - Electromagnetic class: E1 - Mechanical class: M1 - Temperature probes: Pt500, Ø 6 mm, cable length: 3 m - Dimensions (Length x Width x Height): 198 x 123,7 x 45,8 mm

Communication via M-bus protocol in compliance with standard UNI EN 1434

Use the Micro-Master and the MBCONF software or "kit USB optical head" to set the primary address of the measuring device.

The energy measuring device for elevated capacities is certified in compliance with Legislative Decree 22 of 02/02/07 (Implementation of the European Directive MID 2004/22/CE).

Size	Pcs. pack	Code
DN50	1	02708586
DN65	1	02708588
DN80	1	02708590
DN100	1	02708592

Item available on request: 30 days from order confirm

Technical data of flow measurement device

Diameter	mm	50	65	80	100
Nominal flow rate	m³/h	15	25	32	60
Minimum flow rate	m³/h	0,6	1	2	2
Maximum flow rate	m³/h	30	30	45	180
Sensitivity	m³/h	0,13	0,13	0,4	0,5
Operating pressure	bar	16	16	16	16
Maximum reading	m³	1000000	1000000	1000000	1000000
Minimum reading	l	0,5	0,5	0,5	0,05
Weight	kg	11,1	11,6	12,5	19,8
Impulses	Litres/imp	100	100	100	100
PTB approval number		22.56 01.01	22.56 01.01	22.56 01.01	22.56 01.01

Consumption measuring accessories



Probe holder kit for energy measurement devices DN50 and DN65

Size	Pcs. pack	Code
	1	02708296

Note: to be used in conjunction with energy measurement devices DN5 and DN65

A kit is composed of:

- 2 sleeves to be welded for installation at right angles
- 2 wells of 1/2", L = 40 mm



Probe holder kit for energy measurement devices DN80 and DN100

Size	Pcs. pack	Code
	1	02708298

Note: to be used in conjunction with energy measurement devices DN80 and DN100.

A kit is composed of:

- 2 sleeves to be welded for installation at 45°
- 2 wells of 1/2", L = 85 mm



USB optical feeler kit

Size	Pcs. pack	Code
	1	02708544

Complete with "Configuration Tool" configuration software. To be used to configure the primary M-Bus address and the two pulse inputs of the energy meters with dual pulse input.



Micro-Master

Power supply via PC - USB interface - Dimensions: 30x54x100 mm

Use the Micro-Master for the configuration of the pulse adapter, using software MB-CONF included. Using the Micro-Master, it's not possible to configure the 2 pulsed inputs of the energy meters with dual pulse input.

Size	Pcs. pack	Code
	1	02708214

MBCONF and FSERVICE software included



Impulse adaptor

M-Bus impulse adaptor for up to 2 counters - Power supply by means of M-Bus or internal battery - Installation of DIN rail TS35x7.5 - Dimensions: 53x90x58 mm - For configuration, use the MBCONF software provided and the Micro-Master.

Note: the impulse adaptor is recognised by the M-Bus network as one device with 2 addresses, regardless of the number of volumetric counters connected to it.

Size	Pcs. pack	Code
	1	02708212



M-Bus concentrator with integrated GSM modem

Nominal supply voltage: 100÷240 Vac - Frequency: 50/60 Hz - Maximum power consumption: <2.5 W - Nominal power consumption: <1 W - Dimensions: 90x75x35 mm - Protection rating: IP20 - Weight: 100 g - Assembly: DIN guide - GSM/GPRS transmission bands: 850/900/1800/1900 MHz - GSM antenna supplied as standard

Can only be set-up via SMS. It sends consumption data detected from individual instruments via e-mail.

Allows to connect to maximum 8 M-Bus addresses. For installations with more than 8 addresses, match a suitably-sized expansion module to the concentrator.

It can be connected to a concentrator only n. 1 expansion module. It can be connected to a concentrator only n. 1 expansion module.

Size	Pcs. pack	Code
Up to 8 M-Bus addresses	1	02709140



Expansion modules for M-Bus concentrators with integrated GSM modem

Nominal supply voltage: 100÷240 Vac - Frequency: 50/60 Hz - Maximum power consumption: 3 W - Protection rating: IP20

The number of addresses that each expansion module can manage must be added to the number of addresses managed by the concentrator (max 8 addresses). Therefore, if for instance a concentrator is combined with an expansion module with 32 addresses, it is possible to manage a total of 32+8=40 M-Bus addresses.

It can be used with an M-Bus concentrator with integrated GSM modem n. 1 expansion to 32 addresses (8 +32 = 40 addresses manageable total) or n. 1 expansion to 64 addresses (8 +64 = 72 addresses manageable total).

No other types of installation.

Size	N° DIN modules	Pcs. pack	Code
Until 32 of M-Bus addresses	2	1	02709142
Until 64 of M-Bus addresses	2	1	02709144



Omnidirectional UMTS/GSM antenna

Omnidirectional antenna - Low pressure drop cable, length 3 m - Internal use - Frequency range: 900 MHz, 1800 MHz, 2100 MHz - Connector: male SMA - Dimensions: 9x3x3 mm (without cable) - Weight: 50 g - Operating temperature: 0 °C ÷ +50 °C - Type of fastening: magnetic base

Size	Pcs. pack	Code
	1	02709152

To be combined with the concentrator with integrated GSM modem only if the concentrator is positioned in a place where there is a poor GSM signal power and it is considered necessary to control the antenna remotely in a more favourable position to transmit data.



M-Bus concentrator for 60 devices

Keyboard and LCD display - Export of data on PC - External modem (optional) - Interfaces: RS232C and RS485 - Memory: 512kB - Power supply: 230 Vac - Dimensions: 166x112x190 mm

Note: the impulse adaptor is recognised by the M-Bus network as one device with 2 addresses, regardless of the number of volumetric counters connected to it.

MBCONF and FSERVICE software included

Size	Pcs. pack	Code
Until 60 devices	1	02708220

Consumption measuring accessories



M-Bus concentrator for 20-3 devices

Keyboard and LCD display - Export of data on PC - External modem (optional) - RS232C interface - Memory: 1 MB - Power supply: 10-28 V dc or 13-28 V ac (transformer not included) - Dimensions: 58x106x94 mm.

Note: the impulse adaptor is recognized by the M-Bus concentrator as a single device even if 2 impulse launch volumetric counters are connected to it.

MBCONF and FSERVICE software included

Size	Pcs. pack	Code
Until 20 devices	1	02708222
Until 3 devices	1	02708224



M-Bus repeater

The M-Bus repeater must be connected to M-Bus concentrator (for max 60, 20 or 3 devices) in the event inside the M-Bus network is installed a number of devices (energy meters + impulse adapters) higher than 60. The coupling Repeater + Concentrator supports M-Bus networks where a maximum of 240 addresses are present (1 address for each energy meter, 2 addresses for each impulse adapter); for higher installations a higher number of concentrators and repeaters must be used.

Technical data

Power supply: 42 V DC (transformation included) - Interfaces: M-Bus (in input and in output) - Dimensions: 94x214x240 mm

Size	Pcs. pack	Code
	1	02708264



Cable for meter systems with data transmission via M-bus protocol

Telephone cable TRR + T with 2 unsheathed twisted wires, complete with ground conductor - Conductor: watertight copper wire (Cu-Sn) with diameter 0.6 mm - Insulation: PVC with minimum depth of 0.15 mm - Maximum resistance of the conductor in dc 20 °C: 67.9 ohm/km - Minimum insulation resistance: 500 Mohm/km - Maximum mutual capacity at 800 Hz: 120 nF/km

Size	Mt. pack	Code
	250 m	02708262



Transformer 230/24 V 35 VA

Size	Pcs. pack	Code
5 DIN modules	1	28153410



Standard modem

Preconfigured for connection to corresponding concentrator (see no. of devices)

Devices number	Pcs. pack	Code
60	1	02708100
20-3	1	02708102



GSM modem kit

Size	Pcs. pack	Code
For concentrator max 60 devices (*)	1	02708282
For concentrators max 3 and max 20 devices	1	02708280

(*) The kit is also configured for PC connection.

Kit contains: GSM/GPRS Dual-Band modem (900/1800 MHz), GSM antenna (cable length 3 m), AC/DC feeder, serial 9 pin RS232 cable for connection to the concentrator. Use a SIM Card enabled for DATA traffic (not supplied as standard).



Serial/USB adaptor cable

Allows the connection of an RS-232 serial peripheral device (e.g.: M-Bus concentrator, modem) to a USB port of a computer - Connectors: USB A Male (computer), Sub-D 9 pin Male (RS-232 serial peripheral device) - Cable length: 1.5 m approx - Supports the USB 1.1 and 2.0 standards - CD with Installation Driver included - Compatible with Windows ME/2000/XP/Vista/7.

Size	Pcs. pack	Code
	1	90046070



Boilers, solar panels and accessories for solar systems



> Hot water storage tanks

339



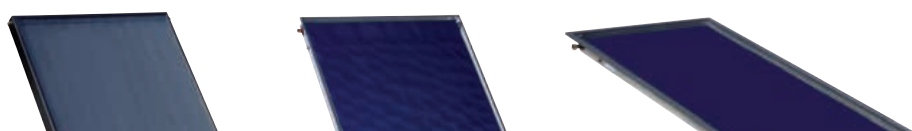
> Electronic anode

343



> Thermostatic mixers

346



> Solar panels

349



> Accessories

352



> Vacuum solar panel

363



> Solar kit

369



> Thermosyphon solar system

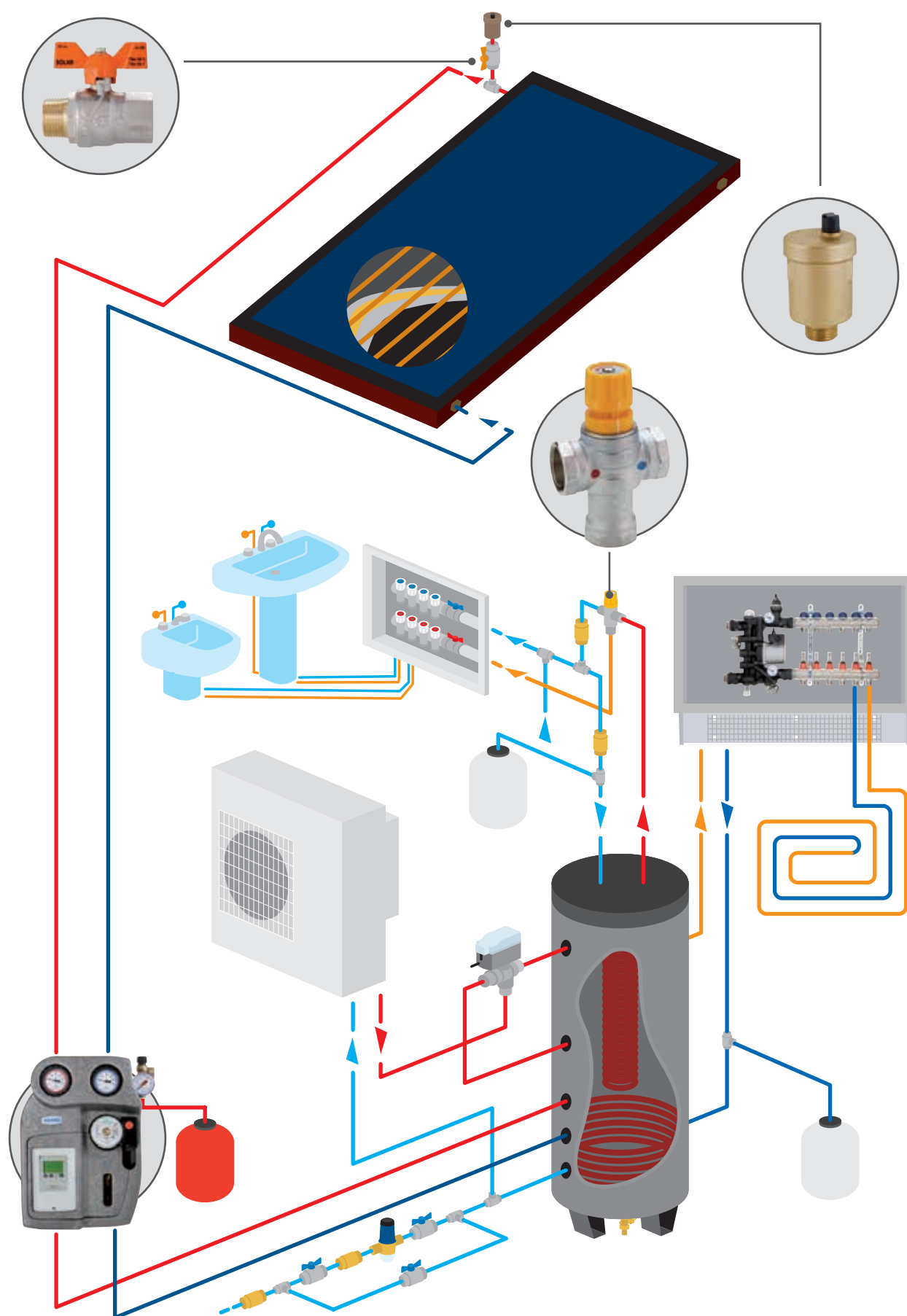
373



> Solar system accessories

375

Example of installation





TECHNICAL SHEET 100

Construction

Emmeti accumulation boilers are manufactured in steel Fe 360 with bottom surface rounded through deep-drawing. The tanks are assembled with precision automatic equipment, and welded with continuous thread in Argon atmosphere with "head" coupling and moulding of these with sleeves and flanges. Insulation grey colour.

For glazed boilers with storage tank: made with S235JR carbon steel.

Technical data

For enamelled boilers with storage tank (organic enamelling):

- maximum operating pressure 6 bar
- maximum continuous operating temperature: 70 °C (95 °C peak for max 20 hours per year)

Glazed boilers with storage tank (inorganic enamelling):

- maximum operating temperature 10 bar (8 bar for 1500 and 2000-litre models)
- maximum continuous operating temperature: 95 °C

Conformity

Emmeti accumulation boilers, accumulation tanks and heat exchangers are in accordance with directive PED 97/23/CE "Pressure equipment" in application of art. 3 codicil 3 of the above mentioned directive, to be used with warm or cool water.

Resistance to corrosion

For enamelled accumulation boilers the protection against corrosion and suitability for human water consumption of the tank, is achieved through the new organic process of enamelling with Evolution high grip, Blue colour enamel.

The cycle consist of the following phases:

- Degreasing;
- Sand blasting;
- Phosphatizing;
- Rinse with demineralized water;
- Passivation;
- Electro-coating with a layer of special, low free phenol contents, enamel powder;
- Fusion in static oven at 220 °C for 20 minutes.

Tests against corrosion are performed according to DIN 50017, 50018 and 50021. Test against chemical agents gave very good results.

Other features are:

- The Evolution enamel treatments guarantees: mirror like and tough hardness finish, preventing the adhesion of scaling superficial elasticity and resistance to shocks

For glazed accumulation boilers, the inorganic enamelling (glazing) provides the protection against corrosion and make them suitable for drinking water, in accordance with current regulations (DIN 4753-3 and UNI 10025).

The provision as standard electronic anode (1/2" M fitting) gives even further protection to the surfaces.

The warranty of the DHW boilers is subject to compliance with the Langelier index value of the water measured at its operating temperature, which must be between "0" and "+0.4".

Suitable for drink water (only for domestic water models)
5 years warranty on boiler

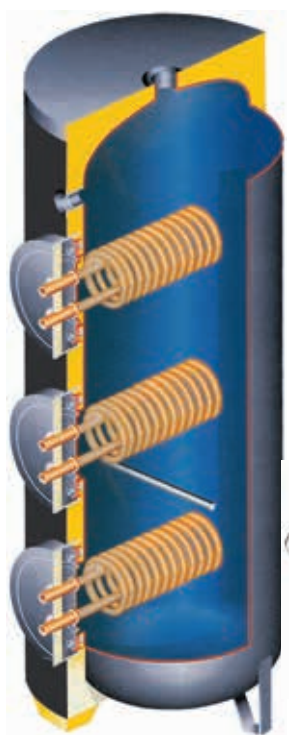
Accumulation boilers



Euro enamelled storage boiler for domestic water with fixed exchanger

Liters	Pcs. pack	Code
150	1	02768710
200	1	02768720
300	1	02768730
500	1	02768750

Price includes thermal insulation and nr. 1 electronic anode. Euro boilers are supplied with closing flange installed. Upper coil not included



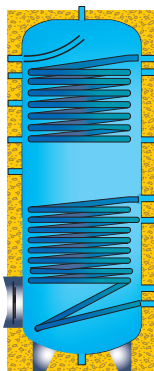
Liters
200 ÷ 1000

Liters
1500 ÷ 3000

Comfort enamelled storage boiler for domestic water

Liters	Nr. flanges	Pcs. pack	Code
200	2	1	02768010
300	2	1	02768020
500	3	1	02768040
750	3	1	02768050
1000	3	1	02768060
1500	3	1	02768070
2000	3	1	02768080
3000	3	1	02768090

Price includes thermal insulation and nr. 1 electronic anode, (nr. 2 electronics anode from 1500 litres capacity). Comfort boilers are supplied without closing flange. To complete the boiler, the exchanger or blind flange and relative assembly kit must be ordered. Coils are not included.



HE1 flanged enamelled storage boiler for domestic water

Liters	Pcs. pack	Code
300	1	02768120
500	1	02768140

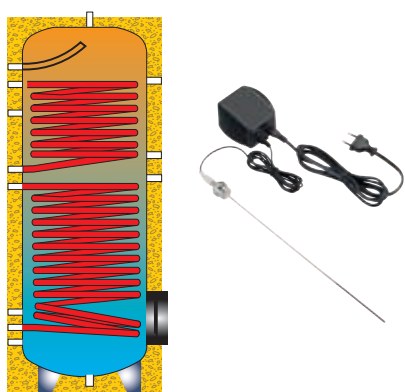
Price includes thermal insulation, electronic anode and closing flange DN 200 mounted in the boiler. Option of fitting additional coil with the appropriate kit.



Heat exchangers with assembly kit (complete with flange, gasket, fittings, thermostat and thermometer) for Euro, Comfort and HE1 boilers

Size	Capacity (l)	Pcs. pack	Code
S 200 (*)	150÷3000	1	02790560
D 200 (*)	150÷3000	1	02790570
L 14 (**)	150÷3000	1	02790500
L 18 (**)	150÷3000	1	02790510
L 25 (**)	500÷3000	1	02790520
L 30 (**)	750÷3000	1	02790530
L 45 (**)	1000÷3000	1	02790541
L 55 (**)	1500÷3000	1	02790551
DN 200 kit blind flange		1	02790900

(*) smooth copper
(**) finned copper



HE2V vitrified storage boiler for sanitary water

Liters	Pcs. pack	Code
200	1	02703400
300	1	02703410
500	1	02703420
750	1	02703430
1000	1	02703440
1500	1	02703450
2000	1	02703460

Fitted with thermal insulation, closing flange installed and electronic anode.
Possibility to insert coil kit LS.



Coil kit LS for HE2V and HEVS boilers

Size	Pcs. pack	Code
LS 08 (*)	1	02792030
LS 12 (**)	1	02792040

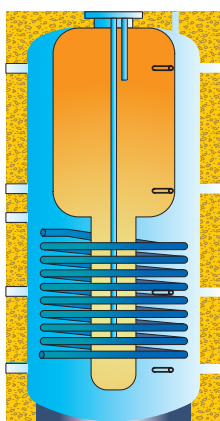
Including flange DN 180 and gasket, flange cover and washers.
(*) Application with boilers HE2V 200, 300, 500, 750, 1000 and HEVS 300, 500
(**) Application with boilers HE2V 500, 750, 1000 and HEVS 500



Predisposition kit for electric resistance 1" 1/2 for HE2V and HEVS boilers

Size	Pcs. pack	Code
KRE 180 (*)	1	02792020

Including flange DN 180 with sleeve F 1"1/2, gasket and flange cover (resistance not included).
(*) Application with boilers HE2V 200, 300, 500 and HEVS 300, 500.



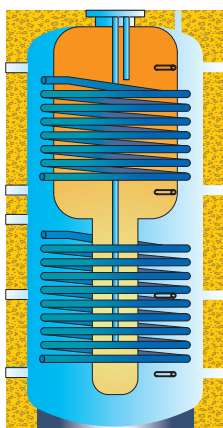
Tank in Tank combined tank with fixed exchanger

NEW

Liters	Pcs. pack	Code
600/170	1	02704912
1000/200	1	02704932

Inner boiler for verified domestic hot water.
External boiler for non-treated steel heating water.
In the price are included thermal insulation and magnesium anode.
Available on request: 30 days to order confirm.

Accumulation boilers



Tank in Tank combined tank with two fixed exchangers

NEW

Liters	Pcs. pack	Code
600/170	1	02704992
1000/200	1	02704996

Inner boiler for verified domestic hot water.

External boiler for non-treated steel heating water.

In the price are included thermal insulation and magnesium anode.

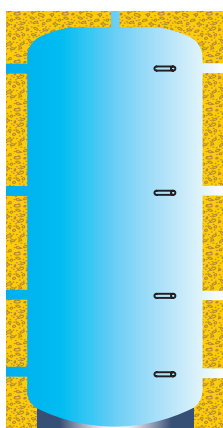
Available on request: 30 days to order confirm.



Accumulation tanks for domestic water (without heat exchangers)

Liters	Pcs. pack	Code
200	1	02768800
300	1	02768810
500	1	02768820
750	1	02768830
1000	1	02768840
1500	1	02768850
2000	1	02768860
3000	1	02768870

Price includes thermal insulation and nr. 1 electronic anode



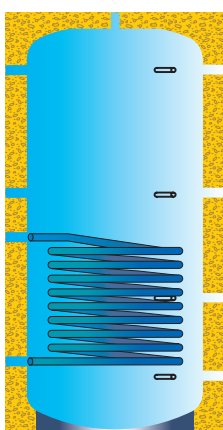
Puffer accumulation tanks for heating water

NEW

Liters	Pcs. pack	Code
300	1	02704602
500	1	02704622
1000	1	02704642
1500	1	02704662
2000	1	02704672

Fitted with thermal insulation

Available on request: 30 days to order confirm



Puffer accumulation tanks with exchanger for heating water

NEW

NEW

NEW

NEW

NEW

Liters	Pcs. pack	Code
300 (*)	1	02704800
300	1	02704802
500 (*)	1	02704820
500	1	02704822
1000	1	02704842
1500	1	02704862
2000	1	02704872

Fitted with thermal insulation

(*) Items to be out of range

Available on request: 30 days to order confirm

Electronic anode

NEW



Boguard is an impressed-current electronic anode entirely developed by Emmeti and fitted with a system that automatically adjusts the protection potential, protects exposed surfaces from corrosion – up to 7% of the internal surface of the steel tanks and storage tanks enamelled with plastic resins or vitrified – up to a capacity of 5000 litres.

Unlike other kinds of electronic anodes on the market, Boguard counters corrosive effects without producing a significant amount of hydrogen in the tank. As well as being a flammable gas, if there are non-minimal amounts, this may lead to the deterioration of some kinds of coatings inside the tank.

BoGuard has a series of new functions that make it a unique product on the market:

- 1) "Booster" function upon start-up that releases the maximum potential for a limited amount of time in order to accelerate the process to ensure protection for the tank.
- 2) Reports optimal operation.
- 3) Reports excessive tank absorption.
- 4) Reports when the tank absorption is under the threshold, indicates when there is a poor electric contact between the equipment and the activated titanium anode or water with extremely low electric conductivity.
- 5) Reports if the electric circuit is open, for instance a disconnected cable between the equipment and the activated titanium anode
- 6) Reports a short-circuit between the positive pole and negative pole of the activated titanium anode

7) Count of the anode's operating time under optimal conditions (no faults), expressed in years and months. It is shown upon start-up and cannot be changed.

8) Detection of electric leakage and stray currents (both direct current and alternated current) affecting the tank and that might significantly contribute to corroding the inside of the tank itself.

These can be minor currents and therefore, although they do not trigger the system's electrical safety devices, they can cause considerable corrosive phenomena.

9) Reports installation faults, for instance exchangers with ineffective or missing dielectric joints.

Thanks to its features, Boguard is covered by a European patent application.

Technical data

Power supply: 230 Vac, 50/60 Hz

Control power supply: 2.75÷3.8 Vdc

Protection rating: IP 55

Operating room temperature: 0÷45 °C

Electrode-holder cap threaded coupling: G 1/2" male

Electrode with rod, diameter 3 mm and activated titanium prod

Max consumption: 2.7 VA

Boguard electronic anode

NEW

Tank capacity	Nr. of equipments	Nr. of electrodes for system	Electrode length	Code
150-500	1	1	380 mm	02791200
750-1000	1	1	430 mm	02791205
1500-5000	1	2	430 mm	02791210

Supplied as standard with an RCA connection cable, 30 cm long.

Accessories



RCA anode connection cable

NEW

Size	Pcs. pack	Code
2 m M/F	1	92797550

ETW 50 - ETW 100

Insulation vertical tanks for technical hot and cold water



TECHNICAL SHEET 100

Uses

The ETW series storage tanks are ideal for storing hot and cold water in order to create thermal flywheels for the systems with heat pumps.

Characteristics

- Storage speed
- High efficiency
- Long corrosion-free life
- Simple installation
- Not for storage of sanitary water.

Dimensional data

Total capacity: 58 liters (ETW 50), 126 liters (ETW 100)
Height with insulation: 935 mm (ETW 50), 1095 mm (ETW 100)
Ø with insulation: 400 mm (ETW 50), 500 mm (ETW 100)
Empty weight: 25 kg (ETW 50), 35 kg (ETW 100)

Technical data

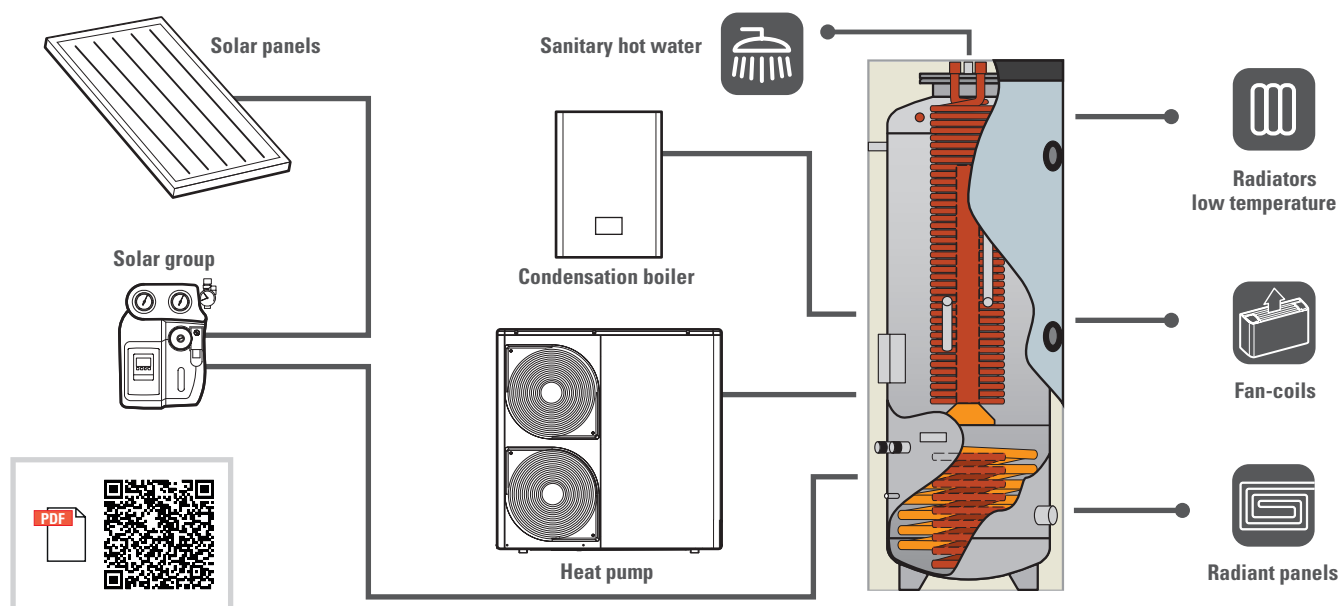
Maximum operating pressure: 6 bar.
Test pressure: 9 bar.
Maximum operating temperature: 95 °C.
Insulation: in rigid expanded polyurethane thickness 50 mm thick.
Insulation coating: rigid ABS, grey colour.
Internal part not treated
In compliance with directive PED 97/23/EC, art. 3.3.

ETW 50 - ETW 100 Insulation vertical tank for technical hot and cold water

Model	Pcs. pack	Code
ETW 50	1	02704280
ETW 100	1	02704290



Accumulation of water heating systems integrated



TECHNICAL SHEET 100

Uses

The boiler has been designed to integrate more energy sources present in the heating system, for example: heat pumps, thermal solar panels, gas boiler, fireplace stoves, etc...

Construction

- Heating water tank made of internally painted S235JR steel.
- Insulation: in rigid expanded polyurethane thickness 50 mm thick.
- Insulation coating: PVC SKY, grey colour (RAL 9006).
- Lower fixed serpentine for the solar panels connection;
- Finned copper serpentine for the fast production of DHW, integrated, with the appropriate fixing flange, on the higher part of the tank.
- Conform with art. 3.3 of European Directive 97/23/EC.

Characteristics

- Hydraulic compensator
- Heating solar integration
- Condensation boiler integration
- Heat pump eventual integration
- Wood boiler eventual integration
- Stratification with hydraulic chimney
- Instantaneous domestic water production
- Complete hygiene
- Long duration

Tank dimensional data (EB300-S15-AS50)

Total capacity: 283 liters
Height with insulation: 1630 mm
Ø with insulation: 600 mm
Empty weight: 155 kg

Tank dimensional data (EB500-S18-AS50)

Total capacity: 489 liters
Height with insulation: 1680 mm
Ø with insulation: 750 mm
Empty weight: 175 kg

Tank technical data

Maximum operating pressure: 3 bar
Testing pressure: 4,5 bar
Maximum operating temperature: 95 °C

Sanitary exchanger technical data

Exchanger surface: 5 m²
Exchanger water content: 3,5 liters
Upper heat exchanger nominal flow rate: 4,3 m³/h
Upper heat exchanger pressure drop (referred to nominal flow rate): 4400 mbar
Maximum operating pressure of exchanger: 10 bar
Testing pressure: 15 bar

Solar exchanger technical data (EB300-S15-AS50)

Exchanger surface: 1,4 m²
Water content lower exchanger: 8,3 liters
Lower heat exchanger nominal flow rate: 1,5 m³/h
Lower heat exchanger pressure drop (referred to nominal flow rate): 34 mbar
Maximum operating pressure of exchanger: 6 bar
Testing pressure: 9 bar

Solar exchanger technical data (EB500-S18-AS50)

Exchanger surface: 1,8 m²
Water content lower exchanger: 10,3 liters
Lower heat exchanger nominal flow rate: 1,9 m³/h
Lower heat exchanger pressure drop (referred to nominal flow rate): 69 mbar
Maximum operating pressure of exchanger: 6 bar
Testing pressure: 9 bar

Inertial tank EB300-S15-AS50

Model	Pcs. pack	Code
EB300-S15-AS50	1	02704300
EB500-S18-AS50	1	02704302

Accessories for boilers



Immersion sleeves M 1/2" with cable threading

Size	Pcs. pack	Code
Ø 7 L 45 mm	1	02710580
Ø 7 L 150 mm	1	02710590



Electric resistance for boilers

Model	Power (kW)	Length (mm)	Pcs. pack	Code
SH-1,5 (*)	1,50	320	1	02702900
SH-2,0 (**)	2,00	320	1	02702902
SH-2,5 (**)	2,50	390	1	02702904
SH-3,0 (**)	3,00	390	1	02702906
SH-3,8 (***)	3,75	430	1	02702908
SH-4,5 (***)	4,50	470	1	02702910
SH-6,0 (***)	6,00	620	1	02702912
SH-7,5 (***)	7,50	720	1	02702914
SH-9,0 (***)	9,00	780	1	02702916

Heating surface electrically isolated by threaded connection. Suitable for horizontal installation on boilers having manifolds not longer than 75 mm. Connection: 1" 1/2 M.

Voltage (V): (*) ~ 230 - (**) ~ 230 / 3 ~ 400 - (***) 3 ~ 400.

Availables on request: 30 days to order confirm



Heating element with thermostat kit 0 - 80 °C

Size	Pcs. pack	Code
1,5 kW L=30 cm	1	02717030
2,5 kW L=44 cm	1	02717040

Connection 1"1/4 M

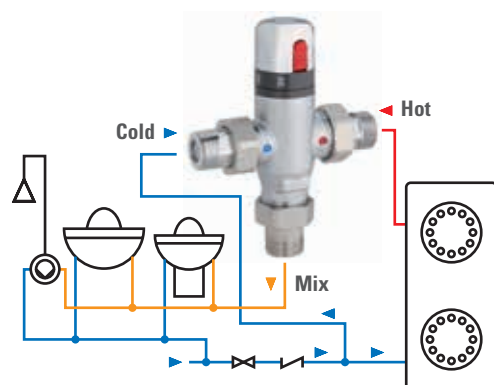
Thermostatic mixers



Thermostatic mixer for sanitary water

Maximum operating pressure 10 bar - Maximum differential pressure 3 bar - Maximum temperature hot water 85 °C - Range of temperature from 30 °C to 65 °C

Size	Kv	Pcs. pack	Code
1/2" F	1,6	1	09089400
3/4" F	1,8	1	09089402
1" F	3,2	1	09089404



Thermostatic mixer for sanitary water with stop button and pipe union connection

Stop button at 38 °C - Supplied with tang 3/4" Male with check valves and nuts 1" - Maximum operating pressure 10 bar - Differential pressure 2 bar - Maximum temperature hot water 85 °C - Range of temperature from 20 °C to 65 °C - Range of knob from 20 °C to 50 °C

Size	Kv	Pcs. pack	Code
1" M	1,70	1	09089406



Thermostatic mixer for sanitary water for solar installation

Max pressure: 10 bar - Max input temperature: 100° C - Regulation range: 30-65 °C

Size	Kv	Pcs. pack	Code
1/2" F	1,7	1	09089412
3/4" F	1,8	1	09089410
1" F	3,2	1	09089408



Self-actuated thermostatic diverter valve for domestic hot water and solar systems

Size	Kv	Pcs. pack	Code
1" M	1,9	1	02710560

Diverting temp. $T = 45^{\circ}\text{C}$ ($T > 45^{\circ}\text{C}$, fluid outlet side 1; $T > 45^{\circ}\text{C}$, fluid outlet side 2)

Max operating pressure 10 bar - Recommended operating pressure 1-5 bar

Max inlet water temperature 100 °C - ΔT for deviator changeover 4.5 °C



Solar diverter + mixer kit

Maximum static pressure: 10 bar - Maximum dynamic pressure: 5 bar - Maximum input temperature: 100 °C (short period 120 °C for 20 sec.) - Temperature adjustment range: 30-65 °C (accuracy $\pm 2^{\circ}\text{C}$) - Kv: 1.7 (for utilities up to 49 l/min, 3 bar) - 3/4" M connections (swivel tang) - With retainer valve on cold water inlet and ACS inlet from solar storage tank - Centre space 136 mm - EPP insulation box (Dimensions: 234 x 128 x 100 mm)

Inlet:

- 1" M diverter thermostatic valve with fixed setting at 48 °C. Antidezincification brass alloy body.
- Solar check valve and filter fitted in the connection tang of the solar storage tank.
- T-shaped swivel fitting to connect the boiler with storage tank.

Output:

- Thermostatic mixing valve (*). Adjustable temperature from 30 °C to 65 °C.
- Check valve solar filter inserted in the shank of cold water connection.

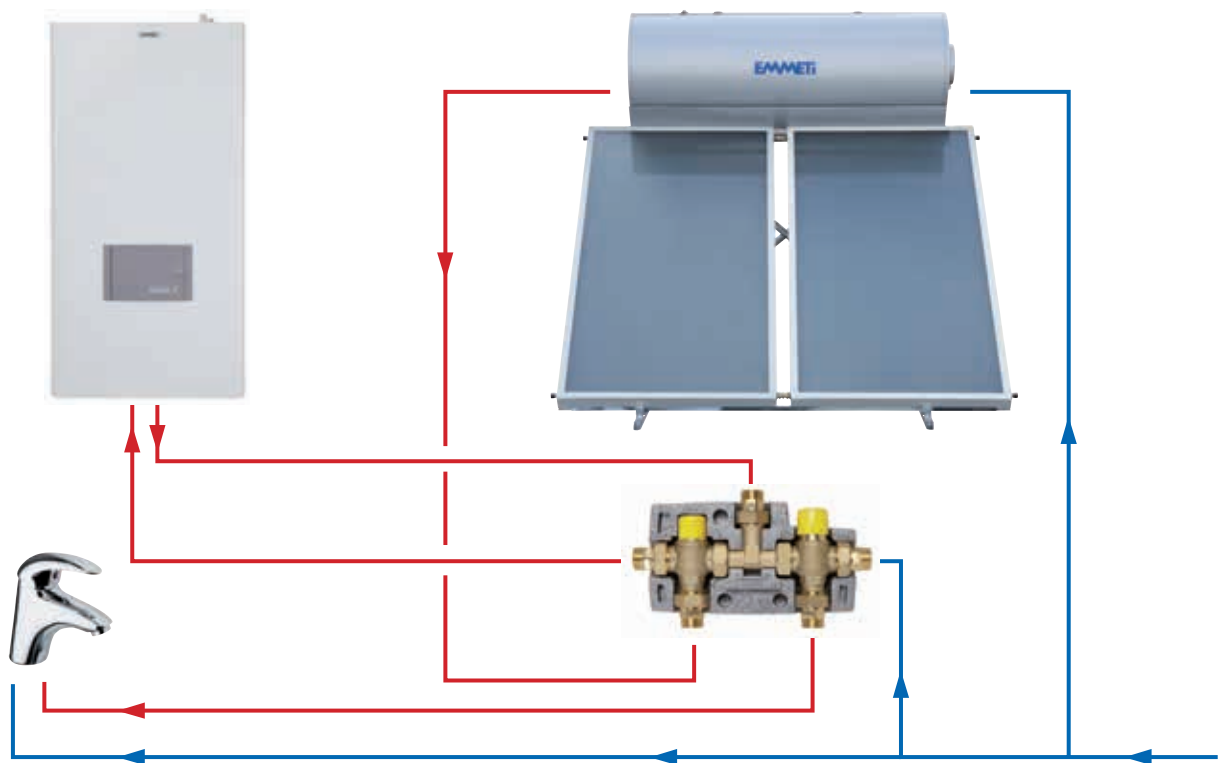
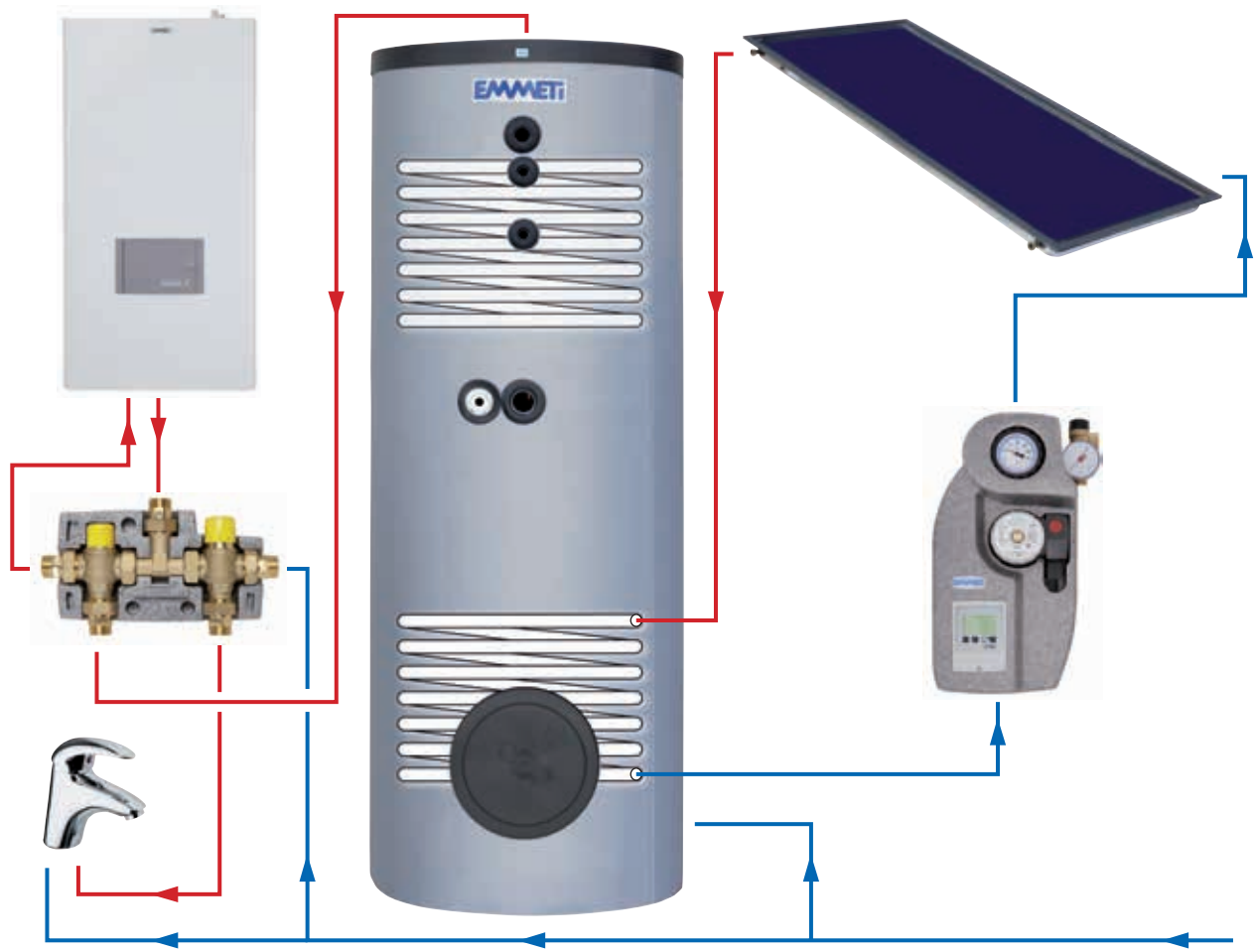
(*)The anti-scald function automatically stops the flow of hot water in the event of a fault in the cold water circuit.

Size	Pcs. pack	Code
3/4"	1	02716656

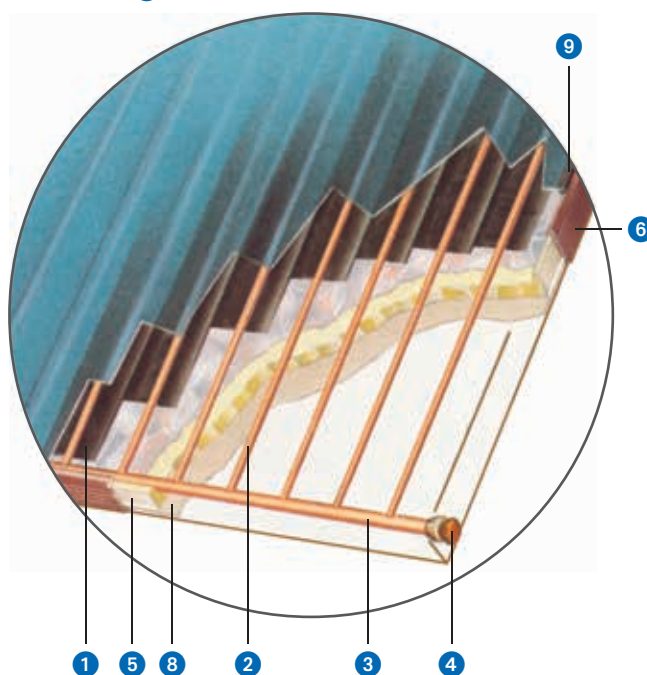
To connect a thermal solar circuit with the boiler

Accessories for boilers

Example of application solar diverter + mixer diverter kit



Solar panels



TECHNICAL SHEET 101

Uses

The Arcobaleno solar panels can be used in closed circuit hot water production systems for sanitary use, for heating swimming pools, as well as for pre-heating or completion of room heating, for example in the case of the use of radiating panels. The fields of use in construction, both public and private, run the range from wellings to common areas, from the tourism/lodging sector to manufacturing activities.

For temperatures below 0 °C, as a heat-carrying fluid in the solar panels a water-antifreeze solution must be used with a concentration that is suitable to prevent damage from freezing. The solar collectors must be firmly attached and installed in compliance with current standards.

Optimal inclination varies depending on use.

The orientation of the collectors must be towards the equator (southeast since the afternoon hours are the warmest).

Utility

The initial investment for the creation of a solar energy system is rewarded by the fact that there are practically no operating costs. The only energy expenses are the electrical energy used by the circulating pump (if there is one).

Considering the current costs and the continuing increases in traditional energy sources (methane, LPG, fuel oil), the use of a solar energy system is fully justified, now more than ever.

Norms

Arcobaleno solar panel type "NX", "SXT0", "SXTV", "SXM" and "SXE" are certified UNI EN 12975-1 and UNI EN 12975-2.

Type SXTV - SXT0 - SXM - NX - SXE: 10 years warranty

UNI EN 12975-1

UNI EN 12975-2

Solar panels

Solar panels Arcobaleno construction

Arcobaleno construction type SXTV

- 1 Capturing surface: single aluminium plate, thickness 0.5 mm with highly selective covering with laser welding
- 2 Pipes: 10 copper pipes, Ø 8 mm, thickness 0.4 mm
- 3 Collector: copper pipe Ø 22 mm, thickness 0.8 mm
- 4 Fittings: 1" M and 1" F with a swivel joint
- 5 Insulation: rock wool panel, thickness 50 mm, density 50 kg/m³
- 6 Collector housing: pressed aluminium tank with four inserts for fastening, anodized aluminium frame, dark brown
- 7 Covering: "low ironed" tempered glass, transparent, thickness 3.2 mm
- 8 -
- 9 Gasket: continuous profile, EPDM rubber

Arcobaleno construction type SXT0

- 1 Capturing surface: single aluminium plate, thickness 0.5 mm with highly selective covering with laser welding
- 2 Pipes: 10 copper pipes, Ø 8 mm, thickness 0.4 mm
- 3 Collector: copper pipe Ø 22 mm, thickness 0.8 mm
- 4 Fittings: 1" M and 1" F with a swivel joint
- 5 Insulation: rock wool panel, thickness 50 mm, density 50 kg/m³
- 6 Collector housing: pressed aluminium tank with four inserts for fastening, anodized aluminium frame, dark brown
- 7 Covering: "low ironed" tempered glass, transparent, thickness 3.2 mm
- 8 -
- 9 Gasket: continuous profile, EPDM rubber

Arcobaleno construction type SXM

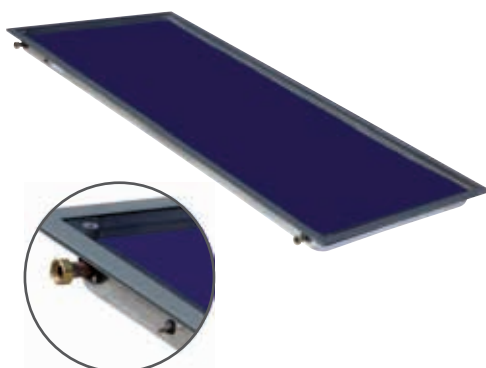
- 1 Capturing surface: single aluminium plate, thickness 0.3 mm with highly selective covering with laser welding
- 2 Pipes: 12 copper pipes, Ø 8 mm, thickness 0.4 mm
- 3 Collector: copper pipe Ø 22 mm, thickness 0.8 mm
- 4 Fittings: copper pipe Ø 22 mm
- 5 Insulation: rock wool panel, thickness 30 mm, density 25 kg/m³
- 6 Collector housing: aluminium frame
- 7 Covering: "low ironed" tempered glass, transparent, thickness 3.2 mm
- 8 Bottom: aluminium sheet metal
- 9 Gasket: bi-component silicone

Construction Arcobaleno type NX

- 1 Capturing surface: copper bands thickness 0.12 mm painted black with ultrasonic welding
- 2 Pipes: 10 copper pipes, Ø 8 mm, thickness 0.45 mm
- 3 Collector: copper pipe Ø 18 mm, thickness 0.7 mm
- 4 Fittings: 3/4" M wrench socket
- 5 Insulation: fibreglass wool panel, thickness 50 mm
- 6 Collector housing: dark brown painted aluminium frame
- 7 Covering: "low ironed" tempered glass, prismatic, thickness 4 mm
- 8 Bottom: embossed aluminium sheet metal
- 9 Gasket: EPDM rubber and silicone

Arcobaleno construction type SXE

- 1 Capturing surface: single aluminium plate, thickness 0.5 mm with highly selective covering with laser welding
- 2 Pipes: 12 copper pipes, Ø 8 mm, thickness 0.4 mm
- 3 Collector: copper pipe Ø 22 mm, thickness 0.8 mm
- 4 Fittings: 1" F with swivel joint
- 5 Insulation: rock wool panel, thickness 50 mm, density 50 kg/m³
- 6 Collector housing: wood frame
- 7 Covering: "low ironed" tempered glass, transparent, thickness 3.2 mm
- 8 -
- 9 Gasket: EPDM rubber

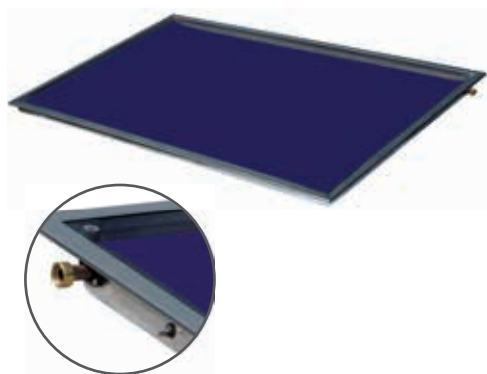


Solar tray collector Arcobaleno SXTV with selective surface

Size	Pcs.pack	Code
H 2356 x L 1081x P 100	10	02710305
H 2356 x L 1081x P 100 (*)	1	02710306

(*) Single pack

With "quick" connections (with a swivel joint on one end and a male fitting on the other) and probe holder.

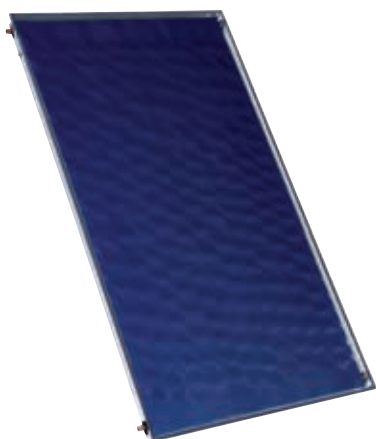


Horizontal solar tray collector Arcobaleno SXT0 with selective surface

Size	Pcs.pack	Code
H 1081 x L 2356 x P 100	10	02710610
H 1081 x L 2356 x P 100 (*)	1	02710611

(*) Single pack

With "quick" connections (with a swivel joint on one end and a male fitting on the other) and probe holder.



Solar collector Arcobaleno SXM with selective surface

Size	Pcs.pack	Code
H 2000 x L 1170 x P 73	8	02710440
H 2000 x L 1170 x P 73 (*)	1	02710441

(*) Single pack

With probe holder



Solar collector Arcobaleno NX with black painted surface

Size	Pcs.pack	Code
H 1988 x L 1218 x P 90	10	02710100
H 1988 x L 1218 x P 90 (*)	1	02710101

(*) Single pack

Includes two flexible swivel joints for connecting two NX solar collectors to one another

Solar panels

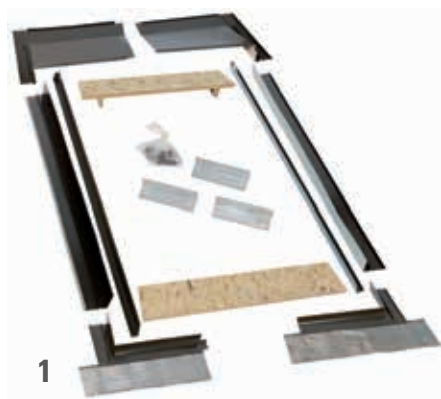


Recessed solar collector Arcobaleno SXE with selective surface

Size	Pcs. pack	Code
H 2058 x L 1227x P 105	10	02710125
H 2058 x L 1227x P 105 (*)	1	02710126

(*) Single pack
With probe holder

Installation Arcobaleno SXE



1



2

Ridge cap for Arcobaleno SXE built-in solar collector

Size	Pcs. pack	Code
1 - Base kit	1	02710131
2 - Extension kit	1	02710141

Each row composed of n SXE built-in solar collectors (maximum 6 collectors in series) requires the use of 1 base kit and (n-1) extension kits. Example: for a row of 4 collectors in series, 1 base kit and 3 extension kits must be used.



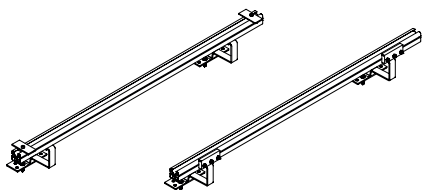
Connection kit for solar collector SXE

Size	Pcs. pack	Code
1" M x 3/4" M	1	01270126

Supplied with gasket. Provide a connection kit for each row of solar collectors SXE.



Installation Arcobaleno NX

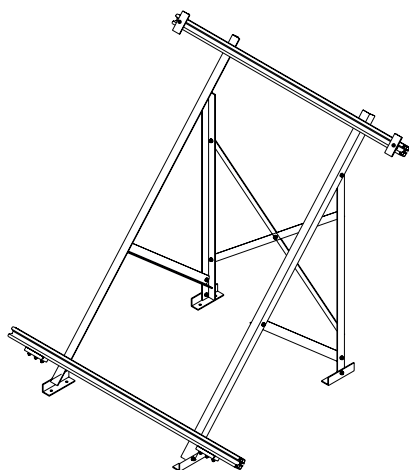


Parallel roof assembly set on roofs/bent tiles

NEW

Size	Pcs. pack	Code
1 NX	1	02710242
2 NX	1	02710244

In aluminum and galvanized steel



Flat roof 45° assembly set

NEW

Size	Pcs. pack	Code
1 NX	1	02710172
2 NX	1	02710182

In aluminium



Flexible connector for Arcobaleno NX solar collector

Size	Pcs. pack	Code
3/4" F with swivel union	1	02710110



Connector with initial length of 65 mm extensible to 125 mm

Size	Pcs. pack	Code
M 3/4" x F 3/4"	12	02412620



Probe holder bracelet

Size	Pcs. pack	Code
	1	02706860

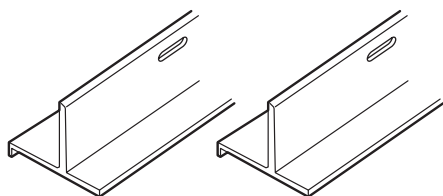


Plugs kit for Arcobaleno NX

Size	Pcs. pack	Code
3/4"	1	02717130

Supplied with gaskets

Installation Arcobaleno SXTV and SXT0

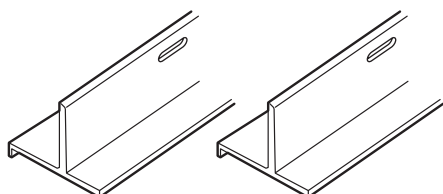


Couple of fixing guides for 1 SXTV and SXT0

Size	Pcs. pack	Code
L= 1102 mm (*)	1	02710310
L=2378 mm (**)	1	02710620

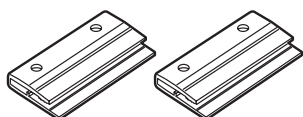
(*) For SXTV

(**) For SXT0



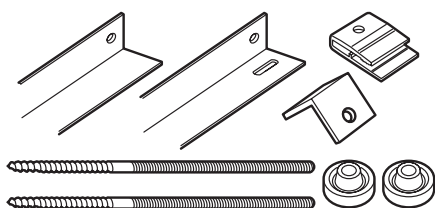
Couple of fixing guides for 2 SXTV

Size	Pcs. pack	Code
L= 2210 mm	1	02710320



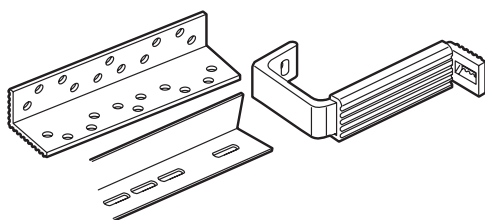
Connection kit for fixing guides for SXTV and SXT0

Size	Pcs. pack	Code
	1	02710330



Single flat roof 45° installation set with fixing screws for SXTV and SXT0

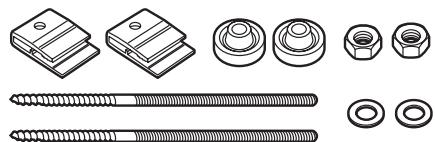
Size	Pcs. pack	Code
SXTV	1	02710340
SXT0	1	02710630



Single tile roofs/bent tiles (*) installation set of brackets with adjustable height for SXTV and SXT0

Size	Pcs. pack	Code
SXTV	1	02710350
SXT0	1	02710640

(*) For bent tiles: bent tile maximum height 60 mm



Single tile roof installation set of brackets with fixing screws for SXTV and SXT0

Size	Pcs. pack	Code
	1	02710360



Double support set (2 pieces) for crimped sheet metal roof

Size	Pcs. pack	Code
	1	02730532

To combine to fixing guides for solar collectors SXTV and SXT0 cod. 02710310, 02710320 and 02710620 (drilling of which by the installer).

Quantity to be defined according to the characteristics of the roof (2 pcs of cod. 02730532 for each solar collector).



Plugs kit for Arcobaleno SXTV

Size	Pcs. pack	Code
1"	1	02717110

Supplied with gaskets

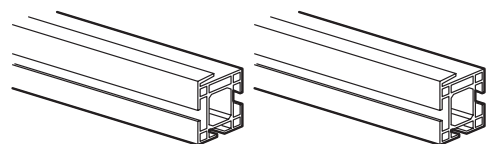


Connection kit for solar collector SXTV and SXT0

Size	Pcs. pack	Code
	1	01270128

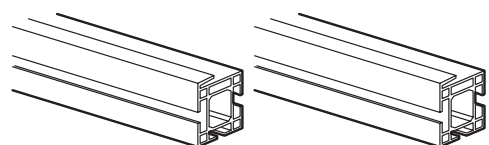
Supplied with gaskets

Installation Arcobaleno SXM



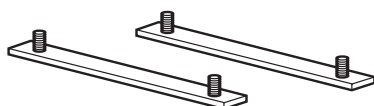
Couple of fixing guides for 1 SXM

Size	Pcs. pack	Code
L= 1225 mm	1	02710450



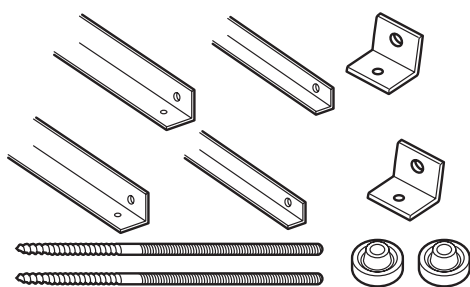
Couple of fixing guides for 2 SXM

Size	Pcs. pack	Code
L= 2455 mm	1	02710460



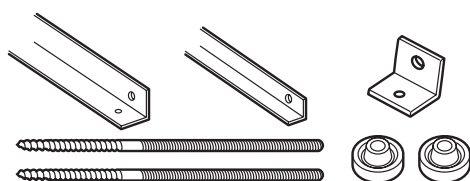
Connection kit for fixing guides for SXM

Size	Pcs. pack	Code
	1	02710470



Double flat roof 20° and 45° installation set with fixing screws for SXM

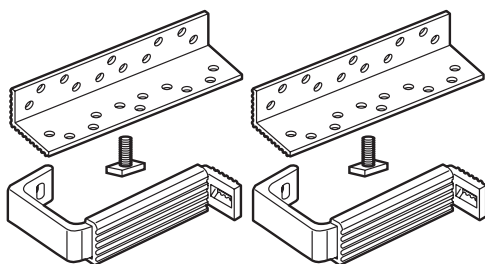
Size	Pcs. pack	Code
20°	1	02717050
45°	1	02710480



Single flat roof 20° and 45° installation set with fixing screws for SXM

Size	Pcs. pack	Code
20°	1	02717060
45°	1	02710490

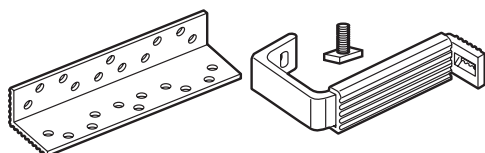
Solar panels



Double tile roofs/bent tiles (*) installation set of brackets (2 pieces) for SXM

Size	Pcs. pack	Code
	1	02710500

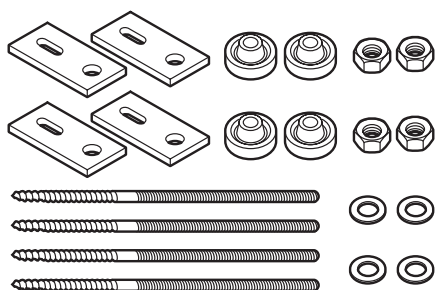
(*) For bent tiles: bent tile maximum height 60 mm



Single tile roofs/bent tiles (*) installation set of brackets (1 piece) for SXM

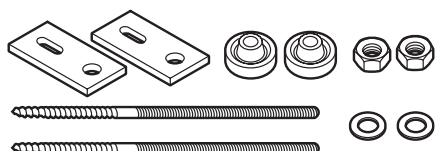
Size	Pcs. pack	Code
	1	02710510

(*) For bent tiles: bent tile maximum height 60 mm



Double tile roof set of brackets with fixing screws for SXM

Size	Pcs. pack	Code
	1	02710520



Single tile roof set of brackets with fixing screws for SXM

Size	Pcs. pack	Code
	1	02710530



D22 x D22 dry fitting for Arcobaleno SXM solar collector

Size	Pcs. pack	Code
D22 x D22	1	02710540

In rows of Arcobaleno SXM solar collectors, there must be two fittings for the connection between two collectors



Metallic seal fitting with male thread for copper pipes

Size	Pcs. pack	Code
3/4" M x DN 22 copper	1	02707874
1" M x DN 22 copper	1	02707876



Plugs kit for Arcobaleno SXM

Size	Pcs. pack	Code
D22	1	02717120



Selection guide

Installation on bent tile and tile roofs with stud bolts for Arcobaleno SXTV

	02710310	02710320	02710330	02710360
02710305 - Arcobaleno SXTV				
	1			2
		1		2
	1	1	1	3
		2	1	5
	1	2	2	6
		3	2	7

Provide no. 1 plug kit code 02717110 for each group of SXTV solar manifolds.
Provide no. 1 fittings kit code 01270128 for each group of SXTV solar manifolds.

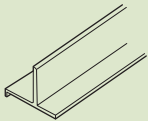
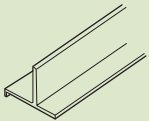
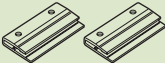
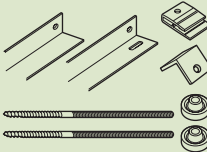
Installation on bent tile and tile roofs with a bracket for Arcobaleno SXTV

	02710310	02710320	02710330	02710350
02710305 - Arcobaleno SXTV				
	1			2
		1		2
	1	1	1	3
		2	1	5
	1	2	2	6
		3	2	7

Provide no. 1 plug kit code 02717110 for each group of SXTV solar manifolds.
Provide no. 1 fittings kit code 01270128 for each group of SXTV solar manifolds.

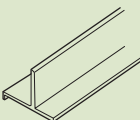
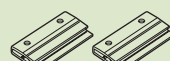
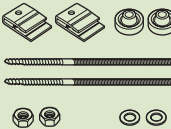
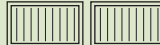
Solar panels

Installation on a 45° flat roof for Arcobaleno SXTV

	02710310	02710320	02710330	02710340
02710305 - Arcobaleno SXTV				
	1			2
		1		2
	1	1	1	3
		2	1	5
	1	2	2	6
		3	2	7

Provide no. 1 plug kit code 02717110 for each group of SXTV solar manifolds.
Provide no. 1 fittings kit code 01270128 for each group of SXTV solar manifolds.

Installation on bent tile and tile roofs with stud bolts for Arcobaleno SXT0

	02710620	02710330	02710360
02710610 - Arcobaleno SXT0			
	1		2
	2	1	4
	3	2	6
	4	3	8

Provide no. 1 fittings kit code 01270128 for each group of SXT0 solar manifolds.



Installation on bent tile and tile roofs with a bracket for Arcobaleno SXT0

	02710620	02710330	02710640
02710610 - Arcobaleno SXT0			
	1		1
	2	1	2
	3	2	3
	4	3	4

Provide no. 1 fittings kit code 01270128 for each group of SXT0 solar manifolds

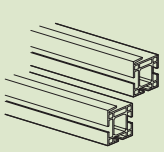
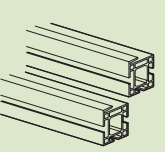
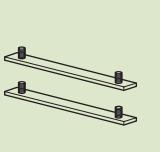
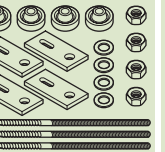
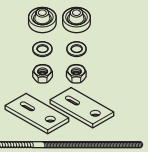
Installation on a 45° flat roof for Arcobaleno SXT0

	02710620	02710330	02710630
02710610 - Arcobaleno SXT0			
	1		1
	2	1	2
	3	2	3
	4	3	4

Provide no. 1 fittings kit code 01270128 for each group of SXT0 solar manifolds

Solar panels

Installation on bent tile and tile roofs with stud bolts for Arcobaleno SXM

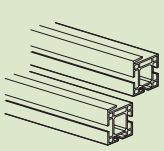
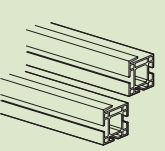
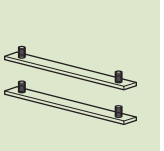
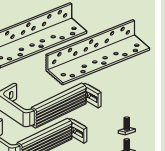
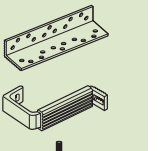
	02710450	02710460	02710470	02710520	02710530
					
02710440 - Arcobaleno SXM					
	1			1	
		1		1	
	1	1	1	1	1
		2	1	1	2
	1	2	2	1	3

Provide nr. 2 fittings code 02710540 for the connection between two SXM solar collectors.

Provide nr. 1 kit plugs code 02717120 for each group of SXM solar collectors.

Provide nr. 2 fittings code 02707874 or 02707876 for each group of SXM solar collectors.

Installation on bent tile and tile roofs with a bracket for Arcobaleno SXM

	02710450	02710460	02710470	02710500	02710510
					
02710440 - Arcobaleno SXM					
	1			1	
		1		1	
	1	1	1	1	1
		2	1	1	2
	1	2	2	1	3

Provide nr. 2 fittings code 02710540 for the connection between two SXM solar collectors.

Provide nr. 1 kit plugs code 02717120 for each group of SXM solar collectors.

Provide nr. 2 fittings code 02707874 or 02707876 for each group of SXM solar collectors.



Installation on a 20° or 45° flat roof for Arcobaleno SXM

	02710450	02710460	02710470	02717050 (20°) 02710480 (45°)	02717060 (20°) 02710490 (45°)
02710440 - Arcobaleno SXM					
	1			1	
		1		1	
	1	1	1	1	1
		2	1	1	2
	1	2	2	1	3

Provide nr. 2 fittings code 02710540 for the connection between two SXM solar collectors.

Provide nr. 1 kit plugs code 02717120 for each group of SXM solar collectors.

Provide nr. 2 fittings code 02707874 or 02707876 for each group of SXM solar collectors.

Installation on bent tile and tile roof for Arcobaleno NX

NEW

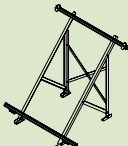
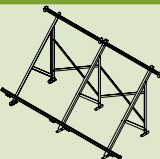
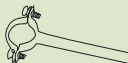
	02710100 - Arcobaleno NX				
02710242					
	1		1		1
02710244					
		1	1	2	2
02706860 (*)					
	1	1	1	1	1
02717130					
	1	1	1	1	1

(*) Provide for manifold probe

Solar panels

Installation on a 45° flat roof for Arcobaleno NX

NEW

	02710100 - Arcobaleno NX				
					
02710172 	1		1		1
02710182 		1	1	2	2
02706860 (*) 	1	1	1	1	1
02717130 	1	1	1	1	1

(*) Provide for manifold probe

Arcobaleno VP vacuum solar panel



WARRANTY
10 YEARS



Uses

The Arcobaleno VP vacuum solar collector was specifically developed to maximise the use of thermal solar energy.

The Arcobaleno VP solar collector is available in two versions: VP 12, and VP 18. These have respectively 12 and 18 tubes.

Thanks to the limited pressure loss, the modules can be connected in series making installing them extremely versatile.

Their open surface of 2 or 3 m² allows you to make a customized system based on the your specific thermal demands for hot water production, heating system integration, or any other special applications.

Construction

- 1 Hermetically sealed, two-wall, borosilicate glass vacuum tube with ample vacuum range (absolute pressure less than 10^{-2} Pa) with total suppression of convective motion to minimize dispersions and maximize heat exchange by radiation of the selective inner surface. External $\varnothing = 47$ mm. Internal $\varnothing = 37$ mm.
- 2 Selective inner surface, with a selective high-absorption aluminium nitride coating.
- 3 CPC (Compound Parabolic Concentrator) to further concentrate direct sunlight, exploiting even the surface of the tube that does not directly face the sun increasing the system's efficiency. Furthermore, the special coating is designed to provide excellent protection against atmospheric agents.
- 4 Thin plate aluminium conduction plate, with patented tube fixing system for the distribution tubes to ensure high contact.
- 5 Heat carrying medium distribution tubes, made from copper U-tubing (external diameter 8 mm, thickness 0.7 mm)



Arcobaleno VP vacuum solar panel

Supplied with nr. 2 fittings DN15 x DN15 for copper pipe (one for every side)

Size	Pcs. pack	Code
VP 12	9	02706915
VP 18	9	02706925
VP 12	1	02708415
VP 18	1	02708425

Arcobaleno VP vacuum solar panel

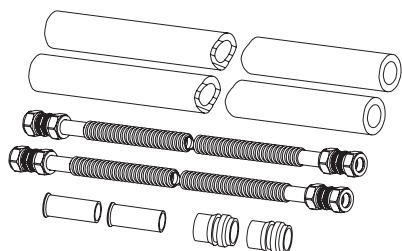
Accessories for Arcobaleno VP vacuum solar panel



Pair of brass unions kit

Size	Pcs.	Code
DN 15	1	02708600

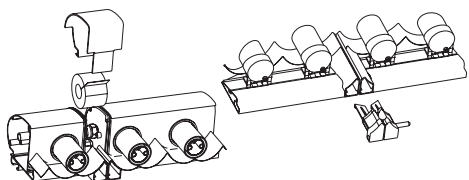
Completo di manicotti di supporto DN15 e DN12 e riduzioni 15x12 mm



Pair of stainless steel/brass unions kit

Size	Pcs.	Code
DN 15	1	02708610

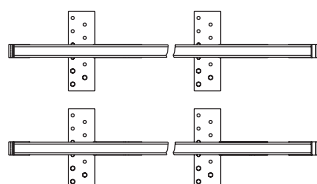
Completo di raccordi DN15 per tubo in rame, manicotti di supporto DN15 e DN12 e riduzioni 15x12 mm



VP connection set

Size	Pcs.	Code
	1	02708620

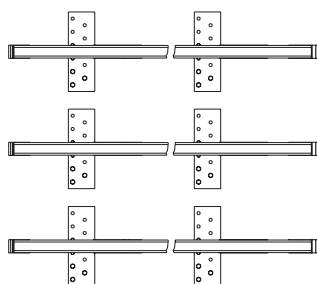
Comprensivo di:
- Isolamento raccordi in EPDM
- Coperchio
- Tappi con spina metallica
- Fermo di sicurezza



Set of two guides for tile roof installation for VP 12 collectors

Size	Pcs.	Code
	1	02708650

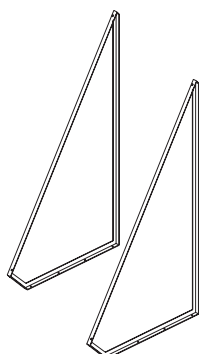
In galvanized steel



Set of three guides for tile roof installation for VP 18 collectors

Size	Pcs.	Code
	1	02708660

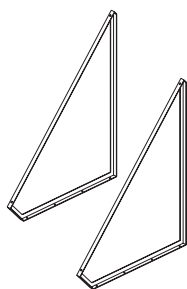
In galvanized steel



Flat roof and 45° wall installation set

Size	Pcs.	Code
	1	02708670

Angle in galvanized steel



Flat roof and 30° / 60° wall installation set

Size	Pcs.	Code
	1	02708680

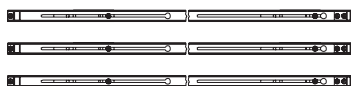
Angle in galvanized steel



Set of two support guides for VP 12 collectors

Size	Pcs.	Code
	1	02708700

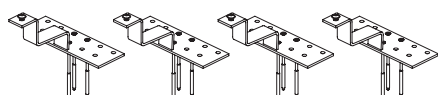
In aluminium. To be combined with brackets set.



Set of three support guides for VP 18 collectors

Size	Pcs.	Code
	1	02708710

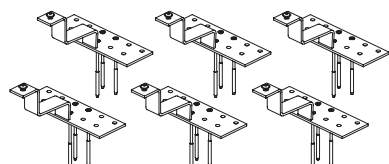
In aluminium. To be combined with brackets set.



Set of brackets for normal tiles for VP 12 collectors

Size	Pcs.	Code
	1	02708730

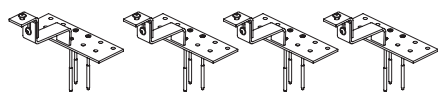
In inox steel. For heights up to 40 mm.



Set of brackets for normal tiles for VP 18 collectors

Size	Pcs.	Code
	1	02708740

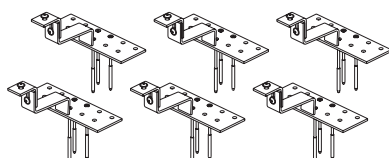
In inox steel. For heights up to 40 mm.



Set of brackets for normal tiles, with adjustable height, for VP 12 collectors

Size	Pcs.	Code
	1	02708750

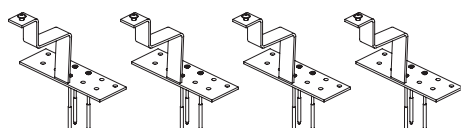
In inox steel. For heights up to 40 mm.



Set of brackets for normal tiles, with adjustable height, for VP 18 collectors

Size	Pcs.	Code
	1	02708760

In inox steel. For heights up to 40 mm.

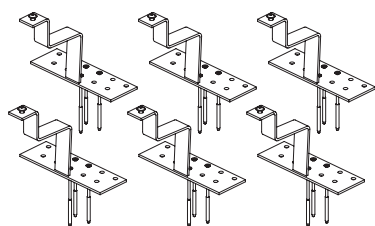


Set of brackets for bent tiles for VP 12 collectors

Size	Pcs.	Code
	1	02708800

In inox steel. For heights up to 110 mm.

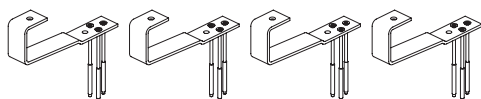
Arcobaleno VP vacuum solar panel



Set of brackets for bent tiles for VP 18 collectors

Size	Pcs.	Code
	1	02708810

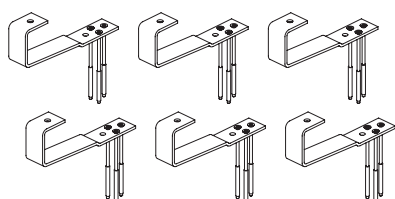
In inox steel. For heights up to 110 mm.



Set of brackets for slate roofs for VP 12 collectors

Size	Pcs.	Code
	1	02708830

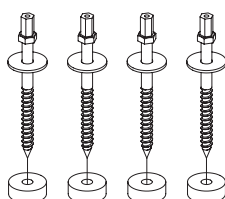
In inox steel



Set of brackets for slate roofs for VP 18 collectors

Size	Pcs.	Code
	1	02708840

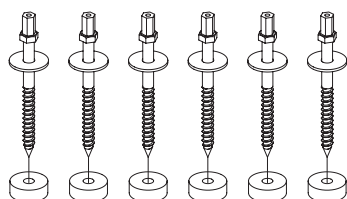
In inox steel



Set of brackets for corrugated sheet metal for VP 12 collectors

Size	Pcs.	Code
	1	02708860

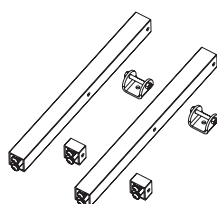
In galvanized steel



Set of brackets for corrugated sheet metal for VP 18 collectors

Size	Pcs.	Code
	1	02708870

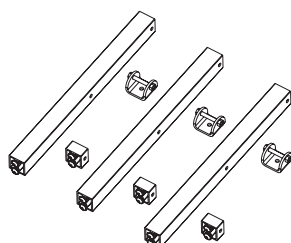
In galvanized steel



Angle correction set for VP 12 collectors

Size	Pcs.	Code
	1	02708900

In aluminum and stainless steel. Allows an increase of the inclination from 10 ° to 20 °.



Angle correction set for VP 18 collectors

Size	Pcs.	Code
	1	02708910

In aluminum and stainless steel. Allows an increase of the inclination from 10 ° to 20 °.



Spare vacuum tube

NEW

Size		Pcs.	Code
L = 1500 mm	single	1	02708971
L = 1500 mm	single	18	02708960



Sample demo tube

Size	Pcs.	Code
	1	02708980

Selection guide

Installation on flat roofs/walls

VP 12	VP 18
02708670	02708670
02708680	02708680

Tile roof installation set

VP 12	VP 18
02708650	02708660

Arcobaleno VP vacuum solar panel

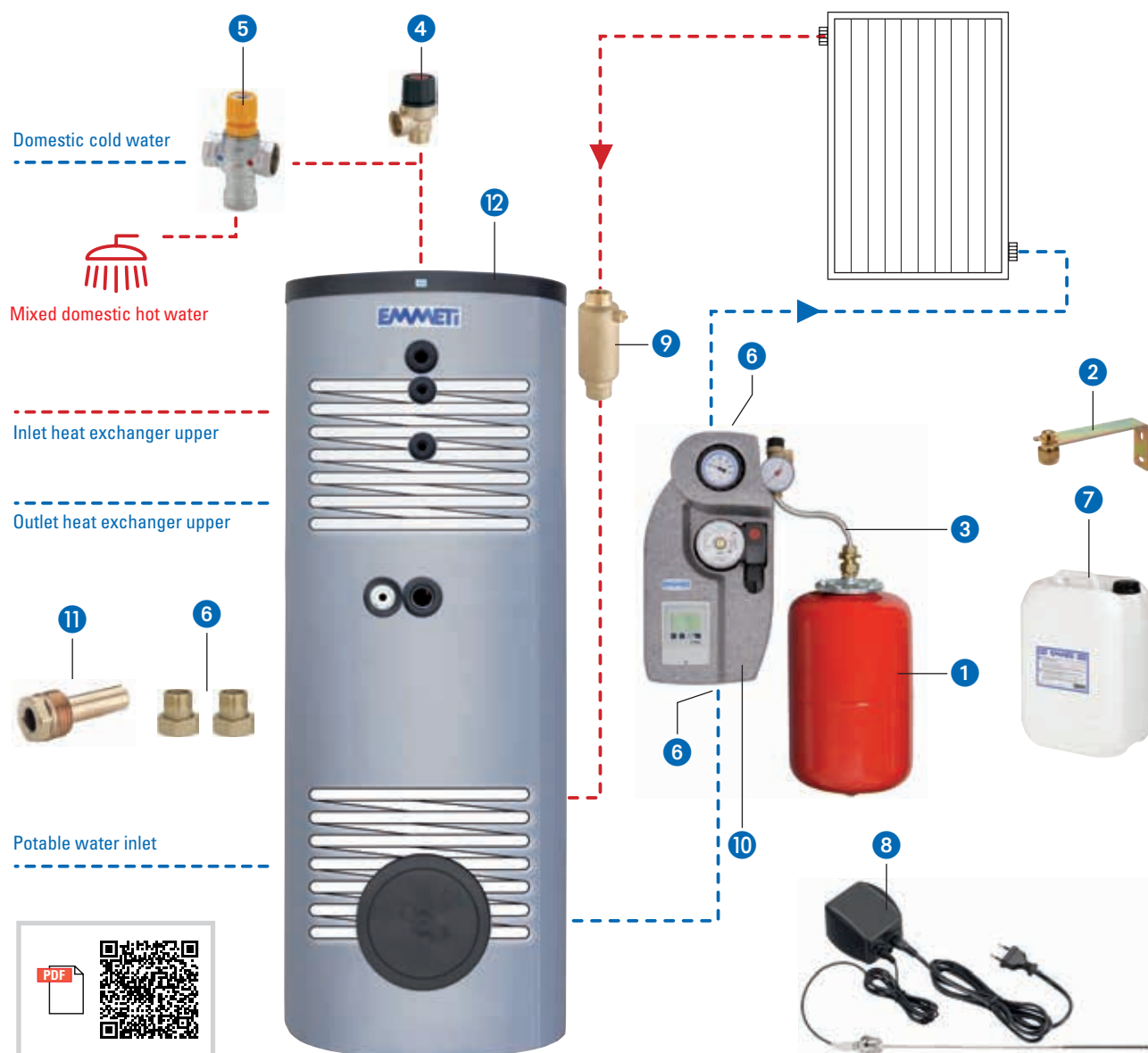
Tile, slate, corrugated sheet metal, and bent tile roof installation

VP 12	VP 18
02708700	02708710
02708730	02708740
02708750	02708760
02708830	02708840
02708860	02708870
02708800	02708810
02708900	02708910

T = tiles - **TR** = adjustable height tiles - **A** = slate - **L** = corrugated sheet metal - **C** = bent tiles

Use a set of brackets according to the roof type from those indicated. Part No. 02708900 (angle correction set) is optional.

Solar kit HE1



Composition

- 1 Solar expansion tank (18 L for kit 300 L and 24 L for kit 500 L)
- 2 Bracket for fastening expansion tank
- 3 Flexible hose kit (L= 500, 3/4" connections)
- 4 6-bar safety valve for domestic circuit
- 5 3/4" F thermostatic solar mixer
- 6 Pair of 3/4" M x 1" F pipe unions
- 7 Premixed protective non-toxic antifreeze (three packs of 5 kg for the 300 L kit and one pack of 25 kg for the 500 L kit)
- 8 Electronic anode
- 9 De-aeration device (vertical) DN 15 - G 3/4" M-F
- 10 One way solar group SS1V 12
- 11 Probe holder socket (1/2" M connection, Ø 7, L = 50)
- 12 Solar boiler HE1 (300L - 500L)

Solar kit HE1



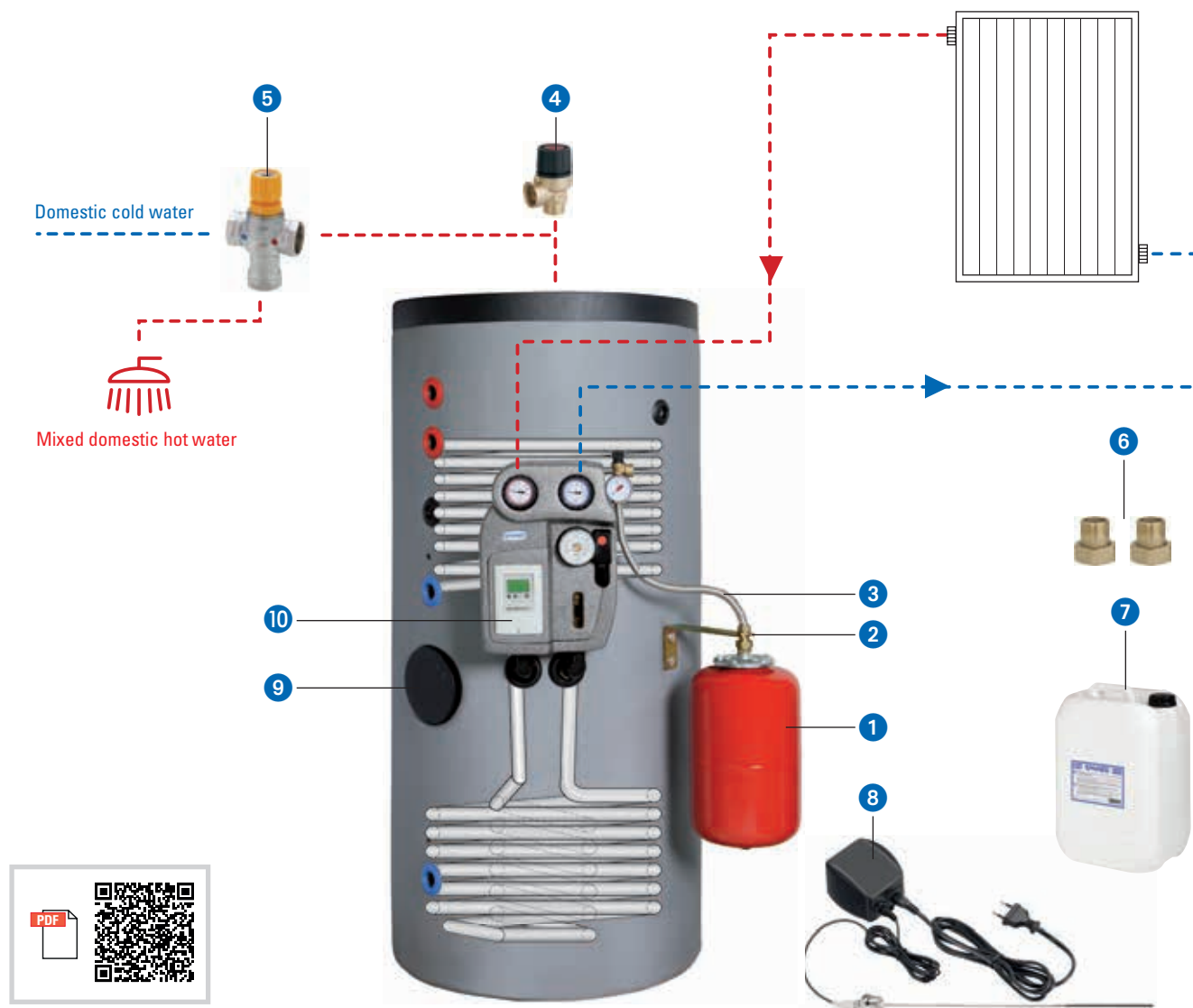
Solar kit HE1 300

Size	Pcs. pack	Code
300 L	1	02770210



Solar kit HE1 500

Size	Pcs. pack	Code
500 L	1	02770220



Composition

- ① 24 L solar expansion tank
- ② Bracket for fastening expansion tank
- ③ Flexible hose kit
- ④ 6-Bar safety valve for domestic circuit
- ⑤ 3/4" F thermostatic solar mixer
- ⑥ Pair of 3/4" M x 1" F fittings
- ⑦ Premixed protective non-toxic antifreeze (three packs of 5 kg for the 300 L kit and one pack of 25 kg for the 500 L kit)
- ⑧ Electronic anode
- ⑨ Auxiliary DN 180 flange
- ⑩ SSX 12 solar station

Solar kit HEVS



Solar kit HEVS 300

Consisting of: HEVS solar boiler, preassembled built-in SSX 12 solar station on the boiler, expansion tank and related accessories, electronic anode, three packs of propylene glycols of 5 kg, thermostatic solar mixer and safety valve for hydraulic circuit.

The HEVS solar boilers are glazed and have two fixed coils.

The solar coil is positioned in the lower part and is an anti-stratification type. In addition, an auxiliary DN180 flange is present, which permits insertion of an electric resistance or removable coil (LS 08 or LS 12).

Size	Pcs. pack	Code
300 L	1	02770000

Glazed, complete with accessories (preassembled solar station and expansion tank for solar circuit)



Solar kit HEVS 500

Consisting of: HEVS solar boiler, preassembled built-in SSX 12 solar station on the boiler, expansion tank and related accessories, electronic anode, one pack of propylene glycol of 25 kg, thermostatic solar mixer and safety valve for hydraulic circuit.

The HEVS solar boilers are glazed and have two fixed coils.

The solar coil is positioned in the lower part and is an anti-stratification type. In addition, an auxiliary DN180 flange is present, which permits insertion of an electric resistance or removable coil (LS 08 or LS 12).

Size	Pcs. pack	Code
500 L	1	02770010

Glazed, complete with accessories (preassembled solar station and expansion tank for solar circuit)

Accessories for HEVS solar boiler kit



Coil kit LS for HE2V and HEVS boilers

Size	Pcs. pack	Code
LS 08 (*)	1	02792030
LS 12 (**)	1	02792040

Including flange DN 180 and gasket, flange cover and washers.

(*) Application with boilers HE2V 200, 300, 500, 750, 1000 and HEVS 300, 500

(**) Application with boilers HE2V 500, 750, 1000 and HEVS 500



Predisposition kit for electric resistance 1" 1/2 for HE2V and HEVS boilers

Size	Pcs. pack	Code
KRE 180 (*)	1	02792020

Including flange DN 180 with sleeve F 1" 1/2, gasket and flange cover (resistance not included).

(*) Application with boilers HE2V 200, 300, 500 and HEVS 300, 500.

Natural circulation solar kit



10 years warranty

Model NVS1N 150

Solar collector

Dimensions: 2030 x 1030 x 87 mm - Weight when empty: 44 kg - Contents: 1.97 l - Gross surface area: 2.09 m² - Open surface area (net): 1.92 m² - Fittings (4 copper pipes): Ø 22 mm - Maximum operating pressure: 10 bar - Stagnation temperature: 136 °C

Boiler

Dimensions: 1300 x Ø 500 mm - Weight when empty: 67 kg - Contents: 145 l - Max pressure of DHW circuit: 6 bar - Max pressure of solar circuit: 3 bar - Connections: G 1/2" F

Complete system

boiler: 145 l - Solar collectors: qty. 1 - Heat carrier fluid content: 9.5 l

Size	Pcs. pack	Code
150 l	1	02717000

Comprising:

Solar connector with surface painted black;

Vitrified steel boiler with air casing including 2 magnesium anodes;

Universal fixing system for installation on both ridge cap roof and flat roof (tilt angle of approximately 45°);

Installation kit including: two 1-litre packs of glycol, 3 bar safety valve (solar circuit), 6 bar safety valve (DHW circuit), insulated copper pipes for collector-boiler connection, hydraulic fittings and assembly hardware.



10 years warranty

Model NVS1S 200

Solar collector

Dimensions: 2030 x 1030 x 87 mm - Weight when empty: 48 kg - Contents: 1.97 l - Gross surface area: 2.09 m² - Open surface area (net): 1.92 m² - Fittings (4 copper pipes): Ø 22 mm - Maximum operating pressure: 10 bar - Stagnation temperature: 193 °C

Boiler

Dimensions: 1300 x Ø 580 mm - Weight when empty: 85 kg - Contents: 192 l - Max pressure of DHW circuit: 6 bar - Max pressure of solar circuit: 3 bar - Connections: G 1/2" F

Complete system

boiler: 192 l - Solar collectors: qty. 1 - Heat carrier fluid content: 11.4 l

Size	Pcs. pack	Code
200 l	1	02717010

Comprising:

Solar connector with surface painted black;

Vitrified steel boiler with air casing including 2 magnesium anodes;

Universal fixing system for installation on both ridge cap roof and flat roof (tilt angle of approximately 45°);

Installation kit including: two 1-litre packs of glycol, 3 bar safety valve (solar circuit), 6 bar safety valve (DHW circuit), insulated copper pipes for collector-boiler connection, hydraulic fittings and assembly hardware.

NVS solar kit



10 years warranty

Model NVS2N 300

Solar collector

Dimensions: 2030 x 1030 x 87 mm - Weight when empty: 44 kg - Contents: 1.97 l - Gross surface area: 2.09 m² - Open surface area (net): 1.92 m² - Fittings (4 copper pipes): Ø 22 mm - Maximum operating pressure: 10 bar - Stagnation temperature: 136 °C

Boiler

Dimensions: 1800 x Ø 580 mm - Weight when empty: 107 kg - Contents: 280 l - Max pressure of DHW circuit: 6 bar - Max pressure of solar circuit: 3 bar - Connections: G 1/2" F

Complete system

boiler: 280 l - Solar collectors: qty. 1 - Heat carrier fluid content: 15.4 l

Size	Pcs. pack	Code
300 l	1	02717020

Comprising:

2 solar connectors with surface painted black;

Vitrified steel boiler with air casing including 2 magnesium anodes;

Universal fixing system for installation on both ridge cap roof and flat roof (tilt angle of approximately 45°);

Installation kit including: five 1-litre packs of glycol, 3 bar safety valve (solar circuit), 6 bar safety valve (DHW circuit), insulated copper pipes for collector-boiler connection, hydraulic fittings and assembly hardware.

Accessories for thermosyphon solar system



Heating element with thermostat kit 0 - 80 °C

Size	Pcs. pack	Code
1,5 kW L=30 cm	1	02717030
2,5 kW L=44 cm	1	02717040

Connection 1"1/4 M



Front cover for solar collector

Size	Pcs. pack	Code
1060x2000	1	02717070



Solar circulation group GSN1V 38

Nominal pressure: PN 10 - Continuous temperature 120°C (brief period: 160°C for 20 sec.) - External connections 1" M

Return

- Flow rate adjuster measuring device with system fill and discharge valves
- Flanged ball valve, 3-way, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with connection 3/4" M for expansion tank
- Circulation pump ST 25/6

Supplied with metal plate rear fixing.

Insulation box in EPP (Dimension 155 x 425 x 150 mm).

Size	Flow rate L/min	Pcs. pack	Code
38	8-38	1	02707886



One way solar group SS1V 12

Nominal pressure: PN 10 - Continuous temperature 120 °C (brief period: 160°C for 20 sec.) - External connections 1" M

Return

- Flow rate adjuster measuring device with system fill and discharge valves
- Flanged ball valve, 3-way, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with 3/4" M connection for expansion tank
- Circulation pump ST 25/6 with Molex type connector

Solar unit STDG, pre-wired, includes 2 immersion probes PT1000 with silicone cable; third probe optional only for visualization.

Supplied with metal plate rear fixing.

Insulation box in EPP (Dimension 215 x 440 x 150 mm).

Size	Flow rate L/min	Pcs. pack	Code
12	2 - 12	1	02707950

Accessories for solar systems



Complete solar group SSX 12-38

NEW

Nominal pressure: PN 10 - Continuous temperature 120°C (brief period: 160°C for 20 sec.) - Interval: 125 mm - External connections 1" M

Return

- Flow rate adjuster measuring device with system fill and discharge valves
- Flanged ball valve, 3-way, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with 3/4" M connection for expansion tank
- Circulation pump ST 25/6 with Molex type connector

Flow

- Flanged ball valve, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with red ring; 0 °C - 120 °C)
- Brass de-aeration with manually air valve
- Connexion and fitting pipe

Pre-cabled EMCS solar wiring box with 3 immersion probes PT1000 with silicone cable.

Supplied with metal plate rear fixing.

Insulation box in EPP (Dimension 308 x 434 x 169 mm).

Size	Flow rate lt/min	Pcs. pack	Code
12	2 - 12	1	02707712
38	8 - 38	1	02707732



Complete solar group SSC 40 with function of measuring consumption

NEW

Nominal pressure: PN 10 - Continuous temperature on flow copper 120 °C (short term: 160 °C for 20 sec.). Return branch: the measurement is made between 0 °C and 100 °C - Interval: 125 mm - External connections 1" M

Return

- Combined measurement device of flow rate and temperature VFS with system discharge valve
- Flanged ball valve, 3-way, DN20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45 °) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with connection 3/4" M for expansion tank
- Circulator pump ST 25/6 with Molex connector
- Pipe fitting of 3/4" with system fill valve

Flow

- Flanged ball valve, DN20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with red ring; 0 °C - 120 °C)
- Brass de-aeration device with manual bleed valve
- Fitting and connection tube
- Temperature probe in contact with the connection tube

Solar unit ELCS, pre-wired, includes 4 probes (3 immersion probes, 1 contact probe) PT1000 with silicone cable with heat accounting function(*)

(*) The instrument is not certified in confirm to 2004/22/EC - MID.

Supplied with metal plate rear fixing.

Insulation box in EPP (Dimensions 308 x 434 x 169 mm).

Size	Flow rate lt/min	Pcs. pack	Code
40	2 - 40	1	02707742

With drain kit



Solar circulation group GSN 12-38

Nominal pressure: PN 10 - Continuous temperature 120°C (brief period: 160°C for 20 sec.) - Interval: 125 mm - External connections 1" M

Return

- Flow rate adjuster measuring device with system fill and discharge valves
- Flanged ball valve, 3-way, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with 3/4" M connection for expansion tank
- Circulation pump ST 25/6

Flow

- Flanged ball valve, DN 20 with non-return valve 10 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with red ring; 0 °C - 120 °C)
- Brass de-aeration with manually air valve
- Connexion and fitting pipe

Supplied with metal plate rear fixing.

Insulation box in EPP (Dimension 280 x 425 x 150 mm).

Size	Flow rate lt/min	Pcs. pack	Code
12	2 - 12	1	02707880
38	8 - 38	1	02707884



Solar circulation group for high flow rate GSA 42-70

Nominal pressure: PN 10 - Continuous temperature 120°C (brief period: 160°C for 20 sec.) - Interval: 125 mm - External connections 1" 1/4 M

Return

- Flow rate adjuster measuring device 5/42 l/min or 20/70 l/min
- Ball valve with non-return valve 18 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C)
- "T" fitting for safety group
- Safety group 6 bar with pressure gauge Ø 50 mm 0-10 bar with 3/4" M connection for expansion tank
- Circulation pump Wilo TOP-RL25/8,5

Flow

- Ball valve with non-return valve 18 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with red ring; 0 °C - 120 °C)
- "T" fitting with probe holder socket Ø 6 mm
- Connexion and fitting pipe

Supplied with metal plate rear fixing.

Insulation box in EPP (Dimension 285 x 500 x 170 mm).

Size	Flow rate l/min	Pcs. pack	Code
42	5-42	1	02716640
70	20-70	1	02716642

Accessories for solar systems

Accessories for solar stations and units



Copper pipe kit C2R

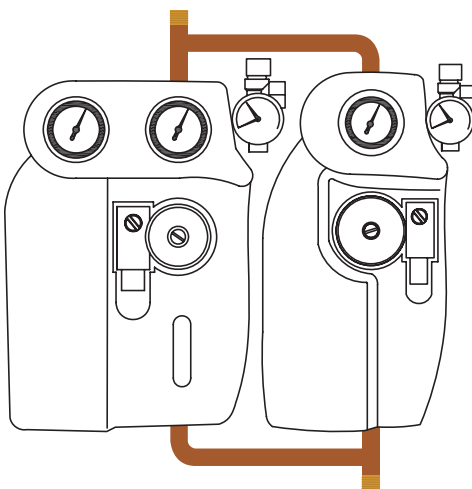
For high flow rate applications, thanks to the use of two C2R copper pipe kits, the circuit can be split (return branch) placing two circulation assemblies side by side (preferably a one-way assembly and a two-way assembly) to operate in parallel for twice the flow rate at the same pressure head (e.g. GSN1V 38 + SSX 38 or GSN1V 38 + GSN 38)

Size	Pcs. pack	Code
1"	1	02707888

To connect to branches of a solar circuit.

Arrange two C2R kits to connect the GSN1V 38 assembly to another assembly or 2-way solar station (see below).

Includes: O-ring and plug to eliminate the safety assembly of the two-way solar assembly; seals in EPDM.



Pipe unions couple for solar groups

Size	Pcs. pack	Code
1" F x 3/4" M	1	90027810
1" F x 3/4" F	1	90027850
1" 1/4 F x 1" M	1	90028290



Bracket for fastening expansion tank with fitting for 18 and 24 lts expansion tanks

L-bracket for wall mounting of expansion tank.

The 3/4" M x 3/4" F fitting is equipped with a non-return valve.

Gasket and wall plugs included.

Size	Pcs. pack	Code
	1	02706834

For 18 and 24 lts expansion tanks.



Stainless steel flexible hose kit for connection to expansion tank

Flexible tube in stainless steel AISI 304 for connection of the expansion tank to the safety group - Threading 3/4"
Includes hose, fittings and gaskets.

Size	Pcs. pack	Code
L 500	1	02706836
L 1000	1	02706838



Flow regulator/flowmeter

Connection DN15: 1" M - 1" cap, Connection DN20: 1 1/4" M - 1 1/4" cap - Nominal pressure: PN 10 - Continuous temperature 120 °C (brief period: 160°C for 20 sec.)

Size	Flow rate l/min	Pcs. pack	Code
DN15	2-12	1	02716644
DN15	8-38	1	02707750
DN20	5-42	1	02716648
DN20	20-70	1	02716650

Option of horizontal or vertical installation with any direction of flow



Differential thermostat

Model	Pcs. pack	Code
Differential thermostat TD1 (*)	1	02708010
Differential thermostat TD2 (**)	1	02706840
Sensor PTC +125 °C for TD1	1	02708012
Sensor PT 1000 +160 °C for TD2	1	02706844
Sensor PT 1000 +200 °C for TD2	1	02706842
Feeler trap	1	00510686

(*) Complete with three probes PTC +125 °C. Equipped with 1 differential thermostat and 1 adjustment thermostat.

(**) Complete with two probes PT 1000 +160 °C and 1 probe PT 1000 +200 °C. Equipped with 2 differential thermostats, one of which can be configured for integration/overheat discharge



Temperature differential controller ECS 3

Differential temperature adjustment device for solar collector systems, equipped with 3 inputs for temperature probes PT1000, 1 live relay on/off, 1 live relay on/off for pump speed control.

20 different schemes of controllable solar systems with display of measured temperatures and relay status.

Anti-seizure function for pump and/or valve, anti-freeze protection function, anti-legionella function, temperature sensors offset correction.

Size	Pcs. pack	Code
ECS 3	1	02716601

Supplied with 3 sensor PT1000 + 180 °C with silicone cable
Item to be out of range

Accessories for solar systems



Temperature differential controller EMCS

NEW

Differential temperature adjustment device for solar collector systems or with solid fuel boilers, equipped with 3 inputs for temperature probes PT1000, 1 live ON/OFF relay, 1 live ON/OFF relay for standard circulators speed control.

28 different hydraulic diagrams with the option of activating additional functions for relays not used.

Display of the measured temperatures and status of the relays.

Comes with clock and buffer battery (operating time 24 h).

Simple heat metering function*. Protects the system, solar collector and storage tank. Anti-legionella function. Anti-freeze protection function. Temperature sensors offset correction.

* Instrument not certified in line with the 2004/22/EC - MID directive

Size	Pcs. pack	Code
EMCS	1	02716710

Supplied with 3 immersion sensor PT1000 + 180 °C with silicone cable



Temperature differential controller ELCS

NEW

Differential temperature regulator for systems with solar collectors or boilers with solid fuel, fitted with 6 inputs for PT1000 temperature probes, 1 input for VFS sensors and 1 RPS sensor input, 1 live relay ON/OFF output, 2 live relay ON/OFF outputs to adjust the speed of standard circulators, 2 PWM/0-10V outputs for control the high-efficiency circulators, external connection via CAN-Bus or Ethernet to manage the system even remotely via a local network or internet. Option of remote control and data logging with an external Data logger.

37 different hydraulic diagrams with the option of activating additional functions for relays not used.

Display of the measured temperatures and status of the relays.

Comes with clock and buffer battery (operating time 24 h).

Simple heat metering function*. Protects the system, solar collector and storage tank. Anti-legionella function. Anti-freeze protection function. Temperature sensors offset correction.

* Instrument not certified in line with the 2004/22/EC - MID directive

Size	Pcs. pack	Code
ELCS	1	02716720

Supplied with 3 immersion sensor PT1000 + 180 °C with silicone cable



Over voltage kit protection

Size	Pcs. pack	Code
	1	02716616



Temperature sensors

Sensors PT1000 + 180 °C with silicone cable

Size	Pcs. pack	Code
Immersion sensor with cable 2 m, Ø 5,5 mm	1	02716612
Contact sensor with cable 1,5 m	1	02716614



Immersion sleeves M 1/2" with cable threading

Size	Pcs. pack	Code
Ø 7 L 45 mm	1	02710580
Ø 7 L 150 mm	1	02710590



Vent valve for high temperature solar

Body and cover in brass ST UNI EN 12165CW617N - Polyethylene float - Max. temperature: 150 °C -Max. pressure: 10 bar

Size	Pcs. pack	Code
1/2" M	10	28140020



Sicura ht, Safety valve for high temperature solar

Membrane valve, with fixed high-lift calibration and direct reaction spring. The calibration screw cannot be tampered with, without causing irretrievable damage to the valve.

The shutter membrane is guaranteed non-stick type and will not alter shape after prolonged utilisation.

The calibration pressure is stamped in relief on the plug placed on top of the valve.

The possibility of the valve being opened accidentally is prevented by a protection cap.

In order to turn the knob, it is necessary to remove the cap.

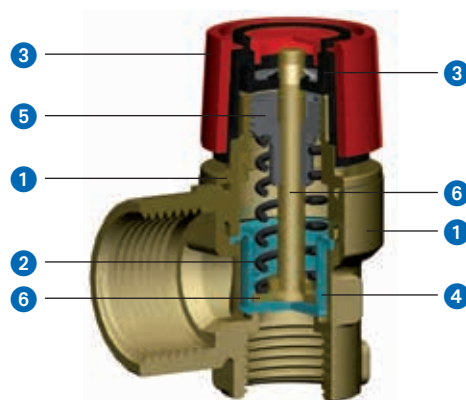
The addition of a pressure gauge is already foreseen.

Max. temperature: 160 °C

Suitable for use with glycol mixtures of up to 50%

Construction

- 1 Body and ring nut in ST UNI EN 12165 CW617N brass
- 2 AISI stainless steel spring
- 3 Handle and cap in PA6
- 4 Silicone membrane
- 5 Adjustment ring nut in PPS
- 6 Rod and disc in TN UNI EN 12164 CW614N brass



Size	Pressure	Pcs. pack	Code
1/2" F x 3/4" F	4 bar	12	00206122
1/2" F x 3/4" F	6 bar	12	00206124
1/2" F x 3/4" F	3 bar	12	00206120

Product 100% tested



Expansion vessel for solar

Special membrane for solar in confirm to DIN 4807 - Precharge pressure: 2,5 bar - Maximum pressure: 10 bar - Temperature: -10÷+100 °C

Liters	Connection	Pcs. pack	Code
18	M 3/4" Gas	1	00104200
24	M 3/4" Gas	1	00104205
35	M 3/4" Gas	1	00104210
50	M 3/4" Gas	1	00104215

CE marking in compliance with the directive PED 97/23/EC

Model from 35 to 50 litres with support feet

Accessories for solar systems



Progress for Solar Male-Female

Temperature of use: $-20 \div +180$ °C

Nominal pressure: 50 bar for size 1/2", 40 bar for size 3/4"

Size	Pcs. pack	Code
1/2"	18	09815370
3/4"	12	09815372



De-aeration device

Maximum operating temperature: 140 °C - Maximum operating pressure: 10 bar

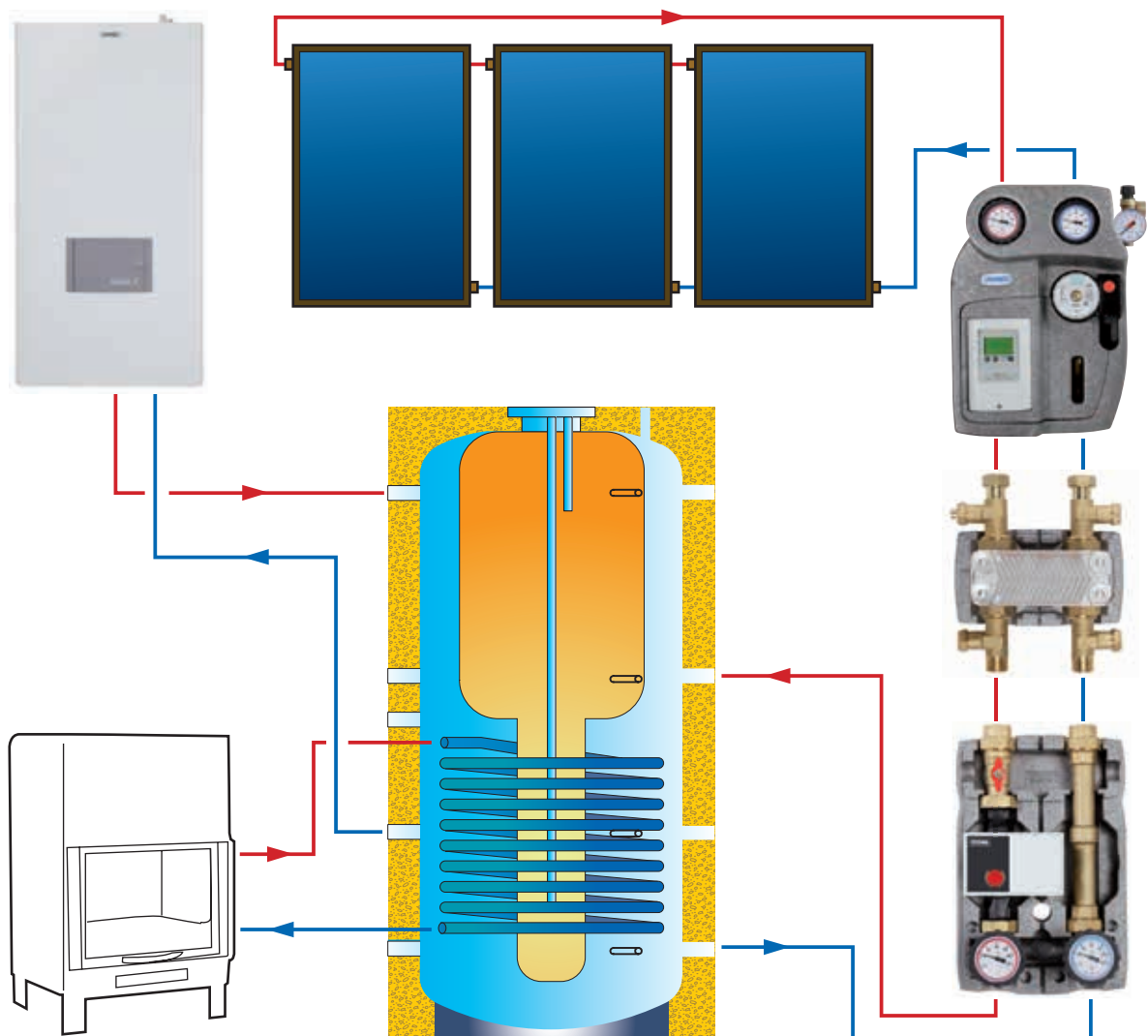
Kv: 6,5 - Employment fluid: water, glicole

Size	Pcs. pack	Code
DN 15 - G 1" M x G 3/4" F	1	02707822
Extension 50 mm (*)	1	02707820

(*) for air vent valve

Circulation groups for heating and domestic hot water

Example of installation





Circulation group GCNE 1

Nominal pressure: PN 10 - Maximum temperature: 110 °C - Interval: 125 mm - External connections 1" F - Kvs: 8,0

Return

- Flanged ball valve with non-return valve 20 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C).
- Connection

Flow

- Flanged ball valve with handle for thermometer (thermometer with red ring; 0 °C - 120 °C).
- Flanged ball valve with T handle
- Circulator pump YONOS PARA RS 25/6
- Connection

Insulation box in EPP (Dimension 250 x 380 x 190 mm).

Size	Pcs. pack	Code
	1	02716688

This is a reversible module (the supply and return branches can be easily reversed).



Sanitary circulation group GCNW 1

Nominal pressure: PN 10 - Maximum temperature: 110 °C - Interval: 125 mm - External connections 1" F - Kvs: 8,0

Return

- Flanged ball valve with non-return valve 20 mbar (the non-return valve can be bypassed by turning the handle 45°) provided with handle for thermometer (thermometer with blue ring; 0 °C - 120 °C).
- Connection

Flow

- Flanged ball valve with handle for thermometer (thermometer with red ring; 0 °C - 120 °C).
- Flanged ball valve with T handle
- Sanitary circulator pump Z25/6-180
- Connection

Insulation box in EPP (Dimension 250 x 380 x 190 mm).

Size	Pcs. pack	Code
	1	02716686

This is a reversible module (the supply and return branches can be easily reversed)

Available on request: 30 days to order confirm

Accessories for solar systems



Solar modules with plate exchanger

Allows to connect a solar system without a specific boiler or directly to the puffer. Provided with a probe-holder well Ø 6 mm on the supply branch of the solar circuit.

Technical data

Nominal pressure: PN 10
Continuous temperature: 100 °C (brief period 160 °C for 20 sec.)
Interval 125 mm
External connections 1" cap (primary solar circuit) - 1" M (secondary boiler circuit)
Braze-welded plate exchanger in stainless steel AISI 316 with 16, 26 or 40 plates

Insulation box in EPP (Dimensions: 250 x 143 x 218 mm)

Size	Nr. plates	Pcs. pack	Code
MSC 16	16	1	02716626
MSC 26	26	1	02716628
MSC 40	40	1	02716630



Safety group

For boiler circuit.
Complete with 3 bar safety valve and pressure gauge Ø 50 mm 0-4 bar.

Technical data

Nominal pressure: PN 10
Continuous temperature 120 °C (brief period 160 °C for 20 sec.)
Connections: 3/4" M for discharge

Size	Pcs. pack	Code
	1	02716634



Valve for fill and discharge system

Nominal pressure: PN 10
Continuous temperature 120 °C (brief period 160 °C for 20 sec.)
Connections: 3/4" M for discharge

Size	Pcs. pack	Code
3/4"	1	02716636



Drain kit for safety group

Nominal pressure: PN 10
Continuous temperature 120 °C (brief period 160 °C for 20 sec.)
Connections: 3/4" M for discharge

Size	Pcs. pack	Code
3/4"	1	02707780



Feeler trap for solar modules MSC

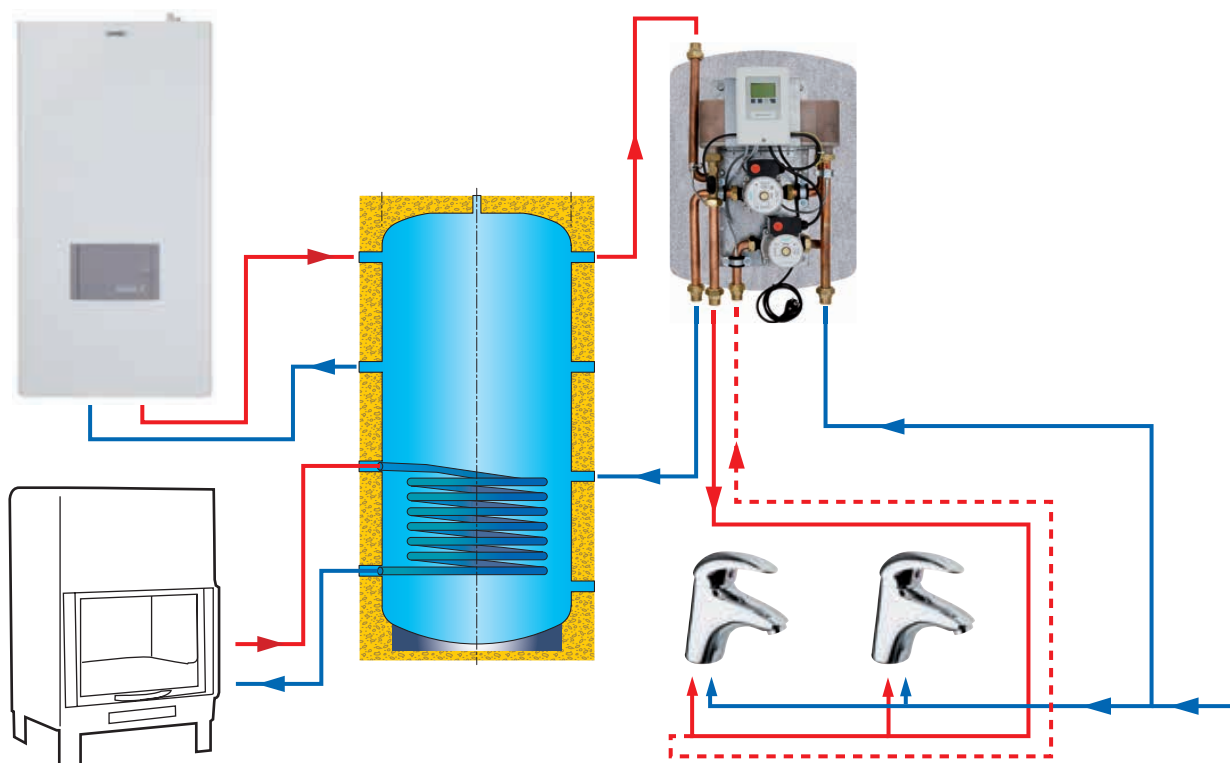
Nominal pressure: PN 10
Continuous temperature 120 °C (brief period 160 °C for 20 sec.)

Size	Pcs. pack	Code
Ø 6 mm	1	02716638

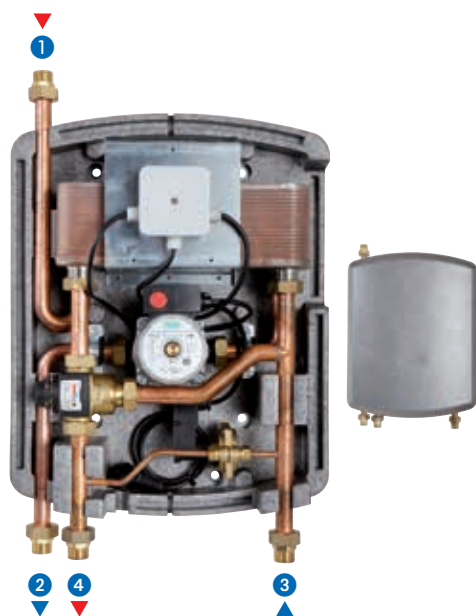
Supplied with screw for fixing sensor



Installation example of a thermostatic module to produce rapid domestic hot water



Option of installing several modules upon request.



Thermostatic module to produce rapid domestic hot water

SSHNT 20: for powers up to 50 kW with ACS flow rate up to 20 l/min

SSHNT 40: for powers up to 100 kW with ACS flow rate up to 40 l/min

Maximum admissible pressure: 6 bar

Operating temperature: 2÷95 °C

DHW nominal temperature 45 °C, can be adjusted up to 65 °C with a thermostatic mixing valve

Differential pressure switch to activate the circulator (already with flow rates of less than 1 l/min)

Brazed plate exchanger made of stainless steel AISI 316 with 24 or 40 plates

3/4" M pipe union connections

With retainer valve on cold water inlet (point 3)

Minimum diameters of the pipes: DN20 (Cu 22x1)

Fitted with rear fixing metal plate

EPP insulation box (Dimensions: 398 x 500 x 207 mm)

- ① Puffer flow
- ② Puffer return
- ③ Water supply 10 °C
- ④ Domestic hot water

Size	Nr. plates	Pcs. pack	Code
SSHNT 20	24	1	02716652
SSHNT 40	40	1	02716654

Application on inertial accumulators (puffers) connected with traditional, wood, pellet, biomass, etc. thermal circuits.

The device guarantees the production of instantaneous domestic hot water, preventing bacterial contamination (such as legionellosis) due to the stagnation of the heated water in the tank.

Accessories for solar systems



1

Rapid domestic hot water production module

For powers up to 100 kW with ACS flow ranges up to 40 l/min

Maximum admissible pressure: 6 bar

Operating temperature: 2÷95 °C

DHW nominal temperature 45 °C, adjustable from 30 to 70 °C

Re-circulation temperature can be adjusted up to 40 °C

Recirculation can be programmed on three time slots for each day of the week

Variable DHW flow rate 2÷40 l/min

Pre-wired EHWS 3 control unit with three Pt1000 probes.

Anti-legionella function and metering function (*) of the energy used thanks to the digital sensor

Brazed plate exchanger made of stainless steel AISI 316 with 40 plates

3/4" male pipe union connections. With retainer valve on cold water inlet and re-circulation (points 3 and 5).

Minimum diameters of the pipes: DN20 (Cu 22x1); DN15 for the re-circulation line.

Fitted with rear fixing metal plate.

EPP insulation box (Dimensions: 398x500x207 mm).

(*) The instrument is not certified in confirm to 2004/22/EC - MID.

- ① Puffer Flow
- ② Puffer Return
- ③ Water supply (10 °C)
- ④ Domestic hot water
- ⑤ Re-circulation

Size	Nr. plates	Pcs. pack	Code
1 - SSHWR 40 (*)	40	1	02707790
2 - SSHNR 40 (**)	40	1	02707800

(*) with re-circulation

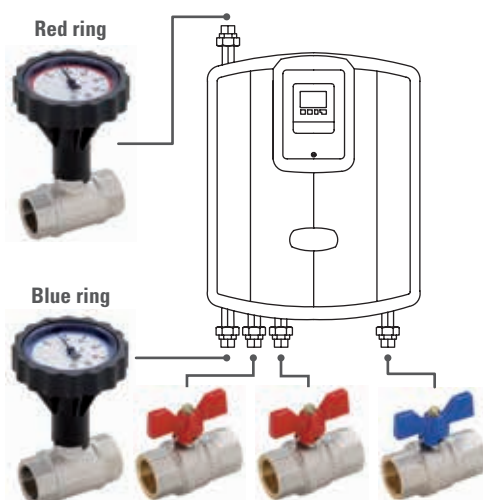
(**) without re-circulation. Available on request: 60 days to order confirm.

Applications: on inertial accumulators connected to thermal solar circuits, wood-fired, pellet, biomass, etc. boilers.

The device guarantees the production of instantaneous domestic hot water, preventing bacterial contamination (such as legionellosis) due to the stagnation of the heated water in the tank.



2



Kit valves for modules SSHNT 20, SSHNT 40, SSHWR 40, SSHNR 40

Size	Pcs. pack	Code
3/4" F-F	1	02707900



System of pipes, fittings and accessories for solar panels

Insulating material in EPDM, resistant to UV rays.

Thermal conductivity:

$\lambda (0\text{ }^{\circ}\text{C}) = 0.033\text{ W/mK}$,

$\lambda (40\text{ }^{\circ}\text{C}) = 0.037\text{ W/mK}$,

Class of construction material: B2 (DIN 4102)

Max. operating temperature: 150 °C

Max. peak temperature: 175 °C

Pipe material:

corrugated stainless steel AISI 316 L with temperature range between -270 °C and +600 °C

Copper pipe DIN EN 12249 (R220) resistant to temperatures that reach 180 °C

Maximum operating pressure of corrugate stainless steel pipe:

20 °C: DN16=11 bar; DN20=11 bar; DN25=10 bar

200 °C: DN16=7,5 bar; DN20=7,5 bar; DN25=6,9 bar



Single flexible pre-insulated stainless steel hose

Size	Insulating thickness	Pcs. pack	Code
DN 16 - L = 15 m	13 mm	1	02706402
DN 20 - L = 15 m	13 mm	1	02706412
DN 25 - L = 15 m	13 mm	1	02706422



Double flexible pre-insulated stainless steel hose - separable

Size	Insulating thickness	Pcs. pack	Code
DN 16 - L=15 m	13 mm	1	02706502
DN 20 - L=15 m	13 mm	1	02706522
DN 25 - L=15 m	13 mm	1	02706462

Sensor cable: 2x0,75 mm²



Double pre-insulated copper pipe - separable

Size	Insulating thickness	Pcs. pack	Code
15x0,8 - L=15 m	13 mm	1	02707841
18x0,8 - L=20 m	13 mm	1	02707845

Sensor cable: 2x0,75 mm²

Connections for inox pipe



Pipe connection kit with screws

Size	Pcs. pack	Code
DN 16 mm (3/4")	1 kit	02706552
DN 20 mm (1")	1 kit	02706602
DN 25 mm (1" 1/2)	1 kit	02706610

The kit consists of: 4 connecting nuts, 4 fixing rings, 4 flat gaskets, 1 nipple and 1 stainless steel washer (the nipple and washer must be used to form the flat seal housing on the pipe).

Accessories for solar systems



Double male nipple

Size	Pcs. pack	Code
3/4" M - 3/4" M	1	02706730
1" M - 1" M	1	02706740
1 1/4 M - 1 1/4 M	1	02706750

Connections for copper pipe



Reduction ring monopiece for copper pipes

Size	Pcs. pack	Code
DN 18 copper x DN 15 copper	10	02707850
DN 22 copper x DN 18 copper	10	02707852



Kit fast connection copper-copper

Size	Pcs. pack	Code
DN 15 copper x DN 15 copper	5	02707860
DN 18 copper x DN 18 copper	5	02707862



Metallic seal fitting with male head thread for copper pipes

Size	Pcs. pack	Code
3/4" M x DN 15 copper	5	02707870
3/4" M x DN 18 copper	5	02707872
3/4" M x DN 22 copper	5	02707874
1" M x DN 22 copper	5	02707876



Kit of 4 brackets for installation of single pipe

Size	Pcs. pack	Code
DN 16 for inox	1	02706430
DN 20 for inox	1	02706440

Items to be out of stock



Kit of 4 brackets for installation of coupled and pre-insulated pipes

Size	Pcs. pack	Code
DN 16÷20 mm for inox	1	02706540
DN 15÷18 mm for copper	1	02707848



Adhesive insulating tape 3 mm

NEW

Size	Pcs. pack	Code
5 cm x 15 m	1	02706802



Black adhesive tape in aluminium

Size	Pcs. pack	Code
5 cm x 50 m	1	01516040



Tank of premixed protective non-toxic antifreeze

* Propylene glycol content: 25-28% - pH of the solution: 9.2-10 - Minimum alkalinity reserve: ml HCl 0.1 N:15 - Freezing point: -12 °C - density: 1,0 kg/l

**Propylene glycol content: 42-45% - pH of the solution: 9.2-10 - Minimum alkalinity reserve: ml HCl 0.1 N: 20 - Freezing point: -28 °C - density: 1,0-1,1 kg/l

Size	Pcs. pack	Kg/pack	Code
T ≥ - 12 °C*	1	5 kg	02706372
T ≥ - 12 °C*	1	25 kg	02706376
T ≥ - 28 °C**	1	5 kg	02706382
T ≥ - 28 °C**	1	25 kg	02706386

Liquid with disappearing red-violet colour, indicative of the pH, non-toxic and ready to use, protects against corrosion of the metal surfaces, prevents the formation of salt encrustation, allows to reach stagnation temperatures up to 300 °C



System loading station

NEW

Delivery capacity: 5,2 - 50 litres/min - Static pressure H: 5 - 52 m. c. H₂O - Power supply: 230 V - 50 Hz - Current = 2,6 A - Electric power absorbed: 500 W max - Spin speed: 2900 rpm - Protection: IP44 - Tank volume: 50 litres

Size	Pcs. pack	Code
50 litres	1	02706862

Fitted with two connection pipes L = 3 m

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General conditons of sales

- 1 From the moment this proposal is accepted it shall be considered a contract sale valid for all legal purposes.
The proposal is considered automatically accepted the instant the purchaser receives the first delivery of material.
- 2 Export Market: orders for a minimum amount of 2.500,00 euro can be accepted. Orders for less amounts might be fulfilled at the seller's discretion.
- 3 The prices agreed upon are the same as those in the seller's price lists and only include the packaging expenses based on company standard and expenses relative to the technical documentation enclosed with the products sold.
The seller reserves the right, within the period of time elapsing between the signature of the order and the first delivery, to alter the list prices should any unexpected events occur to make it necessary.
Such alterations in prices are considered automatically accepted by the purchaser unless he declares otherwise in writing.
- 4 Exclusively for supplies related to photovoltaic products, the purchaser must pay, upon order confirmation, an amount that is equal to 30% of the entire order value (VAT and transport included), as a **"commitment deposit pursuant to and for the effects of art. 1385 of the civil code"**, whereas the balance must be paid upon the shipment of the goods.
- 5 Failure to pay the agreed amounts within the terms established will lead to the charging of interest on arrears at a rate of 0,7% a month plus banking charges.
- 6 The purchaser may not make any exceptions to delay payment.
- 7 Shipments shall be debited completely to the purchaser and the goods are considered sold ex seller's works.
Also, by way of signing this deed and unless otherwise agreed upon, the purchaser entrusts the seller to negotiate on his behalf and completely independently, transportation and other accessory services and the procedures for their implementation, including the drawing up of an insurance contract for the goods shipped. In such a case, the expenses relative to shipping, to the other accessories services and to the insurance will be charged to the purchaser separately as a percentage of the value of the supply.
The purchaser is hereby notified that if he is unable to check the goods at the time of delivery he must accept the goods with the reserve to check and report any defects to the carrier within 8 days from the date of delivery.
In addition, the purchaser may collect the goods with his own means from the seller's factory.
- 8 The material travels at the risk and peril of the purchaser and, if shipping is seen to by the seller, the purchaser must make any complaints directly to the carrier.
The documentation necessary to receive insurance payment must be sent promptly to the company.
- 9 The delivery terms of each single order must be compatible with the availability of the goods at the seller's factory and will be agreed at the time of the order.
However, such terms are not binding and may be, at the seller's discretion, extended for 60 days if so dictated by production requirements.
Beyond such a term, the purchaser has the right to ask, in writing, for the order to be cancelled in which case, however, he has no right to request damages of any kind.
Furthermore, the seller reserves the right to supply products which are different from those in the order but which have the same performance should warehouse or manufacturing requirements make this necessary.
Guarantees on faults and defects remain unchanged.
- 10 The products sold are guaranteed free from manufacturing defects for the term of 24 months from shipping (unless agreed otherwise in relation to the type of product).
The guarantee is limited to replacing a product found to be faulty.
The seller declines all liability in the case of an incorrect installation or improper use of the products sold.
- 11 Any defects found in the material, both relevant to faults covered by the guarantee, as per point Nr. 10, or any other hypothesis, must be reported to the seller in the accordance with the law terms.
- 12 All products are intended sold with reserve of proprietorship and become property of the buyer only after the whole price has been paid.
Acceptance of payment by way of bills or other means does not change this agreement provided such bills are considered received "prosolvendo" (without recourse) and not "pro soluto" (with recourse).
- 13 Any particular and general exceptions to these conditions shall be agreed upon between the parties in writing.
- 14 The seller reserves the right to accept returned goods in the case of products acknowledged as faulty and covered by the guarantee.
The conditions for such returns are free consignee.
- 15 In the case of continuous supplies, the seller may stop such supplies if the purchaser is in breach of only one of the particular or general conditions agreed upon. In such an event, any agreements reached for attributing premiums or for the attainment of objectives will no longer be valid.
- 16 The price indicated refers to the single article (piece) if not otherwise specified. When the article is a kit made of various components, even identical, the price refers to the complete kit.
In the case of insulation, the price refers to the entire (complete) package.
In the case of piping, whether in coil or in bar, naked or insulated, the price refers to one meter of pipe.
- 17 All judicial disputes, with no exception, will be settled by the Pordenone Court of Law.

The purchaser declares to have read the aforesaid general conditions and to have fully accepted them.

He also declares to have received a copy of them and to have read the information regarding personal data, which is also available on the Emmeti S.p.a website.

THE PURCHASER

place and date _____

Pursuant to articles 1341 and 1342 of the civil code, the purchaser declares after careful reading to accept the contract clauses specified in point 1 Contract purpose, 2 Amount of foreign orders, 3 Prices, 4 Commitment deposit, 5 Interest on arrears, 6 Prohibition of exceptions, 7 Transport method-conditional acceptance, 8 Transport risks, 9 Delivery terms, 10 Warranty for faults and defects, 11 Defect reporting terms, 12 Lien, 13 Written changes, 14 Good returns, 15 Continuous supply, 16 Price specifications, 17 Court of jurisdiction.

Confirms to have received a copy of these conditions, authorising the use of personal data pursuant to Leg. Decree 196/03.

THE PURCHASER

place and date _____

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www.eurorotelli.com



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