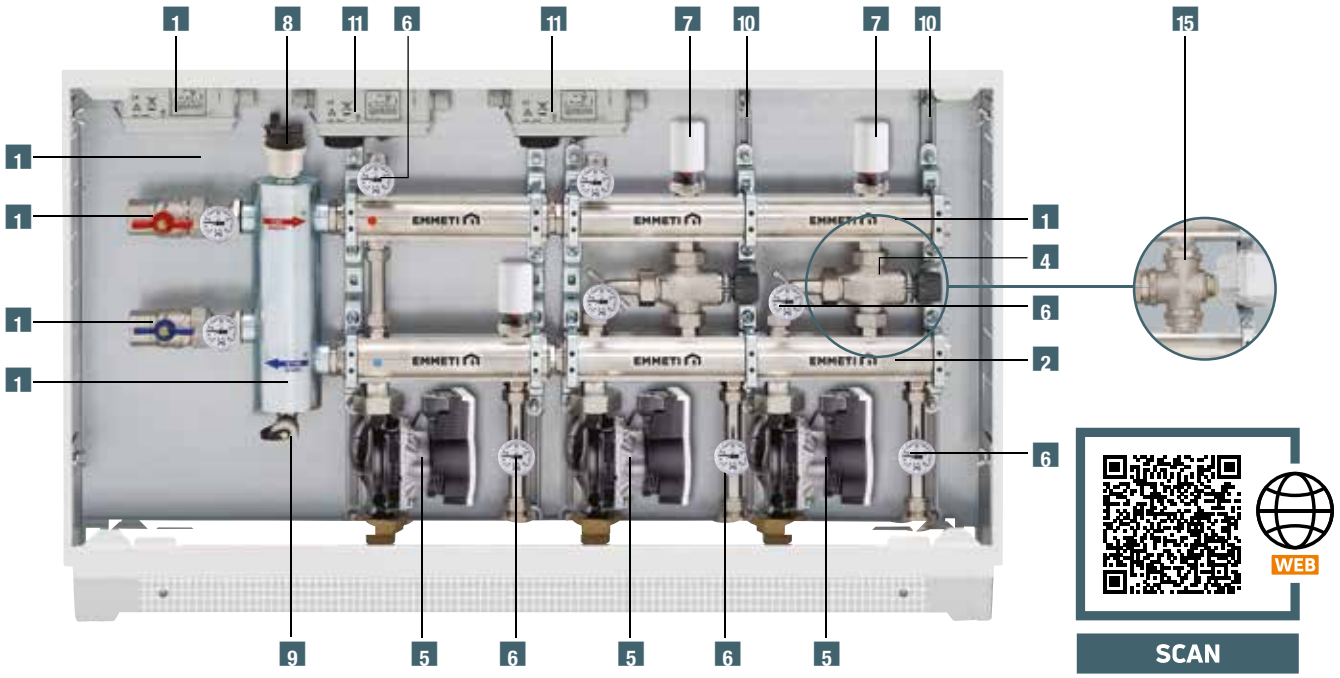
Firstbox

Distribution groups for high-low temperature systems, with electronic circulation pumps



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 Para RS 25/7
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 Metal cabinet Metalbox Plus (optional)
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;
$\Delta p_{H-MIX} = \Delta p_{C-MIX}$
Kv = 1,8 ÷ 3,3

H; C; Mix: see hydraulic scheme

Technical data for mixer valve activated by 3-point electric servomotor

Kv = 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

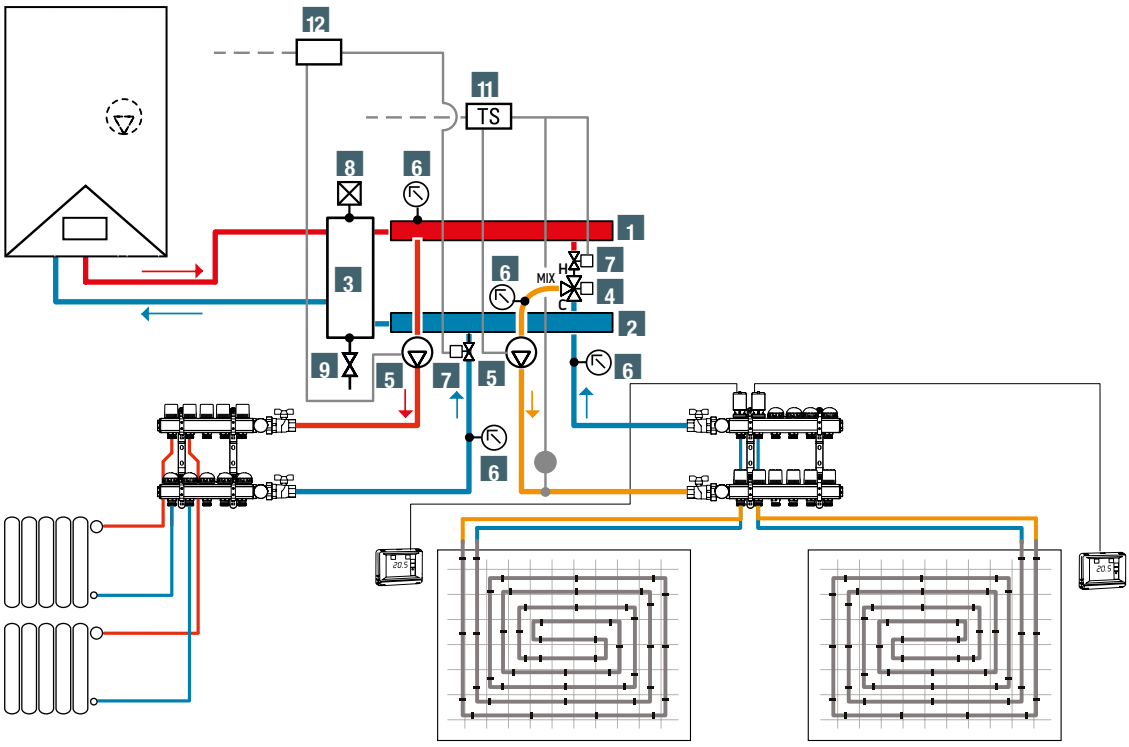
Firstbox - Under boiler kit

Wilo Para 25/7 circulator pump
Threads UNI EN ISO 228-1 (G 1/2)
Takeoff 130 mm.
Rotation speed: 2580÷4700 rpm
Maximum head: 7 m
Maximum flow: 3.5 m^3/h
Usable fluids:
Cooling and heating water
Water and glycol: max 1:1
Electrical connection: 1~230 V +10% / -15%, 50/60 Hz
Protection class: IPX 4D
Insulation class: F
Energy consumption: from 1~230 V: 8.2÷50 W
Current absorbed at 1~230 V: 0.07 ÷0.44 A

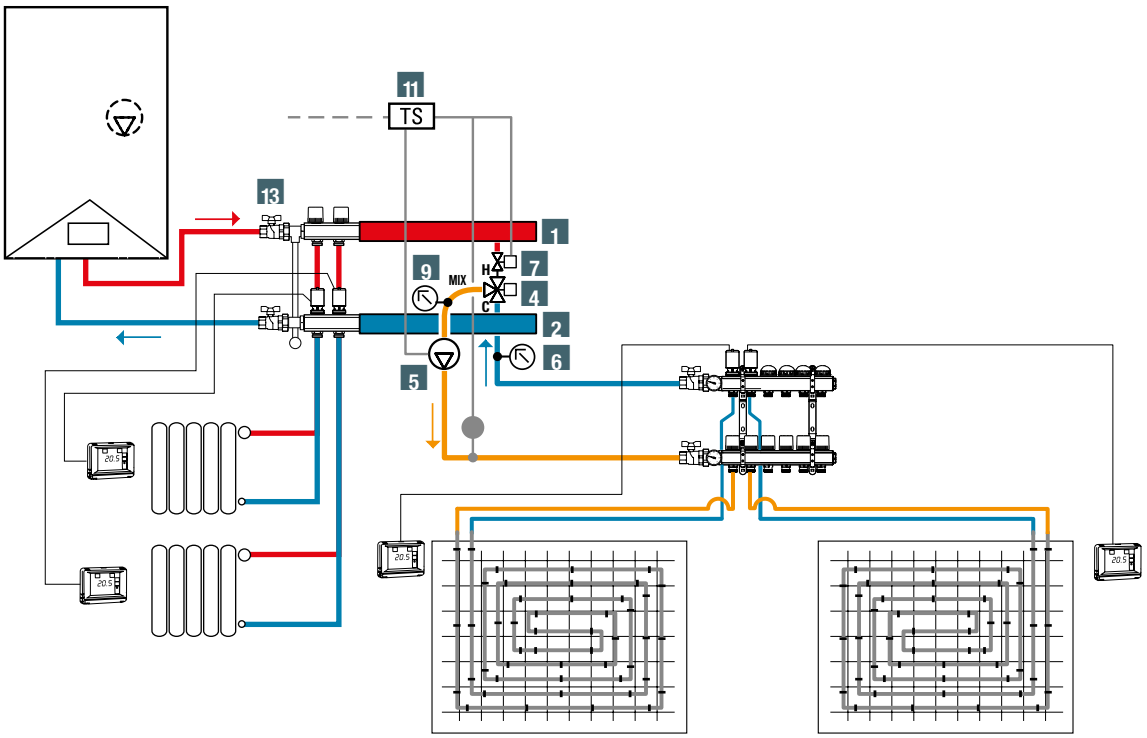
The range
- Firstbox H - distribution modules for high temperature zones
- Firstbox L- distribution modules for low temperature zones
- Firstbox H+L - distribution modules for high and low temperature zones
- Recessed distribution modules for high/low temperature systems, provided pre-assembled in recessed 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

In confirm to:
ErP Directive
EN 61800-3
EN 61000-6-3 / EN 61000-6-4
EN 61000-6-2 / EN 61000-6-1
2014/35/UE (low voltage)
2014/30/UE (electromagnetic compatibility)

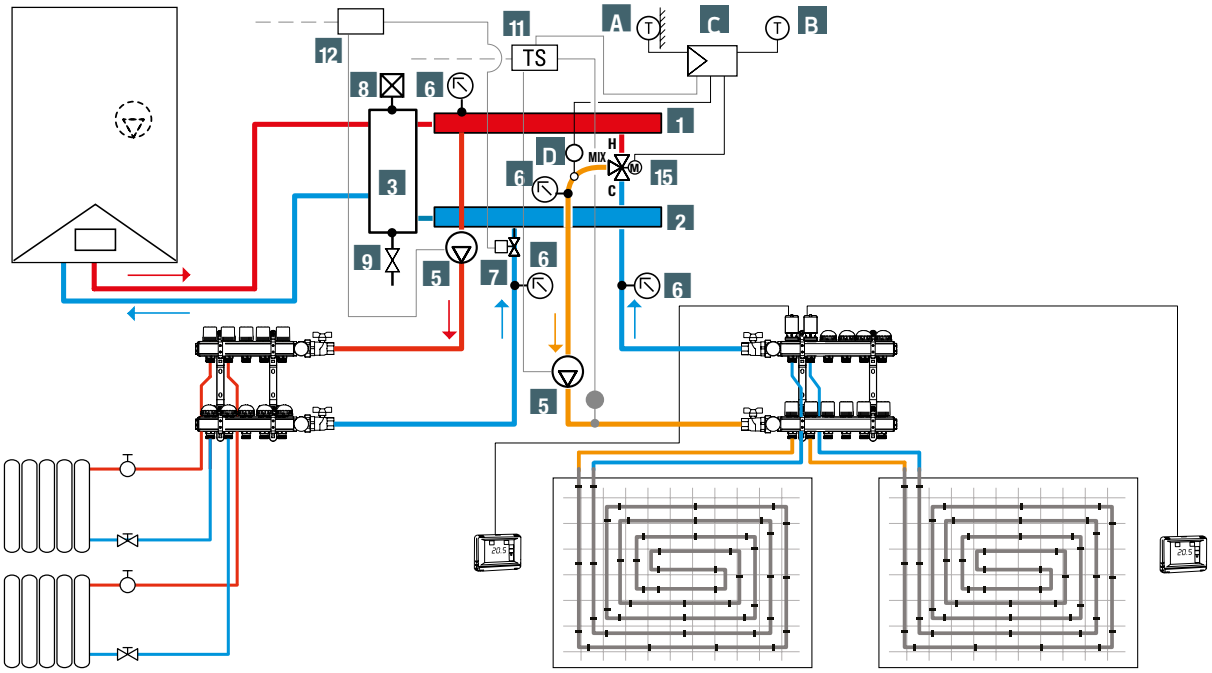
Hydraulic scheme - Modules with open manifold - Thermostic regulation



Hydraulic scheme - Modules for low temperature heating systems with auxiliary connections for high temperature terminals. Thermostic regulation



Hydraulic scheme - Modules with open manifold - Climatic regulation



A external probe
B room sensor
C electronic climatic regulator
D flow pipe probe

Firstbox - Under boiler kit



Single distribution groups with below electronic circulator pumps. High temperature

Dimension	Pcs. pack	Code	Price €
1H	1	28151710	652,50
2H	1	28151712	1.203,00

Keep the high temperature modules near the open manifold or boiler.



Single distribution groups with below electronic circulator pumps. Low temperature. Thermostatic regulation

Dimension	Pcs. pack	Code	Price €
1L	1	28151714	847,20
2L	1	28151716	1.559,00

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.

Dimension	Pcs. pack	Code	Price €
1L	1	28151718	835,40

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 below circulator pump. High temperature.

Dimension	Pcs. pack	Code	Price €
1H	1	28151300	315,50
2H	1	28151304	527,30

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

Dimension	Pcs. pack	Code	Price €
1L	1	28151302	512,20
2L	1	28151306	886,50

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

Accessories for Firstbox



Right-angle valves kit

Dimension	Pcs. pack	Code	Price €
1"	1	01306190	91,41

Thread of body valve UNI EN 10226-1
Thread of pipe union UNI EN ISO 228-1

Techincal data: seee section "Accessories for Topway manifolds"



Open manifold 2+2 for Firstbox

Dimension	Pcs. pack	Code	Price €
2"1/2	1	28151040	184,60

Supplied with nr. 2 connection nipples reduced 1"1/4 - 1", air vent valve and drain valve.
Volume: 1 lt

Thread UNI EN ISO 228-1

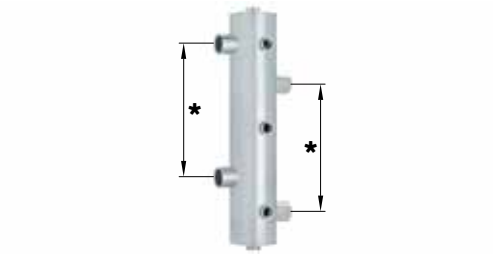


Open manifold 4+2 for Firstbox

Dimension	Pcs. pack	Code	Price €
2"1/2 - 4+2	1	28151042	289,50

Complete with: nr. 2 reduced nipple joint 1"1/4 - 1", air vent valve and adjustable drain bibcocks.

Thread UNI EN ISO 228-1



Open manifold 2+2 S, takeoff Firstbox

Dimension	Ways	Pcs. pack	Code	Price €
3"	2+2+5 S	1	07400284	400,10

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.

Thread UNI EN ISO 228-1



Connection nipple

Dimension	Pcs. pack	Code	Price €
M - M 1"1/4	6	01306430	31,12
Reduced 1"1/4 - 1"	4	01306432	20,93

Thread UNI EN ISO 228-1



Nickel-plated blind plug

Dimension	Pcs. pack	Code	Price €
1" 1/4 M with O-Ring	10	90005070	6,30

Thread UNI EN ISO 228-1

Accessories for Firstbox



Insulating shell for Firstbox distribution groups

Dimension	Pcs. pack	Code	Price €
1H pump below	1	01306514	65,99
1L pump below	1	01306516	65,99

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 Metal-box 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.
DO NOT USE for Modular Firstbox.



Insulating shell for Firstbox open manifold

Size	Pcs. pack	Code	Price €
	1	01306512	59,41

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.



Electric servomotor

3-Point Servomotor technical data
Type of operation: 3-position control - Nominal voltage: 230 Vac (± 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 (±20% / ±25%) - Nominal frequency: 50/60 Hz - Maximum consumption: 2 VA - Permissible room temperature: 1÷50 °C - Maximum permissible fluid - emperature: 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

Dimension	Pcs. pack	Code	Price €
3 points	1	28157212	289,40
0-10 V DC	1	28157222	366,00

Complete with adapter for installation of the flow probe (for climatic temperature control) inside the regulation group.
To be combined with RCE or PCOC climatic regulators for heating and cooling.

Electronic system for electro-thermic actuators



Basic wiring box 6T

Electronic system for electrothermic heads, comprised af a basic junction box and additional extension;
Power supply 230 V or 24 V;
Direct power supply to the normally closed electrothermal 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 heat source activation;
Adjustable safety thermostat (30÷60 °C);
Safety thermostat contact - Circulating pump anti-blocage function.

Dimension	Pcs. pack	Code	Price €
Basic wiring box 6T	1	28130616	271,00

Electric boxes



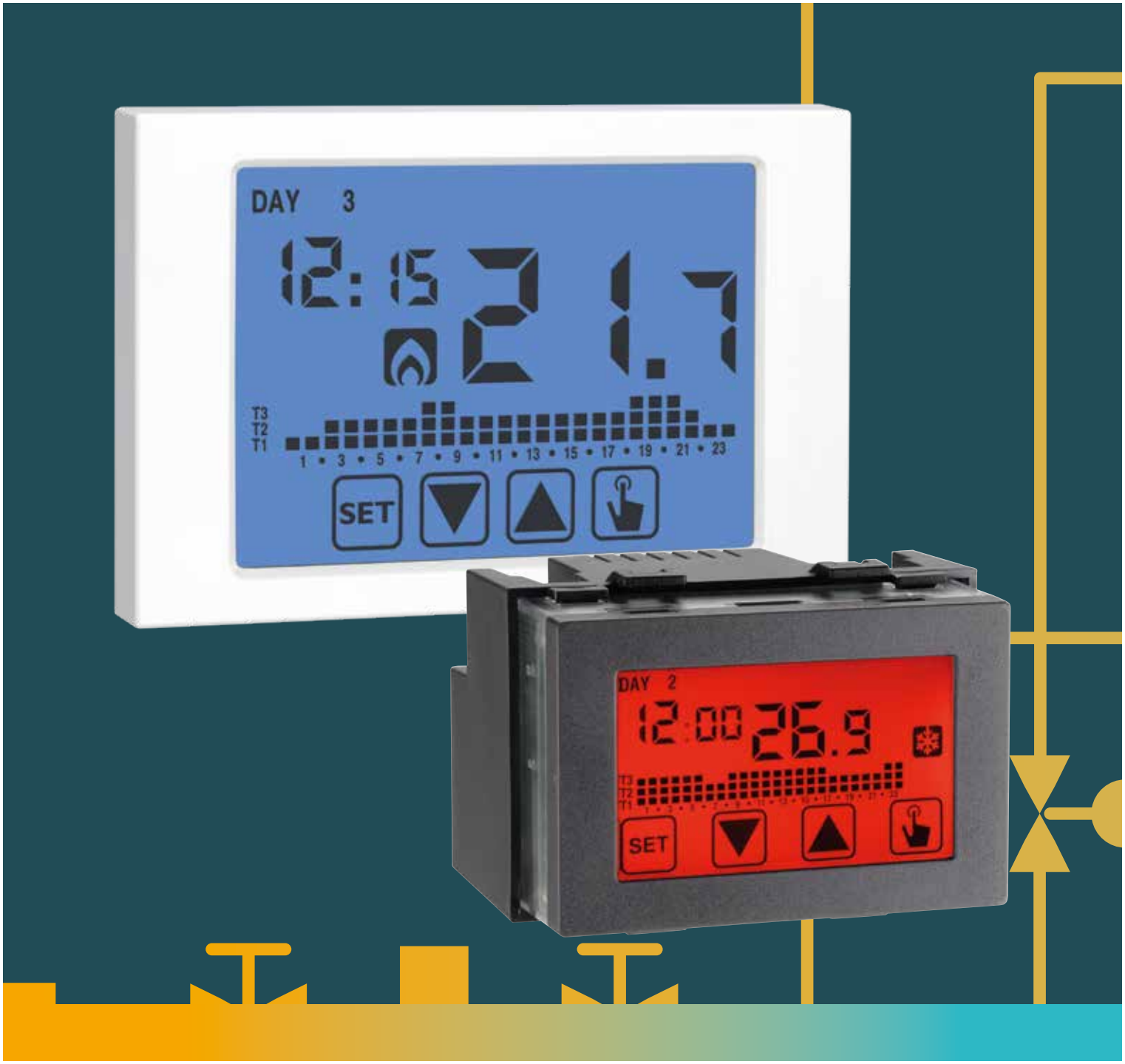
Electric box with safety thermostat for pump cable low temperature

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

Dimension	Pcs. pack	Code	Price €
	1	28130632	70,34

Guidelines for choosing the climatic regulation components to be combined with the pre-assembled groups : Floor Control Unit HE, M3V HE and Modular Firstbox.

Components	Type of application			
	Heating / Cooling with 3-points servomotor		Heating / Cooling with 0-10 Vdc servomotor	
 28139070 - Section 5	1		1	
 PCOC - Section 5		1		1
 28157212 Section 4	1	1		
 28157222 Section 4			1	1
 28130632 - Section 4	1	1	1	1



Regulation and control

WEB

SCAN

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> Radiofrequency actuator  235

> SINTESI Touch screen Chronotermostats and Thermostats  237

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> Wall-mounted touch screen Chronotermostats and Termostats  240

> Termec EVO and Termec room thermostat  242

> Electronic room thermostat  244

> Wall chronothermostat with humidistat  245

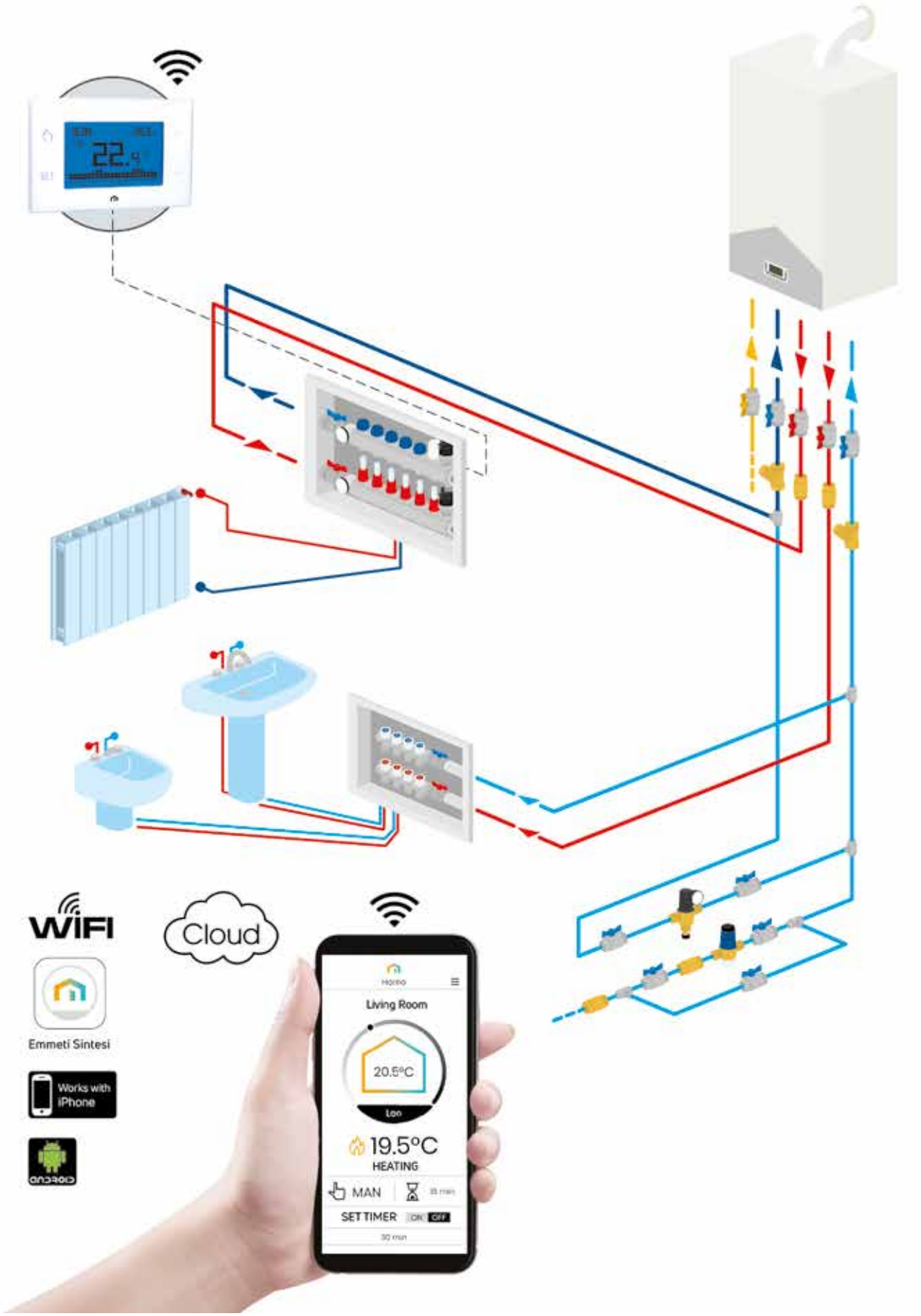
> Wall-mounted electronic humidistat  246

> Radiofrequency thermoregulation  247

> RCE Emmeti Climatic Regulator  253

> PCOC modular climatic regulator  257

Example of installation



SINTESI Wall Wi-Fi

Weekly chronothermostat with Wi-Fi



Electronic chronothermostat with Wi-Fi connection, weekly programming and wall installation, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer).
The free App, available on the AppStore and Google Play, also allows programming and complete control from your Smartphone or Tablet. Any alarm situations are reported by sending an email to the specified address.
The keyboard consists of four touch keys located on the sides of the display.

1 Plastic base for wall installation or cover on 3-module flush-mounted box
2 Large backlit display to view the measured temperature and set programming
3 Backlit touch keys on the sides of the display
4 Terminal block on the back of the device for charging and power connection
5 Built-in Wi-Fi module compatible with standard 802.11 b/g/n

Free Emmeti Sintesi App available for iOS and Android systems

Scarica su App Store

DISPONIBILE SU Google Play

Compatible with Google Home and Amazon Echo

works with the Google Assistant

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Emmeti Sintesi



Technical data
Installation: wall or cover on standard 503 type box
230Vac power supply (-15% ÷ +10%) 50/60Hz, maximum consumption: 6 VA / 230Vac
Relay capacity at 250 Vac: 5 A
Operating mode: summer/winter/off
Control type: ON/OFF or proportional
Differential: 0.1 ÷ 1 °C
Programming: weekly, minimum interval 1 hour
Settable temperatures: 3 + manual + anti-freeze
Settable setpoint: 2 ÷ 50 °C
Measured temperature resolution: 0.1°C
Measurement accuracy: 0.5°C
Antifreeze temperature (excludable): 1 ÷ 50°C
Start-up delay: 15, 30 or 45 minutes
Clock accuracy: ± 1 s/day
Keyboard lock with password to prevent unauthorised changes
Automatic summer/winter time change and automatic date and time synchronisation when connected to the network

Blue backlit touch screen
Operating temperature: 0 ÷ 50 °C
Storage temperature: -10 ÷ 65 °C
Operating humidity: 20% ÷ 90% non-condensing RH
Degree of protection: IP40
Delegated regulation (EU) no. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4; Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

The Emmeti Sintesi App allows you to remotely control the thermostat using your Smartphone or Tablet.
In detail:
- turn on and off the air conditioning system;
- create and change the weekly programs;
- change the operating temperature values;
- simplify programming by copying and pasting a program over several days;
- set holidays when the system remains off;
- configure email address to receive notifications when the measured temperature has exceeded a minimum or maximum value that can be set;
- lock keyboard operation ("local operation lock"), allowing for the device to be controlled only from the App itself.

Dimensions: see section Technical Attachments



Weekly chronothermostat with Wi-Fi

Model	Pcs. pack	Code	Price €
SINTESI Wall Wi-Fi	1	02018146	235,50

SINTESI Wall Wi-Fi with battery

Battery-powered Wi-Fi weekly chronothermostat





Not supplied

Electronic chronothermostat with Wi-Fi connection, with battery power, weekly programming and wall installation, designed for adjusting the room temperature both in heating mode (winter) and in air conditioning mode (summer).
The free app, available on the AppStore and Google Play, allows programming and complete control even from your smartphone or tablet. The energy saving function allows you to set the daily frequency with which the programmable thermostat connects to the cloud, thus optimizing battery life.
Any alarm situations such as exceeding temperature limits or approaching battery discharge are reported by sending an email to the specified address or via notification in the app. The keyboard consists of four touch keys located on the sides of the display.

1. Plastic base for wall installation or to cover the 3-module recessed box
2. Large backlit display for viewing the measured temperature and the set programming
3. Backlit touch keys on the sides of the display
4. Terminal block on the back of the device for connecting the load and power supply
5. ntegrated Wi-Fi module compatible with 802.11 b / g / n standard

Free Emmeti Sintesi App available for iOS and Android systems

Dimensions: see section Technical Attachments

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Compatible with Google Home and Amazon Echo

works with the Google Assistant

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Emmeti Sintesi



Technical data
Fixing: to the wall or to cover on a standard 503 type box
Power supply 4 1.5 V AA alkaline non-rechargeable batteries (not supplied). With standard setting (update every 8 hours) and nominal conditions of the Wi-Fi network, the estimated battery life is 36 months. - Relay capacity at 250 Vac: 5 A
Operating modes: summer / winter / off
Type of regulation: ON / OFF or proportional
Differential: 0.1 ÷ 1 °C
Programming: weekly, minimum interval 1 hour
Settable temperatures: 3 + manual + antifreeze
Settable setpoint: 2÷50 °C - Resolution of measured temperature: 0.1 °C
Measurement accuracy: 0.5 °C
Antifreeze temperature (excludable): 1 ÷ 50 °C
Ignition delay: 15, 30 or 45 minutes
Clock accuracy: ± 1 s / day
Keypad lock with password to prevent changes by unauthorized persons
Automatic change of daylight saving time and automatic synchronization of date and time when connected to the network

Dimensions LxHxP: 130x85x28 mm
Blue backlit touch screen
Operating temperature: 0 ÷ 50 °C
Storage temperature: -10 ÷ 65 °C
Operating humidity: 20% ÷ 90% RH non condensing
Degree of protection: IP40
Delegated regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4; Class IV
- Contribution of the temperature control device to seasonal space heating energy efficiency in%: 2%

The Emmeti Sintesi application allows you to remotely control the thermostat using your smartphone or tablet.
In detail:
- turn on and off the air conditioning system;
- create and modify weekly programs;
- change the values of the operating temperatures;
- simplify programming thanks to the copy-paste of a program over several days;
- set some holiday days in which the system remains off;
- configure e-mail address to receive notifications when the measured temperature has exceeded a minimum or maximum value that can be set;
- block operation from the keyboard ("local operation block"), allowing the device to be controlled only from the App itself. Interval between two connections to the cloud: 10 min - 8 h



Wi-Fi weekly chronothermostat

Model	Pcs. pack	Code	Price €
SINTESI Wall Wi-Fi with battery	1	02018168	235,40

SINTESI Mini Wi-Fi

Built-in weekly chronothermostat with Wi-Fi



Electronic chronothermostat with Wi-Fi connection, weekly programming and installation on a flush-mounted box with a space of only 2 modules, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer).
The free App, available on AppStore and Google Play, allows programming and full control from your Smartphone or Tablet.
Any alarm situations are reported by sending an email to the specified address.

1. Installation on flush-mounted boxes with a height of 45 mm
2. Adapters supplied to install the device with the plates of the main civil series
3. White LED display for temperature display and red LED for status indication
4. Terminal block on the back of the device for charging and power connection
5. Built-in Wi-Fi module compatible with 802.11 b/g/n

Free Emmeti Sintesi App available for iOS and Android systems

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Compatible with Google Home and Amazon Echo

works with the Google Assistant

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Emmeti Sintesi



Technical data
Installation: flush-mounted with only 2 modules in the box type 503
230Vac power supply (-15% ÷ +10%) 50/60Hz, maximum consumption: 6 VA / 230Vac
Relay capacity at 250 Vac: 5 A - Operating mode: summer/winter/off
Control type: ON/OFF or proportional - Differential: 0.1 ÷ 1 °C
Programming: weekly, minimum interval 1 hour
Settable temperatures: 3 + manual + anti-freeze
Settable setpoint: 2 ÷ 50 °C - Measured temperature resolution: 0.1°C
Measurement accuracy: 0.5°C
Antifreeze temperature (excludable): 1 ÷ 50°C
Start-up delay: 15, 30 or 45 minutes - Clock accuracy: ± 1 s/day
Automatic summer/winter time change and automatic synchronisation of date and time when connected to the network
Emergency control with manual operation and setting of the setpoint using the button on the device in case of lack of Wi-Fi connection
Operating temperature: 0 ÷ 50 °C - Storage temperature: -10 ÷ 65 °C
Operating humidity: 20% ÷ 90% non-condensing RH
Degree of protection: IP40
Delegated regulation (EU) no. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4; Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

The Emmeti Sintesi App allows you to remotely control the thermostat using your Smartphone or Tablet.
In detail:
- turn on and off the air conditioning system;
- create and change the weekly programs;
- change the operating temperature values;
- simplify programming by copying and pasting a program over several days;
- set holidays when the system remains off;
- configure email address to receive notifications when the measured temperature has exceeded a minimum or maximum value that can be set;
- lock keyboard operation ("local operation lock"), allowing for the device to be controlled only from the App itself.

Adaptors included for use with the following plates:
ABB: Mylos
AVE: S44
BTICINO: Axolute, Axolute AIR, Light, Living International, LivingLight, LivingLight AIR, Matrix
GEWISS: Chorus
VIMAR: Arkè, Eikon, Eikon Evo, Plana

Dimensions: see section Technical Attachments



Built-in weekly chronothermostat with Wi-Fi

Model	Pcs. pack	Code	Price €
SINTESI Mini Wi-Fi	1	02018150	245,90

Available on request

SINTESI Wall Wi-Fi RF

Weekly chronothermostats with Wi-Fi and radio frequency



Electronic chronothermostat with Wi-Fi connection and radio frequency module, weekly programming and wall installation, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer).
The free App, available on the AppStore and Google Play, also allows programming and complete control from your Smartphone or Tablet. Any alarm situations are reported by sending an email to the specified address.
The heat generator can be activated by means of a remote actuator (controlled by sending a radio frequency signal), or by cable (thanks to the on-board relay).
The keyboard consists of four touch keys located on the sides of the display. The display backlight colour can be customised by the user.

1. Plastic base for wall installation or cover on 3-module flush-mounted box
2. Large backlit display to view the measured temperature and humidity and set programming
3. Backlit touch keys on the sides of the display
4. Terminal block on the back of the device for charging and power connection
5. Built-in Wi-Fi module compatible with standard 802.11 b/g/n
6. Built-in radio frequency module to send control signals to the remote actuators

Free Emmeti Sintesi App available for iOS and Android systems

Scarica su App Store

DISPONIBILE SU Google Play

Compatible with Google Home and Amazon Echo

works with the Google Assistant

WORKS WITH amazon alexa

Emmeti Sintesi



Technical data
Installation: wall or cover on standard 503 type box
230Vac power supply (-15% ÷ +10%) 50/60Hz, maximum consumption: 6 VA / 230Vac - Relay capacity at 250 Vac: 5 A
Operating mode: summer/winter/off
Control type: ON/OFF, proportional or setpoint sending for autonomous management of the radio frequency actuator
Differential: 0.1 ÷ 1 °C - Programming: weekly, minimum interval 1 hour;
Settable temperatures: 3 + manual + anti-freeze
Settable setpoint: 2 ÷ 50 °C
Measured temperature resolution: 0.1°C
Measurement accuracy: 0.5°C
Antifreeze temperature (excludable): 1 ÷ 50°C
Start-up delay: 15, 30 or 45 minutes - Clock accuracy: ± 1 s/day
Relative humidity display: range 20÷90%
Keyboard lock with password to prevent unauthorised changes
Automatic summer/winter time change and automatic date and time synchronisation when connected to the network
Operating temperature: 0 ÷ 50 °C - Storage temperature: -10 ÷ 65 °C
Operating humidity: 20% ÷ 90% non-condensing RH
Degree of protection: IP40

Touch screen with configurable backlight: always off, colour of choice between 48 possible shades or variable between red, green and blue depending on the difference between the measured temperature and the set temperature.
Compatible with both DIN bar and chronothermostatic radio frequency actuators for thermostatic valves
Maximum distance between SINTESI WALL WI-FI RF and radio frequency actuator: 50 metres in free range
Delegated regulation (EU) no. 811/2013; annex IV-3:
- Class of temperature control device: Class 4; Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

The Emmeti Sintesi App allows you to remotely control the thermostat using your Smartphone or Tablet.
In detail:
- turn on and off the air conditioning system;
- create and change the weekly programs;
- change the operating temperature values;
- simplify programming by copying and pasting a program over several days;
- set holidays when the system remains off;
- configure email address to receive notifications when the measured temperature has exceeded a minimum or maximum value that can be set;
- lock keyboard operation ("local operation lock"), allowing for the device to be controlled only from the App itself.

Dimensions: see section Technical Attachments



Weekly chronothermostat with Wi-Fi and radio frequency

Model	Pcs. pack	Code	Price €
SINTESI Wall Wi-Fi RF	1	02018148	514,80

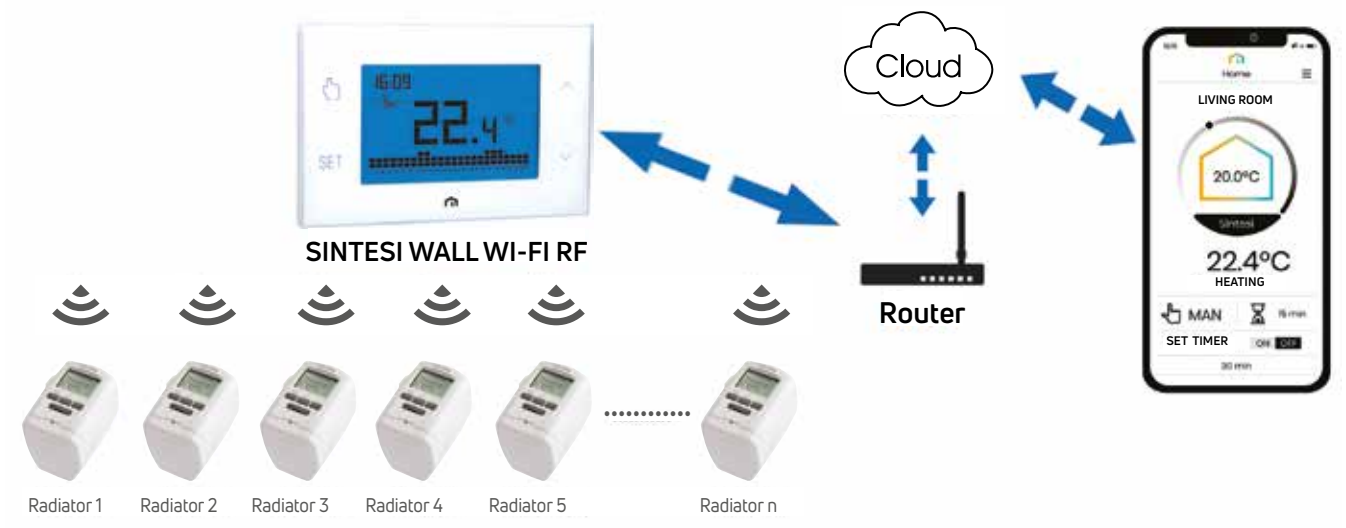
Item available on request



Electronic radio frequency programmable thermostatic actuator for radiator valves

Description	Pcs. pack	Code	Price €
Electronic radio frequency programmable thermostatic actuator for radiator valves	1	02018094	156,30

Can be combined with: Tris 3 thermostatic valves, Full and Poker thermostatic and manual valves, 3/4" and 1" thermostatic valves.



SINTESI chronothermostat

Weekly chronothermostat with touch screen



Electronic chronothermostat with backlit touch screen display, weekly programming
and wall installation, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer).
The keyboard consists of four icons located in the lower part of the touch screen display.
Available in mains or battery powered versions

1 Plastic base for wall installation or cover on 3-module flush-mounted box.
2 Large backlit display to view the measured temperature and set programming
3 Touch-screen keyboard in the lower part of the display
4 Terminal block on the back of the device for charging and power connection (230 Vac version) or external contact (battery version).
5 Frame

Dimensions: see section Technical Attachments

Technical Data
Installation: wall or cover on standard 503 type box
Operating mode: summer/winter/off
Control type: ON/OFF or proportional
Differential: 0.1 ÷ 1 °C
Programming: weekly, minimum interval 1 hour
Settable temperatures: 3 + manual + anti-freeze
Settable setpoint: 2 ÷ 50 °C
Measured temperature resolution: 0.1°C
Measurement accuracy: 0.5°C
Antifreeze temperature (excludable): 1 ÷ 50°C
Start-up delay: 15, 30 or 45 minutes
Clock accuracy: ± 1 s/day
Keyboard lock with password to prevent unauthorised changes
Operating temperature: 0 ÷ 50 °C
Storage temperature: -10 ÷ 65 °C
Operating humidity: 20% ÷ 90% non-condensing RH
Degree of protection: IP40
Delegated regulation (EU) no. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4; Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

Electrical data of version with 230 V power supply
230Vac power supply (-15% ÷ +10%) 50/60Hz, maximum consumption: 6 VA / 230Vac
Touch screen with multi-colour backlighting (can be deactivated)
Relay capacity at 250 Vac: 5 A

Electrical data of battery powered version
Battery powered: 2x1.5 V alkaline (type AAA) not supplied, 12 months autonomy
Touch screen with blue backlight active when keys are pressed
Relay capacity at 250 Vac: 5 A
Configurable digital input for connection of an external contact with which to reduce the set temperature by 3°C.



SINTESI chronothermostat

Model	Pcs. pack	Code	Price €
Chronothermostat SINTESI 230 V	1	02018152	193,40
Chronothermostat SINTESI with battery	1	02018154	193,40

SINTESI Thermostat

Touch screen thermostat



Electronic thermostat with backlit touch screen with wall installation, designed for room temperature control both in heating mode (winter) and in air conditioning mode (summer). The keyboard consists of two icons located in the lower part of the touch screen display. Available in mains or battery powered versions.

1 Plastic base for wall installation or cover on 3-module flush-mounted box.
2 Large backlit display to view the measured temperature
3 Touch-screen keys in the lower part of the display
4 Terminal block on the back of the device for charging and power connection (230 Vac version) or external contact (battery version).
5 Frame.

Dimensions: see section Technical Attachments

Technical Data
Installation: wall or cover on standard 503 type box
Operating mode: summer/winter/off
Control type: ON/OFF or proportional
Differential: 0.1 ÷ 1 °C
Settable setpoint: 2 ÷ 50 °C
Measured temperature resolution: 0.1°C
Measurement accuracy: 0.5°C
Antifreeze temperature (excludable): 1 ÷ 50°C
Keyboard lock with password to prevent unauthorised changes
Operating temperature: 0 ÷ 50 °C
Storage temperature: -10 ÷ 65 °C
Operating humidity: 20% ÷ 90% non-condensing RH
Degree of protection: IP40
Delegated regulation (EU) no. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4; Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of room heating in %: 2%

Electrical data of version with 230 V power supply
230Vac power supply (-15% ÷ +10%) 50/60Hz, maximum consumption: 6 VA / 230Vac
Touch screen with multi-colour backlighting (can be deactivated)
Relay capacity at 250 Vac: 5 A

Electrical data of battery powered version
Battery powered: 2x1.5 V alkaline (type AAA) not supplied, 12 months autonomy
Touch screen with blue backlight active when keys are pressed
Relay capacity at 250 Vac: 5 A
Configurable digital input for connection of an external contact with which to reduce the set temperature by 3°C.



SINTESI Thermostat

Model	Pcs. pack	Code	Price €
SINTESI Thermostat 230 V	1	02018156	151,60
SINTESI Thermostat with battery	1	02018158	151,60

Smarty

Touch Screen backlight thermostats



Technical data Chronothermostat with daily programming
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
Display with backlight
Partial recessed (230 V mod.) or covered fastening (battery mod.) in a standard 503 box.
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 1: Class I
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

Technical data of ambient Thermostat with manual control
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.
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 1: Class I
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

Technical data of Thermostat 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
Display with backlight
Partial recessed (230 V mod.) or covered fastening (battery mod.) in a standard 503 box.
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 1: Class I
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

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.

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.

Dimensions: see section Technical Attachments

Touch Screen backlight thermostats



Smarty weekly touch screen backlight chronothermostat

Model	Pcs. pack	Code	Price €
Wall backlight chronothermostat with battery power supply (*)	1	01514220	123,70
Semi-recessed backlight chronothermostat with 230 V power supply (*)	1	01514222	134,10

(*) Items to be out of stock



Touch Screen backlight thermostat with daily programming

Model	Pcs. pack	Code	Price €
Wall backlight thermostat with daily programming and battery power supply (*)	1	01514226	118,80
Semi-recessed backlight thermostat with daily programming and 230 V power supply (*)	1	01514224	128,10

(*) Items to be out of stock



Manually room backlight thermostat touch screen

Model	Pcs. pack	Code	Price €
Wall backlight thermostat with battery power supply (*)	1	01514230	114,00
Semi-recessed backlight thermostat with 230 V power supply (*)	1	01514228	122,50

(*) Items to be out of stock

Touch screen chronothermostat with weekly programming for recessed installation



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
- Backlight 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, Arké

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 / integral
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
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4: Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%

Dimensions: see section Technical Attachments



Recessed touch-screen chronothermostat

Model	Pcs. pack	Code	Price €
230 V	1	02018086	238,00
Battery	1	02018088	229,50
BTicino LivingLightAir plate adapter	1	01306296	6,64

Touch-screen electronic thermostats for recessed installations



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
- Backlight 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, Arké

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
Type of adjustment: ON/OFF and proportional / integral
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
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4: Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%

Dimensions: see section Technical Attachments



Recessed touch-screen thermostat

Model	Pcs. pack	Code	Price €
230 V	1	02018082	182,10
Battery	1	02018084	182,10
BTicino LivingLightAir plate adapter	1	01306296	6,64

Termec EVO

Room thermostat



Technical data
Gas espansion sensible element
Temperature limiting/blocking device
Protection class: IP 20
Contact's rating at 250 V: 16 (2,5) A or 10 (1,5) A (dependent of the model)
Temperature range: from 5 to 30 °C
Temperature differential: DT ≤ 1°C
Thermal gradient: 1°C/ 15 min
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 1: Class I
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

Dimensions: see section Technical Attachments



Termec EVO thermostat

Model	Pcs. pack	Code	Price €
3 contacts	1	02018160	24,10
3 contacts with light	1	02018162	25,40
3 contacts with light + on/off switch	1	02018164	28,66
2 contacts with light + summer / winter switch	1	02018166	30,05

Room thermostat



Technical data
Saturated steam expansion sensing element
Temperature limiting/locking mechanism
Degree of protection: IP20
Contact capacity: 10 (2.5) A - 250 V
Temperature regulation: from 5 to 30 °C
Tripping differential: 1.4 °C (4 °C/h)
Dimensions: 90 x 90 x 40mm
Weight from: 130 to 145 gr
Frost protection
Double insulation
Delegated regulation (EU) n. 811/2013; annex IV-3:
- Temperature control device class: Class 1; Class I
- Contribution of the temperature control device to the seasonal space heating energy efficiency in %: 1%



Termec Room mechanical thermostat

Model	Pcs. pack	Code	Price €
3 contacts with light + switch independent (*)	1	02001016	27,18

(*) Item to be out of stock

Thermostats



Electronic room thermostat



Electronic room thermostat

Power supply: 230 Vac 50 Hz
Temperature adjustment: from 6 to 30 °C
Range temperature: 0÷40 °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
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 1: Class I
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1%

Model	Pcs pack	Code	Price €
With summer/winter switch	1	02018046	62,91

Thermostats for fancoils



Contact thermostat for fan-coil

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

Model	Pcs. pack	Code	Price €
	1	02012030	12,04

Chronothermostat with humidistat



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
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4: Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%

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

Dimensions: see section Technical Attachments



Chronothermostat with humidistat for wall-mounted

Dimension	Pcs. pack	Code	Price €
	1	02018090	338,30

Humidistat

Recessed humidistat





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, Mylos
AVE: S44
BTICINO: Axolute, Light, Light tech, Living, Livinglight, Livingligjt Air, Matrix
GEWISS: Chorus
VIMAR: Eikon, Eikon Evo, Idea, Plana, Arké

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: ± 2.5%
Operating temperature: 0 °C - 50 °C
Storage temperature: -10 °C - 60 °C
Protection rating: IP40 front

Dimension	Pcs. pack	Code	Price €
	1	28154581	208,10

Dimensions: see section Technical Attachments

Radio frequency thermoregulation

Radio frequency touch screen weekly programmable chronothermostat



Radio frequency touch screen weekly programmable chronothermostat to be combined with the radio frequency programmable chronothermostat actuators for radiator valves; this allows to control one or more radiators.

1 Plastic base for wall-mounting or covering the box 503
2 Wide backlit touch screen display to view the operating status, time, day and temperature measured
3 Touch screen keyboard to program the device

General features
Power supply: 2 x 1,5 V (type AAA)
Power reserve (to change batteries): 1 minute
Autonomy: 12 months (with low battery indication, estimated but not guaranteed)
Summer/Winter mode
Automatic programming with:
- 7 programs for winter operation (changeable)
- 7 programs for summer operation (changeable)
Temperature adjustment ON/OFF or proportional
5 settable temperatures:
- T1, T2, T3 in automatic mode
- Tm in manual mode
- Toff in off mode (anti-freeze temperature, excludable)
Minimum adjustment interval: 1 hour
Communication delay settable between 15, 30 or 45 minutes (independent for each hour)
Keylock with password
Summer/winter time change automatic
Open window detection function
Display with blue backlight (active at the touch of a button)

Technical data
Battery powered: 2x1,5 V battery (type AAA) (not supplied)
Fixing: wall mounting
Weekly programming
Operating mode: summer / winter / off
Type of control: ON / OFF or proportional or setpoint sending for autonomous management of the radiofrequency actuator
Differential: 0,1 ÷ 1 °C
Temperature settings: 3 + manual + antifreeze
Setting setpoing: 2 ÷ 35 °C
Measured temperature resolution: 0,1 °C
Measurement precision: 0,5 °C
Antifreeze temperature (excluded): 1 ÷ 10 ° C
programming resolution: 1 hour
Ignition delay: 15, 30 or 45 minutes
Watch accuracy: ± 1 / day
Maximum distance between radiofrequency chronothermostat and actuator: 50 meters in free field
Operating temperature: 0 ÷ 50 °C
Storage temperature: -10 ÷ 65 °C
Operating humidity: 20% to 90% RH non-condensing
Degree of protection: IP40
Delegated Regulation (EU) No. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4; class IV
- Contribution of the temperature control device to the energy efficiency of ambient heating season in%: 2%

Dimensions: see section Technical Attachments



Radio frequency programmable chronothermostat

Description	Pcs. pack	Code	Price €
Radio frequency programmable thermostat	1	02018144	195,10

1-channel DIN rail radio frequency actuator with fixed delay



1-channel DIN rail radio frequency actuator with fixed delay

Radio frequency actuator that receives the actuation command directly from the Emmeti electronic radio frequency chronothermostat, operating as a normal remote actuator, installed on a DIN rail for boiler management, for example. Actuation occurs 5 minutes after the actuator has received the command from the chronothermostat.

1 Green LED indicating the operating status
2 Red LED indicating the relay status
3 SET button for programming and resetting the channel

Technical data

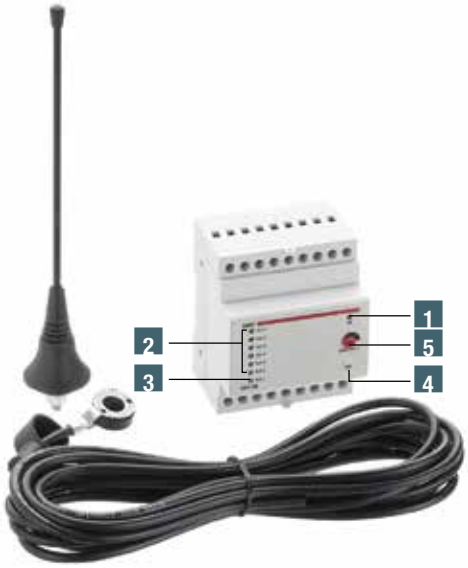
Power supply: 230 Vac (-15%/+10%) 50/60 Hz
Outputs:
- 1 relay with 8A 250 Vac changeover contact with resistive load
- Activation with a fixed delay of 5 minutes after receiving the command from the Emmeti radio frequency chronothermostat, and instantaneous deactivation
- Connection to an external antenna (optional)

Maximum distance between radiofrequency chronothermostat and actuator: 50 meters in free field.
Operating temperature: 0 ÷ 50 °C - Storage temperature: -10 ÷ 65 °C
Installation on DIN rail - Measurement: 2 DIN modules - Protection degree: IP40
Compliant with EU Directives:
- Low voltage (LVD)
- Electromagnetic compatibility (EMC)

Dimension	Pcs. pack	Code	Price €
2 DIN modules	1	02018124	139,70

Dimensions: see section Technical Attachments

6-channel DIN rail radio frequency actuator, with additional contact with settable delay



6-channel DIN rail radio frequency actuator, with additional contact with settable delay

Electronic 6-channel radio frequency actuator, each channel can receive the actuation command directly from an Emmeti radio frequency chronothermostat.
The actuator operates as a normal remote actuator, installed on a DIN rail for boiler management, for example.
Actuation of additional contact occurs after a set time (from 3 seconds to 5 minutes) from the moment at least one channel of the actuator has received the first command from an Emmeti radio frequency chronothermostat paired with the corresponding channel.

1 Green LED indicating the device status (power on)
2 Red LEDs indicating the outputs status (1-6)
3 Yellow LED indicating the output status (7)
4 SET button for programming and resetting the channels
5 Trimmer for setting relay 7 switching delay

Technical data

Power supply: 230 Vac (-15%/+10%) 50/60 Hz
Absorption: 3 W (8VA)
Outputs:
- 6 relays with 5A / 250 Vac contact normally open
- 1 relay with 5A / 250 Vac contact normally open with delay
- external antenna (standard)
- connection to an external antenna (optional)

Switching delay of relay 7 that can be set between 3 seconds and 5 minutes with the trimmer
Maximum distance between radiofrequency chronothermostat and actuator: 50 meters in free field
Cable terminals with a maximum cross-section of 6 mm^2
Operating temperature: 0 ÷ 50 °C - Storage temperature: -10 ÷ 65 °C
Operating humidity: 20 ÷ 90% non-condensing
Installation on DIN rail - Measurement: 4 DIN modules - Protection degree: IP20
Insulation: reinforced between front and all other terminals
Combinable with electrothermal heads (230 cvac or 24 Vac) in the Normally Closed version
Compliant with EU Directives:
- Low voltage (LVD)
- Electromagnetic compatibility (EMC)

Dimension	Pcs. pack	Code	Price €
4 DIN modules	1	02018126	447,10

Dimensions: see section Technical Attachments

Antenna for DIN rail radio frequency actuators



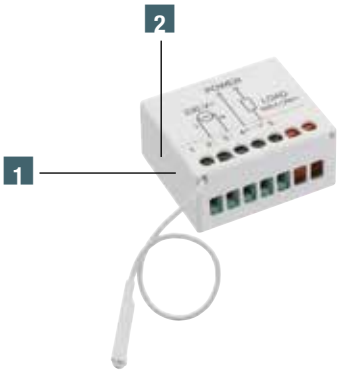
Antenna for DIN rail radio frequency actuators

Technical data

Frequency range: 433.92 ± 10 Mhz - Input impedance: 50 ohm - Cable length: 4.5 metres

Dimension	Pcs. pack.	Code	Price €
	1	02018128	90,60

Built-in radio frequency actuator



Built-in radio frequency actuator

Radio frequency actuator that receives the actuation command directly from the Emmeti radio frequency chronothermostat, operating as a normal remote actuator.
The actuator is installed flush in any civil electrical box (for example 503) with the possibility of managing a load, such as an electric radiator.

1 Button for channel configuration
2 Green/red LED indicating the operating status

Technical data

Power supply: 230 V AC (-15%/+10%) 50/60 Hz
Output: bistable relay with capacity of 16(8)A / 250Vac
Maximum distance between radiofrequency chronothermostat and actuator: 50 meters in free field
Operating temperature: 0°C ÷ 40°C
Storage temperature: -10°C ÷ 70°C
Enclosure: suitable for built-in box (occupies the space of a module)
Protection rating: IP20
Combinable with electrothermal heads (230 Vac or 24 Vac) in the Normally Closed version
Compliant with Community Directives:
- Low voltage (LVD)
- Electromagnetic compatibility (EMC)

Dimension	Pcs. pack	Code	Price €
	1	02018130	152,00

Dimensions: see section Technical Attachments page 487

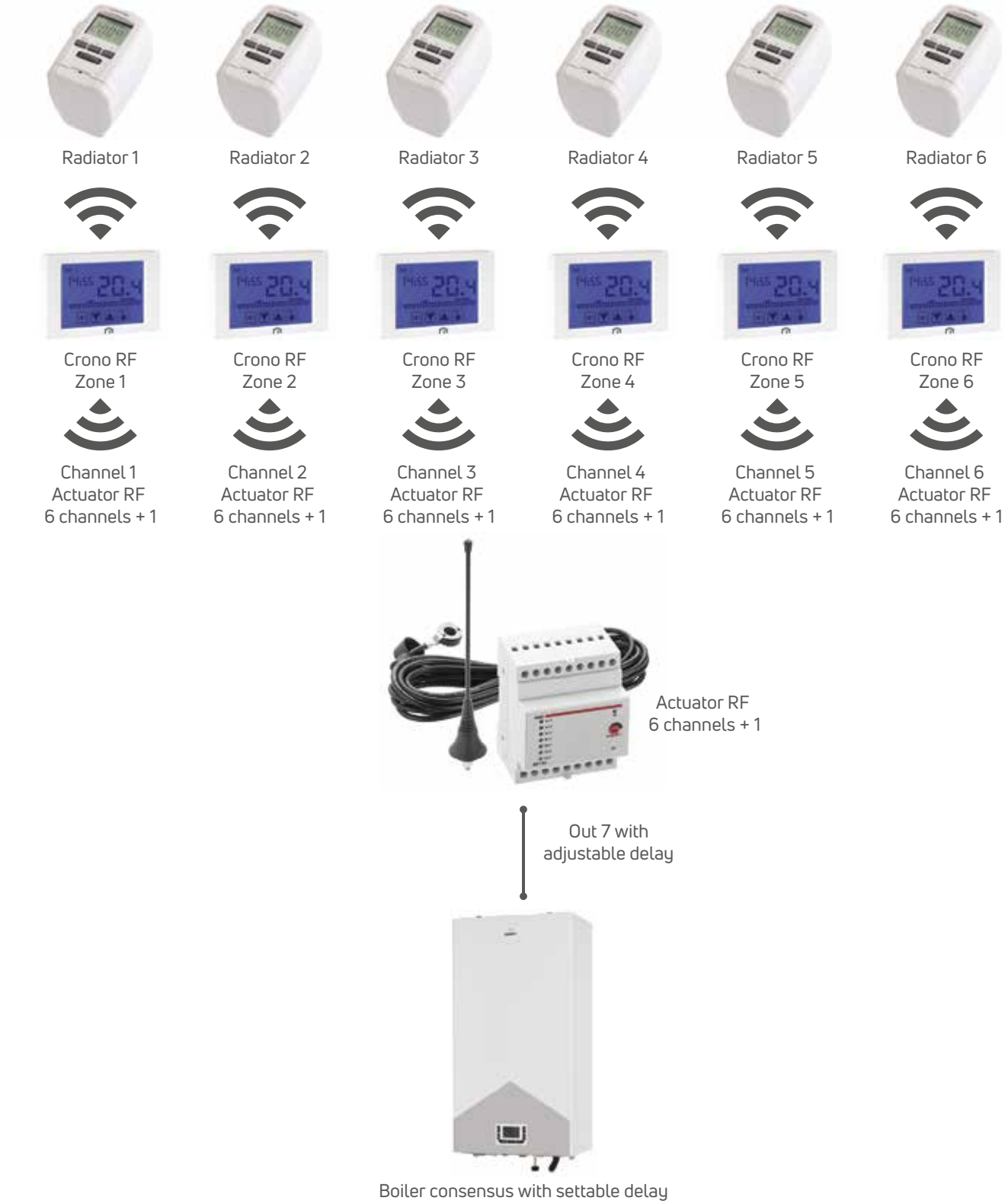
Radio frequency chronothermostat pairing to various radio frequency actuators

Configurations	Radio frequency chronothermostat Code 02018144	Electronic radio frequency thermostatic actuator for radiator valves code 02018094	1-channel DIN rail radio frequency actuator with fixed delay code 02018124	6-channel DIN rail radio frequency actuator, with additional contact with settable delay code 02018126	Built-in radio frequency actuator code 02018130
					
1: autonomous multi-zone radiator system (up to 6 zones)	up to 6	n for each chronothermostat		1	
2: autonomous system multi-zone type (up to 6 zones) in which the zone they are interceptable in one single point, for example with electrohermic heads installed on a collector	up to 6			1	
3: autonomous system of monozone type	1		1		
4: remote management of an electric radiator	1				1

n: maximum number of chronothermostat actuators that can be paired with a radio frequency chronothermostat. The limit is given by the distance.
For the configurations, see the diagrams on the next pages.

Configuration 1

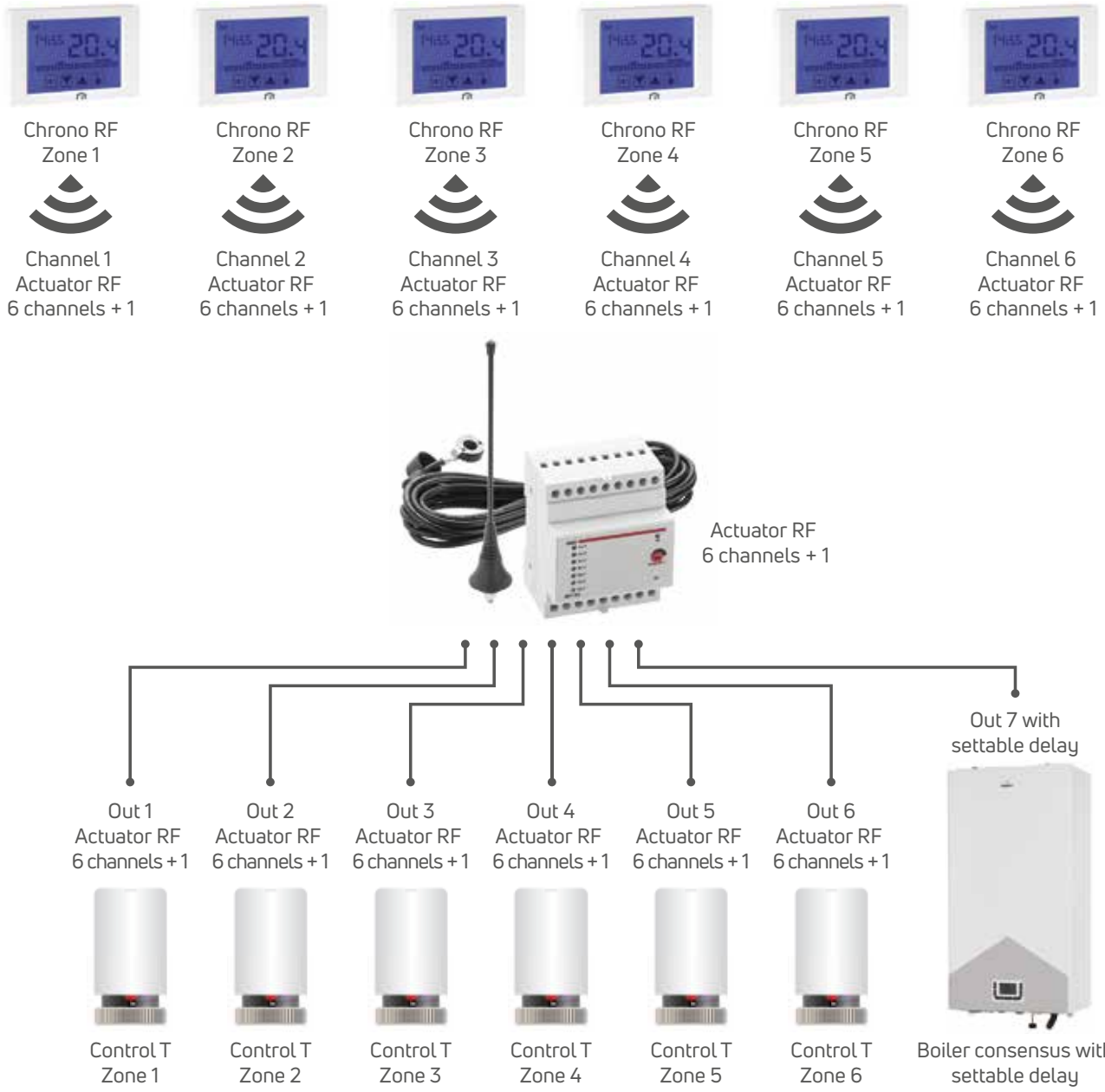
Radio frequency chronothermostat + radio frequency chronothermostat actuators + 6-channel DIN rail radio frequency actuator, with additional contact with settable delay



Use: autonomous system with multi-zone radiators (up to 6 zones)

Configuration 2

Radio frequency chronothermostat + 6-channel DIN rail radio frequency actuator, with additional channel with settable delay



Use: autonomous multi-zone system (up to 6 zones) where the zones can be intercepted in a single point, for example with electrothermic heads installed on a manifold

Configuration 3

Radio frequency chronothermostat + 1-channel DIN rail radio frequency actuator with fixed delay

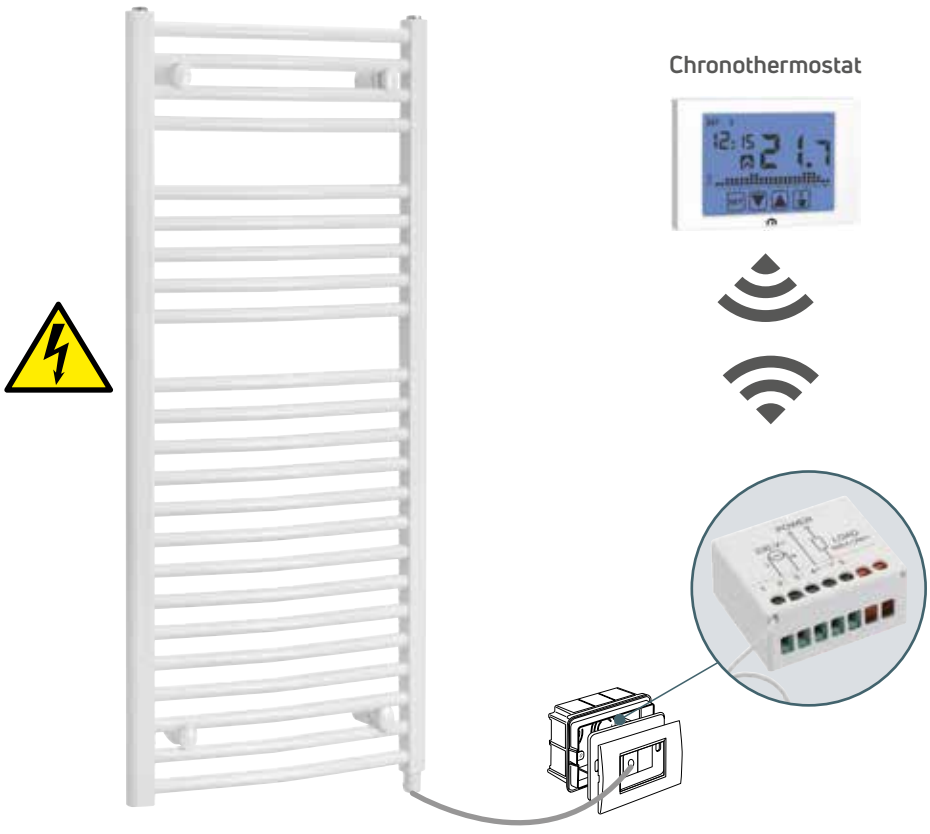


(*) RF actuator from DIN bar for boiler consent with 5 minutes delay.

Use: autonomous single-zone system

Configuration 4

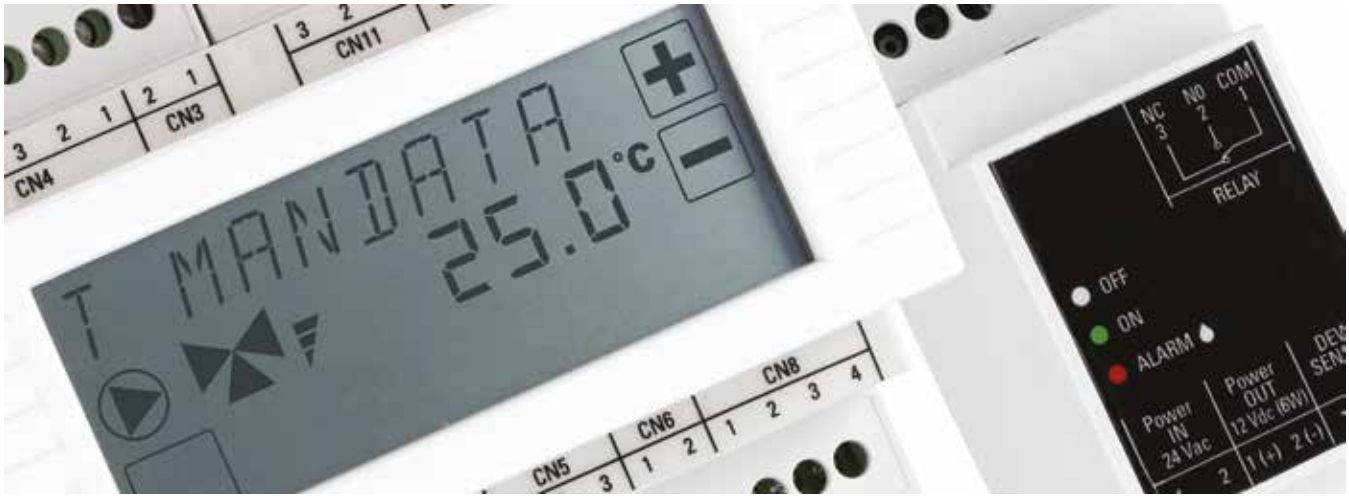
Radio frequency chronothermostat + built-in radio frequency actuator



Use: remote management of an electric radiator

RCE - Emmeti Climatic Regulator

RCE - Emmeti Climatic Regulator for mixing units



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

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 ±10%; 50/60 Hz - Double insulation - Contact capacity: 5 A / 230 Vac - Protection rating IP20 - Connected to DIN (EN 60715) guide 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
Delegated Regulation (EU) n. 811/2013; annex IV-3:

- Class of the temperature control device: Class 3: Class III
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 1.5%

Inputs and outputs climate Regulator

2 analogic inputs for NTC temperature probes (flow temperature, return/external temperature), 4 digital inputs free of voltage (heating/cooling/dehumidification consensus, change of season, remote on/off, alarms).
1 digital output for the circulator, 1 digital output for the generator consensus, 1 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; 10KΩ 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

Dimension	Pcs. pack	Code	Price €
	1	28139070	390,80

Dimensions: see section Technical Attachments

Accessories for Emmeti Climatic Regulator for mixing units



Dew sensor

Power supply: 15 Vdc ±10% - RH% of intervention: 90-95%

Dimension	Pcs. pack	Code	Price €
	1	28139078	114,90

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.

Dimensions: see section Technical Attachments



Converter for dew sensor

Power supply: 24 Vac ±10%; 50/60 Hz - Max. consumption 4.5 W -Contact capacity: 5 A / 230 Vac - Protection rating: IP20 - Connected to DIN (EN 60715) guide in according to standards DIN 43880 - Converter material: Self-extinguishing PPO - Converter colour: RAL 7035 grey - Dimensions: 2 DIN modules (95 x 35 x 58 mm).

Dimension	Pcs. pack	Code	Price €
(*)	1	28139074	122,50

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.

(*) Items to be out of stock

Dimensions: see section Technical Attachments

RCE - Emmeti Climatic Regulator for mixing units



Transformer 230/24V 10 VA

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

Dimension	Pcs. pack	Code	Price €
2 DIN modules	1	28139130	42,78

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).

Dimensions: see section Technical Attachments



Socket for immersion type water sensor

Dimension	Pcs. pack	Code	Price €
G 1/4", L=83 mm	1	28153220	53,78

Dimensions: see section Technical Attachments



Housing for external probe

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

Dimension	Pcs. pack	Code	Price €
	1	28139076	22,76

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



Probe holders kit

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

Dimension	Pcs. pack	Code	Price €
	1	01306294	7,75

Dimensions: see section Technical Attachments



DIN rail kit for RCE

DIN rail installation kit for RCE components (controller, converter, transformer). Consisting of two guides omega DIN 35x7.5 mm, L = 80 mm and 4 screws.

Dimension	Pcs. pack	Code	Price €
	1	01301242	7,10



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, Mylos
AVE: S44
BTICINO: Axolute, Light, Light tech, Living, Livinglight, Livingligjt Air, Matrix
GEWISS: Chorus
VIMAR: Eikon, Eikon Evo, Idea, Plana, Arké

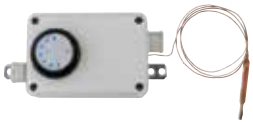
Technical data:
Power supply: 230 VAC 50-60 Hz - Consumption: 4 VA (0.7 W) - Contact capacity 250 VAC: 5 A - Adjustment range: 30% - 90% - Differential: ± 2.5% - Operating temperature: 0 °C - 50 °C - Storage temperature: -10 °C - 60 °C - Protection rating: IP40 front

Dimension	Pcs. pack	Code	Price €
	1	28154581	208,10

Dimensions: see section Technical Attachments

RCE - Emmeti Climatic Regulator for mixing units

RCE Climate control unit selection guide

Components	Type of application				
	 Floor Control Unit HE Section 4	 Mixing Unit M3V HE-V Section 4	 Firstbox Section 4	 Modular Firstbox Section 4	 3-ways mixing valve Section 11
 28139070 - Section 5	1	1	1	1	1
 28157212 or 28157222 - Section 4	1	1	1	1	
 28130208 or 28130314 [2] or 28130316 [3] - Section 11					1
 28130084 [1] - Section 11					1
 28130632 - Section 4	1	1	1	1	
 02012038 - Section 11					1
 28153220 [4] - Section 5					1

[1] Code 28130084: to be combined with the three-way mixer valves codes 28130218, 28130220, 28130222.
[2] Code 28130314: Can be used in combination with three-way mixing valves for electronic adjustment kits with codes 28130210 - 28130214 - 28130316.
[3] Code 28130216: Can be used in combination with three-way mixing valves for electronic adjustment kits with codes 28130210 - 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.

Climatic thermoregulation modular system



PCOC controller

Power supply 24 Vac +10/-15% 50/60 Hz and 48 Vdc (36 V min...72 v max)
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
Can be combined with normally closed electrothermal heads
Index of protection IP20, IP40 only in front panel only
DIN rail mounting according to 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

Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 7. Class VII
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 3.5 %.

Model	Pcs. pack	Code	Price €
PCOC Controller with user terminal	1	28154142	1.160,00
PCOC Controller for external user terminal (*)	1	28154132	1.013,00
Screw type connector kit PCOC	1	28154150	38,43

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

Dimensions: see section Technical Attachments



Remote terminal with display

Maximum distances
Maximum length of pLAN network: 500 m with AWG22 shielded pair cable
PCOC 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 mt.
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.

Model	Pcs. pack	Code	Price €
Large terminal with surrond	1	28154171	623,60

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.

Dimensions: see section Technical Attachments



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 only in front panel only
DIN rail mounting according to 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

Model	Pcs. pack	Code	Price €
PCOE Module (*)	1	28154261	371,60
Screw type connector kit PCOE	1	28154270	49,50

(*) 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)

Dimensions: see section Technical Attachments

Climatic thermoregulation



Room sensor temperature - humidity bus recessed with display

230Vac power supply model: 230 Vac (+10 -15%) 50/60 Hz
24VAC power model: 24 Vac (+10 -15%), 22 - 35 Vdc
Cable section: 0.5 mm² - 1.5 mm²
Maximum consumption: 2 VA
Operating conditions: -10T60 ° C, 10-90% RH
Protection degree: IP20
Accuracy of temperature measurement: range 0T40 ° C ± 1 ° C; over: ± 1.5 ° C
Connections: Serial 485: AWG 20-22, shielded cable, Lmax = 500 m
Note: To mount the rear must be at least a concealed housing Ø 65 mm and 31 mm depth

Model	Pcs. pack	Code	Price €
Room temperature sensor bus 24Vac	1	28154331	228,50
Room temperature and humidity sensor bus 24Vac	1	28154341	302,80
Room temperature sensor bus 230Vac	1	28154351	262,30
Room temperature and humidity sensor bus 230 Vac	1	28154361	339,00

Dimensions: see section Technical Attachments



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 with12 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

Model	Pcs. pack	Code	Price €
Temperature sensor	1	28153181	78,46
Temperature and humidity sensor	1	28153191	303,50

Dimensions: see section Technical Attachments



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

Dimension	Pcs. pack	Code	Price €
	1	28153201	114,80

Dimensions: see section Technical Attachments



Flow temperature sensor

Dimension	Pcs. pack	Code	Price €
	1	28153210	34,24

Dimensions: see section Technical Attachments



Socket for immersion type water sensor

Dimension	Pcs. pack	Code	Price €
G 1/4", L=83 mm	1	28153220	53,78

Dimensions: see section Technical Attachments



Transformer 230/24V 10 VA

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

Dimension	Pcs. pack	Code	Price €
2 DIN modules	1	28139130	42,78

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

Dimensions: see section Technical Attachments



Transformer 230/24V 35 VA

Dimension	Pcs. pack	Code	Price €
5 DIN modules	1	28153410	92,10



Transformer 230/24V 63 VA

Dimension	Pcs. pack	Code	Price €
8 DIN modules	1	28153420	150,20



Consumption measuring system

Modules for the accounting of thermal and sanitary consumption

WEB

SCAN

> Energy Box Compact, Energy Box V and Energy Box modules for accounting in box 260



> Single modules for accounting 270



> Energy Wall built-in cabinets 273



> Energy Combibox Floor HIU module for accounting in box for instant ACS production 277

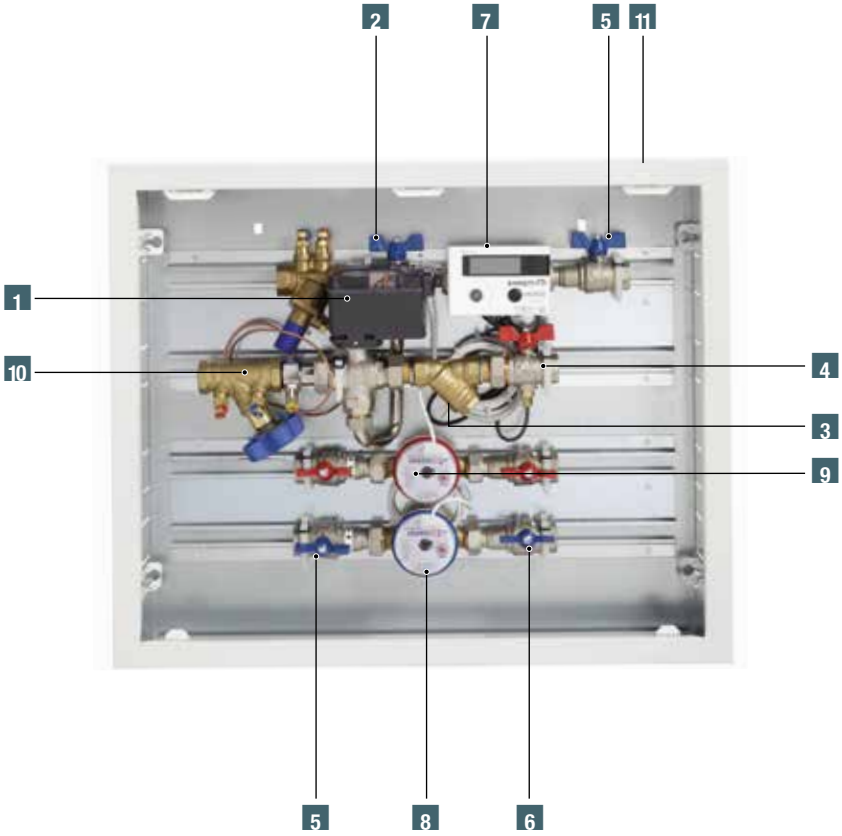


> Instruments 281



Energy Box Compact

Compact modules for accounting of heating and plumbing consumption



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. Ball valve DN20 with probe connection M10x1
5. Ball valve DN20 with integrated retaining cartridge
6. Ball valve DN20 with swivel nut for measuring instruments
7. Thermal energy meter with 3 pulse inputs and M-Bus output.
8. Cold water pulse-emitting volumetric meter
9. Hot water pulse-emitting volumetric meter
10. Dynamic balancing kit
11. Plastified 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
Thread of connection valve UNI EN 10226-1

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. As an accessory it is possible to equip the module with a dynamic balancing kit, to be installed on the delivery and return lines, to guarantee the maintenance of the differential pressure in any operating condition with different flow rates.

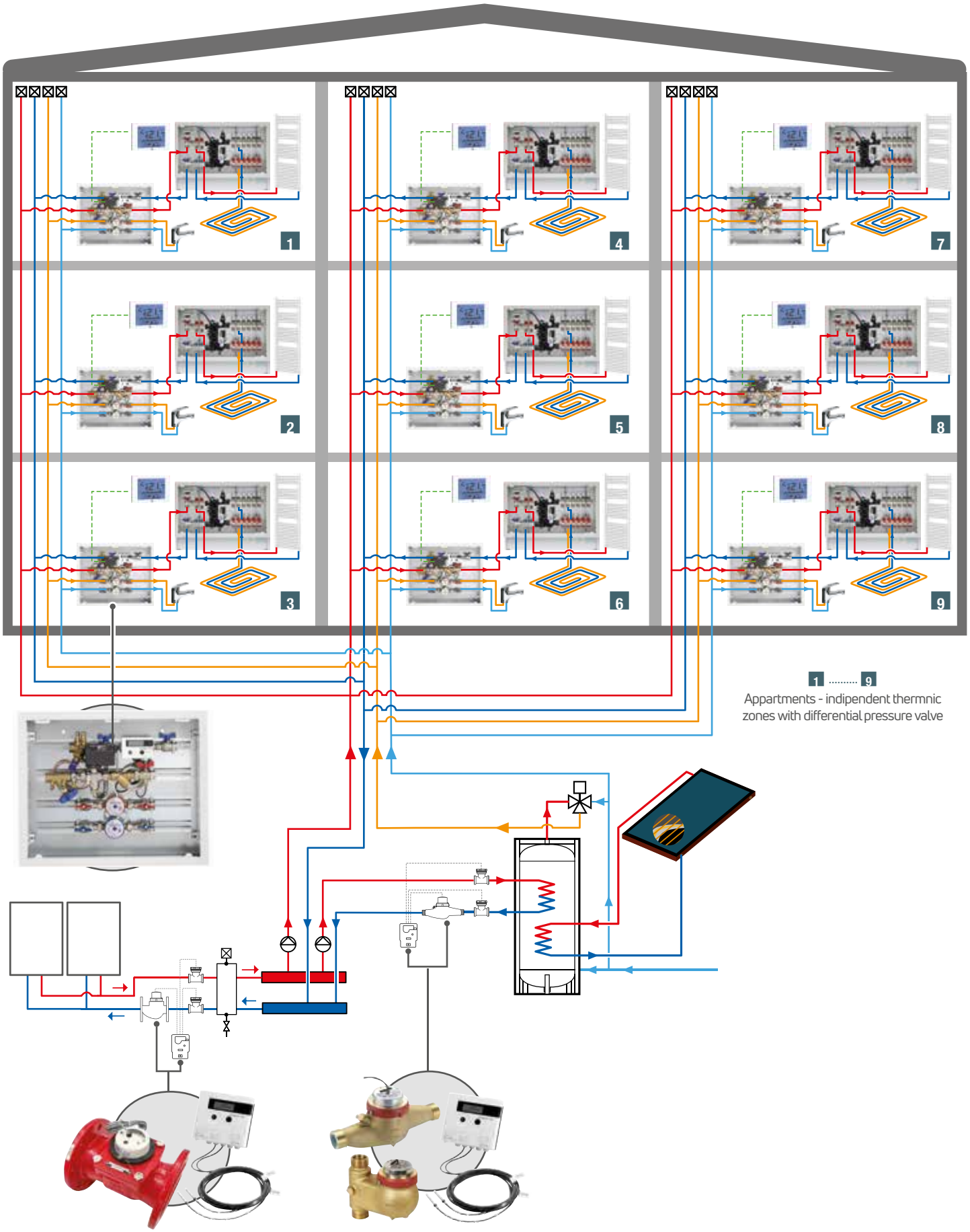
Plant expansion

N.B. Testing and starting up the system are not included in the sales price.

Dimensions: see section Technical Attachments

Energy Box Compact

Example of installation



1 9
Appartments - indipendent thermnic zones with differential pressure valve



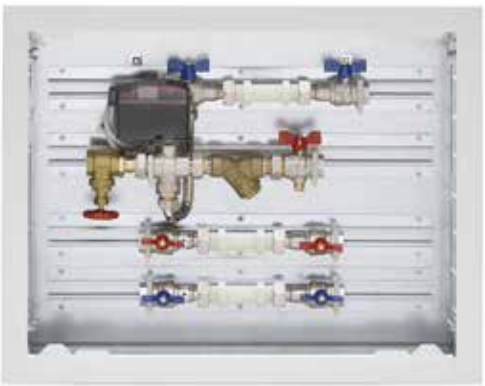
Heating/cooling compsumption measuring, 4-way zone valve

Composition

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

Dimension	Box Dimension	Pcs. pack	Code	Price €
DN 15 (*)	L 600	1	28170130	622,50
DN 20 (**)	L 600	1	28170132	624,40

(*) 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.



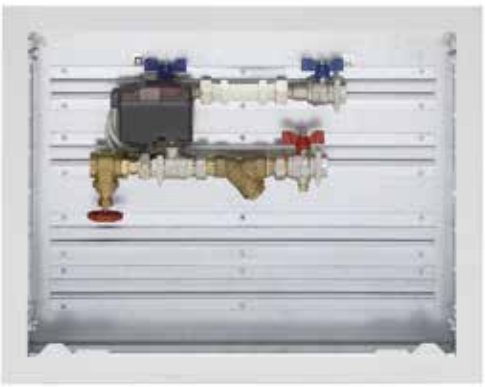
Heating/cooling and hot/cold domestic water consumption measuring, 4-way zone valve

Composition

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

Dimension	Box Dimension	Pcs. pack	Code	Price €
DN15 (*)	L 600	1	28170134	757,30
DN20 (**)	L 600	1	28170136	759,00
DN20 / DN20 (***)	L 600	1	28170138	759,40

(*) setup for thermal energy meter size DN15 (connection 3/4") and volumetric counter DN15 (connection 3/4")
(**) setup for thermal energy meter size DN20 (connection 1") and volumetric counter DN15 (connection 3/4")
(***) setup for thermal energy meter size DN20 (connection 1") and volumetric counter DN20 (connection 1")
The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system



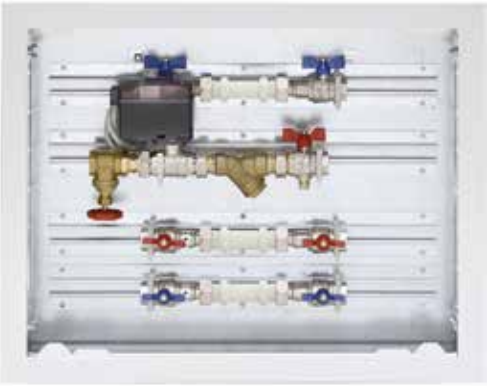
Heating/cooling consumption measuring, 2-way zone valve

Composition

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

Dimension	Box Dimension	Pcs. pack	Code	Price €
DN15 (*)	L 600	1	28170146	559,30
DN20 (**)	L 600	1	28170148	561,10

(*) 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



Heating/cooling and hot/cold domestic water consumption measuring, 2-way zone valve

Composition

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 - Ball valve DN20 with integrated retaining cartridge on domestic water line - Gate valve DN20 to calibrate and balance the heating/cooling circuit

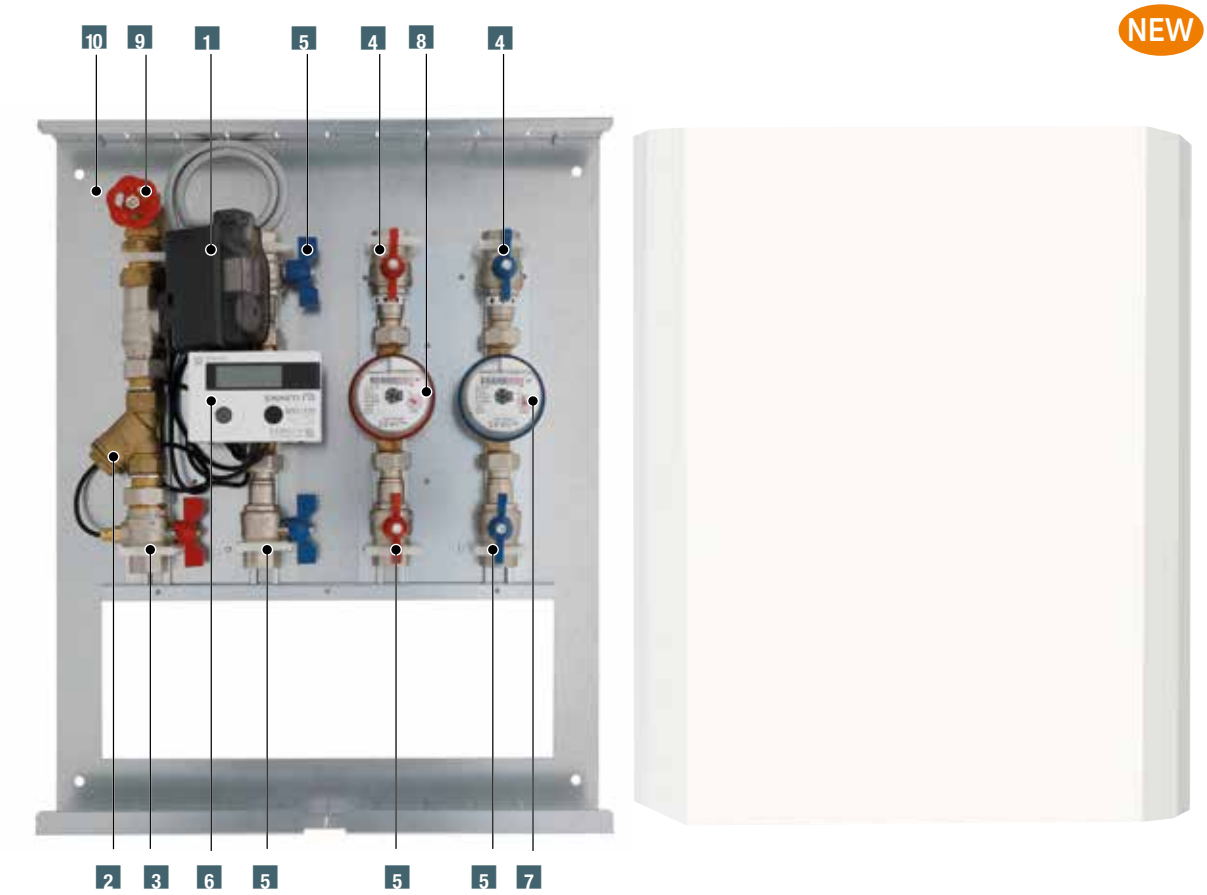
Dimension	Box Dimension	Pcs. pack	Code	Price €
DN15 (*)	L 600	1	28170150	693,90
DN20 (**)	L 600	1	28170152	695,60
DN20 / DN 20 (***)	L 600	1	28170154	695,90

(*) setup for thermal energy meter size DN15 (connection 3/4") and volumetric counter DN15 (connection 3/4")
(**) setup for thermal energy meter size DN20 (connection 1") and volumetric counter DN15 (connection 3/4")
(***) setup for thermal energy meter size DN20 (connection 1") and volumetric counter DN20 (connection 1")
The boxes thus assembled are suitable for connection on the left side of the main pipelines of the centralized system

Energy Box V

Vertical modules for accounting of heating and plumbing consumption

NEW



Construction

1 Motorized valve DN20 2-ways
2 Impurity collection filter DN20
3 Ball valve DN20 with probe connection M10x1
4 Ball valve DN20 with integrated check cartridge
5 Ball valve DN20 with swivel joint for accounting instruments
6 Measuring device for thermal energy
7 Cold water impulse launch volumetric counter
8 Hot water impulse launch volumetric counter
9 DN20 interception and balancing gate valve
10 Metal cabinet

Technical data

Fluido termovettore: acqua
Temperatura massima d'esercizio circuito riscaldamento: 90 °C
Pressione massima di esercizio circuito riscaldamento: 6 bar
Temperatura massima acqua calda sanitaria: 85 °C
Temperatura massima acqua fredda sanitaria: 30 °C
Pressione massima acqua calda sanitaria: 6 bar
Filettatura attacco valvole UNI EN 10226-1

Instructions for ordering the product

Order the metal box, and additionally the Heating/Cooling Unit for cabinets and, if necessary, the Lines for metering the consumption of domestic hot water (with centralised production) and cold water.

Introduction

Energy Box V is a counter module particularly suitable for installation as a replacement for a boiler, thanks to the arrangement of the components in a vertical position, which facilitates the plumbing connections to the centralised system at the top, taking advantage of the existing chimney. The pipe inlet can be either from below or directly from the wall.
The metal box itself is designed to be particularly suitable for replacing a boiler, both in terms of aesthetics and in terms of size and bulk.
Energy Box V is supplied with the metal box separated from the hydraulic components for easy transport and work on site.

Plant expansion

N.B.: testing and starting up the system is not included in the sales price.



Metal box for Energy Box V NEW

Galvanised sheet metal box with painted sheet metal lid, colour white RAL 9010, complete with key lock at the bottom.
Off-track installation.

Model	Pcs. pack	Code	Price €
W 500 x H 600 x D 150 mm	1	01301490	301,54

Dimensions: see section Technical Attachments

Vertical module for accounting



Heating/cooling unit for Energy Box V

NEW

Composition: 2-ways motorised valve DN20 with servomotor 230 Vac, 50 Hz dirt collector filter DN20 - ball valve DN20 with probe connection M10x1 shut-off and balancing gate valve DN20 - ball valves DN20 with union.

Model	Pcs. pack	Code	Price €
DN15 (*)	1	01301250	390,75
DN20 (**)	1	01301252	393,79

(*) set-up for installation of energy meter DN15 (¾" connections)
(**) set-up for installation of energy meter DN20 (1" connections)
Main connections: ¾" F
Complete with No. 4 plastic supports for fixing to the vertical rails of the metal box.

Dimensions and hydraulic performances: see technical attachments



Sanitary hot line for Energy Box V

NEW

Composition: ball valve DN20 with integrated non-return cartridge and union - ball valve DN20 with union.

Model	Pcs. pack	Code	Price €
DN15 (*)	1	01301254	84,12
DN20 (**)	1	01301258	85,60

(*) set-up for installation of domestic hot water volumetric meter DN15 (¾" connections)
(**) set-up for installation of domestic hot water volumetric meter DN20 (1" connections)
Main connections: ¾" F
Complete with No. 2 plastic supports for fixing to the vertical rails of the metal box.

Dimensions and hydraulic performances: see technical attachments



Sanitary cold line for Energy Box V

NEW

Composition: ball valve DN20 with integrated non-return cartridge and union - ball valve DN20 with union.

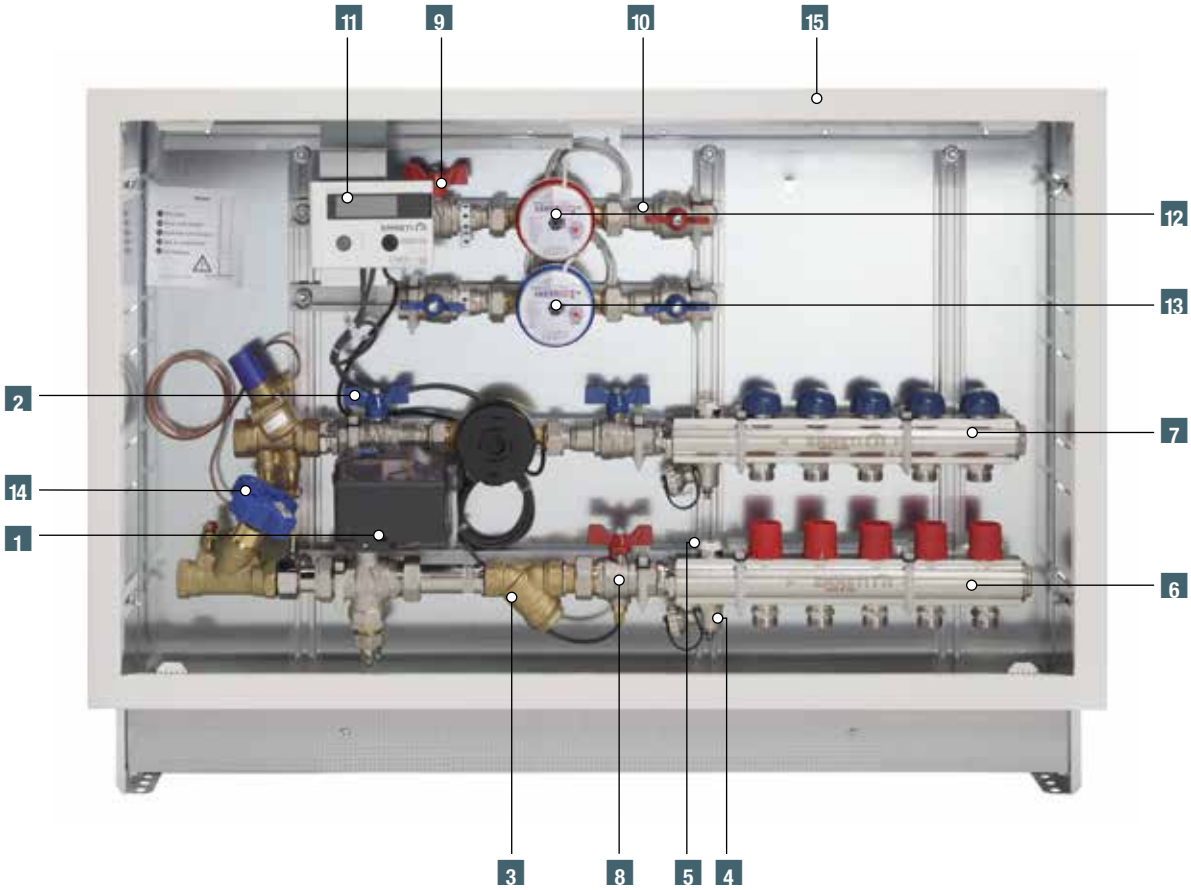
Model	Pcs. pack	Code	Price €
DN15 (*)	1	01301256	84,12
DN20 (**)	1	01301260	85,71

(*) set-up for installation of domestic cold water volumetric meter DN15 (¾" connections)
(**) set-up for installation of domestic hot water volumetric meter DN20 (1" connections)
Main connections: ¾" F
Complete with No. 2 plastic supports for fixing to the vertical rails of the metal box.

Dimensions and hydraulic performances: see technical attachments

Energy Box

Modules for accounting of heating and plumbing consumption



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 3 impulsive input and M-Bus output
12 Hot water impulse launch volumetric counter
13 Cold water impulse launch volumetric counter
14 Metal cabinet Metalbox Plus with key-operated lock
15 Dynamic balancing kit DN20

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
Thread of connection valve UNI EN 10226-1

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 kit with a dynamic balancing valve is supplied as an accessory to be installed on the delivery and return lines to guarantee the maintenance of the differential pressure in all operating conditions, with different flow rates.

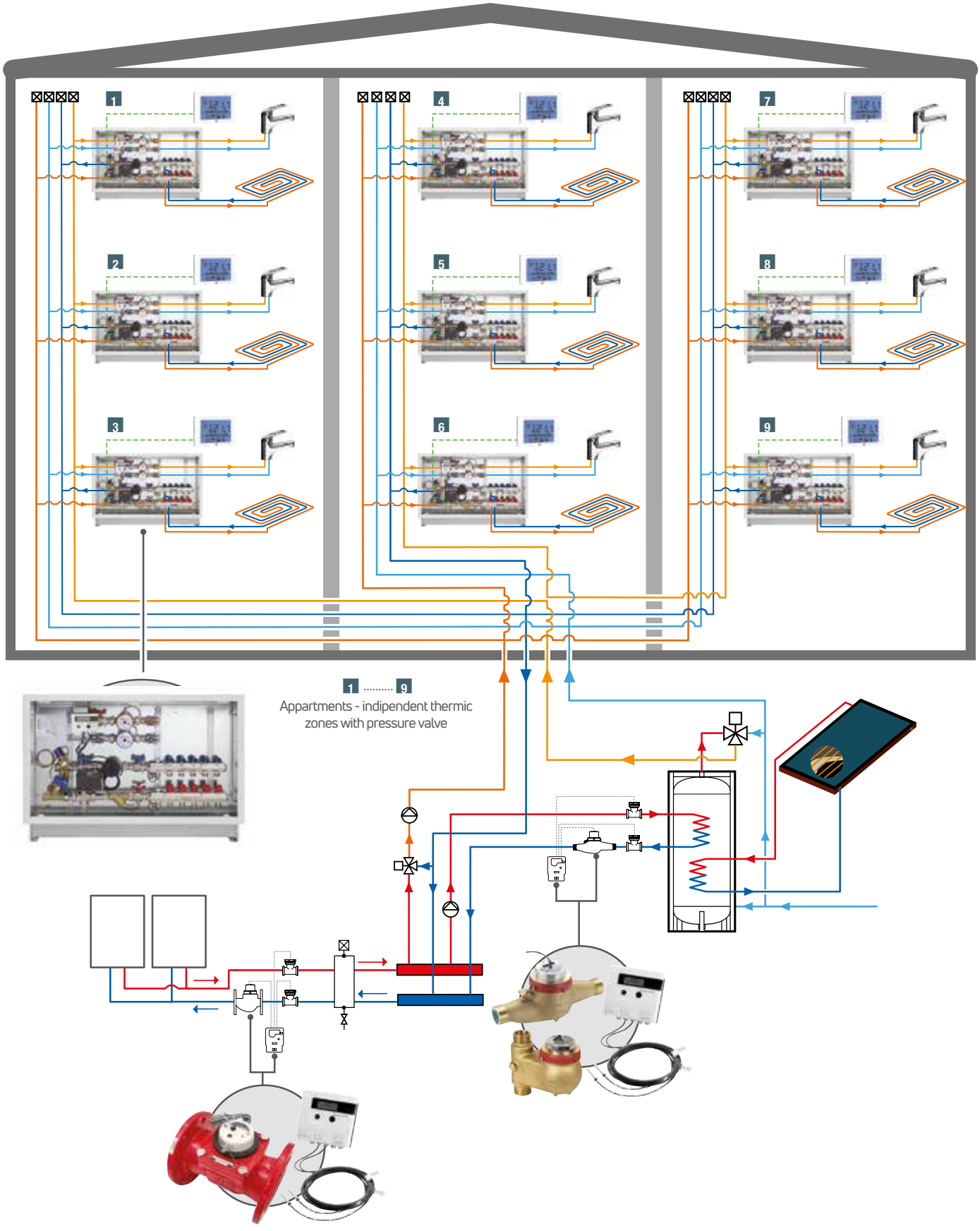
Plant expansion

N.B. Testing and starting up the system are not included in the sales price.

Dimensions: see section Technical Attachments

Energy Box

Example of installation with accounting modules complete with dynamic balancing kit





Heating/cooling consumption measuring with flow-return manifolds of 1" (2÷12 ways) equipped with valves and lockshields

Composition

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

Dimension	Box Dimension	Pcs. pack	Code	Price €
DN15 - 2 ways	L 700	1	28170350	931,30
DN15 - 3 ways	L 850	1	28170352	999,60
DN15 - 4 ways	L 850	1	28170354	1.034,00
DN15 - 5 ways	L 850	1	28170356	1.067,00
DN15 - 6 ways	L 1000	1	28170358	1.118,00
DN15 - 7 ways	L 1000	1	28170360	1.160,00
DN15 - 8 ways	L 1000	1	28170362	1.191,00
DN15 - 9 ways	L 1200	1	28170364	1.288,00
DN15 - 10 ways	L 1200	1	28170366	1.320,00
DN15 - 11 ways	L 1200	1	28170368	1.352,00
DN15 - 12 ways	L 1200	1	28170370	1.383,00

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 ways) equipped with valves and lockshields

Composition

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

Dimension	Box Dimension	Pcs. pack	Code	Price €
DN15 - 2 ways	L 700	1	28170450	1.123,00
DN15 - 3 ways	L 850	1	28170452	1.183,00
DN15 - 4 ways	L 850	1	28170454	1.218,00
DN15 - 5 ways	L 850	1	28170456	1.247,00
DN15 - 6 ways	L 1000	1	28170458	1.316,00
DN15 - 7 ways	L 1000	1	28170460	1.348,00
DN15 - 8 ways	L 1000	1	28170462	1.379,00
DN15 - 9 ways	L 1200	1	28170464	1.465,00
DN15 - 10 ways	L 1200	1	28170466	1.497,00
DN15 - 11 ways	L 1200	1	28170468	1.530,00
DN15 - 12 ways	L 1200	1	28170470	1.562,00

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

Dimension	Pcs. pack	Code	Price €
DN 15 (*)	1	28170906	483,30
DN 20 (**)	1	28170908	499,20

(*) 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
Thread of connection valve UNI EN 10226-1



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")

Dimension	Pcs. pack	Code	Price €
	1	28170904	410,00

Thread of connection valve UNI EN 10226-1



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")

Dimension	Pcs. pack	Code	Price €
	1	28170900	85,68

Thread of connection valve UNI EN 10226-1



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")

Dimension	Pcs. pack	Code	Price €
	1	28170902	85,57

Thread of connection valve UNI EN 10226-1

Accessories Energy Box and Energy Box Compact



Dynamic balancing kit for Energy Box and Energy Box Compact

It allows to distribute the flow that serves a circuit, maintaining the constant differential pressure.
The differential pressure value can be adjusted, within a certain range, to guarantee the required flow rate within the circuit.

Technical data
Nominal pressure: PN20
Minimum operating temperature: - 10 ° C
Maximum working temperature: 120 ° C
Maximum differential pressure: 450 kPa

Construction
DZR brass, stainless steel, greyron, pps with fiberglass
Seals: EPDM, HNBR

Size	Differential pressure regulation range		Pcs.pack	Code	Price €
3/4" F	20-60 kPa	DN20 - PVM20	1	01306870	469,70



Balance valve kit

Uses
Balance valves for correct calibration and adjustment of heating, cooling, and plumbing systems.
They are equipped as standard with two pressure plugs, quick coupling, for connection to the differential electronic pressure gauge.

Technical data
Maximum operating pressure: 20 bar
Minimum operating temperature: -20 °C (for water and glycol solutions)
Maximum operating temperature: 120 °C (for water and anti-boiling additives solutions)
Minimum pressure drop: 2 kPa

Construction
Body: DZR brass
Gaskets: EPDM

Note:
kit are setup for installation of temperature delivery sensor of thermal energy counter

Dimension	Pcs. pack	Code	Price €
3/4"	1	01306364	123,00

The kit is to be installed in place of the impurity collection filter (if present) once the system has been cleaned.

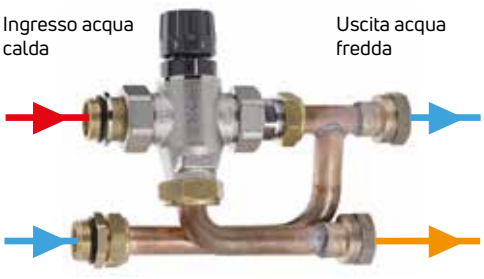


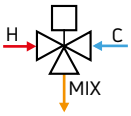
Differential pressure gauge

Instrument for measuring differential pressure, for dynamic balancing valve kit. Supplied with two rechargeable NiMH AA batteries, carrying case, flexible hoses complete with needles for grafts on pressure taps.

Technical data
Error margin for pressure: 0.15%
Error margin for temperature: 1.5%
Fluid temperature: from -5 ° C to 90 ° C
Battery powered: 2xAA
Display: illuminated 128x64 pixels
Dimensions: 94x218x40 mm
Degree of protection: IP65

Size	Pcs. pack	Code	Price €
	1	01406314	2.835,00





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 °C
T_C = 15 °C
$\Delta p_{H-MIX} = \Delta p_{C-MIX}$
where:
H= hot water inlet - C= cold water inlet - MIX= mixed water outlet

Dimension	Pcs. pack	Code	Price €
	1	02708192	287,00

Accessory kit to be installed on the domestic hot and cold water lines downstream from the volumetric counters.

Thread UNI EN ISO 228-1



Set insulation shells for Energy Box Compact

Dimension	Pcs. pack	Code	Price €
	1	01306582	69,32

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).
Installed on all models Energy Box Compact DN15 - DN20, for connection to the left or right to the the main pipes of the centralized plant.



Kit flow meter

Dimension	Pcs. pack	Code	Price €
0÷2,5 l/min	4	01306828	5,56

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

Energy Wall

Built-in or off-track cabinet meters for domestic water use consumption



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

As an accessory, it is possible to equip the module with a dynamic balancing kit, to be installed on the delivery and return lines, to guarantee the maintenance of the differential pressure in any operating condition with different flow rates.

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.

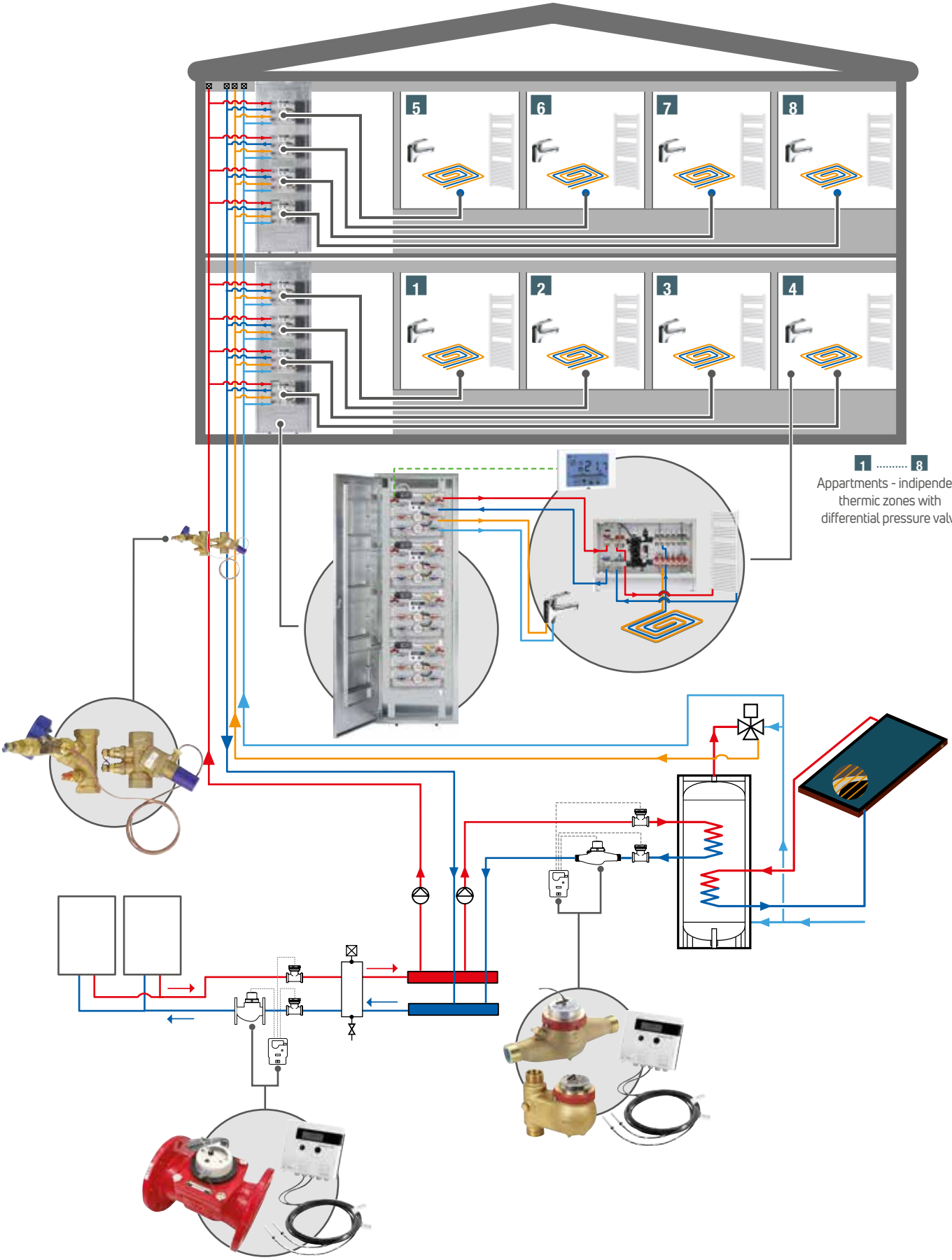
Technical data
Heat carrier fluid: water
Maximum operating temperature, heating circuit: 90 °C
Maximum operating pressure, heating circuit: 6 bar
Maximum temperature of domestic hot water: 85 °C
Maximum temperature of domestic cold water: 30 °C
Maximum domestic water pressure: 6 bar
Thread of connection valve UNI EN 10226-1

Plant expansion
N.B. Testing and starting up the system are not included in the sales price.

Dimensions: see section Technical Attachments

Energy Wall

Example of installation with main distribution lines complete with dynamic balancing valves kit



1 8
Appartments - indipendent thermic zones with differential pressure valve



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.

Dimension	Pcs. pack	Code	Price €
Max 3 utilities (*)	1	01301204	1.048,00
Max 4 utilities (**)	1	01301200	1.316,00
Max 6 utilities (***)	1	01301202	1.594,00

(*) 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

Dimension	Pcs. pack	Code	Price €
DN15 (*)	1	01301210	356,00
DN20 (**)	1	01301212	357,60

(*) 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.

Thread of connection valve UNI EN 10226-1



Domestic hot water line for cabinets

Composition

Ball valve DN20 with no-return cartridge built-in and plug - Ball valve DN20 with plug

Dimension	Connection	Pcs. pack	Code	Price €
DN15	3/4" F	1	01301220	97,18

Main couplings: 3/4" F.
Prepared for installation of domestic hot water volumetric meter, measure DN15 (couplings 3/4").

Thread of connection valve UNI EN 10226-1



Domestic cold water line for cabinets

Composition

Ball valve DN20 with no-return cartridge built-in and plug - Ball valve DN20 with plug

Dimension	Connection	Pcs. pack	Code	Price €
DN15	3/4" F	1	01301222	97,27

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.

Dimension	Pcs. pack	Code	Price €
	1	01301224	60,32



Balance valve kit

Uses

Balance valves for correct calibration and adjustment of heating, cooling, and plumbing systems. They are equipped as standard with two pressure plugs, quick coupling, for connection to the differential electronic pressure gauge.

Technical data

Maximum operating pressure: 20 bar - Minimum pressure drop: 2 kPa
Minimum operating temperature: -20 °C (for water and glycol solutions)
Maximum operating temperature: 120 °C (for water and anti-boiling additives solutions)

Construction

Body: DZR brass; Gaskets: EPDM

Note: kit are setup for installation of temperature delivery sensor of thermal energy counter

Dimension	Pcs. pack	Code	Price €
3/4"	1	01306364	123,00

The kit is to be installed in place of the impurity collection filter (if present) once the system has been cleaned.

Dynamic balancing kit



Dynamic balancing kit

The dynamic balancing kits are composed of:
1 Balancing valve
2 Capillary tube
3 Differential pressure valve
4 T-fitting with measuring and drainage socket

They allow to distribute the flow that serves a circuit, maintaining the constant differential pressure. he differential pressure value can be adjusted within a given range to ensure the required flow rate within the circuit.

Technical data

Nominal pressure: PN20 - Minimum operating temperature: -10 ° C
Maximum working temperature: 120 ° C - Maximum differential pressure: 450kPa

Construction

DZR brass, stainless steel, greyron, PPS with glass fiber; seals: EPDM, HNBR

Dimension	Differential pressure regulation range		Pcs. pack	Code	Price €
1/2" F	20-60 kPa	DN15 - PVM15	1	01406296	464,60
3/4" F	20-60 kPa	DN20 - PVM20	1	01406298	437,40
1" F	20-80 kPa	DN25 - PVM25	1	01406300	542,40
1"1/4 F	20-80 kPa	DN32 - PVM30	1	01406302	804,30
1"1/2 F	20-80 kPa	DN40 - PVM40	1	01406304	908,00
2" F	20-80 kPa	DN50 - PVM50	1	01406306	1.076,00

Threads: G (UNI EN 10226)



Differential pressure gauge

Instrument for measuring differential pressure, for dynamic balancing valve kit. Supplied with two rechargeable NiMH AA batteries, carrying case, flexible hoses complete with needles for grafts on pressure taps.

Technical data

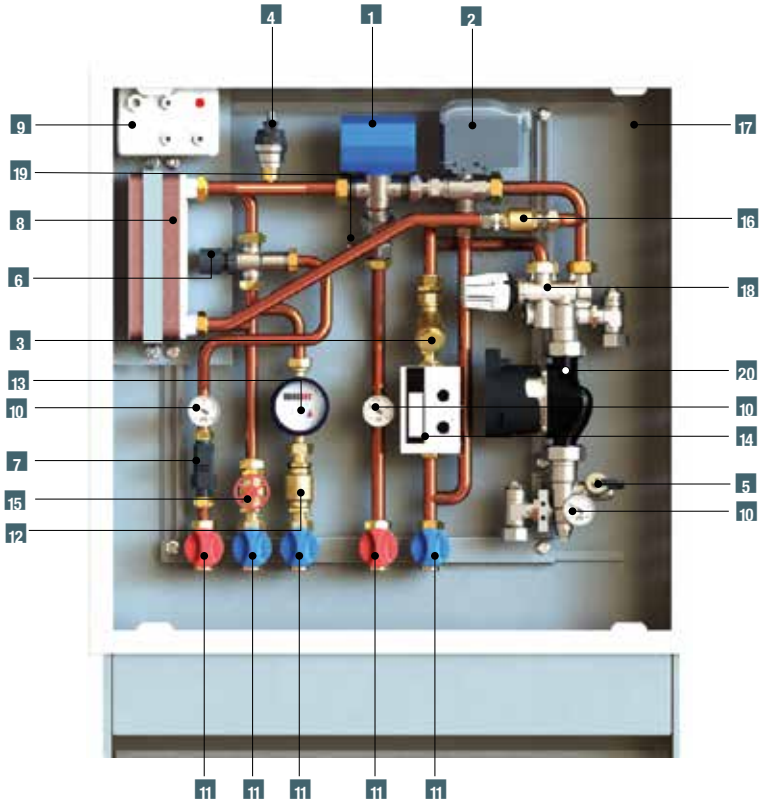
Error margin for pressure: 0.15% - Error margin for temperature: 1.5%
Fluid temperature: from -5 ° C to 90 ° C - Battery powered: 2xAA
Display: illuminated 128x64 pixels - Dimensions: 94x218x40 mm
Degree of protection: IP65

Dimension	Pcs. pack	Code	Price €
	1	01406314	2.835,00

Energy Combibox Floor HIU

Built-in module for accounting for heating and sanitary consumption with instant production of domestic hot water

NEW



Construction

1 DN25 motorized diverter valve of sanitary priority
2 DN20 3-ways motorized zone valve with by-pass passage
3 DN20 dirt collector filter
4 Automatic air vent valve
5 Drain/filling valve with G 3/4" swivel connection and safety cap
6 DN15 thermostatic mixing valve for domestic hot water
7 Priority flow switch for instantaneous domestic hot water production
8 Brazed plate heat exchanger
9 Box for electrical wiring
10 Control thermometer scale 0÷80 °C
11 DN15 ball valve
12 DN20 check valve
13 DN15 volumetric meter for domestic cold water
14 DN15 energy meter
15 DN20 gate valve for domestic cold water circuit calibration and balancing
16 DN15 check valve
17 Galvanized metal box for 120 mm partition with frame and door color white RAL 9010
18 Low-temperature mixing unit, prepared for installation of thermostatic head or electric servomotor (to be purchased separately)
19 Energy meter flow probe connection, M10x1 thread
20 Electronic circulator

Dimensions: see section Technical Attachments

Operation
Energy Combibox Floor HIU 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. 7 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. 8 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 transfer fluid: water
Maximum primary circuit fluid temperature: 90 °C
Maximum primary circuit operating pressure: 6 bar
Maximum sanitary circuit pressure: 10 bar
Maximum operating temperature on the sanitary side: 85 °C

Domestic hot water priority valve technical data
Power supply: 230 Vac, 50/60 Hz
Maximum power consumption: 4 W
Degree of protection: IP40
Switching time: 6 s
Maximum differential pressure: 3.5 bar

Zone valve technical data
Power supply: 230 Vac, 50/60 Hz
Power consumption: 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

Plate heat exchanger technical data
Plate material: 316L stainless steel
Brazing material: copper
No. of plates: 30
Exchange area: 0.31 m^2
Exchange coefficient KA: 2744 W/K
Kv (primary = secondary): 8.1

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; $\Delta p_{H\text{ - }MIX} = \Delta p_{C\text{ - }MIX}$
where: H= hot water inlet; C= cold water inlet; MIX= mixed water outlet

Flow switch technical data
Contact: normally open
ON tripping flow rate: 3 ± 0.3 l/min
OFF tripping flow rate: 2.6 ± 0.3 l/min
Maximum operating pressure: 10 bar
Maximum operating temperature: 90 °C
Minimum ambient temperature: -20 °C (with glycol)
Maximum switching current: 0.5 A

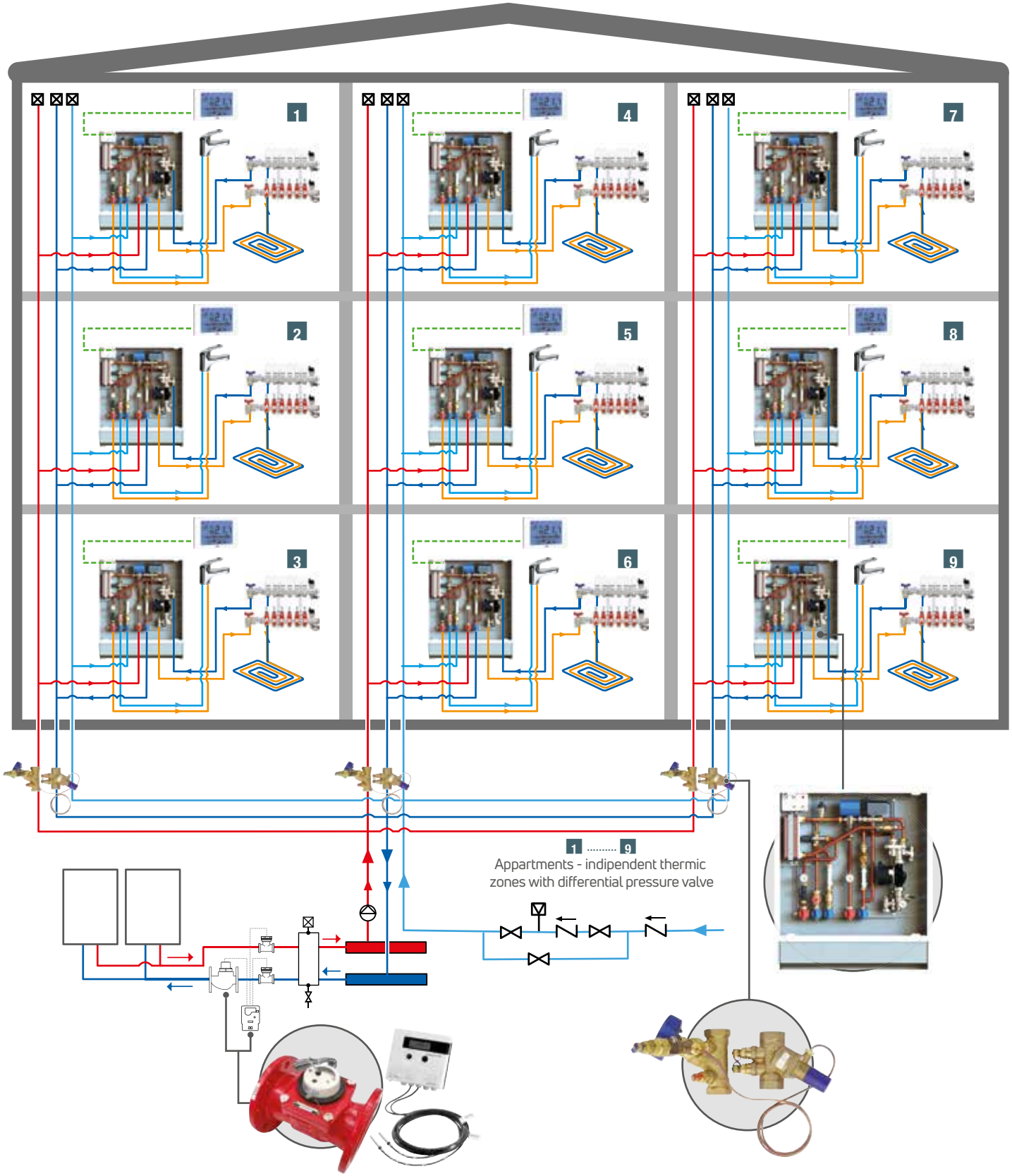
Box technical data
Box material: galvanized steel sheet, thickness 8/10 mm
Frame material: painted galvanized steel sheet (RAL 9010), thickness 8/10 mm
Lock: key
Dimensions (width x height x depth): 740x900x110 mm
Feet with adjustable height from 0 to 130 mm.
Complete with worksite cardboard protection.

Evosta2 OEM 70/130 circulator pump
Connections: G 1"1/2 UNI EN ISO 228-1, takeoff 130 mm.
Maximum head: 7 m
Maximum flow rate: 3.5 m^3/h
Electrical connection: 230 V +10%/- 15%, 50/60 Hz
Protection class: IPX4D
Insulation class: F
Power consumption at 230V: 8.2 ÷ 50 W
Current consumption at 230V: 0.07 ÷ 0.44 A
Energy class: A
EEI: <=0.2

Plant expansion
N.B.: testing and starting up the system are not included in the sales price

Circulator pump compliance
ErP Directive
EN 61800-3
EN 61000-6-3 / EN 61000-6-4
EN 61000-6-2 / EN 61000-6-1
2014/35/UE (low voltage)
2014/30/UE (electromagnetic compatibility)

Example of installation with main distribution lines complete with dynamic balancing valve kit





Built-in module for thermosanitary consumption metering with instantaneous domestic hot water production

NEW

Dimension	Box Dimension	Pcs. pack	Code	Price €
DN15 (*)	700	1	28170536	2.958,03

(*) 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), interaxis 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: 15 days to order confirm

Dynamic balancing kit



Dynamic balancing kit

The dynamic balancing kits are composed of:
1 Balancing valve
2 Capillary tube
3 Differential pressure valve
4 T-fitting with measuring and drainage socket

They allow to distribute the flow that serves a circuit, maintaining the constant differential pressure. he differential pressure value can be adjusted within a given range to ensure the required flow rate within the circuit.

Technical data
Nominal pressure: PN20
Minimum operating temperature: -10 ° C
Maximum working temperature: 120 ° C
Maximum differential pressure: 450kPa

Construction
DZR brass, stainless steel, greyron, PPS with glass fiber
Seals: EPDM, HNBR

Size	Differential pressure regulation range		Pcs. pack	Code	Price €
1/2" F	20-60 kPa	DN15 - PVM15	1	01406296	464,60
3/4" F	20-60 kPa	DN20 - PVM20	1	01406298	437,40
1" F	20-80 kPa	DN25 - PVM25	1	01406300	542,40
1"1/4 F	20-80 kPa	DN32 - PVM30	1	01406302	804,30
1"1/2 F	20-80 kPa	DN40 - PVM40	1	01406304	908,00
2" F	20-80 kPa	DN50 - PVM50	1	01406306	1.076,00

Threads: G (UNI EN 10226)



Differential pressure gauge

Instrument for measuring differential pressure, for dynamic balancing valve kit. Supplied with two rechargeable NiMH AA batteries, carrying case, flexible hoses complete with needles for grafts on pressure taps.

Technical data
Error margin for pressure: 0.15%
Error margin for temperature: 1.5%
Fluid temperature: from -5 ° C to 90 ° C
Battery powered: 2xAA
Display: illuminated 128x64 pixels
Dimensions: 94x218x40 mm
Degree of protection: IP65

Size	Pcs. pack	Code	Price €
	1	01406314	2.835,00

Components and accessories for direct reading consumption measuring



Direct reading EVO energy meter

Accuracy class according to UNI EN 1434: 3
Environmental class according to UNI EN 1434: C
Permanent flow rate: 0.6 or 1.5 m^3/h (DN15 size), 2.5 m^3/h (DN20 size)
Maximum flow rate: 1.2 or 3 m^3/h (DN15 size), 5 m^3/h (DN20 size)
Minimum flow rate DN15 size:
horizontal installation 12 or 30 l/h, vertical installation 24 or 60 l/h
Minimum flow rate DN20 size:
horizontal installation 50 l/h, vertical installation 100 l/h
Nominal pressure: 16 bar - Flow meter temperature range: 5 ÷ 90°C Electronic unit temperature range: 0 ÷ 150°C
Flow-return temperature difference: 3 ÷ 100 K
Type of probes: Pt1000 - Ø 5 mm - cable 1.5 m

Battery-powered, maximum estimated life, not guaranteed, of the battery 10 years (battery life is affected by the installation and usage conditions).
The battery is guaranteed for 4 years from the date of sale.
The battery can be replaced. Set up for external power supply (230 Vac) with optional feeder. Protection rating: IP65.
Configured for installation on the return pipe with possibility of installation on the flow pipe.
Product compliant with UNI EN 1434 and certified in accordance with Leg.Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) only using water as a fluid.

Dimension	Type	Kv	Pcs. pack	Code	Price €
DN15 Conn. M 3/4" - 0,6/1,2 m^3/h	H/C (*)	1,52	1	02709540	407,50
DN15 Conn. M 3/4" - 1,5/3,0 m^3/h	H/C (*)	3,27	1	02709542	407,50
DN20 Conn. M 1" - 2,5/5,0 m^3/h	H/C (*)	6,15	1	02709544	414,10

(*) Hot/Cold

Threads G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments



230 Vac power supply for EVO energy meter

Technical data
Input: 230 Vac (2.5 m cable);
Output: 3 Vdc (1 m cable);
Protection rating: IP65.
In the event of a power cut, the backup battery (lithium, 3 Vdc) guarantees power for up to one year.

Dimension	Pcs. pack	Code	Price €
	1	02709580	412,40

Dimensions: see section Technical Attachments



Sensor-holder Tee assembly

Dimension	Pcs. pack	Code	Price €
1/2" x (M10x1) x 1/2"	1	02708188	17,93
3/4" x (M10x1) x 3/4"	1	02708190	20,85

Threads G (UNI EN ISO 228-1)

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.

Dimensions: see section Technical Attachments



Direct reading volumetric counter for hot water SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)
Lenght of counter: 110 mm - Horizontal or vertical installation
Minimum Q1 flow rate: 25 l/h (horizontal installation)
Minimum Q1 flow rate: 39,7 l/h (vertical installation)
Permanent Q3 flow rate: 2.5 m^3/h - Maximum Q4 flow rate: 3.13 m^3/h
MID metrological class:
R (Q3/Q1)= 100 H (horizontal installation),
R (Q3/Q1) = 63 V (vertical installation)
Operating temperature: from 30 °C to 90 °C
Operating pressure (PN): 16 bar
Kv = 3,15
Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code	Price €
DN15 Connection M 3/4"	3,15	1	02709708	73,46

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments



Direct reading volumetric counter for hot water SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)
Lenght of counter: 130 mm
Horizontal or vertical installation - Minimum Q1 flow rate: 40 l/h (horizontal installation)
Minimum Q1 flow rate: 63,5 l/h (vertical installation)
Permanent Q3 flow rate: 4 m^3/h - Maximum Q4 flow rate: 5 m^3/h
MID metrological class: R (Q3/Q1) = 100 H (horizontal installation), R (Q3/Q1) = 63 V (vertical installation)
Operating temperature: from 30 °C to 90 °C
Operating pressure (PN): 16 bar - Kv=5,04
Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code	Price €
DN20 Connection M 1"	5,04	1	02709716	89,61

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments



Direct reading volumetric counter for cold water SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)
Lenght of counter: 110 mm
Horizontal or vertical installation
Minimum Q1 flow rate: 25 l/h (horizontal installation)
Minimum Q1 flow rate: 39,7 l/h (vertical installation)
Permanent Q3 flow rate: 2.5 m^3/h - Maximum Q4 flow rate: 3.13 m^3/h
MID metrological class: R (Q3/Q1) = 100 H (horizontal installation), R (Q3/Q1) = 63 V (vertical installation)
Maximum operating temperature: 50 °C
Operating pressure (PN): 16 bar
Kw=3,15
Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code	Price €
DN15 Connection M 3/4"	3,15	1	02709706	70,38

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments



Direct reading volumetric counter for cold water SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)
Lenght of counter: 130 mm
Horizontal or vertical installation
Minimum Q1 flow rate: 40 l/h (horizontal installation)
Minimum Q1 flow rate: 63,5 l/h (vertical installation)
Permanent Q3 flow rate: 4 m^3/h - Maximum Q4 flow rate: 5 m^3/h
MID metrological class: R (Q3/Q1) = 100 H (horizontal installation), R (Q3/Q1) = 63 V (vertical installation)
Maximum operating temperature: 50 °C - Operating pressure (PN): 16 bar
Kv=5,04
Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code	Price €
DN20 Connection M 1"	5,04	1	02709714	86,60

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments



Pipes

Dimension	Connections	Pcs. pack	Code	Price €
L=110 mm (*)	3/4"	1	01306354	5,62
L=130 mm (**)	1"	1	01306358	6,01

(*) Predisposition for installation of measuring instruments DN15
(**) Predisposition for installation of measuring instruments DN20
Threads: G (UNI EN ISO 228-1)
Complete with no. 2 gaskets



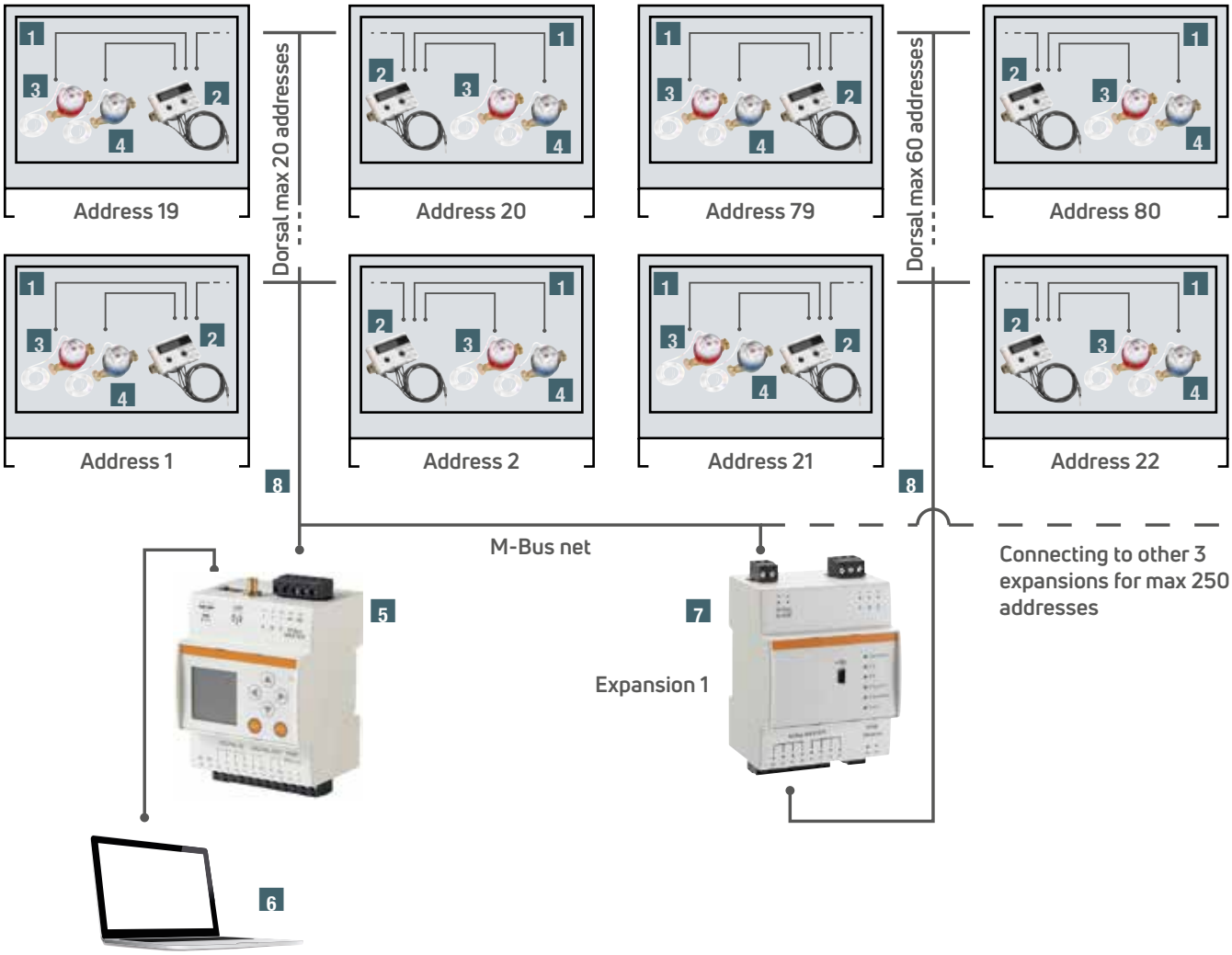
Pipe union connections kit

Dimension	Pcs. pack	Code	Price €
3/4" F - 1/2" M	1	02708098	10,63
1" F - 3/4" M	1	02708110	16,51

Threads: G (UNI EN ISO 228-1)
Body made of brass CW617N-DW (UNI EN 12164 and 12165)
The kit is not needed for the installation of the heat meter and water meters in the Emmeti modules singles or in boxes.

Components and accessories for consumption measuring with data transmission

Installation scheme with energy meter with dual pulse input and concentrator

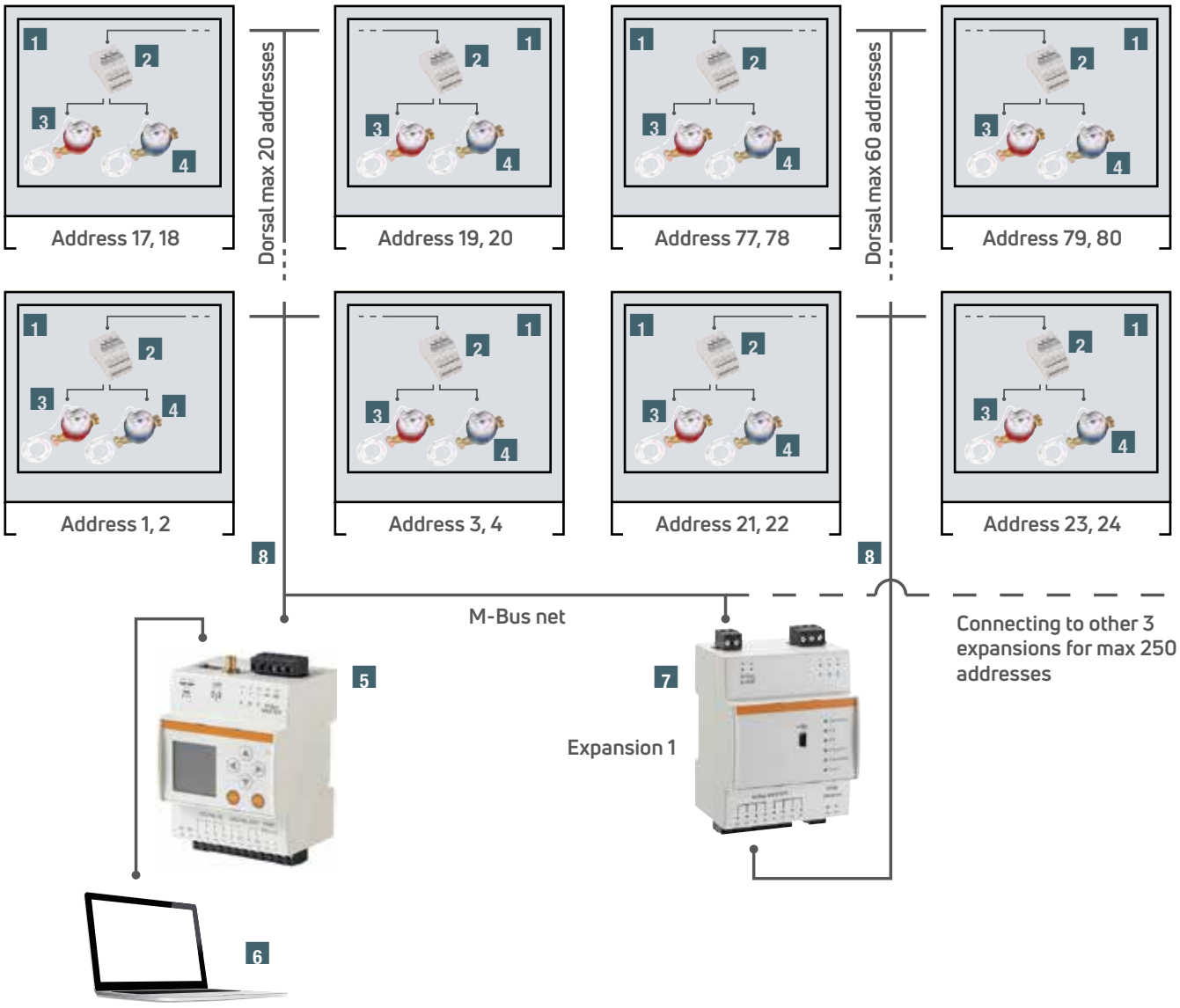


Note:
maximum no. of addresses that can be connected to a concentrator and relative expansions: 250 (concentrator can be combined up to 4 expansions to manage up to 250 addresses).

Construction

1 Accounting box (total no. of M-Bus addresses per box: 1)
2 Energy measuring device with data transmission double impulsive input
3 Hot water impulse launch volumetric counter
4 Cold water impulse launch volumetric counter
5 Concentrator up to 20 addresses
6 PC
7 Expansion up to 60 addresses
8 Unshielded 2-wire twisted cable for data transmission via M-Bus protocol

Installation scheme with pulse adapters and concentrator



Note:
maximum no. of addresses that can be connected to a concentrator and relative expansions: 250 (concentrator combined up to 4 expansions to manage up to 250 addresses).

Construction

1 Accounting box (total no. of M-Bus addresses per box 2) (no. 1 address for each impulse adaptor port, to which the volumetric counter is connected).
2 Impulse adaptor
3 Hot water impulse launch volumetric counter
4 Cold water impulse launch volumetric counter
5 Concentrator up to 20 addresses
6 PC
7 Expansion up to 60 addresses
8 Unshielded 2-wire twisted cable for data transmission via M-Bus protocol



Hot/cold EVO energy meter with data transmission with 3 volumetric pulse-emitting meters

Accuracy class according to UNI EN 1434:3
Environmental class according to UNI EN 1434:C
Permanent flow rate: 0.6/1.5 m^3/h (DN15 size), 2.5 m^3/h (DN20 size)
Maximum flow rate: 1.2/3 m^3/h (DN15 size), 5 m^3/h (DN20 size)
Minimum flow rate DN15 size:
Horizontal installation 12/30 l/h, vertical installation 24/60 l/h
Minimum flow rate DN20 size:
Horizontal installation 50 l/h, vertical installation 100 l/h
Nominal pressure: 16 bar - Flow meter temperature range: 5÷90°C
Electronic unit temperature range: 0÷150°C
Flow-return temperature difference: 3÷100 K
Type of probes: Pt1000 - Ø 5 mm - cable 1.5 m
Battery-powered, maximum estimated life, not guaranteed, of the battery 10 years (battery life is affected by the installation and usage conditions).
The battery is guaranteed for 4 years from the date of sale. The battery can be replaced.
Set up for external power supply (230 Vac) with optional feeder.
Protection rating: IP65.
Configured for installation on the return pipe with possibility of installation on the flow pipe.
Communication via M-Bus protocol in accordance 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 3 impulse launch volumetric counters are connected to it.
Use the "USB optical feeler kit" to configure the primary M-Bus address and the 3 impulsive inputs of the meter.
Product compliant with UNI EN 1434 and certified in accordance with Leg.Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) only using water as a fluid.

Dimension	Type	Kv	Pcs. pack	Code	Price €
DN15 Conn. M 3/4" - 0,6/1,2 m^3/h	H/C (*)	1,52	1	02709546	506,50
DN15 Conn. M 3/4" - 1,5/3,0 m^3/h	H/C (*)	3,27	1	02709548	506,50
DN20 Conn. M 1" - 2,5/5,0 m^3/h	H/C (*)	6,15	1	02709550	512,80

Threads G (UNI EN ISO 228-1)

(*) Hot/Cold

Dimensions: see section Technical Attachments



230 Vac power supply for EVO energy meter

Technical data
Input: 230 Vac (2.5 m cable);
Output: 3 Vdc (1 m cable);
Protection rating: IP65.
In the event of a power cut, the backup battery (lithium, 3 Vdc) guarantees power for up to one year.

Dimension	Pcs. pack	Code	Price €
	1	02709580	412,40

Dimensions: see section Technical Attachments



Sensor-holder Tee assembly

Dimension	Pcs. pack	Code	Price €
1/2" x (M10x1) x 1/2"	1	02708188	17,93
3/4" x (M10x1) x 3/4"	1	02708190	20,85

Threads G (UNI EN ISO 228-1)

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.

Dimensions: see section Technical Attachments



Hot water meter with pulse output SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165) - Lenght of counter: 110 mm
Horizontal or vertical installation
Minimum Q1 flow rate: 25 l/h (horizontal installation)
Minimum Q1 flow rate: 39,7 l/h (vertical installation)
Permanent Q3 flow rate: 2,5 m^3/h - Maximum Q4 flow rate: 3,13 m^3/h
MID metrological class: R (Q3/Q1) =100 H (horizontal installation), R (Q3/Q1) =63 V (vertical installation) - Kv = 3,15
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.
Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code	Price €
DN15 Connection M 3/4"	3,15	1	02709712	100,50

Threads G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments



Hot water meter with pulse output SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165) - Lenght of counter: 130 mm
Horizontal or vertical installation
Minimum Q1 flow rate: 40 l/h (horizontal installation)
Minimum Q1 flow rate: 63,5 l/h (vertical installation)
Permanent Q3 flow rate: 4 m^3/h
Maximum Q4 flow rate: 5 m^3/h
MID metrological class: R (Q3/Q1) =100 H (horizontal installation), R (Q3/Q1) =63 V (vertical installation)
Operating temperature: from 30 °C to 90 °C - Operating pressure (PN): 16 bar
Kv=5,04 - 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.
Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code	Price €
DN20 Connection M 1"	5,04	1	02709720	116,70

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments



Cold water meter with pulse output SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)
Lenght of counter: 110 mm
Horizontal or vertical installation
Minimum Q1 flow rate: 25 l/h (horizontal installation) - Minimum Q1 flow rate: 39,7 l/h (vertical installation)
Permanent Q3 flow rate: 2.5 m^3/h - Maximum Q4 flow rate: 3.13 m^3/h
MID metrological class: R (Q3/Q1) = 100 H (horizontal installation), R (Q3/Q1) = 63 V (vertical installation) - Kw=3,15
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.
Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code	Price €
DN15 Connection M 3/4"	3,15	1	02709710	97,99

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments



Cold water meter with pulse output SJ PLUS

Meter with single jet and dry dial with body made of brass CW617N-DW (UNI EN 12164 and 12165)
Lenght of counter: 130 mm
Horizontal or vertical installation
Minimum Q1 flow rate: 40 l/h (horizontal installation) - Minimum Q1 flow rate: 63,5 l/h (vertical installation)
Permanent Q3 flow rate: 4 m^3/h - Maximum Q4 flow rate: 5 m^3/h
MID metrological class: R (Q3/Q1) = 100 H (horizontal installation), R (Q3/Q1) = 63 V (vertical installation)
Maximum operating temperature: 50 °C - Operating pressure (PN): 16 bar
Kv=5,04 - 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.
Product certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU) and in confirm to Italian Ministerial Decree 174/2004.

Dimension	Kv	Pcs. pack	Code	Price €
DN20 Connection M 1"	5,04	1	02709718	113,70

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments



Pipes

Dimension	Connections	Pcs. pack	Code	Price €
L=110 mm (*)	3/4"	1	01306354	5,62
L=130 mm (**)	1"	1	01306358	6,01

(*) Predisposition for installation of measuring instruments DN15
(**) Predisposition for installation of measuring instruments DN20
Threads: G (UNI EN ISO 228-1)
Complete with no. 2 gaskets



Pipe union connections kit

Dimension	Pcs. pack	Code	Price €
3/4" F - 1/2" M	1	02708098	10,63
1" F - 3/4" M	1	02708110	16,51

Threads: G (UNI EN ISO 228-1)
Body made of brass CW617N-DW (UNI EN 12164 and 12165)
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 EVO hot/cold for high flow rates with threaded fitting and data transmission

Type
Multiple-jet counter with magnetic transmission.

EVO electronic unit technical data
Temperature range: 5÷55 °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 (2 seconds with 230V power supply for EVO measurement device, optional)
Impulses: 10 litres/impulse - Display: LCD with 8 digits + special characters
Energy measurement unit: MWh
Power supply: 3.6 V lithium battery, maximum estimated duration, not guaranteed, 6 years (the battery life is affected by installation and operating conditions). Battery It is guaranteed for 2 years from date of sale. On these models, the battery is replaceable.
Data storage EE-PROM / daily
Reading data: settable - Protection class: IP54 - Electromagnetic class: E2
Mechanical class: M2
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): 150 x 130 x 35 mm

To be able to connect up to 3 meters for sanitary water with pulse outputs to the EVO electronic unit, install the optional module 3 pulse inputs for EVO meter.

Communication via M-bus protocol in compliance with standard UNI EN 1434-3. Use "Kit USB optical head" to set the primary address of the measuring device. The energy measuring device for high flow rates is compliant with UNI EN 1434 and certified in accordance with Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU).

Dimension	Connection	Pcs. pack	Code	Price €
DN 25 Horizontal	M 1"1/4	1	02709664	1.184,00
DN 32 Horizontal	M 1"1/2	1	02709666	1.224,00
DN 40 Horizontal	M 2"	1	02709668	1.591,00
DN 25 Ascending vertical	M 1"1/4	1	02709670	1.281,00
DN 32 Ascending vertical	M 1"1/2	1	02709674	1.363,00
DN 40 Ascending vertical	M 2"	1	02709678	1.728,00
DN 25 Descending vertical	M 1"1/4	1	02709672	1.281,00
DN 32 Descending vertical	M 1"1/2	1	02709676	1.363,00
DN 40 Descending vertical	M 2"	1	02709680	1.728,00

Threads: G (UNI EN ISO 228-1)

Item available on request: 30 days from order confirm.

Dimensions: see section Technical Attachments

Technical data of flow rate measurement device				
Diameter DN		**DN25 Horizontal/Ascending vertical/Descending vertical**	**DN32 Horizontal/Ascending vertical/Descending vertical**	**DN40 Horizontal/Ascending vertical/Descending vertical**
Nominal flow rate	m^3/h	3,5	6	10
Minimum flow rate	l/h	70	120	200
Maximum flow rate	m^3/h	7	12	20
Max operating temperature	°C	90	90	90
Max operating pressure	bar	16	16	16
Weight	kg	2,7/2,3/3,5	2,8/2,3/3,7	5,2/5,7/7
Impulses (reed)	Litres/imp	10	10	10
Kv	(m^3/h)/bar 0,5	10	13	21



Pipe union connections kit

Dimension	Pcs. pack	Code	Price €
1"1/4 F - 1" M	1	02708160	31,82
1"1/2 F - 1"1/4 M	1	02708162	51,85
2" F - 1"1/2 M	1	02708164	76,57

Threads: G (UNI EN ISO 228-1)



Kit sensor holder Tee group for measurement devices DN25

Dimension	Pcs. pack	Code	Price €
1" x 1" x 1"	1	02708196	139,20

Threads: G (UNI EN ISO 228-1)

Dimensions: see section Technical Attachments



Probe holder kit for energy measurement devices DN32 and DN40

Dimension	Pcs. pack	Code	Price €
	1	02708296	99,62

Threads: G (UNI EN ISO 228-1)
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

Dimensions: see section Technical Attachments



Flanged energy measurement device EVO hot/cold for high flow rates with threaded fitting and data transmission

Typology
Woltmann mill counter for hot water up to 130 °C

EVO electronic unit technical data
Temperature range: 5÷55 °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 (every 2 seconds with 230V power supply for EVO measurement device, optional)
Impulses: 100 litres/impulse (1000 litres/impulse for size DN150)
Display: LCD with 8 digits + special characters
Energy measurement unit: MWh
Power supply: battery 3 V lithium, estimated maximum battery life 6 years (battery life is influenced by the conditions of installation and use).
The battery is guaranteed for 2 years from date of sale.
On these models the battery is replaceable.
Data storage EE-PROM/daily
Reading data: settable
Protection class: IP54
Electromagnetic class: E2
Mechanical class: M2
Temperature probes: Pt500, Ø 6 mm, cable length: 3 m
Dimensions (Length x Width x Height): 150 x 130 x 35 mm

To be able to connect up to 3 meters for sanitary water with pulse outputs to the EVO electronic unit, install the optional module 3 pulse inputs for EVO meter.

Communication via M-bus protocol in compliance with UNI EN 1434-3.
Use "kit USB optical head" to set the primary address of the measuring device.
The energy measuring device for high flow rates with flanged connections, the electronic unit and the temperature probes are compliant with Italian Leg. Dec. no. 84 of 19/05/2016 (implementation of the MID European Directive 2014/32/EU).

Dimension	Pcs. pack	Code	Price €
DN50	1	02709722	1.976,00
DN65	1	02709724	2.125,00
DN80	1	02709726	2.283,00
DN100	1	02709728	2.375,00
DN125	1	02709730	2.608,00
DN150	1	02709732	4.195,00

Item available on request: 30 days from order confirm

Dimensions: see section Technical Attachments

Technical data of flow measurement device							
Diameter DN	**mm**	**50**	**65**	**80**	**100**	**125**	**150**
Nominal flow rate	m^3/h	15	25	40	60	100	150
Minimum flow rate	m^3/h	0,6	1,0	1,4	2,0	4,0	6,0
Maximum flow rate	m^3/h	30	50	80	120	200	300
Operating pressure	bar	16	16	16	16	16	16
Maximum operating temperature	°C	130	130	130	130	130	130
Maximum reading	m^3	1000000	1000000	1000000	1000000	1000000	1000000
Minimum reading	l	0,5	0,5	0,5	0,5	0,5	0,5
Weight	kg	6,3	8,6	11,0	15,0	17,5	30,0
Impulses	Litres/imp	100	100	100	100	100	1000
Kv [mc/h]		79	126	199	316	506	791



Probe holder kit for energy measurement devices DN50 and DN65

Dimension	Pcs. pack	Code	Price €
	1	02708296	99,62

Threads: G (UNI EN ISO 228-1)

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

Dimensions: see section Technical Attachments



Probe holder kit for energy measurement devices DN80, DN100 and DN125

Dimension	Pcs. pack	Code	Price €
	1	02708298	117,20

Threads: G (UNI EN ISO 228-1)

Note: to be used in conjunction with energy measurement devices DN 80, DN100 and DN125.
A kit is composed of:
- 2 sleeves to be welded for installation at 45°
- 2 wells of 1/2", L = 85 mm

Dimensions: see section Technical Attachments



Probe holder kit for energy measurement devices DN150

Dimension	Pcs. pack	Code	Price €
	1	02708294	135,10

Threads: G (UNI EN ISO 228-1)

Note: to be used in conjunction with energy measurement devices DN150.
A kit is composed of:
- 2 sleeves to be welded for installation at 45°
- 2 wells of 1/2", L = 120 mm

Dimensions: see section Technical Attachments



USB KMK116 optical feeler kit

Dimension	Pcs. pack	Code	Price €
	1	02709480	539,40

Complete with "Device Monitor" configuration software. To be used to configure the primary M-Bus address and the pulse inputs of the energy meters.



Micro-Master

Power supply via PC - USB interface - Dimensions: 30x54x100 mm

Use the Micro-Master for the configuration of the pulse adapter, using software MBCONF included. Using the Micro-Master, it's not possible to configure the 2 pulsed inputs of the energy meters with dual pulse input.

Dimension	Pcs. pack	Code	Price €
	1	02708214	972,60

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 (EN 50022) - 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.

Dimension	Pcs. pack	Code	Price €
	1	02708212	285,20



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

Dimension	Mt. pack	Code	Price €
	250 m	02708262	194,60



Energy Manager EVO Concentrator 20

Central unit of the M-Bus network (Concentrator / Master) for the connection of up to 20 addresses.

Characteristics:
- Graphic, bright (colour), multilingual display.
- 6-key tactile membrane keyboard
- Memory capable of recording 1 year of readings (in the case of 250 instruments, read every 15 minutes).

Interfaces:
- M-Bus, wired connection for up to 20 addresses.
- Nr. 1 Ethernet port.
- Multilingual and secure webserver (SSL) for configuration and data consultation, with the possibility of local connection via Ethernet cable, or remotely via an optional external UMTS modem (no software required).
- Export of data to PC, also by sending e-mail.

Technical data:
- Power supply: 24 Vdc +/- 10%, 24 Vac (min 20 Vac, max 40 Vac).
- Maximum Consumption: 14.5W
- Degree of protection: IP20.
- Dimensions HxWxD: 90x71x62 mm.

Note: the pulse adapter is recognized by the M-Bus network as 1 device with 2 addresses, regardless of the number of addresses connected to it.

Dimension	Pcs. pack	Code	Price €
Up to 20 M-Bus addresses	1	02709760	2.336,00



Energy Manager Expansion 60

Power supply: 24Vdc +/- 10%, 24Vac (min 20Vac, max 40Vac) – Maximum consumption: 12 W – M-BUS Master connection for connecting up to 60 addresses - M-BUS Slave for connection as expansion - Dimensions: 90x71x62 mm (HxLxW) – DIN (4 modules)

The number of addresses that each expansion can manage must be added to the number of addresses managed by the concentrator (max 20 addresses). Therefore, if, for example, a concentrator is combined with an expansion module of 60 addresses, a total of 60 + 20 = 80 M-Bus addresses can be managed.

Up to 4 expansions with 60 addresses can be combined with an M-Bus concentrator (20+60+60+60+60=260 total addresses considering, however, that the maximum limit of manageable M-Bus addresses is 250).

Dimension	Pcs. pack	Code	Price €
Up to 60 M-Bus addresses	1	02708290	1.102,00

Energy consumption measuring instruments



USB/Ethernet adaptor cable

With a USB 3.0 to Gigabit adaptor you can add a single RJ45 Ethernet port to a computer system with only USB ports
Connectors: Female RJ-45, USB Type-A 3.0 Male
Supports standard USB 1.1, 2.0 and 3.0
CD with installation Driver included
Compatible with Windows XP/Vista/7/8/8.1/10, Mac OS and Linux.

Dimension	Pcs. pack	Code	Price €
	1	02708376	131,40



Transformer 230/24V 10 VA

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

Dimension	Pcs. pack	Code	Price €
2 DIN modules	1	28139130	42,78

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



Transformer 230/24 V 35 VA

Dimension	Pcs. pack	Code	Price €
5 DIN modules	1	28153410	92,10



Transformer 230/24V 63 VA

Dimension	Pcs. pack	Code	Price €
8 DIN modules	1	28153420	150,20

Guide to choosing the Energy Manager system and transformers based on the number of addresses connected to the M-Bus network

Connected addresses to the M-BUS net	Energy Manager System	Transformer model		
		 Transformer 230/24V 10 VA (28139130)	 Transformer 230/24V 35 VA (28153410)	 Transformer 230/24V 63 VA (28153420)
1 ÷ 20	 1 Concentrator 20 (02709760)	1		
21 ÷ 80	 1 Concentrator 20 (02709760) + 1 Expansion 60 (02708290)		1	
81 ÷ 140	 1 Concentrator 20 (02709760) + 2 Expansions 60 (02708290)		1	
141 ÷ 200	 1 Concentrator 20 (02709760) + 3 Expansions 60 (02708290)			1
201 ÷ 250	 1 Concentrator 20 (02709760) + 4 Expansions 60 (02708290)			1

Note:
- 1 address corresponds to an energy meter;
- 2 addresses correspond to an impulse adaptor;
- no addresses correspond to a volumetric counter.



Connection and control of heating units

WEB

SCAN



> FULL Manually, Thermostatizable, Thermostatic valves **305**



> POKER Manually, Thermostatizable, Thermostatic valves **308**



> Lockshields **312**



> Thermostatic heads **315**



> Actuators and thermostat radio frequency **320**

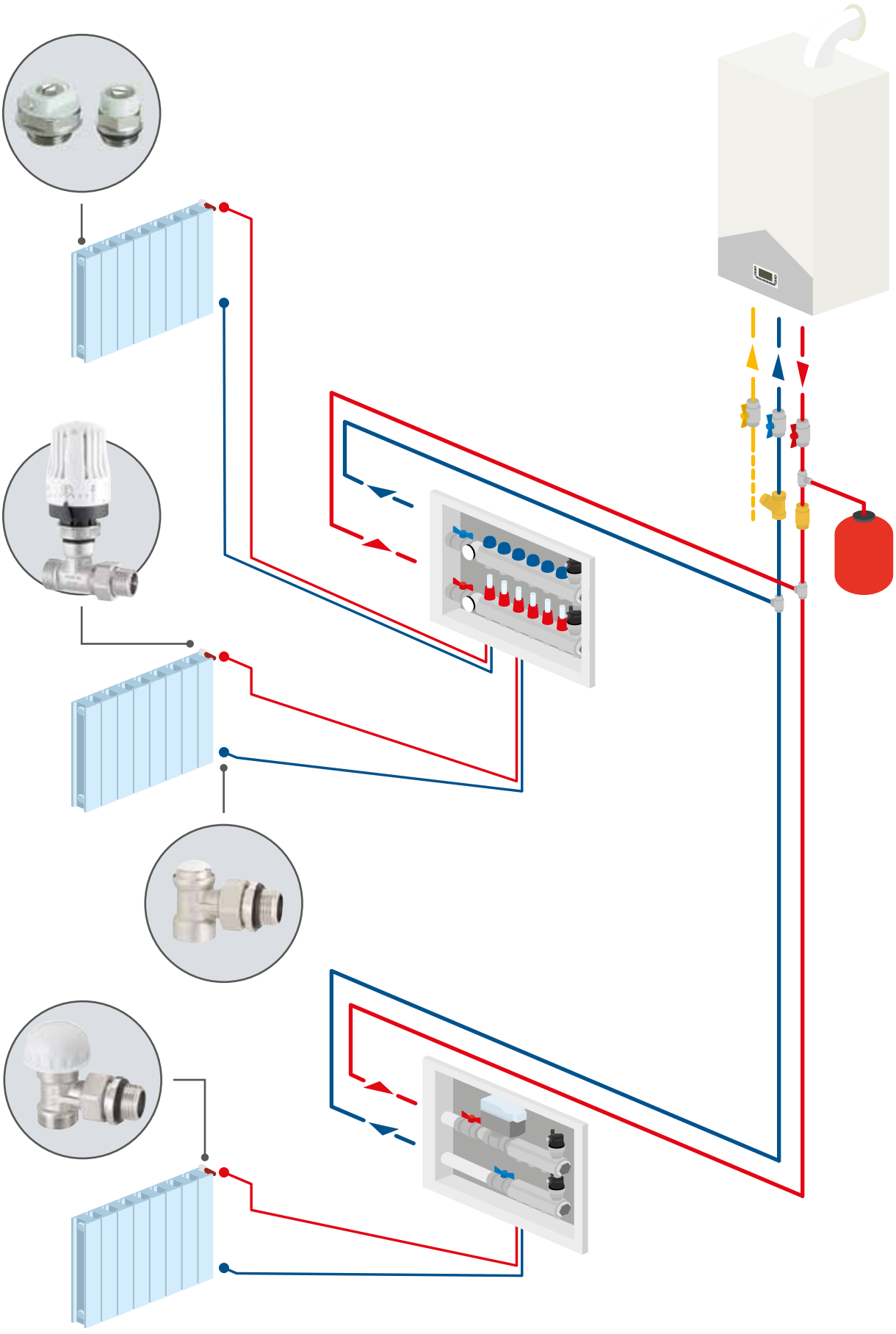


> Valves H **324**



> Bleed valves **325**

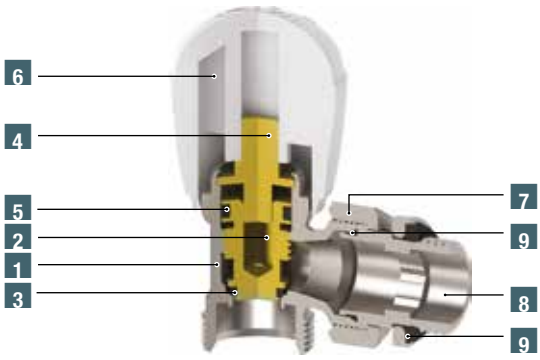
Example of installation



Full manual right-angle valve

Full manual valve





Construction

1. Body nickel-plated brass UNI EN 12165 CW617N
2. Shutter in brass UNI EN 12164 CW617N
3. Shutter seal O-ring in EPDM
4. Brass rod UNI EN 12164 CW617N
5. Shutter seal O-ring in EPDM
6. Knob in white ABS RAL 9003
7. Nut nickel-plated brass UNI EN 12165 CW617N
8. Tang nickel-plated brass UNI EN 12164 CW617N
9. O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum operating temperature: +100 °C
Large capacity
Fitting also available with O-ring (NBR)

Note: the tang with radiator seal is also available with NBR O-Ring



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

Dimension	Thread	Pcs. pack	Code	Price €
3/8"	24x19	10	01350920	9,22
1/2"	24x19	10	01350700	8,53
3/8" O-R	24x19	10	01350924	9,26
1/2" O-R	24x19	10	01350704	9,74
3/4" O-R	3/4" Eurocone	5	01350610	18,95

Emmeti seal: see section 8



Full manual right-angle valve for steel pipe

Dimension	Pcs. pack	Code	Price €
3/8"	5	01350930	9,38
1/2"	5	01350720	8,87
3/8" O-R	5	01350934	10,40
1/2" O-R	5	01350724	9,93
3/4" O-R	5	01350614	19,24



Full manual right-angle valve for multi-layer, connection G 1/2" M

Dimension	Thread	Pcs. pack	Code	Price €
3/8"	G 1/2"	25	01350780	9,44
1/2"	G 1/2"	25	01350708	8,38
3/8" O-R	G 1/2"	25	01350784	9,43
1/2" O-R	G 1/2"	25	01350712	10,22

Emmeti seal G 1/2"



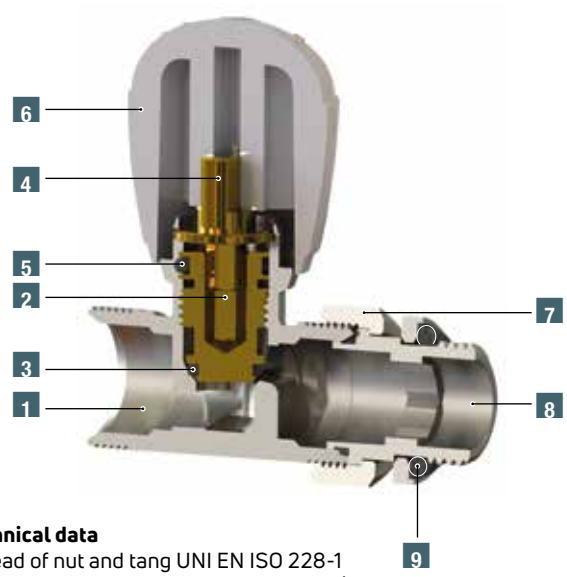
G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code	Price €
16 x 2	10	28100310	2,90

Full manual straight valve

Full manual valve





Construction

1. Body nickel-plated brass UNI EN 12165 CW617N
2. Shutter in brass UNI EN 12164 CW617N
3. Shutter seal O-ring in EPDM
4. Brass rod UNI EN 12164 CW617N
5. Shutter seal O-ring in EPDM
6. Knob in white ABS RAL 9003
7. Nut nickel-plated brass UNI EN 12165 CW617N
8. Tang nickel-plated brass UNI EN 12164 CW617N
9. O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum operating temperature: +100 °C
Large capacity
Fitting also available with O-ring (NBR)

Note: the tang with radiator seal is also available with NBR O-Ring



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

Dimension	Thread	Pcs. pack	Code	Price €
1/2"	24x19	5	01350850	10,93
1/2" O-R	24x19	5	01350854	12,24
3/8"	24x19	5	01350960	11,06
3/8" O-R	24x19	5	01350964	11,81

Emmeti seal 24x19: see section 8



Full manual straight valve for steel pipe

Dimension	Pcs. pack	Code	Price €
1/2"	5	01350870	10,94
1/2" O-R	5	01350874	12,98



Full manual straight valve for multi-layer, connection G 1/2" M

Dimension	Thread	Pcs. pack	Code	Price €
1/2"	G 1/2"	25	01350860	10,90
1/2" O-R	G 1/2"	25	01350864	12,04

Emmeti seal G 1/2"



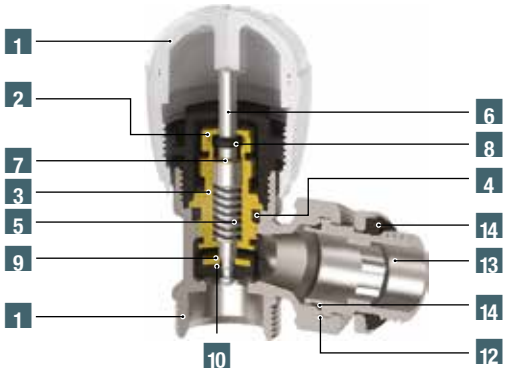
G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code	Price €
16 x 2	10	28100310	2,90

Full thermostatizable right-angle valve

Full thermostatizable valve





Construction

1 Body nickel-plated brass UNI EN 12165 CW617N
2 Collar in PA6 (30% FV)
3 Shutter in brass UNI EN 12164 CW617N
4 O-ring for shutter steadying in NBR
5 Spring in stainless steel AISI 302
6 Spindle in stainless steel AISI 304
7 Collar for body shutter in brass UNI EN 12164 CW617N
8 O-ring for shutter in EPDM
9 Washer of lock gasket in brass UNI EN 12164 CW617N
10 Shutter steadying in NBR
11 Knob in white ABS RAL 9003 in 2 pieces
12 Nut nickel-plated brass UNI EN 12165 CW617N
13 Tang nickel-plated brass UNI EN 12164 CW617N
14 O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum operation temperature: +100 °C

Note: can be used in conjunction with thermostatic Sensor heads and thermo-electric heads after the following steps:
- unscrew the upper part 11
- unscrew 2
- extract the lower part 11
- screw back in 2 (for size 3/4" simply unscrew the lower part 11)
- install the head

Note: the tang with radiator seal is also available with NBR O-Ring



Full thermostatizable righ-angle valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Thread	Pcs. pack	Code	Price €
3/8"	24x19	10	01350944	12,49
1/2"	24x19	10	01350760	11,72
3/8" O-R	24x19	10	01350946	12,52
1/2" O-R	24x19	10	01350762	12,89
3/4" O-R (*)	3/4" Eurocone	1	01350634	22,61

(*) Thread UNI EN ISO 228-1
Emmeti seals: see section 8



Full thermostatizable righ-angle valve for steel pipe

Tail Dimension	Pcs. pack	Code	Price €
3/8"	5	01350954	12,32
1/2"	5	01350764	11,51
3/8" O-R	5	01350956	12,34
1/2" O-R	5	01350766	12,64
3/4" O-R	1	01350636	22,89



Full thermostatizable righ-angle valve for multi-layer, connection G 1/2" M

Dimension	Thread	Pcs. pack	Code	Price €
3/8"	G 1/2"	25	01350794	11,84
1/2"	G 1/2"	25	01350768	11,18
3/8" O-R	G 1/2"	25	01350796	11,86
1/2" O-R	G 1/2"	25	01350770	12,34

Emmeti seal G 1/2"



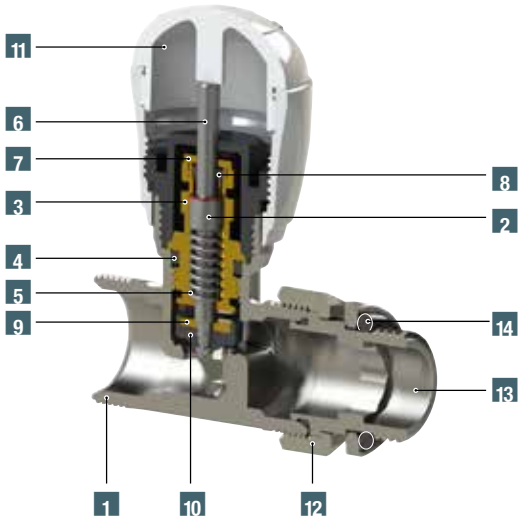
G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code	Price €
16 x 2	10	28100310	2,90

Full thermostatizable straight valve

Full thermostatizable valve





Construction

1. Body nickel-plated brass UNI EN 12165 CW617N
2. Collar in PA6 (30% FV)
3. Shutter in brass UNI EN 12164 CW617N
4. O-ring for shutter steadying in NBR
5. Spring in stainless steel AISI 302
6. Spindle in stainless steel AISI 304
7. Collar for body shutter in brass UNI EN 12164 CW617N
8. O-ring for shutter in EPDM
9. Washer of lock gasket in brass UNI EN 12164 CW617N
10. Shutter steadying in NBR
11. Knob in white ABS RAL 9003 in 2 pieces
12. Nut nickel-plated brass UNI EN 12165 CW617N
13. Tang nickel-plated brass UNI EN 12164 CW617N
14. O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Max operating pressure: 10 bar - Max differential pressure: 1 bar
Maximum operation temperature: +100 °C

Note: can be used in conjunction with thermostatic Sensor heads and thermo-electric heads after the following steps:
- unscrew the upper part 11
- unscrew 2
- extract the lower part 11
- screw back in 2
- install the head



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

Dimension	Thread	Pcs. pack	Code	Price €
1/2"	24x19	5	01350880	14,70
1/2" O-R	24x19	5	01350882	15,74
3/8"	24x19	5	01350974	13,37
3/8" O-R	24x19	5	01350976	14,37

Emmeti seal 24x19: see section 8



Full thermostatizable straight valve for steel pipe

Dimension	Pcs. pack	Code	Price €
1/2"	5	01350888	16,94
1/2" O-R	5	01350890	18,13



Full thermostatizable straight valve for multi-layer, connection G 1/2" M

Dimension	Thread	Pcs. pack	Code	Price €
1/2"	G 1/2"	25	01350884	14,34
1/2" O-R	G 1/2"	25	01350886	15,47

Emmeti seal G 1/2"



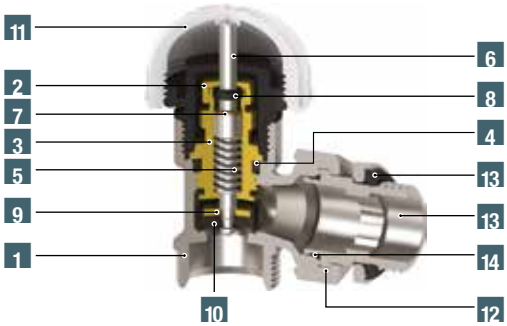
G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code	Price €
16 x 2	10	28100310	2,90

Full thermostatic right-angle valve

Full thermostatic valve





Construction

1 Body nickel-plated brass UNI EN 12165 CW617N
2 Collar in PA6 (30% FV)
3 Shutter body in brass UNI EN 12164 CW617N
4 O-ring for shutter body steadying in NBR
5 Spring in stainless steel AISI 302
6 Spindle in stainless steel AISI 304
7 Collar in brass UNI EN 12164 CW617N
8 O-ring for shutter in EPDM
9 Washer of lock gasket in brass UNI EN 12164 CW617N
10 Shutter steadying in NBR
11 Cap in white ABS RAL 9003
12 Nut nickel-plated brass UNI EN 12165 CW617N
13 Tang nickel-plated brass UNI EN 12164 CW617N
14 O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum operation temperature: +100 °C

Note: the tang with radiator seal is also available with NBR O-Ring

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



Full thermostatic righ-angle valve for copper pipe, PEX, multi-layer, PP, PB

Dimension	Thread	Pcs. pack	Code	Price €
3/8"	34x19	10	01350940	12,25
1/2"	24x19	10	01350740	11,45
3/8" O-R	24x19	10	01350942	12,30
1/2" O-R	24x19	10	01350742	12,65
3/4" O-R (*)	3/4" Eurocone	1	01350630	21,51

(*) Thread UNI EN ISO 228-1

Emmeti seals: see section 8



Full thermostatic righ-angle valve for steel pipe

Dimension	Pcs. pack	Code	Price €
3/8"	5	01350950	12,10
1/2"	5	01350744	11,24
3/8" O-R	5	01350952	12,15
1/2" O-R	5	01350746	12,43
3/4" O-R	1	01350632	21,82

Full thermostatic valve



Right-angle Valves and lockshields for steel pipe

Dimension		Pcs. pack	Code	Price €
1"	Valve	1	01266112	115,20
1"	Lockshield	1	01266114	144,30



Full thermostatic righ-angle valve for multi-layer, connection G 1/2" M

Dimension	Thread (*)	Pcs. pack	Code	Price €
3/8"	G 1/2"	25	01350790	11,57
1/2"	G 1/2"	25	01350748	10,96
3/8" O-R	G 1/2"	25	01350792	11,60
1/2" O-R	G 1/2"	25	01350750	12,17

Emmeti seal G 1/2"



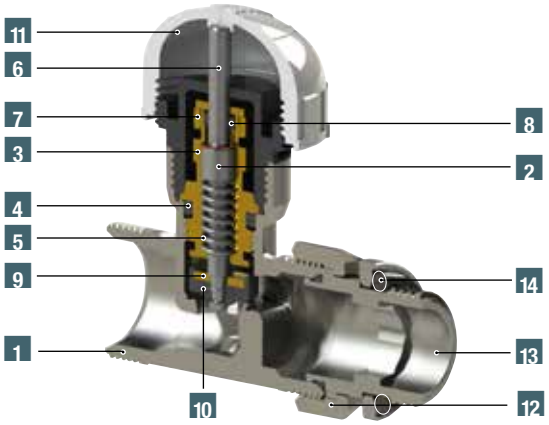
G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code	Price €
16 x 2	10	28100310	2,90

Full thermostatic straight valve

Full thermostatic valve





Construction

1. Body nickel-plated brass UNI EN 12165 CW617N
2. Collar in PA6 (30% FV)
3. Shutter body in brass UNI EN 12164 CW617N
4. O-ring for shutter body steadying in NBR
5. Spring in stainless steel AISI 302
6. Spindle in stainless steel AISI 304
7. Collar in brass UNI EN 12164 CW617N
8. O-ring for shutter in EPDM
9. Washer of lock gasket in brass UNI EN 12164 CW617N
10. Shutter steadying in NBR
11. Cap in white ABS RAL 9003
12. Nut nickel-plated brass UNI EN 12165 CW617N
13. Tang nickel-plated brass UNI EN 12164 CW617N
14. O-ring for tang steadying in NBR

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum operation temperature: +100 °C

Note: the tang with radiator seal is also available with NBR O-Ring

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



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

Dimension	Pcs. pack	Code	Price €
1/2"	5	01350900	13,60
1/2" O-R	5	01350902	14,62
3/8"	5	01350970	12,38
3/8" O-R	5	01350972	13,30

Emmeti seal 24x19: see section 8



Full thermostatic straight valve for steel pipe

Dimension	Pcs. pack	Code	Price €
1/2"	5	01350908	15,70
1/2" O-R	5	01350910	16,79



Straight Valve and Lockshield for steel pipe

Dimension		Pcs. pack	Code	Price €
1" (*)	Valve	1	01266116	115,20
1" (*)	Lockshield	1	01266118	144,30

(*) Items to be out of stock



Full thermostatic righ-angle valve for multi-layer, connection G 1/2" M

Dimension	Pcs. pack	Code	Price €
1/2"	25	01350904	13,12
1/2" O-R	25	01350906	14,19

Emmeti seal G 1/2"



G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code	Price €
16 x 2	10	28100310	2,90

Full Kit



Full kit manual right-angle valve + lockshield 1/2" and connection for multi-layer pipe

Dimension	Pcs. pack	Code	Price €
Full manual right angle valve for copper pipe 1/2" + lockshield for copper pipe 1/2" + 2 monoblocco seals for multi-layer pipe Ø 16	1	01306282	27,35

Supplied in sachet + box
Availables on request



Full kit manual right-angle valve + lockshield 1/2" with O-R and connection for multi-layer pipe

Dimension	Pcs. pack	Code	Price €
Full manual right angle valve for copper pipe 1/2" O-R + lockshield for copper pipe 1/2" O-R + 2 monoblocco seals for multi-layer pipe Ø 16	1	01306278	28,94

Supplied in sachet + box
Availables on request

Kit dynamic thermostatic valve and lockshield

NEW

Full-D dynamic thermostatic valve, thanks to the special insert inside, guarantees automatic dynamic balancing of the system, keeping the flow rate feeding the individual heating body constant (equal to the design value), regardless of the differential pressure. Even with strongly fluctuating differential pressures, which can occur when sections of the system are opened or closed, the flow rate is kept constant within the control range. The device, in combination with a thermostatic head, combines several functions in a single component: it allows the room temperature of the room in which it is installed to be kept constant, guaranteeing effective energy savings.

The design flow rate is set by turning the numbered ring nut mounted on the handwheel, which will protect the setting from unauthorised tampering.
The valve is continuously adjustable; the setting can be changed while the system is running.







Technical data dynamic thermostatic valve
Maximum operating temperature: 110 °C
Minimum operating temperature: 2 °C
Fluid: water or ethylene/propylene glycol mixture
(max. glycol proportion 50%, pH value 6.5-10)
Not suitable for steam, oily, polluted and aggressive fluids.

Campo di regolazione Valvola termostatica dinamica
Flow rate: 10÷170 l/h (value relative to coupling with thermostatic head, deviation -2 K)
Δp max: 1.5 bar
Δp min (10÷130 l/h): 0.1 bar
Δp min (>130÷170 l/h): 0.15 bar
Below the Δp min, the normal operation of a thermostatic valve is guaranteed: in this situation, the flow rate is reduced from the nominal value in proportion to the Δp available.

Note:
can be combined with Sensor, Sensor R, SensorEVO2 thermostatic heads



Full-D Dynamic thermostatic valve and lockshield kit for copper, PEX, multilayer, PP, PB pipe

NEW

Model	Pcs. pack	Code	Price €
1/2"	1	01360046	84,23

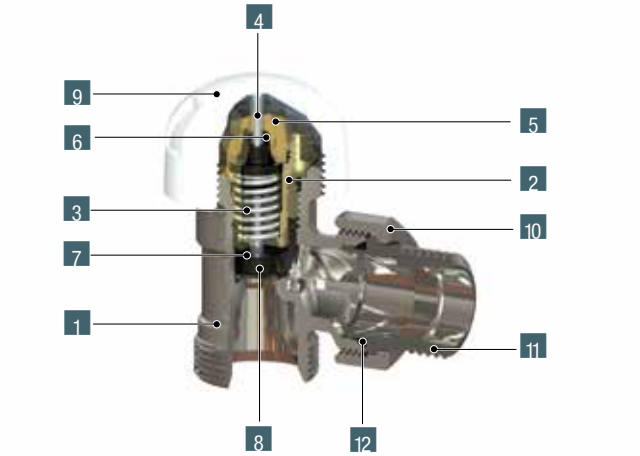
Dimensions and setting curve: see section Technical Attachments

Poker Plus

Thermostatic valves

NEW





Construction

1. Brass body UNI EN 12165 CW617N nickel-plated
2. Brass shutter body UNI EN 12164 CW617N
3. AISI 301 steel spring
4. AISI 304 stainless steel push rod
5. Nickel-plated EN 12164 CW617N brass shutter ring
6. O-ring seal EPDM rod
7. Washer block gasket brass UNI EN 12164 CW614N
8. Shutter seal in NBR
9. Cap in white ABS RAL 9003
10. UNI EN 12165 CW617N nickel-plated brass nut
11. UNI EN 12164 CW617N nickel-plated brass tang
12. O-ring shank seal in NBR

Technical data

Nut and tang threading: UNI EN ISO 228-1
Male valve body thread: gas 24x19 (24 mm diameter and 19 threads per inch)
Maximum operating pressure: 10 bar
Maximum differential pressure: 0,6 bar
Maximum operating temperature: +95 °C

Dimensions: see section Technical Attachments

Note: Can be combined with SensorEVO2 thermostatic heads (NOT combinable with Sensor, Sensor R and SensorEVO).



Poker Plus thermostatic angle valve for copper pipe, PE-X, multilayer, PP, PB

NEW

Dimension	Seal Emmeti	Pcs. pack	Code	Price €
1/2"	24x19	10	01360040	13,81

Emmeti seals: see section 8



Poker Plus straight thermostatic valve for copper pipe, PE-X, multilayer, PP, PB

NEW

Dimension	Seal Emmeti	Pcs. pack	Code	Price €
1/2"	24x19	5	01360044	13,96

Emmeti seals: see section 8

CEN certified product according to EN 215 in the following configurations

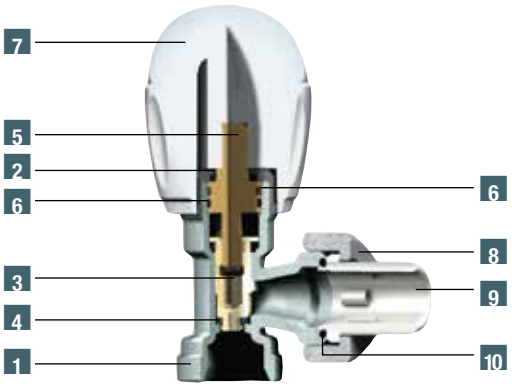
027

Valve	Code		Thermostatic Head	Code
Poker Plus	01360040	+	SensorEVO2	01213012
Poker Plus	01360044	+	SensorEVO2	01213012

Poker manual

Poker manual valve





Valve construction

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

Note: the tang with radiator seal is also available with NBR O-Ring

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum operation temperature: +100 °C



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

Dimension	Pcs. pack	Code	Price €
3/8"	5	01350308	11,52
1/2"	5	01350312	10,74
3/8" O-R	5	01350408	12,25
1/2" O-R	5	01350412	13,13

Emmeti seal 24x19
Items to be out of stock



Manual right-angle valve for steel pipe

Dimension	Pcs. pack	Code	Price €
3/8"	5	01350316	9,69
1/2"	5	01350320	10,21
3/8" O-R	5	01350416	10,21
1/2" O-R	5	01350420	10,75

Items to be out of stock



Manual straight valve for steel pipe

Dimension	Pcs. pack	Code	Price €
1/2"	5	01350328	13,03
1/2" O-R	5	01350428	13,52

Items to be out of stock

Poker thermostatizable

Poker thermostatizable valve





Valve construction

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

Note: the tang with radiator seal is also available with NBR O-Ring

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Max operating pressure: 10 bar - Max differential pressure: 1 bar
Maximum operation temperature: +100 °C

Note: can be used in conjunction with thermostatic and thermoelectric heads after the following steps:
- unscrew the upper part 5
- unscrew 2
- extract the lower part 5
- screw back in 2
- install the head.



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

Dimension	Pcs. pack	Code	Price €
1/2"	10	01350382	14,12

Emmeti seal 24x19: see section 8
Items to be out of stock



Thermostatizable right-angle valve for steel pipe

Dimension	Pcs. pack	Code	Price €
3/8"	5	01350388	13,72
1/2"	5	01350390	14,92
3/8" O-R	5	01350488	14,68
1/2" O-R	5	01350490	16,06

Items to be out of stock



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

Dimension	Pcs. pack	Code	Price €
3/8"	5	01350384	14,52
1/2"	5	01350386	15,38
3/8" O-R	5	01350484	15,47
1/2" O-R	5	01350486	16,51

Emmeti seal 24x19: see section 8
Items to be out of stock



Thermostatizable straight valve for steel pipe

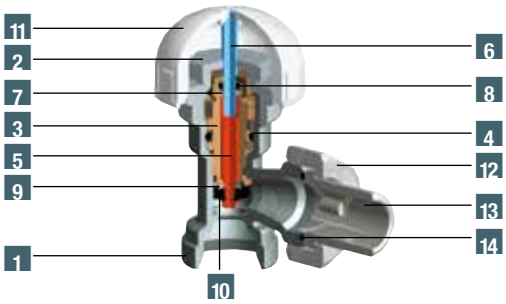
Dimension	Pcs. pack	Code	Price €
1/2"	5	01350394	16,06
1/2" O-R	5	01350494	17,19

Items to be out of stock

Poker thermostatic

Poker thermostatic valve





Thermostatic valve construction

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

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum operation temperature: +100 °C

Note: the tang with radiator seal is also available with NBR O-Ring

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



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

Dimension	Pcs. pack	Code	Price €
3/8" O-R	10	01350440	13,03

Emmeti seal 24x19: see section 8
Items to be out of stock



Thermostatic right-angle valve for steel pipe

Dimension	Pcs. pack	Code	Price €
3/8"	5	01350348	12,46
1/2"	5	01350350	13,56
3/8" O-R	5	01350448	13,34
1/2" O-R	5	01350450	14,63

Items to be out of stock



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

Dimension	Pcs. pack	Code	Price €
3/8"	5	01350344	13,23
1/2"	5	01350346	14,02
3/8" O-R	5	01350444	14,02
1/2" O-R	5	01350446	15,04

Emmeti seal 24x19: see section 8
Items to be out of stock



Thermostatic straight valve for steel pipe

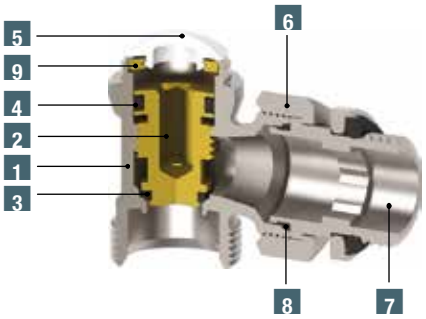
Dimension	Pcs. pack	Code	Price €
1/2"	5	01350354	14,63
1/2" O-R	5	01350454	15,67

Items to be out of stock

Full right-angle lockshields

Full lockshields





Construction

1. Body nickel-plated brass UNI EN 12165 CW617N
2. Shutter in brass UNI EN 12164 CW617N
3. O-ring for shutter body steadying in NBR
4. Upper O-ring for shutter steadying in EPDM
5. Cap in white ABS RAL 9003
6. Nut nickel-plated brass UNI EN 12165 CW617N
7. Tang nickel-plated brass UNI EN 12164 CW617N
8. O-ring for tang steadying in NBR
9. Collar in brass UNI EN 12164 CW617N

Note: the tang with radiator seal is also available with NBR O-Ring

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum operating pressure: +100 °C



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

Dimension	Thread	Pcs. Pack	Code	Price €
3/8"	24x19	10	01350922	8,12
1/2"	24x19	10	01350702	8,00
3/8" O-R	24x19	10	01350926	9,42
1/2" O-R	24x19	10	01350706	9,31
3/4" O-R (*)	3/4" Eurocone	5	01350612	17,91

(*) Thread UNI EN ISO 228-1
Emmeti seals: see section 8



Manual right-angle lockshield for steel pipe

Dimension	Pcs. pack	Code	Price €
3/8"	5	01350932	8,62
1/2"	5	01350722	8,12
3/8" O-R	5	01350936	8,93
1/2" O-R	5	01350726	9,88
3/4" O-R	5	01350616	18,22



Manual right-angle lockshield for multi-layer,connection G 1/2" M

Dimension	Thread	Pcs. pack	Code	Price €
3/8"	G 1/2"	25	01350782	8,57
1/2"	G 1/2"	25	01350710	7,60
3/8" O-R	G 1/2"	25	01350786	8,59
1/2" O-R	G 1/2"	25	01350714	9,37

Emmeti seal G 1/2"



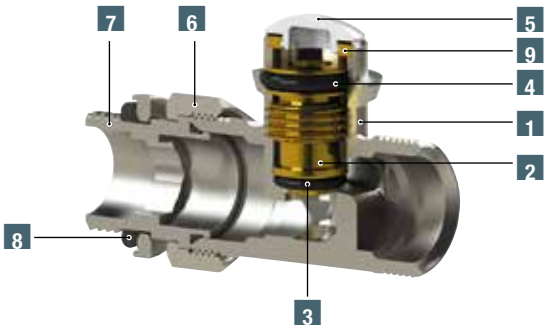
G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code	Price €
16 x 2	10	28100310	2,90

Full straight lockshields

Full lockshields





Construction

1 Body nickel-plated brass UNI EN 12165 CW617N
2 Shutter in brass UNI EN 12164 CW617N
3 O-ring for shutter body steadying in NBR
4 Upper O-ring for shutter steadying in EPDM
5 Cap in white ABS RAL 9003
6 Nut nickel-plated brass UNI EN 12165 CW617N
7 Tang nickel-plated brass UNI EN 12164 CW617N
8 O-ring for tang steadying in NBR
9 Collar in brass UNI EN 12164 CW617N

Note: the tang with radiator seal is also available with NBR O-Ring

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum operating pressure: +100 °C



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

Dimension	Thread (*)	Pcs. Pack	Code	Price €
1/2"	24x19	5	01350852	9,75
1/2" O-R	24x19	5	01350856	10,75
3/8"	24x19	5	01350962	9,29
3/8" O-R	24x19	5	01350966	11,10

Emmeti seal 24x19: see section 8



Manual straignt lockshield for steel pipe

Dimension	Pcs. Pack	Code	Price €
1/2"	5	01350872	9,80
1/2" O-R	5	01350876	10,93



Manual straight lockshield for multi-layer, connection G 1/2" M

Dimension	Thread (*)	Pcs. pack	Code	Price €
1/2"	G 1/2"	25	01350862	9,61
1/2" O-R	G 1/2"	25	01350866	10,81

Emmeti seal G 1/2"



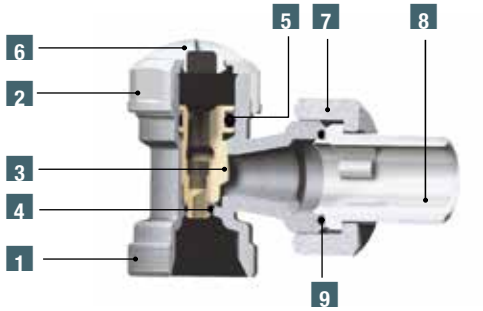
G 1/2" seal for multi-layer 16 x 2

Dimension	Pcs. pack	Code	Price €
16 x 2	10	28100310	2,90

Poker lockshields

Poker right-angle and straight lockshields





Construction

1. Body made of brass UNI EN 12165 CW617N with nickel finish
2. Collar in brass UNI EN 12164 CW617N with nickel finish
3. Shutter in brass UNI EN 12164 CW617N
4. O-ring for shutter steadying in NBR
5. Upper O-ring for shutter steadying in EPDM
6. Cap in white ABS RAL 9003
7. Nut nickel-plated brass UNI EN 12165 CW617N
8. Tang nickel-plated brass UNI EN 12164 CW617N
9. O-ring for tang steadying in NBR

Note: the tang with radiator seal is also available with NBR O-Ring

Technical data

Thread of nut and tang UNI EN ISO 228-1
Thread of Male body valve: Gas 24x19 (of diameter 24 mm and 19 threads per inch)
Thread fo Female body valve UNI EN ISO 228-1
Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum operating pressure: +100 °C



Poker right-angle lockshield for steel pipe

Dimension	Pcs. pack	Code	Price €
3/8" (*)	5	01350318	8,47
3/8" O-R (*)	5	01350418	9,21

(*) Items to be out of stock

Thermostatic control head

NEW



Technical data on the coupling between the thermostatic head SensorEVO2 and Poker Plus thermostatic valves
Max. operating pressure: 10 bar
Max. differential pressure: 0.6 bar
Differential pressure influence: 0.7 K
Maximum ambient temperature: 30 °C
Maximum system water temperature: 95 °C
Storage temperature: -40 to +50 °C
Adjustment range: 8 to 28 °C
Nominal lift: 0.22 mm/K
Hysteresis: 0.3 K
Antifreeze intervention: 8 °C
Nominal flow rate Poker Plus straight and angle valves: 160 l/h
Authority: 0.8
Water temperature influence: 0.55 K
Response time: 25 minutes
Control Accuracy (CA): 0.2 K
Liquid expansion thermostatic sensor

Note:
can be combined with Poker Plus thermostatic valves, and Full thermostatic and thermostatic valves.

Dimensions: see section Technical Attachments

CEN certified product according to EN 215 in the following configurations

027

Valve	Code		Thermostatic head	Code
Poker Plus	01360040	+	SensorEVO2	01213012
Poker Plus	01360044	+	SensorEVO2	01213012



SensorEVO2 thermostatic control head

NEW

Model	Pcs. pack	Code	Price €
	10	01213012	19,29



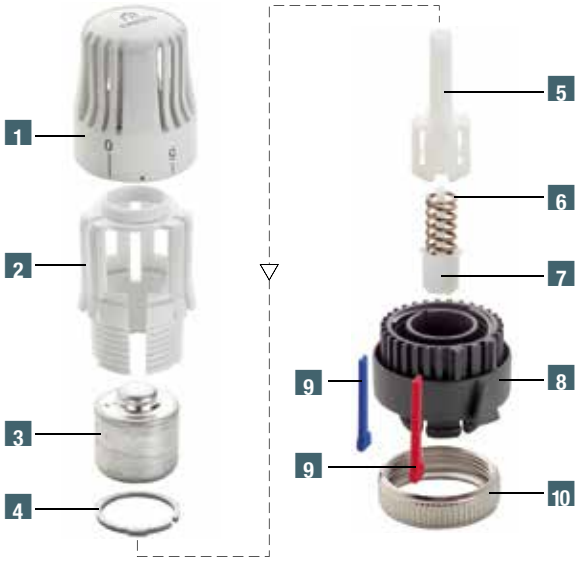
Chiavetta per limitazione temperatura

Dimension	Pcs. pack	Code	Price €
	5	01213010	1,09

Sensor

Thermostatic head Sensor





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 acetalyc resin
6. Spring in nickel steel class D UNI 3823
7. Rod in natural acetalyc resin
8. Base in reinforced PA 6.6
9. Pin for limiting temperature blue and red in acetalyc resin
10. Fastening ring nut M30x1,5 made of brass TN UNI EN 12164 CW614N nickel finish

UNI EN 215

Technical data of connection between Sensor Thermostatic head and Full thermostatisable and thermostatic valves

Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
Maximum ambient temperature: 40 °C
Maximum system water temperature: 100 °C
Maximum storage temperature: -10 ÷ +50 °C
Range of regulation: 7 ÷ 28 °C
Nominal climb: 0,22 mm/K
Antifreeze action: 7 °C
Nominal rating straight and right-angle Full valves: 175 l/h
Time of reaction: 25 minutes

Note: can be used in conjunction with: Poker thermostatisable valves, Poker thermostatic valves, Tris 3 and Tris 2 valves (using adapter code 90001716 supplied separately), Full thermostatic valves and Full thermostatisable valves.

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 maked on the rotating knob.
Each on 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.



Thermostatic head with sensor NEW

Dimension	Pcs. pack	Code	Price €
	6	01213190	18,07



Safety band for thermostatic heads

Dimension	Pcs. pack	Code	Price €
	6	90023720	2,42

Can only be used in combination with the thermostatic head code 01213190

Sensor Eco

Thermostatic head Sensor Eco





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 acetalyc resin (POM)
6 Spring in nickel steel class D UNI 3823
7 Rod in natural acetalyc resin (POM)
8 Base in reinforced PA 6.6
9 Pin for limiting temperature blue and red in acetalyc resin (POM)
10 Fastening ring nut M30x1,5 made of PA 6.6 (50%FV)

Technical data of connection between Sensor Eco Thermostatic head and Full thermostatisable and thermostatic valves

Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
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
Antifreeze action: 7 °C
Nominal rating right-angle Full valves: 180 l/h
Time of reaction: 25 minutes

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 maked on the rotating knob.
Each on 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.



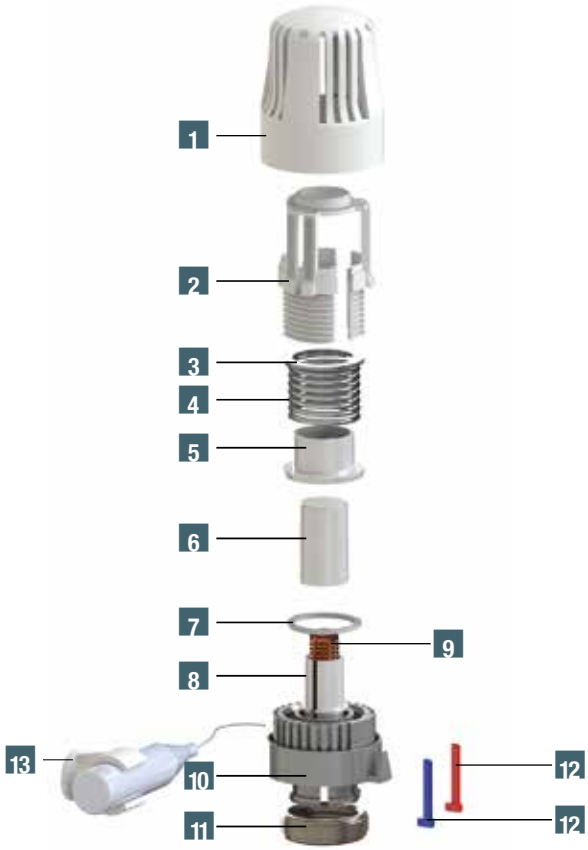
Thermostatic head with sensor

Dimension	Pcs. pack	Code	Price €
	12	01213068	15,37

Sensor R

Thermostatic head with remote sensor





Construction

1 Adjustment knob in ABS white RAL 9003
2 Basket in reinforced PA 6.6
3 Washer aluminum
4 Steel spring 172 SGB
5 Cup acetal natural
6 Stem acetal natural
7 Ring spring steel
8 Pusher acetal natural
9 Thermostat sensor liquid expansion
10 Base in reinforced PA 6.6
11 Fastening ring nut M30x1,5 brass TN UNI EN 12164 CW614N nickel
12 Limiters adjustment blue and red acetal
13 Clip for wall polyethylene

Technical data

Maximum operating pressure: 10 bar
Maximum differential pressure: 1 bar
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
Antifreeze action: 7 °C
Capillary length: 2 m

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 maked on the rotating knob.
Each on 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.



Thermostatic head with sensor

Dimension	Pcs. pack	Code	Price €
	4	01213072	39,66

Sensor kit

Sensor kit with Full thermostatic valves

NEW



Sensor kit with Full thermostatic right-angle valve and lockshield for steel pipe NEW

Dimension	Pcs. pack	Code	Price €
Thermostatic head + 1/2" right-angle valve and lockshield for steel pipe	1	01216000	37,12

Items available on request



Sensor kit with Full thermostatic right-angle valve and lockshield for steel pipe NEW

Dimension	Pcs. pack	Code	Price €
Thermostatic head + 1/2" O-R right-angle valve and lockshield for steel pipe	1	01216002	46,20

Items available on request



Sensor kit with Full thermostatic right-angle valve, lockshield and Monoblocco fittings for Multilayer pipe NEW

Dimension	Pcs. pack	Code	Price €
Thermostatic head + 1/2" O-R right-angle valve and lockshield 24x19 + 2 pcs Monoblocco seal 16x2 for multilayer pipe	1	01216004	55,42

Items available on request

SensorEVO2 kit

SensorEVO2 kit with Poker Plus thermostatic valve

NEW



SensorEVO2 kit with Poker Plus thermostatic right-angle valve and lockshield for Multilayer or copper pipe NEW

Dimension	Pcs. pack	Code	Price €
Thermostatic head + 1/2" O-R right-angle valve and lockshield 24x19	1	01216008	39,75

Items available on request

Stand alone thermostatic actuator

Electronic stand alone programmable thermostatic actuator for radiator valves



Electronic programmable thermostatic actuator for installation on radiator thermostat valves for the adjustment of the ambient temperature.
The device acts on the valve itself, opening it partially in function of the difference between the set temperature and the temperature detected.
The function keys, the wheel and the LCD display allow for direct programming on the device.
To facilitate the operation, you can use the special mini USB programming stick which allows for the programming, in graphical form, directly on your PC.

1 Display for programming
2 Function keys:

- MENU' (MENU) (to access the main menu)

- OK (OK) (to confirm the settings)

- CLOCK (to access the clock functions)

3 Selection wheel
4 Mini USB port for programming via programming stick
5 Battery compartment

Technical data
Power supply: 2 batteries 1.5 V (type AA)
Autonomy: 5 years (with low battery indication; estimated but not guaranteed)
Operation:
- manual, with temperature set using the wheel
- automatic, with two temperature levels (comfort and economy), weekly programming
Maximum number of daily switching (automatic operation): 4 in comfort and 4 in economy
Holiday function, which adjusts to a temperature (or valve closure) for a set period
Window function, with valve closure in case the window is open
Keylock function
Size: 52 x 83 x65 mm
Degree of protection: IP30
Operating temperature: 0 ÷ 50 °C
Storage temperature: -20 °C ÷ +70 °C
Valve connection: M30x1.5
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4: Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%



Electronic stand alone programmable thermostatic actuator for radiator valves with programming stick

Description	Pcs. pack	Code	Price €
Electronic stand alone programmable thermostatic actuator for radiator valves (*)	1	02018092	91,88
Programming key for electronic stand alone programmable thermostat (**)	1	02018098	101,40

(*) Can be combined with: Tris 3 thermostatic valves, Full and Poker thermostatic and manual valves.

(**) Key programming compatibility with USB 1.1 or 2.0 ports.
System requirements: Windows Xp (or higher).

Radio frequency thermostatic actuator

Electronic radio frequency programmable thermostatic actuator for radiator valves



Electronic radio frequency programmable thermostatic actuator which receives the operating parameters directly from the Emmeti radio frequency programmable thermostat, operating like a normal remote actuator.
It is installed directly on the thermostatic radiator valve, opening it partially in function of the difference between the set temperature and the temperature detected.
In required, the device can also operate independently since it can be programmed using the keyboard.

1 Programming display
2 Function keys:

- MENU' (MENU) (to access the main menu)

- OK (OK) (to confirm the settings)

- CLOCK (to access the clock functions)

3 Selection wheel
4 Battery compartment
5 Integrated radio frequency module

Technical data
Power supply: 2 batteries 1.5 V (type AA)
Autonomy: 5 years (with low battery indication; estimated but not guaranteed)
Operation:
- radiofrequency
- manual, with temperature set using the wheel
- automatic, with two temperature levels (comfort and economy), weekly programming
Maximum number of daily switching (automatic operation): 4 in comfort and 4 in economy
holiday function, which adjusts to a temperature (or valve closure) for a set period
Window function, with valve closure in case the window is open
Keylock function
Size: 52 x 83 x65 mm
Maximum distance between radio frequency thermostat and actuator: 50 meters in free field
Degree of protection: IP30
Operating temperature: 0 ÷ 50 °C
Storage temperature: -20 °C ÷ +70 °C
Valve connection: M30x1.5
Delegated Regulation (EU) n. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4: Class IV
- Contribution of the temperature control device to the seasonal energy efficiency of environment heating in %: 2%



Electronic radio frequency programmable thermostatic actuator for radiator valves

Description	Pcs. pack	Code	Price €
Electronic radio frequency programmable thermostatic actuator for radiator valves	1	02018094	156,30

Can be combined with: Tris 3 thermostatic valves, Full and Poker thermostatic and manual valves, 3/4" and 1" thermostatic valves.

Radio frequency programmable thermostat

Radio frequency touch screen weekly programmable thermostat



Radio frequency touch screen weekly programmable thermostat to be combined with the radio frequency programmable thermostat actuators for radiator valves; this allows to control one or more radiators.

1 Plastic base for wall-mounting or covering the box 503
2 Wide backlit touch screen display to view the operating status, time, day and temperature measured
3 Touch screen keyboard to program the device

General features
Power supply: 2 x 1,5 V (type AAA)
Power reserve (to change batteries): 1 minute
Autonomy: 12 months (with low battery indication, estimated but not guaranteed).
Summer/Winter mode
Automatic programming with:
- 7 programs for winter operation (changeable)
- 7 programs for summer operation (changeable)
Temperature adjustment ON/OFF or proportional
5 settable temperatures:
- T1, T2, T3 in automatic mode
- Tm in manual mode
- Toff in off mode (anti-freeze temperature, excludable)
Minimum adjustment interval: 1 hour
Communication delay settable between 15, 30 or 45 minutes (independent for each hour)
Keylock with password
Summer/winter time change automatic
Open window detection function
Display with blue backlight (active at the touch of a button)

Technical data
Battery powered: 2x1,5 V battery (type AAA) (not supplied)
Fixing: wall mounting
Weekly programming
Operating mode: summer / winter / off
Type of control: ON / OFF or proportional or setpoint sending for autonomous management of the radiofrequency actuator
Differential: 0,1 ÷ 1 °C
Temperature settings: 3 + manual + antifreeze
Setting setpoing: 2 ÷ 35 °C
Measured temperature resolution: 0,1 °C
Measurement precision: 0,5 °C
Antifreeze temperature (excluded): 1 ÷ 10 ° C
programming resolution: 1 hour
Ignition delay: 15, 30 or 45 minutes
Watch accuracy: ± 1 / day
Operating temperature: 0 ÷ 50 °C
Storage temperature: -10 ÷ 65 °C
Operating humidity: 20% to 90% RH non-condensing
Degree of protection: IP40
Delegated Regulation (EU) No. 811/2013; annex IV-3:
- Class of the temperature control device: Class 4; class IV
- Contribution of the temperature control device to the energy efficiency of ambient heating season in%: 2%

Dimensions: see section Technical Attachments



Radio frequency programmable thermostat

Description	Pcs. pack	Code	Price €
Radio frequency programmable thermostat	1	02018144	195,10

For more information on products and examples of radio frequency configuration, see the relevant paragraph in Section 5 “Adjustment and Control”.

Example of configuration

Radio frequency programmable thermostat + Electronic radio frequency programmable thermostatic actuators



Chrono RF



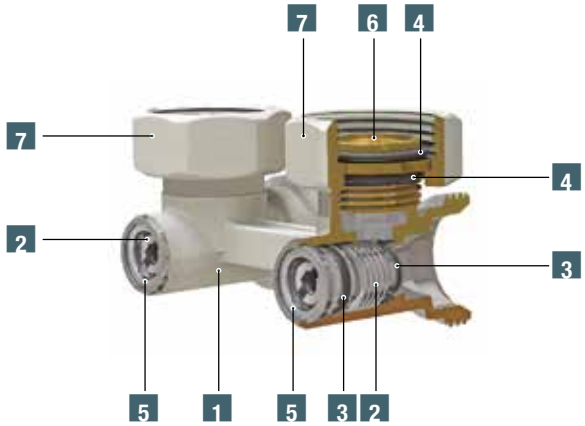
Radiator 1 Radiator 2 Radiator 3 Radiator 4 Radiator 5 ..... Radiator n

Use on centralized radiator system

H valves

Manually H valves





Application
These valves can be used to connect the radiator to the heating water system.
The connection has a standard distance of 50 mm between flow and return.
The radiator isolation is possible using the shut-off mechanism incorporated.
Are available the straight version and the 90 ° version.

Technical data
Takeoffs: 50 mm
Max operating pressure: 10 bar - Max differential pressure: 6 bar
Max operating temperature: 100 °C - Connections to the plant: 3/4" Ek

Construction
1 Body made brass UNI EN 12165 CW617N with nickel finish
2 Shutter in brass UNI EN 12164 CW614N with nickel finish
3 O-Ring for shutter steadying in EPDM
4 O-Ring in EPDM
5 Brass ring UNI EN 12164 CW614N with nickel finish
6 Flanged brass ring UNI EN 12164 CW614N
7 Nut in brass UNI EN 12165 CW617N with nickel finish

Dimensions: see section Technical Attachments



Straight manually H valves, with adapter

Dimension	Pcs. pack	Code	Price €
3/4" x 1/2"	2	01306954	18,48



Straight manually H valves

Dimension	Pcs. pack	Code	Price €
3/4" X 3/4"	2	01306956	14,69



Right-angle manually H valves, with adapter

Dimension	Pcs. pack	Code	Price €
3/4" x 1/2"	2	01306620	24,17



Right-angle manually H valves

Dimension	Pcs. pack	Code	Price €
3/4" x 3/4"	2	01306624	19,05



Pair of adapters 3/4" Eurocone x 1/2" Male

Dimension	Pcs. pack	Code	Price €
3/4" M x 1/2" M	2	01306626	5,99

Bleed valves



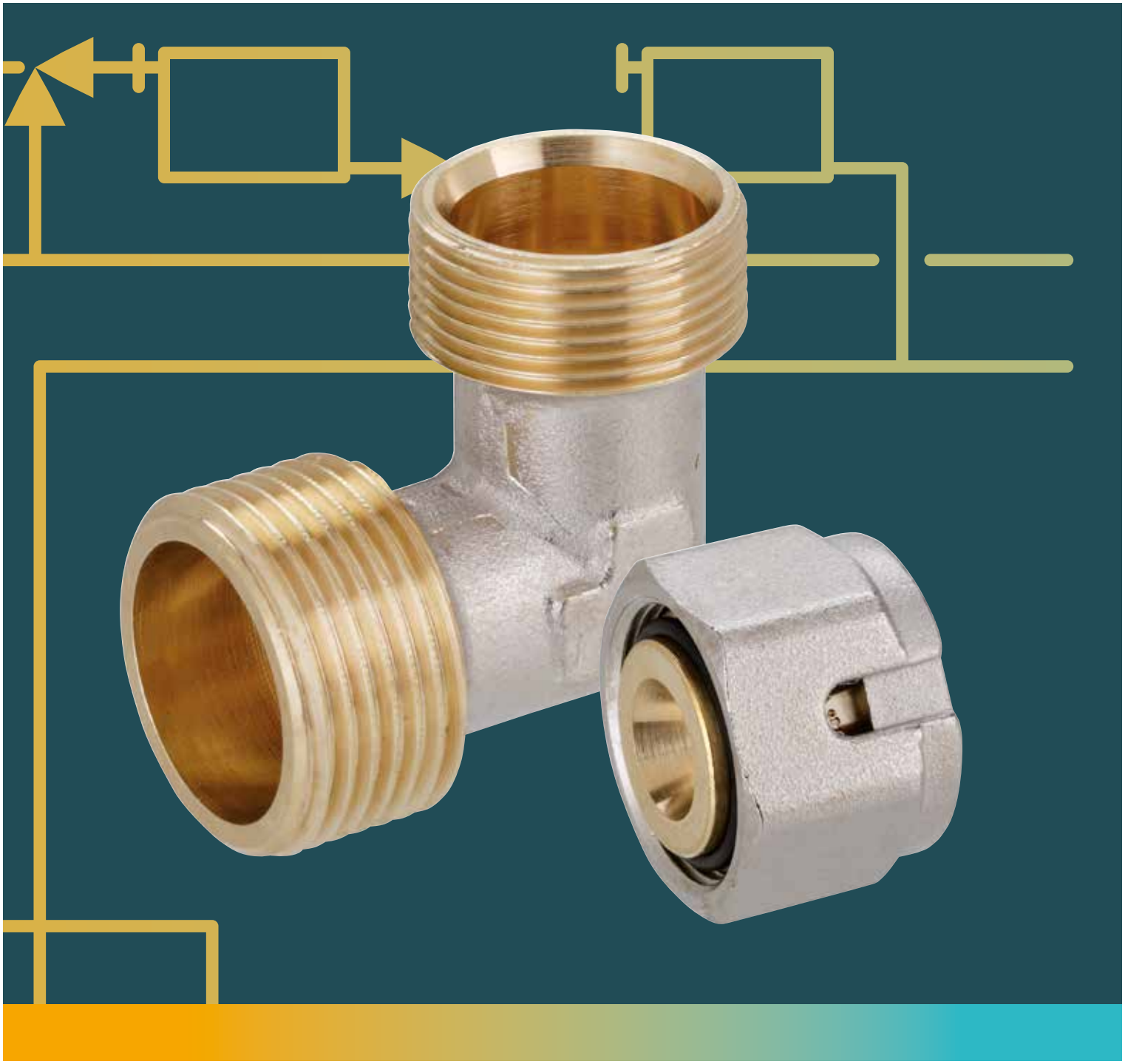
Bleed valves

Dimension	Pcs. pack	Code	Price €
3/8"	10	00410019	1,46
1/2"	10	00410021	1,46
1/4"	10	00410017	1,33
1/2"	1	00410121	2,33



Key for operating bleed valves

Dimension	Pcs. pack	Code	Price €
	1	00408330	1,04



Seales and screw fittings

WEB

SCAN

> Monoblocco 2.0 fitting 24x19 for copper pipe, for water  329

> Fitting to be tightened 3/4" Eurocone for copper pipes for water  329

> Monoblocco fitting 24x19 for copper pipe for gas  330

> Monoblocco fitting 24x19 for Multi-layer pipe  331

> Monoblocco fitting Eurocone for Multi-layer pipe  332

> Monoblocco fitting 24x19 for PE-X, PE-RT, PP and PB  323

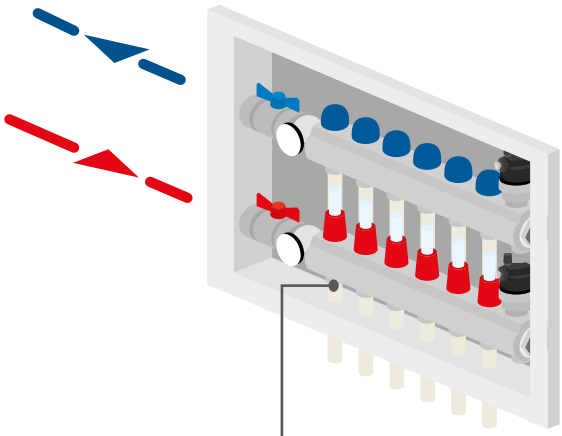
> Monoblocco fitting Eurocone for PE-X and PE-RT  333

> 3-pieces fitting for PE-X, PE-RT and Multi-layer  335

> Fittings to be tightened  337

> Screw compression fittings  340

Example of installation

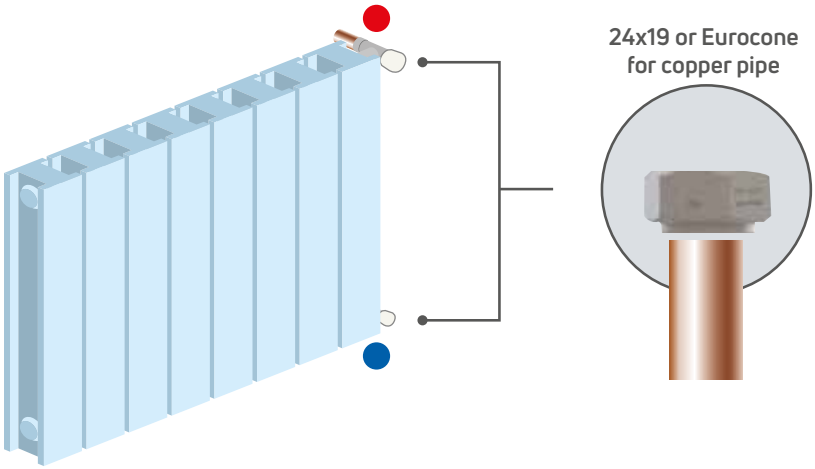




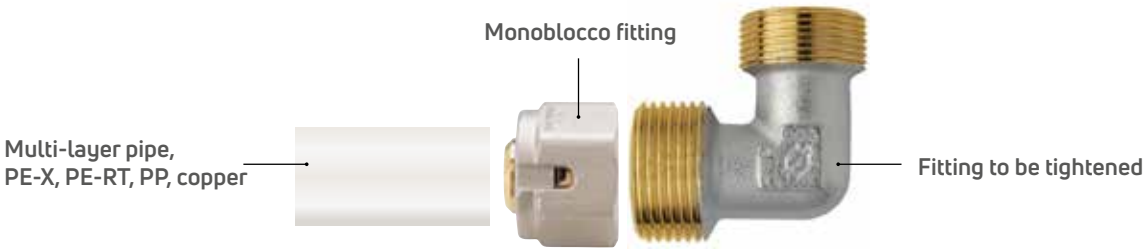
24x19 for multi-layer pipe

24x19 for PE-X, PE-RT, PP and PB pipe

Eurocone for multi-layer, PE-X, PE-RT, PP pipe



24x19 or Eurocone for copper pipe



Monoblocco fitting

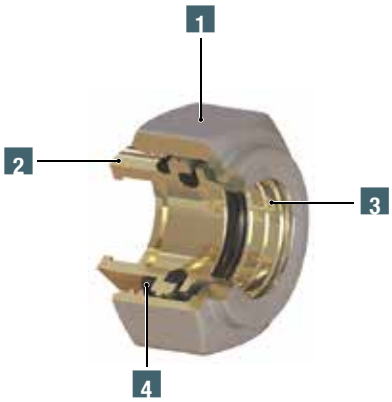
Multi-layer pipe, PE-X, PE-RT, PP, copper

Fitting to be tightened

Copper Monoblocco 2.0 fitting for water

Monoblocco 2.0 fitting 24x19 for copper pipe, for water





Construction

1 Nut in nickel-plated brass UNI EN 12165 CW617N
2 Adapter with limit switch in brass UNI EN 12164 CW617N-DW
3 Brass hose clamp ring UNI EN 12164 CW617N
4 O-ring seals in NBR Sh 70 EN 681

PATENT PENDING

Operating conditions (UNI EN 1254-2)

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

Monoblocco 2.0 fitting 24x19 for copper pipe, for water



PATENT PENDING

Monoblocco 2.0 fitting for copper pipe, nickel-plated, for water

Dimension	Thread	Tightening torque (Nm)	Pcs. pack	Code	Price €
10	24x19	40	20	01321810	4,30
12	24x19	40	20	01321812	3,49
14	24x19	40	20	01321814	4,12
15	24x19	40	20	01321815	3,00
16	24x19	40	20	01321816	3,12
18 standard fitting	24x19	50÷55	20	01321320	2,87
Monoblocco blind fitting (plug)	24x19	30÷35	20	01321462	3,07

Monoblocco fitting 24x19 for copper pipe, for water



PATENT PENDING

Monoblocco fitting for copper pipe, nickel-plated

Dimension	Thread	Tightening torque (Nm)	Pcs. pack	Code	Price €
10 (*)	24x19	30÷35	20	01321410	2,88

(*) Items to be out of stock

Fitting 3/4" Eurocone for copper pipes, for water



Fitting 3/4" Eurocone for copper pipes, for water

Nut in nickel-plated brass UNI EN 12165 CW617N -
Adaptor UNI EN 12164 CW614N - Hose-clamp in EPDM peroxide
Maximum pressure: 10 bar - Maximum temperature: 120°C

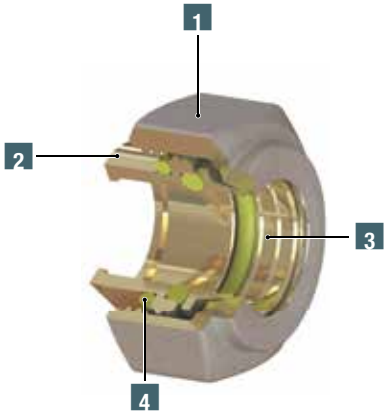
Dimension	Thread	Tightening torque (Nm)	Pcs. pack	Code	Price €
12	3/4" Eurocone	35÷45 (*) / 60÷80 (**)	2	01321512	4,96
14	3/4" Eurocone	35÷45 (*) / 60÷80 (**)	2	01321514	4,96
15	3/4" Eurocone	35÷45 (*) / 60÷80 (**)	2	01321515	4,74
16	3/4" Eurocone	35÷45 (*) / 60÷80 (**)	2	01321516	4,12

(*) Annealed copper tube
(**) Semi-hard copper tube

Copper Monoblocco 2.0 fitting for gas

Monoblocco 2.0 fitting 24x19 for copper pipe, for gas





Construction
1. Nut in nickel-plated brass UNI EN 12165 CW617N
2. Adapter with limit switch in brass UNI EN 12164 CW617N-DW
3. Brass hose clamp ring UNI EN 12164 CW617N
4. O-ring seals in HNBR yellow Sh 70 EN 682 - EN 549

Operating conditions (UNI EN 1254-2)
Operating temperature: -20 ÷ 70 °C
Operating pressure: GT 5 / MOP 5

PATENT PENDING

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



PATENT PENDING

Monoblocco 2.0 fitting 24x19 for copper pipe, for gas

Dimension	Maximum torque (Nm)	Pcs. pack	Code	Price €
14	40	20	01321914	4,93
15	40	20	01321915	4,07
16	40	20	01321916	4,14
Blind Monoblocco 24x19 with O-ring		20	01321460	2,99