



CATALOGUE | 2021





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# OUR HISTORY

The company name changes into "Fantini Cosmi Spa" and focuses its production towards 2 main branches - Low voltage appliances and automatic regulation equipment, the thermostats.

1931

Bruno, Francesco and Lieta Fantini founded the "Società anonima officine Alberto Fantini & C".

1940

1954

At the end of the war Fantini Cosmi starts its strong growth linked to the "reconstruction period" and Italy's economic boom in the 50s and 60s. The production plant and nachineries are renewed and both the domestic and international sales strongly grow.



The production of Intellitherm starts. Intellitherm is the first digital programmable thermostat in Italy. It quickly became a leader in its field and best seller

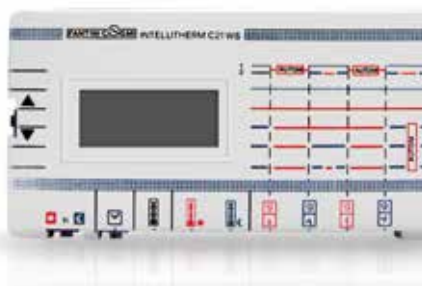
1985

2007

Aspira Srl is aquired, Fantini Cosmi Industrie Group is established to include 3 brands: Fantini Cosmi, Aspira and Fancos.

Fantini Cosmi despite the economic downturn established "Fantini Technology Group", the owner of 2 historical brands in the industrial thermostat field (thermostats and manometers) T&G and Fancy.

2011



# OUR BRANDS



## ELECTRICAL AND ELECTRONIC EQUIPMENT FOR CONTROL AND REGULATION

Fantini Cosmi S.p.A. is one of the leading manufacturers of electrical and electronic equipment and systems for control and regulation. Born with the production of industrial electric maneuver, Fantini Cosmi has also developed expertise in various areas: from pressure, flow, level control, temperature regulation and control also from remote both in the domestic and industrial field. The product range is constantly evolving and expanding, to better meet the needs of companies and households.



## MEASURING DEVICES FOR CONTROLLING AND GRANTING THE SAFETY OF HEATING SYSTEMS AND AMBIENT CONFORT

The TG brand is a European leader in the manufacture and distribution of products for measuring, control and safety for heating and environmental comfort. TG offers high quality products including: thermostats, pressure gauges, manometers, pressure switches, and a variety of products for industrial applications. The products, often customized, are able to meet any need in the field of measurement and control.



## DOMESTIC AND INDUSTRIAL VENTILATION

Aspira Srl was established in 1940, it is one of the historical brands of the ventilation field in Italy. Present on the market for more than 80 years, it offers a wide range of products, able to satisfy the most demanding requirements.

## FANAIR

## RESIDENTIAL AND COMMERCIAL AIR CONDITIONING

Fanair offers a wide range of air conditioners, air curtains, signed by Fantini Cosmi Industrie. The range is designed to meet every need, both in domestic, industrial and service fields. The Fanair air conditioners are reliable, efficient and intuitive to use: every aspect is the result of a deep study and careful quality control.



# QUALITY AND CERTIFICATIONS

The quality is more than ever a primary form of guarantee, both as regards the protection of the basic needs of health and safety, both in terms of the satisfaction the specific construction and performance requirements of the products. Fantini Cosmi Industrie different forms of system and product certification, are integrated and represent the most important guarantee of quality assurance.

Fantini Cosmi Industrie has an effective and efficient corporate structure with a management system Certified since 1997 according to the UNI EN ISO9001 with international value obtained by CSQ. As always the goal is to provide products that are increasingly matching to the needs of customer, through constant performance, and with a total commitment from analysis the drafting of the feasibility of a project up to the review of internal processes in both production and management, from staff training to the consolidation of the processes that have streamlined and constantly monitored. Fantini Cosmi Industrie is also certified according to the **OHSAS 45001:2018** standard, that determines the requirements for a Safety Management System and Health in Workplaces.







CE 0497

EAC



Fantini Cosmi Industrie, guarantees the quality, as well as through the company's certification, through certifications of its products. All products meet the requirements of the latest European Directives

To further protect, Fantini Cosmi Industrie products were also certified in accordance with Directive 97/23 / EC (PED) relative to products installed on the pressure systems, which provides for compliance with essential safety requirements of all systems (sets) and individual equipment operating with a maximum allowed pressure greater than 0.5 bar relative (eg. boilers, pressure vessels, pipes and accessories)

Also part of the production has been approved by third parties, such as:

- ENEC and INAIL for thermostats and pressure switches,
- DIN Certco for thermostats under TG brand

In direct heat metering all meters and measuring devices are certified according to Directive 2004/22 / EC (MID) on Measuring Instruments. In fact, from the correctness and reliability of the measurements detected by the devices marked MID depend on commercial transactions and the protection of consumers.

To ensure accuracy and reliability Fantini Cosmi Industrie has a reliable Laboratory Testing and Quality Control, regularly performs statistical tests, in order to verify the performance of the finished product. Additional periodic tests are performed by external laboratories.

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# INDUSTRY AND PLANT APPLICATIONS

## LEVEL CONTROLS

ELECTRONIC LEVEL CONTROLS ■ ELECTROMECHANICAL LEVEL CONTROLS



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## PRESSURE SWITCHES AND CONTROLS

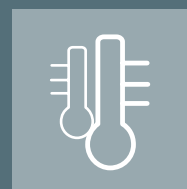
PRESSURE SWITCHES ■ HYDROSTATS ■ VACUUM PRESSURE ■ ACCESSORIES



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## THERMOSTATS AND HUMIDISTATS

ENCASED THERMOSTATS ■ REAR PANEL THERMOSTATS ■ ELECTRONIC THERMOSTATS, AND HUMIDISTATS ■ ACCESSORIES



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## FLOW SWITCHES

LIQUID FLOW SWITCHES ■ AIR FLOW SWITCHES



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## ELECTROVALVES

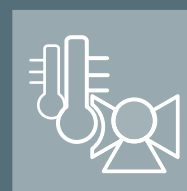
DIRECT SOLENOID VALVES ■ INDIRECT SERVO-ASSISTED SOLENOID VALVES ■ CONTROL COILS



page 46

## THERMOREGULATION AND GAS SAFETY

ASSEMBLED MANIFOLD FOR HEATING SYSTEMS ■ CONTROL UNITS FOR SOLAR PANEL HEATING SYSTEMS ■ CONTROL UNITS FOR UNDERFLOOR HEATING SYSTEM ■ CONTROL UNITS FOR BOILER HEATING SYSTEM ■ ELECTRIC SERVOCONTROLS ■ ROTOR AND MIXING VALVES ■ REMOTE CONTROL ■ TEMPERATURE PROBES ■ INDUSTRIAL GAS DETECTORS



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## HEATING CABLES

CONSTANT POWER HEATING CABLES ■ CONSTANT POWER HEATING CABLES WITH THERMOSTAT AND PLUG ■ SELF-REGULATING HEATING CABLES ■ ACCESSORIES



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ELECTRONIC LEVEL CONTROLS

page 22



ELECTROMECHANICAL LEVEL CONTROLS

page 22

- 230V Power supply 230 Vac
- 24V Power supply 24 Vac
- IP20 Protection degree IP20
- IP54 Protection degree IP54
- IP40 Protection degree IP40
- IP68 Protection degree IP68

# LEVEL CONTROLS



# ELECTRONIC LEVEL CONTROLS

## Electronic level controls with probes for conductive liquids



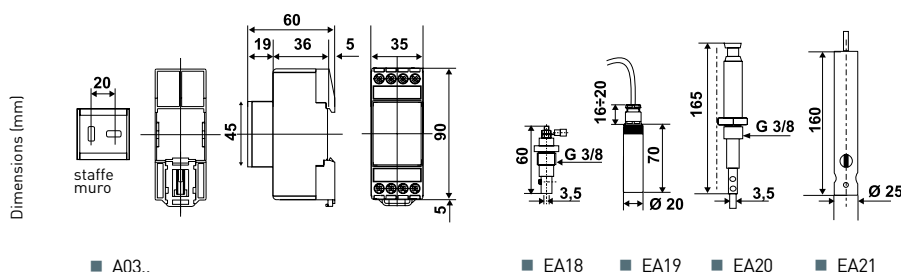
- Adjustable detection range kΩ
- Level differential adjustable

24V 230V IP20

CODE	POWER SUPPLY	CONTACT RATING	OPERATING TEMPERATURE	PROTECTION DEGREE
A03F	24 Vac	5A - AC12	-10 ÷ 50 °C	IP20
A03M	230 Vac	5A - AC12	-10 ÷ 50 °C	IP20
A04F	24 Vac	5A - AC12	-10 ÷ 50 °C	IP20
A04M	230 Vac	5A - AC12	-10 ÷ 50 °C	IP20
UA03Y				

CODE	DESCRIPTION	MAXIMUM TEMPERATURE	WEIGHT
EA18	stainless steel probe AISI 303, 10 bar (without electrode)	160 °C	48 gr
EA19	ballasted PVC probe with electrode (cable not included)	80 °C	75 gr
EA20	stainless steel probe AISI 303, 35 bar (without electrode)	250 °C	88 gr
EA21	ballasted PVC probe with electrode and 6mt cable	50 °C	350 gr
2013347	stainless steel electrode - 1mt. length		
2013348	stainless steel electrode - 2mt. length		



# ELECTROMECHANICAL LEVEL CONTROLS

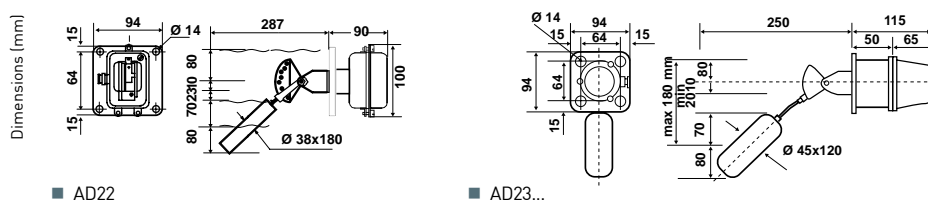
## Magnetic level control for open and under pressure vessels



- Operation by means of repulsion of 2 permanent opposed magnets
- Maximum liquid temperature 150°C

IP54

CODE	ADJUSTABLE LEVEL	MAXIMUM OPERATING PRESSURE	MATERIALS IN CONTACT WITH THE LIQUID	CONTACT RATING	FLANGE CONNECTION
AD22	25 ÷ 175 mm	6 bar	steel	10(3)A 250Vac	PN6
AD23	20 ÷ 180 mm	6 bar	steel	10(3)A 250Vac	PN6
AD23A	20 ÷ 180 mm	6 bar	steel teflon-coated	10(15)A 250Vac	PN6



## Magnetic level controls for open and under pressure vessels



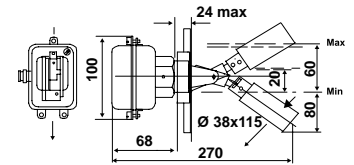
CODE	FLOAT TYPE	ADJUSTABLE LEVEL	MAXIMUM OPERATING PRESSURE	MAXIMUM LIQUID TEMPERATURE	CONTACT RATING	CONNECTION
AD52	steel	20 ÷ 55 mm	10 bar	110 °C	10(3)A 250Vac	G 1 1/4
AD52P	plastic	20 ÷ 55 mm	10 bar	100 °C •	10(3)A 250Vac	G 1 1/4
EAD01	float in stainless steel Ø 38x115 mm					

- Operation by means of repulsion of 2 permanent opposed magnets
- • Recommended for the control of water with maximum 85°C

IP54

Dimensions (mm)

FLOAT	Ø	L
AD52	Ø 38 x 115	
AD52P	Ø 38 x 70	



## Electromechanical float switch for three-phase motor control

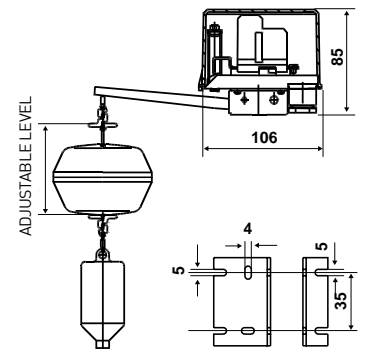


CODE	ADJUSTABLE LEVEL	NYLON CABLE LENGTH	MAXIMUM LIQUID TEMPERATURE	CONTACT RATING
A70	50 ÷ 750 mm	1	50 °C	415Vac 20(9)A

- For emptying and filling.
- Indicated level differential is obtained using the serial cables.
- With cables of different lengths it is possible to obtain level differentials of up to several meters.

IP40

Dimensions (mm)



## Electromechanical submersible level controls for clear or waste water

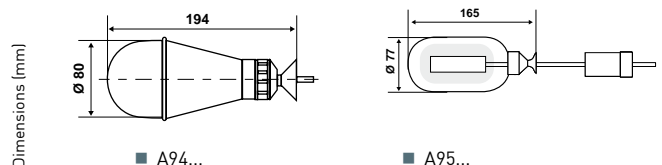


CODE	CABLE TYPE	CABLE LENGTH	CONTACT RATING	MAXIMUM IMMERSION PRESSURE	MAXIMUM LIQUID TEMPERATURE
A94C	PVC	5 m	10A 250Vac	10 bar	60 °C
A94D	PVC	15 m	10A 250Vac	10 bar	60 °C
A95A	PVC	3 m	10(4)A 250Vac	10 bar	60 °C
A95AS1	PVC	5 m	10(4)A 250Vac	10 bar	60 °C
A95B	PVC	10 m	10(4)A 250Vac	10 bar	60 °C
A95BS1	PVC	15 m	10(4)A 250Vac	10 bar	60 °C
A95AS2 *	neoprene	3 m	10(4)A 250Vac	10 bar	45 °C
A95AS3 *	neoprene	5 m	10(4)A 250Vac	10 bar	45 °C
A95BS4 *	neoprene	10 m	10(4)A 250Vac	10 bar	45 °C
A95BS5 *	neoprene	15 m	10(4)A 250Vac	10 bar	45 °C
A95BS6 *	neoprene	20 m	10(4)A 250Vac	10 bar	45 °C
A95BS7 *	neoprene	25 m	10(4)A 250Vac	10 bar	45 °C

- A94 controls sewage
- Moplen external body

IP68

\* delivery time and minimum purchase quantity upon request



## Electromechanical submersible level controls for hazardous areas

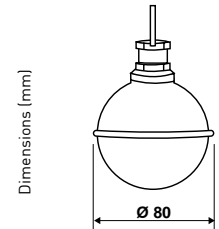


- External float body made of AISI 304 stainless steel.

IP68

CODE	CABLE TYPE	CABLE LENGTH	CONTACT RATING	MAXIMUM IMMERSION PRESSURE	MAXIMUM LIQUID TEMPERATURE
A96C	polyurethane	5 m	5A 250 Vac	4 bar	60 °C
A96D	polyurethane	15 m	5A 250 Vac	4 bar	60 °C
A96E *	silicone	5 m	5A 250 Vac	4 bar	130 °C
A96G *	silicone	15 m	5A 250 Vac	4 bar	130 °C

\* delivery time and minimum purchase quantity upon request

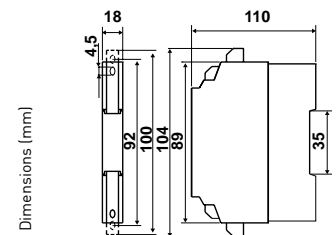


## Electronic safety barrier



IP40

CODE	POWER SUPPLY	INPUT(S) IN DANGER ZONE	OUTPUT(S) IN SAFE ZONE
EA31MA	220Vac-50HZ	voltage free NA/NC unprotected contacts	2 relays with 1 switching contact 250V-2.5A - 100VA



## Bladed level controls for granules

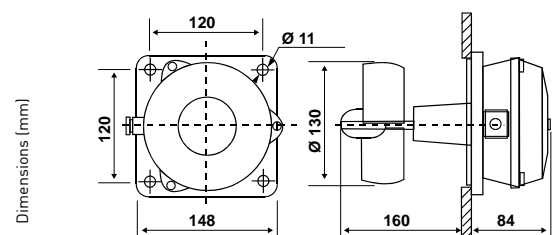


- To control materials with a specific gravity of approximately 0.7 kg/dm<sup>3</sup>

230V

IP54

CODE	TYPE	ADJUSTABLE LEVEL	OPERATING TEMPERATURE	CONTACT RATING
ASE	blades	50 mm fixed	-20 ÷ 80 °C	10(4)A 250Vac





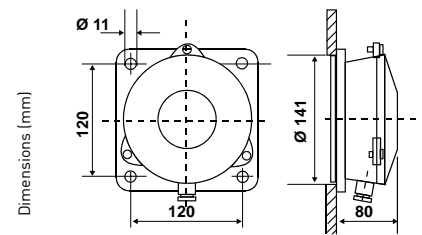
# Membrane level controls for powders and granules



CODE	ADJUSTABLE LEVEL	LEVEL DIFFERENTIAL CONTROL AND CHANGE	OPERATING TEMPERATURE	CONTACT RATING
ASM2	50 ÷ 100 operation and stop 30 ÷ 50 release and start	20 ÷ 50 mm	-20 ÷ 70 °C	10(3)A 250Vac

- To control materials with a specific gravity of approximately 0.7 kg/dm<sup>3</sup>
- 2 microswitches for control and alarm

IP54













PRESSURE SWITCHES,  
HYDROSTATS, VACUUM  
PRESSURE SWITCHES

page 28



ACCESSORIES

page 31

-  External regulation
-  Internal regulation
-  Manual reset
-  Automatic reset
-  Protection degree IP44
-  Protection degree IP20
-  Protection degree IP65
-  Protection degree IP40

# PRESSURE SWITCHES AND CONTROLS



# PRESSURE SWITCHES, HYDROSTATS, VACUUM PRESSURE SWITCHES

Pressure switches up to 15 bar with non-adjustable differential



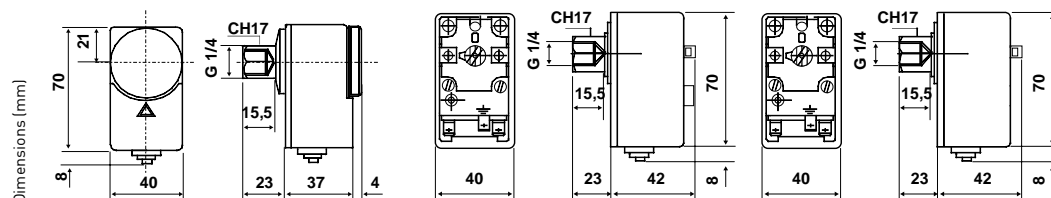
CODE	TYPE OF ADJUSTMENT	RESET	RANGE	DIFFERENTIAL	SENSITIVE ELEMENT MAX. PRESSURE	CONNECTION G 1/4
B01A	external	automatic	0.7 ÷ 3 bar	0.4 bar	6 bar	female
B01B	external	automatic	2 ÷ 5.5 bar	0.6 bar	7 bar	female
B01C	external	automatic	3 ÷ 7 bar	0.6 bar	9 bar	female
B01D	external	automatic	4 ÷ 15 bar	1 bar	18 bar	female
B01A4 *	external	automatic	0.7 ÷ 3 bar	0.4 bar	6 bar	male
B01B4 *	external	automatic	2 ÷ 5.5 bar	0.6 bar	7 bar	male
B01C4 *	external	automatic	3 ÷ 7 bar	0.6 bar	9 bar	male
B01D4 *	external	automatic	4 ÷ 15 bar	1 bar	18 bar	male
B01AM	internal	manual	0.7 ÷ 3 bar	0.4 bar	6 bar	female
B01BM	internal	manual	2 ÷ 5.5 bar	0.6 bar	7 bar	female
B01CM	internal	manual	3 ÷ 7 bar	0.6 bar	9 bar	female
B01DM	internal	manual	4 ÷ 15 bar	1 bar	18 bar	female
B01AM4 *	internal	manual	0.7 ÷ 3 bar	0.4 bar	6 bar	male
B01BM4 *	internal	manual	2 ÷ 5.5 bar	0.6 bar	7 bar	male
B01CM4 *	internal	manual	3 ÷ 7 bar	0.6 bar	9 bar	male
B01DM4 *	internal	manual	4 ÷ 15 bar	1 bar	18 bar	male
B01ARI *	internal	automatic	0.7 ÷ 3 bar	0.4 bar	6 bar	female
B01BRI *	internal	automatic	2 ÷ 5.5 bar	0.6 bar	7 bar	female
B01CRI *	internal	automatic	3 ÷ 7 bar	0.6 bar	9 bar	female
B01DRI *	internal	automatic	4 ÷ 15 bar	1 bar	18 bar	female
B01A4RI *	internal	automatic	0.7 ÷ 3 bar	0.4 bar	6 bar	male
B01B4RI *	internal	automatic	2 ÷ 5.5 bar	0.6 bar	7 bar	male
B01C4RI *	internal	automatic	3 ÷ 7 bar	0.6 bar	9 bar	male
B01D4RI *	internal	automatic	4 ÷ 15 bar	1 bar	18 bar	male

- Elements in contact with fluid are in stainless steel, laser welded.
- SPDT contact rating 250Vac 10(2,5)A.

\* delivery time and minimum purchase quantity upon request



CE 0497



■ B01...

■ B01...M

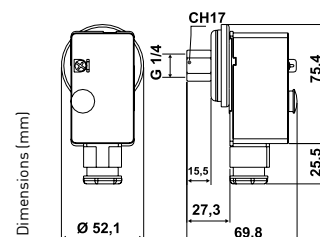
■ B01...RI

## Minimum pressure switch with manual reset



CODE	RANGE	DIFFERENTIAL	DEFAULT SETTING	SENSITIVE ELEMENT MAX. PRESSURE	CONNECTION G 1/4
B01FML	0.5 ÷ 2.5 bar	>0.5 bar	0.5 bar	6 bar	female

- Suitable for heating systems
- Sensible element made in stainless steel, laser welded.
- Maximum temperature of the controlled fluid: 120°C



## Maximum pressure switch with manual reset, IP44

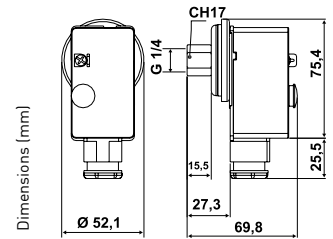


CODE	RANGE	DIFFERENTIAL MINIMUM FOR RESET	SENSITIVE ELEMENT MAX. PRESSURE	CONNECTION	CONNECTION
B01BMX	2 ÷ 5.5 bar	0.6 bar	7 bar	G 1/4	female

- Suitable for heating systems
- Sensible element made in stainless steel, laser welded.
- Maximum temperature of the controlled fluid: 120°C



IP44 C €0497



## Hydrostats, pressure and vacuum pressure switches up to 10 bar



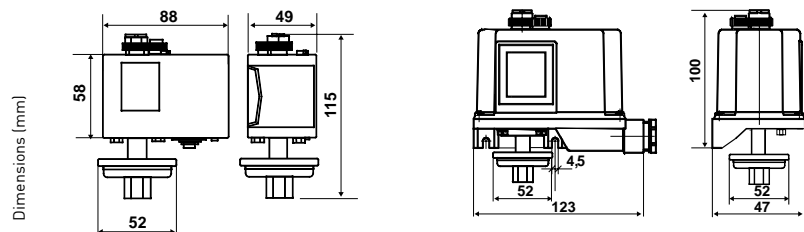
CODE	RANGE bar	DIFFERENTIAL	SENSITIVE ELEMENT MAX. PRESSURE	CONNECTION	PROTECTION DEGREE
B11AN	0.15 ÷ 1	0.1 bar fixed	20 bar	female	IP40
B11AN4 *	0.15 ÷ 1	0.1 bar fixed	20 bar	male	IP40
B11ANY	0.15 ÷ 1	0.1 bar fixed	20 bar	female	IP65
B11AN4Y *	0.15 ÷ 1	0.1 bar fixed	20 bar	male	IP65
B12AN	-0.82 ÷ 0	0.1 bar fixed	2.5 bar	female	IP40
B12AN4 *	-0.82 ÷ 0	0.1 bar fixed	2.5 bar	male	IP40
B12BN	0.2 ÷ 2	0.1 ÷ 0.5 bar	4 bar	female	IP40
B12ANY	-0.82 ÷ 0	0.1 bar fixed	2.5 bar	female	IP65
B12BNY	0.2 ÷ 2	0.1 ÷ 0.5 bar	4 bar	female	IP65

- Elements in contact with fluid are in stainless steel, laser welded.
- SPDT contact rating 250Vac 16(6)A.

\* delivery time and minimum purchase quantity upon request

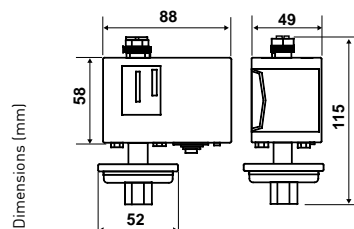


C €0497

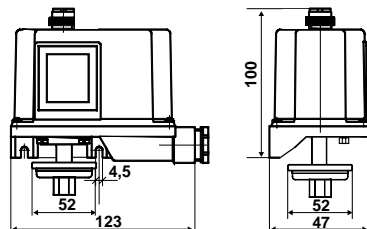


■ B12BN

■ B12BNY



■ B11AN



■ B11ANY, B12ANY

## Pressure switches up to 28 bar with adjustable differential



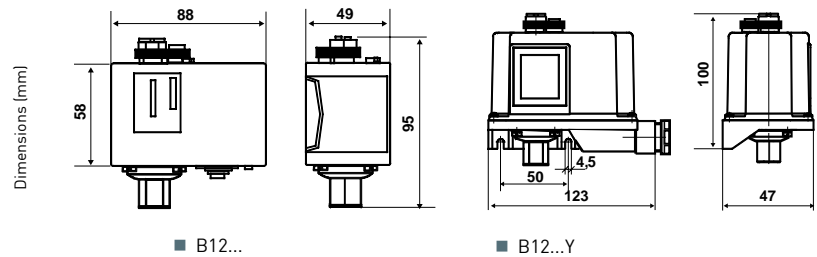
- External regulation
- Elements in contact with fluid are in stainless steel, laser welded.
- SPDT contact rating 250Vac 16(6)A.



CE0497

CODE	RESET	RANGE	DIFFERENTIAL	SENSITIVE ELEMENT MAX. PRESSURE	CONNECTION G 1/4	PROTECTION DEGREE
B12CN	automatic	-0.2 ÷ 8 bar	0.6 ÷ 3 bar	9 bar	female	IP40
B12DN	automatic	5 ÷ 16 bar	1 ÷ 3.5 bar	18 bar	female	IP40
B12EN	automatic	8 ÷ 28 bar	2 ÷ 6 bar	32 bar	female	IP40
B12CRN	automatic	-0.2 ÷ 8 bar	0.6 ÷ 3 bar	9 bar	SAE	IP40
B12ERN	automatic	8 ÷ 28 bar	2 ÷ 6 bar	32 bar	SAE	IP40
B12CN4 *	automatic	-0.2 ÷ 8 bar	0.6 ÷ 3 bar	9 bar	male	IP40
B12DN4 *	automatic	5 ÷ 16 bar	1 ÷ 3.5 bar	18 bar	male	IP40
B12CMN *	manual	1 ÷ 8 bar	0.6 ÷ 3 bar	9 bar	female	IP40
B12DMN *	manual	5 ÷ 16 bar	1 ÷ 3.5 bar	18 bar	female	IP40
B12EMN *	manual	8 ÷ 28 bar	2 ÷ 6 bar	32 bar	female	IP40
B12CNY	automatic	-0.2 ÷ 8 bar	0.6 ÷ 3 bar	9 bar	female	IP65
B12DNY	automatic	5 ÷ 16 bar	1 ÷ 3.5 bar	18 bar	female	IP65
B12ENY	automatic	8 ÷ 28 bar	2 ÷ 6 bar	32 bar	female	IP65
B12CRNY	automatic	-0.2 ÷ 8 bar	0.6 ÷ 3 bar	9 bar	SAE	IP65
B12ERNY	automatic	8 ÷ 28 bar	2 ÷ 6 bar	32 bar	SAE	IP65

\* delivery time and minimum purchase quantity upon request



## Pressure switches up to 300 bar with adjustable differential



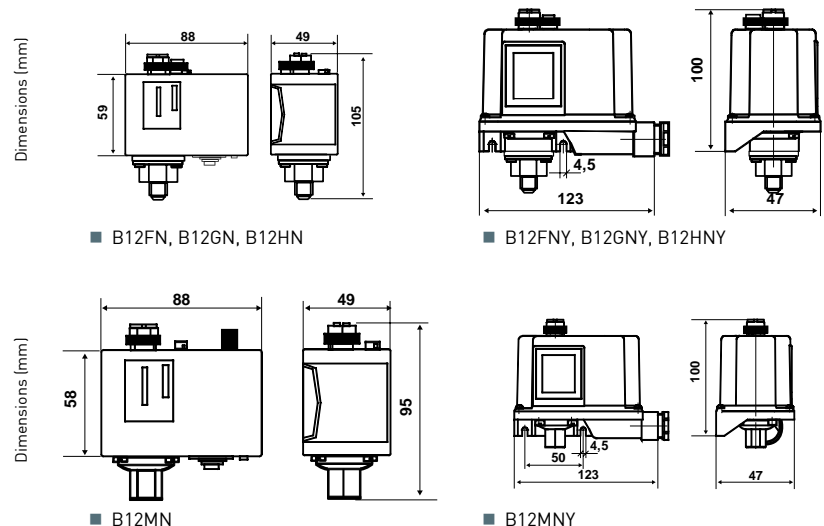
- SPDT contact rating 250Vac 16(6)A.



CE0497

CODE	RESET	RANGE	DIFFERENTIAL	SENSITIVE ELEMENT MAX. PRESSURE	CONNECTION G 1/4	PROTECTION DEGREE
B12FN	automatic	12 ÷ 50 bar	6 ÷ 15 bar	60 bar	male	IP40
B12GN	automatic	25 ÷ 150 bar	12 ÷ 40 bar	180 bar	male	IP40
B12HN	automatic	60 ÷ 300 bar	40 ÷ 80 bar	350 bar	male	IP40
B12FMN *	manual	12 ÷ 50 bar	6 ÷ 15 bar	60 bar	male	IP40
B12GMN *	manual	25 ÷ 150 bar	12 ÷ 40 bar	180 bar	male	IP40
B12HMN *	manual	60 ÷ 300 bar	40 ÷ 80 bar	350 bar	male	IP40
B12FNY	automatic	12 ÷ 50 bar	6 ÷ 15 bar	60 bar	male	IP65
B12GNY	automatic	25 ÷ 150 bar	12 ÷ 40 bar	180 bar	male	IP65
B12HNY	automatic	60 ÷ 300 bar	40 ÷ 80 bar	350 bar	male	IP65
B12MN	manual	1 ÷ 5 bar	0.6 fisso bar	9 bar	female	IP40
B12MNY	manual	1 ÷ 5 bar	0.6 fisso bar	9 bar	female	IP65

\* delivery time and minimum purchase quantity upon request



## Pressure switches up to 10 bar with low adjustable differential value

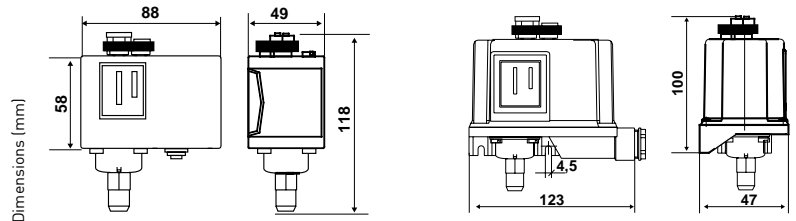


CODE	RANGE	DIFFERENTIAL	SENSITIVE ELEMENT MAX. PRESSURE	CONNECTION G 1/4	PROTECTION DEGREE
B13BN	0.3 ÷ 4 bar	0.1 ÷ 0.5 bar	6 bar	male	IP40
B13CN	1 ÷ 10 bar	0.3 ÷ 1.5 bar	16 bar	male	IP40
B13BNY	0.3 ÷ 4 bar	0.1 ÷ 0.5 bar	6 bar	male	IP65
B13CNY	1 ÷ 10 bar	0.3 ÷ 1.5 bar	16 bar	male	IP65

- Metal bellow in copper alloys.
- SPDT contact rating 250Vac 16(6)A.



CE 0497

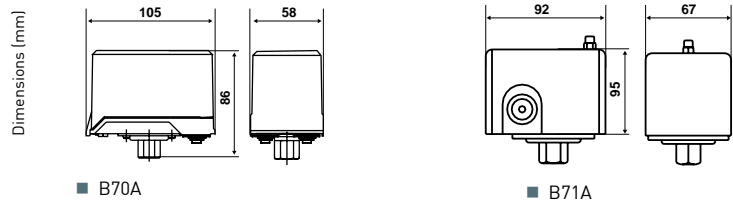


## Pressure switches for single/two/three-phase motors direct control



CODE	RANGE	DIFFERENTIAL START OF SCALE	FULL SCALE	MAXIMUM DIFFERENTIAL	PROTECTION DEGREE	CONTROL
B70A	0.5 ÷ 7 bar	0.8 bar	1.8 bar	3.5 bar	IP40	three-phase
B71A	1.5 ÷ 4.5 bar	1.0 ÷ 2.1 bar	1.2 ÷ 2.3 bar	2.3 bar	IP20	single-phase / two-phase

- B70A portata contatti 415Vac 20(9)A.
- B71A portata contatti 415Vac 12(3)A.



# ACCESSORIES

## Cable gland

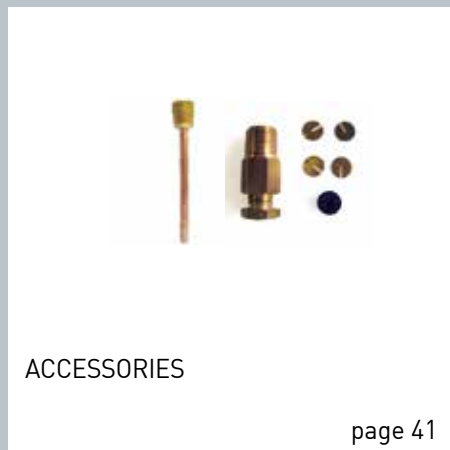



















CODE	DESCRIPTION
303298LA	G1/2 cable gland in V0 self-extinguishing, shockproof thermoplastic material

## Protection cover



CODE	DESCRIPTION
2593367	Protection cover IP44



-  External regulation
-  Internal regulation
-  Cam adjustment
-  Pin adjustment
-  Screwdriver adjustment
-  Fixed calibration
-  Manual reset
-  Flush mounting
-  Wall mounting
-  DIN-rail mounting
-  IP40 Protection degree IP40
-  IP43 Protection degree IP43
-  IP65 Protection degree IP65
-  IP00 Protection degree IP00
-  IP55 Protection degree IP55
-  IP54 panel Protection degree IP54 with panel mounting
-  IP40 back panel Protection degree IP40 with back panel mounting
-  IP55 panel Protection degree IP55 with panel mounting



# THERMOSTATS AND HUMIDISTATS



# ENCASED THERMOSTATS

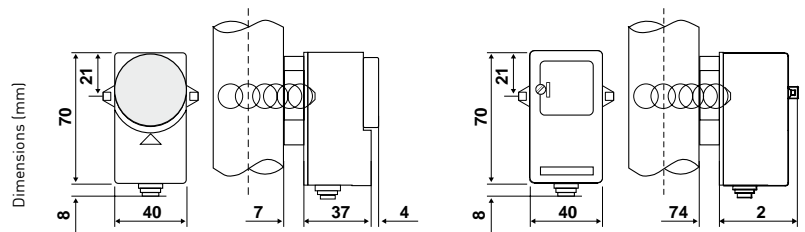
## Piping and cylinder thermostats



CODE	REGULATION TYPE	TEMPERATURE RANGE	DIFFERENTIAL	MAXIMUM BODY TEMPERATURE	MAXIMUM BULB TEMPERATURE
C01A	external	20 ÷ 90 °C	8 K	85 °C	120 °C
C01AM *	external with manual reset	20 ÷ 90 °C	8 K	85 °C	120 °C
C01ARI *	internal	20 ÷ 90 °C	8 K	85 °C	120 °C

\* delivery time and minimum purchase quantity upon request

- The differential must be deducted from the range value.
- SPDT contact rating 15(6)A 250V~.
- AGcdO contacts.
- Faston connections.



■ C01...

■ C01ARI

## Immersion thermostats



CODE	REGULATION TYPE	TEMPERATURE RANGE	DIFFERENTIAL	MAXIMUM BODY TEMPERATURE	MAXIMUM BULB TEMPERATURE
C03A3	external	10 ÷ 90 °C	6 ± 1 K	85 °C	150 °C
C03B3	external	40 ÷ 120 °C	6 ± 1 K	85 °C	150 °C
C03C3	external	10 ÷ 90 °C	6 ± 1 K	85 °C	135 °C
C03A3RI *	internal	10 ÷ 90 °C	6 ± 1 K	85 °C	150 °C
C03B3RI *	internal	40 ÷ 120 °C	6 ± 1 K	85 °C	150 °C
C08A	external	0 ÷ 110 °C	6 ± 2 K	85 °C	150 °C
C08B	external	90 ÷ 200 °C	6 ± 2 K	85 °C	250 °C

\* delivery time and minimum purchase quantity upon request

- The differential must be deducted from the range value.
- C03C3 bulb length 55 mm.
- SPDT contact rating 15(6)A 250V~.
- AGcdO contacts.



Dimensions (mm)

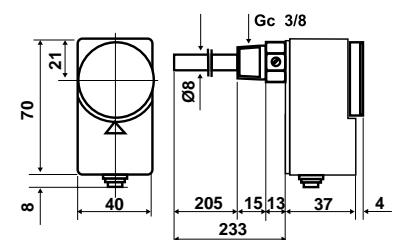
■ C03..

■ C03..RI

Dimensions (mm)

■ C03C3

■ C08



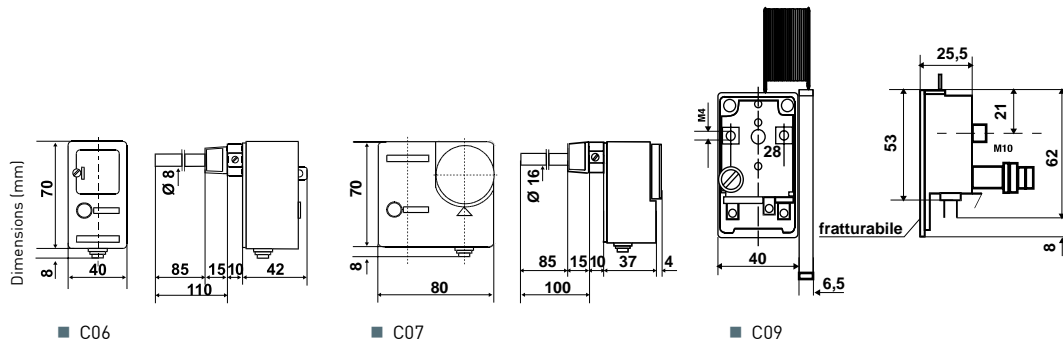
# Fail safe lockout immersion thermostats and bithermostat



CODE	LOCKOUT ACTION	TEMPERATURE RANGE	LOCKOUT ACTION TOLERANCE	MAXIMUM BULB TEMPERATURE	PROTECTION DEGREE
C06A3M	100 °C	-	+ 0 - 6 °C	150 °C	IP40
C06B3M	* 90 °C	-	+ 0 - 6 °C	150 °C	IP40
C07A3M	100 °C	10 ÷ 90 °C	+ 0 - 6 °C •	130 °C	IP40
C09A3M	100 °C	-	+ 0 - 6 °C	120 °C	IP00

\* delivery time and minimum purchase quantity upon request

- The differential must be deducted from the range value.
- SPDT contact rating 15(6)A 250V~.
- AGcdO contacts.
- Admissible body temp. 85 °C.
- • Tolerance refers to only lockout thermostat



# Capillary thermostats



CODE	REGULATION TYPE	TEMPERATURE RANGE	DIFFERENTIAL	CALIBRATION ACCURACY	MAXIMUM BULB TEMPERATURE	PROTECTION DEGREE
C04A3	external	10 ÷ 90 °C	6 ± 1 K	± 3 °C	150 °C	IP40
C04B3	external	50 ÷ 300 °C	8 ± 2 K	± 3 °C	350 °C	IP40
C04C2	external	- 20 ÷ 40 °C	2 ± 0.5 K	± 2 °C	80 °C	IP40
C04D2	external	- 35 ÷ 20 °C	2 ± 0.5 K	± 2 °C	80 °C	IP40
C04E3	external	40 ÷ 120 °C	6 ± 2 K	± 3 °C	150 °C	IP40
C04A3RI	* internal	10 ÷ 90 °C	6 ± 1 K	± 3 °C	150 °C	IP40
C04C2RI	* internal	- 20 ÷ 40 °C	2 ± 0.5 K	± 2 °C	80 °C	IP40
C04A3Y	external	10 ÷ 90 °C	6 ± 1 K	± 3 °C	150 °C	IP65
C04B3Y	external	50 ÷ 300 °C	8 ± 2 K	± 3 °C	350 °C	IP65
C04C2Y	external	- 20 ÷ 40 °C	2 ± 0.5 K	± 2 °C	80 °C	IP65
C04D2Y	external	- 35 ÷ 20 °C	2 ± 0.5 K	± 2 °C	80 °C	IP65
C04E3Y	external	40 ÷ 120 °C	6 ± 2 K	± 3 °C	150 °C	IP65
C04C2RIY	* internal	- 20 ÷ 40 °C	2 ± 0.5 K	± 2 °C	80 °C	IP65

\* delivery time and minimum purchase quantity upon request

- The differential must be deducted from the range value.
- SPDT contact rating 15(6)A 250V~.
- AGcdO contacts.
- Admissible body temp. 85 °C.

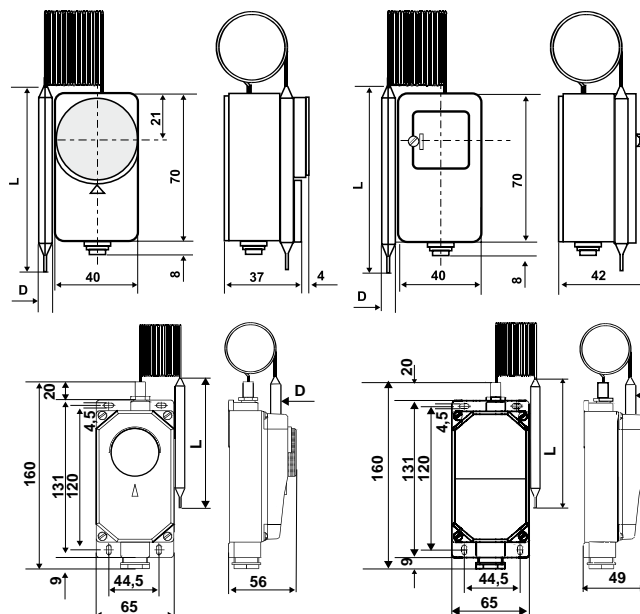


L capillary	L mm	D mm	
C04A3	1 m	73.5	6.5
C04B3	1.5 m	65	5
C04C2	1.5 m	103	6.5
C04D2	1.5 m	103	6.5
C04E3	1 m	73.5	6.5

L capillary	L mm	D mm	
C04A3RI	1 m	73.5	6.5
C04C2RI	1.5 m	103	6.5

L capillare	L mm	D mm	
C04A3Y	1 m	73.5	6.5
C04B3Y	1.5 m	65	5
C04C2Y	1.5 m	103	6.5
C04D2Y	1.5 m	103	6.5
C04E3Y	1 m	73.5	6.5

L capillare	L mm	D mm	
C04C2RIY	1.5 m	103	6.5



# Thermostats with spiral capillary

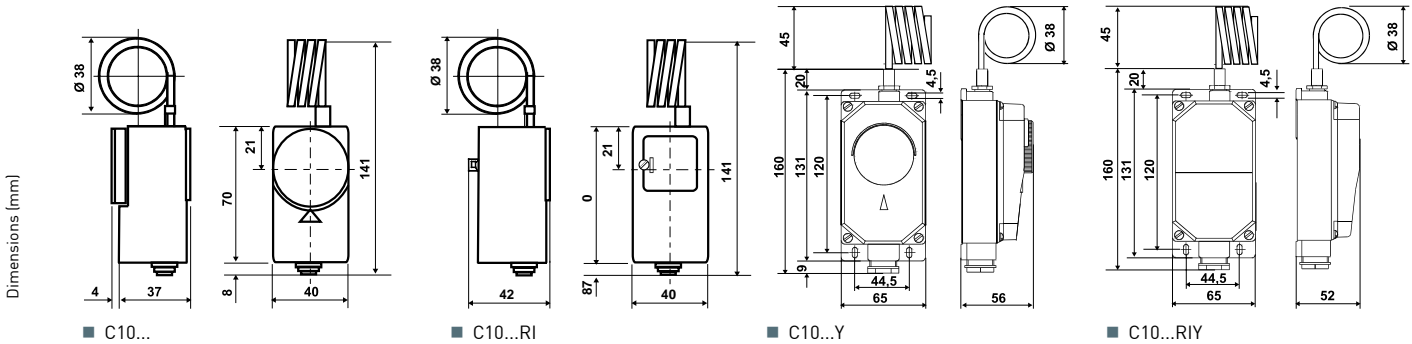


- The differential must be deducted from the range value
- SPDT contact rating 15(6)A 250V~.
- AGcdO contacts.



CODE	REGULATION TYPE	TEMPERATURE RANGE	DIFFERENTIAL	MAXIMUM BODY TEMPERATURE	PROTECTION DEGREE
C10A2	external	0 ÷ 60 °C	2 ± 0.5 K	80 °C	IP40
C10B2	external	- 20 ÷ 40 °C	2 ± 0.5 K	60 °C	IP40
C10C2	external	- 35 ÷ 20 °C	2 ± 0.5 K	50 °C	IP40
C10A2RI	* internal	0 ÷ 60 °C	2 ± 0.5 K	80 °C	IP40
C10B2RI	* internal	- 20 ÷ 40 °C	2 ± 0.5 K	60 °C	IP40
C10C2RI	* internal	- 35 ÷ 20 °C	2 ± 0.5 K	50 °C	IP40
C10A2Y	external	0 ÷ 60 °C	2 ± 0.5 K	80 °C	IP65
C10B2Y	external	- 20 ÷ 40 °C	2 ± 0.5 K	60 °C	IP65
C10C2Y	external	- 35 ÷ 20 °C	2 ± 0.5 K	50 °C	IP65
C10A2RIY	* internal	0 ÷ 60 °C	2 ± 0.5 K	80 °C	IP65
C10B2RIY	* internal	- 20 ÷ 40 °C	2 ± 0.5 K	60 °C	IP65
C10C2RIY	* internal	- 35 ÷ 20 °C	2 ± 0.5 K	50 °C	IP65

\* delivery time and minimum purchase quantity upon request



# REAR PANEL THERMOSTATS

## Rear panel capillary thermostats



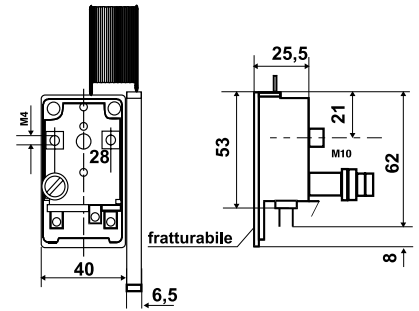
CODE	TEMPERATURE RANGE	DIFFERENTIAL	MAXIMUM BODY TEMPERATURE	MAXIMUM BULB TEMPERATURE	CAPILLARY LENGTH
C02A3	10 ÷ 90 °C	6 ± 1 K	85 °C	150 °C	1 m
C02B3	50 ÷ 300 °C	8 ± 2 K	85 °C	350 °C	1.5 m
C02C2	- 20 ÷ 40 °C	2 ± 0.5 K	85 °C	80 °C	1.5 m
C02D2	- 35 ÷ 20 °C	2 ± 0.5 K	85 °C	80 °C	1.5 m
C02E3	40 ÷ 120 °C	6 ± 2 K	85 °C	150 °C	1 m
C02F	50 ÷ 320 °C	10 ± 2 K	85 °C	330 °C	1 m

- The differential must be deducted from the range value
- External regulation.
- SPDT contact rating 15(6)A 250V~.
- AGcdO contacts.
- Faston connections.



IP00

Dimensions (mm)	mm	L	D
C02A3	69	6.5	6.5
C02B3	65	5	5
C02C2	103	6.5	6.5
C02D2	103	6.5	6.5
C02E3	69	6.5	6.5
C02F	195	3.5	3.5



CE 0497



UL US

# ELECTRONIC THERMOSTATS, THERMOMETERS, HUMIDISTATS

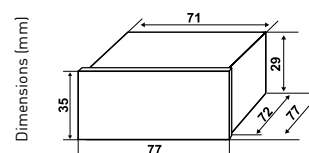
## ON/OFF thermostats - P.I.D. with 1 or 2 outputs and temperature alarms management



- Flush mounting.
- Resolution 0.1[-19.9÷99.9], 1.



CODE	SENSOR	POWER SUPPLY	OUTPUTS NUM	MEASUREMENT RANGE	PROBE PRECISION
L02AM2	1 probe NTC 10K* LS130 included	115÷230Vac 50Hz	2	-40 ÷ 105 °C	±0.3°C[-40÷100], ±1°C
L02CI1B	1 probe PT 100 LS140 excluded	12Vac/dc	1	0 ÷ 400 °C	±0.3°C[-50÷150], ±1°C
L02CI2B	1 probe PT 100 LS140 excluded	12Vac/dc	2	0 ÷ 400 °C	±0.3°C[-50÷150], ±1°C
L02CM1	1 probe PT 100 LS140 excluded	115÷230Vac 50Hz	1	0 ÷ 400 °C	±0.3°C[-50÷150], ±1°C
L02CM2	1 probe PT 100 LS140 excluded	115÷230Vac 50Hz	2	0 ÷ 400 °C	±0.3°C[-50÷150], ±1°C
L02DI1B	1 termo-coppia J LS150 excluded	12Vac/dc	1	0 ÷ 450 °C	±3°C
L02DI2B	1 termo-coppia J LS150 excluded	12Vac/dc	2	0 ÷ 450 °C	±3°C
L02DM1	1 termo-coppia J LS150 excluded	115÷230Vac 50Hz	1	0 ÷ 450 °C	±3°C
L02DM2	1 termo-coppia J LS150 excluded	115÷230Vac 50Hz	2	0 ÷ 450 °C	±3°C
L02BI1A	1 probe NTC 10K LS130 included	12Vac/dc	1	-40 ÷ 105 °C	±0.3°C[-40÷100], ±1°C
L02BM1A	1 probe NTC 10K LS130 included	230Vac 50Hz	1	-40 ÷ 105 °C	±0.3°C[-40÷100], ±1°C
LT312U	Power supply transformer 230/12V 50/60Hz 3VA				



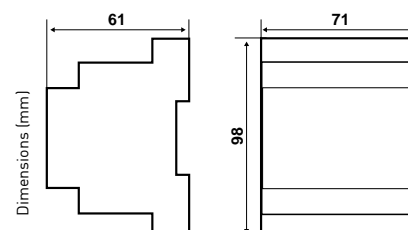
## ON/OFF - P.I.D. thermostats with 1 or 2 outputs and temperature alarms management



- DIN rail mounting
- Resolution 0.1[-19.9÷99.9], 1 °C
- Possibility to connect PT1000 (LS120, not included) instead of NTC 10K.



CODE	SENSOR	POWER SUPPLY	OUTPUTS NUM	MEASUREMENT RANGE	PROBE PRECISION
L03BI2A	1 probe NTC 10K LS130 included	12Vac/dc	2	-40 ÷ 105 °C	±0.3°C[-40÷100], ±1°C
L03BM1A	1 probe NTC 10K LS130 included	230Vac 50Hz	1	-40 ÷ 105 °C	±0.3°C[-40÷100], ±1°C
L03BM2A	1 probe NTC 10K LS130 included	230Vac 50Hz	2	-40 ÷ 105 °C	±0.3°C[-40÷100], ±1°C
LT312U	Power supply transformer 230/12V 50/60Hz 3VA				



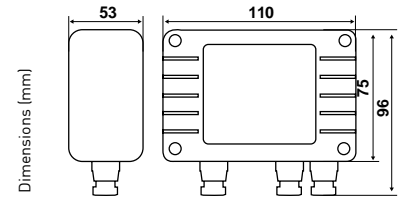
## ON/OFF thermostat with 2 outputs



- Wall mounting.
- Resolution 0.1(-19.9÷99.9 °C), 1 for the rest of range.



CODE	SENSOR	POWER SUPPLY	OUTPUTS NUM	MEASUREMENT RANGE	PROBE PRECISION
L04BM2A	1 probe NTC 10K LS130 included	230Vac	2	-40 ÷ 105 °C	±0.3°C(-40÷100), ±1°C



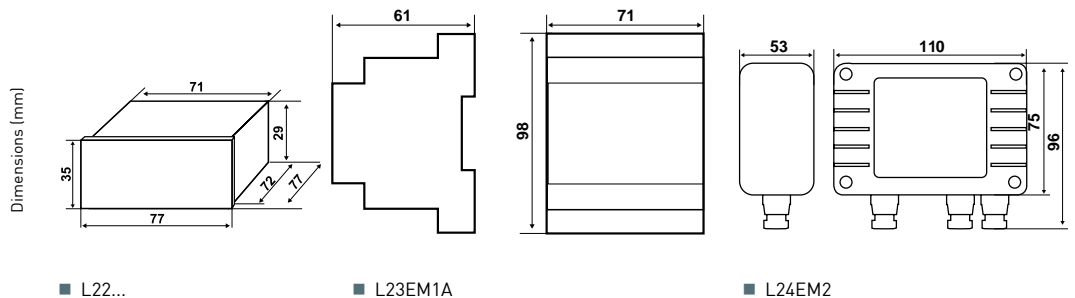
## Humidistats



- Instrument precision (0÷100 RH%) ±0.7 RH%.
- Measurement range 0 ÷ 100 RH%.
- Resolution 1 RH%.



CODE	SENSOR	MOUNTING	POWER SUPPLY	OUTPUTS NUM	PROTECTION DEGREE
L22E11A	1 probe LS160A excluded	flush mounting	12Vac/dc	1	IP55
L22EM1A	1 probe LS160A excluded	flush mounting	230Vac	1	IP55
L23EM1A	1 probe LS160A excluded	DIN rail	230Vac	1	IP40 back panel
L24EM2	1 probe LS160A excluded	wall mounting	230Vac	2	IP55



■ L22...

■ L23EM1A

■ L24EM2

## Temperature and humidity probes



CODE	MEASUREMENT RANGE	PRECISION K	TIP mm	PROTECTION DEGREE	CONDUCTORS mm <sup>2</sup>
LS120 (PTC1000)	-40 ÷ 120 °C	± 1.5 at 25 °C	Ø 6x34	IP67	2 x 0.4
LS140 (PT100)	0 ÷ 400 °C	± 0.3 at 0 °C	Ø 6x160 steel AISI 316	IP65	3 x 0.2
LS150 (thermoc.J)	0 ÷ 450 °C	± 2.5 °C	Ø 6x160 steel AISI 316	IP65	2 x 0.5
LS130 (NTC10K)	-40 ÷ 105 °C	± 1.5 at 25 °C	Ø 6x34	IP67	2 x 0.4

CODE	MEASUREMENT RANGE RH%	PRECISION RH%	PROTECTION DEGREE
LS160A	0 ÷ 100%	±5% RH (25%÷75% RH)	IP65

# ACCESSORIES

## Copper sheath for C0 thermostats series



CODE	DESCRIPTION
G23	Seal cap Gc 1/2, PN10 bar, without casing
G25	Copper sheath Gc 3/8 PN10 bar, length 220 mm, Ø 8mm
G27	Copper sheath Gc 1/2 PN10 bar with length 145mm Ø 8mm
G28	Copper sheath Gc 1/2 PN10 bar, length 177 mm, including spring to mount the capillary
G30	Copper sheath Gc 1/2 PN10 bar with length 100mm Ø 8mm
G31	Copper sheath with length 100mm, Gc 1/2" PN10 for C07

## Ring and control knob for C02 thermostats series



CODE	DESCRIPTION
2554972	metallic ring for thermoplastic control knobs
2754975	metallic ring for stainless steel control knobs
2724259	control knob for per C02A3
2724260	control knob for per C02B3
2723094	control knob for per C02C2
2723095	control knob for per C02D2
2724261	control knob for per C02E3
2723856	control knob for per C02F
5677050	group of range limiters, used for knobs

## Cable gland for C0 thermostats series



CODE	DESCRIPTION
303298LA	G1/2 cable gland in V0 self-extinguishing, shockproof thermoplastic material for output connections

## Protection cover



CODE	DESCRIPTION
2593367	Protection cover IP44

## Niple male/male G1/4"



CODE	DESCRIPTION
1504214	Niple male/male G1/4"







LIQUID  
FLOW SWITCH ES

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AIR  
FLOW SWITCH ES

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IP54

Protection degree  
IP54

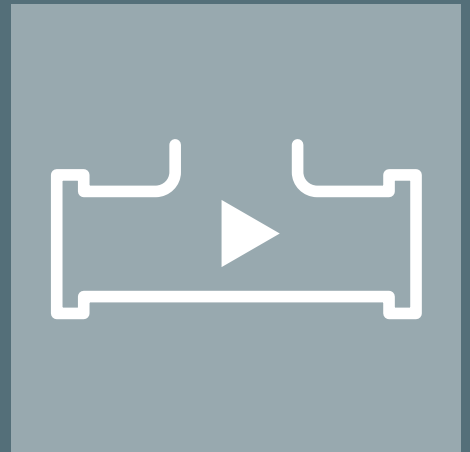
IP65

Protection degree  
IP65

10 bar

Max. working pressure  
10 bar

# FLOW SWITCHES



# LIQUID FLOW SWITCHES

## Liquid flow switch, with stainless steel blades

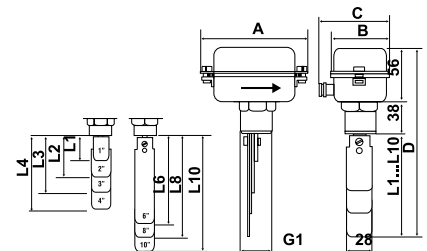


CODE	PIPE DIAMETER	MINIMUM CALIBRATION VALUE (dm <sup>3</sup> /sec) WITH FLOW:		MAXIMUM CALIBRATION VALUE (dm <sup>3</sup> /sec) WITH FLOW:		PROTECTION DEGREE
		INCREASING	DECREASING	INCREASING	DECREASING	
FF81	G 1	0.26	0.16	0.58	0.53	IP54
	G 2	0.8	0.6	1.6	1.7	IP54
	G 3	1.7	1.2	3.2	3	IP54
	G 4	2.2	1.7	5.1	4.8	IP54
FF84	G 1	0.26	0.16	0.58	0.53	IP54
	G 2	0.8	0.6	1.6	1.7	IP54
	G 3	1.7	1.2	3.2	3	IP54
	G 4	2.2	1.7	5.1	4.8	IP54
	G 6	4.7	3.4	9	8.5	IP54
	G 8	12.9	10.7	26	25.2	IP54
G 10	26.5	22	43.5	41	IP54	

- With stainless steel housing and blade
- Operating temperature -20÷110°C.

IP54 10 bar

	FF81	FF84
A	105	98
B	62	54
C	80	72
D	204	354
L1	28	
L2	53	
L3	78	
L4	103	
L6		153
L8		203
L10		253



## Liquid flow switch, with plastic housing and blades



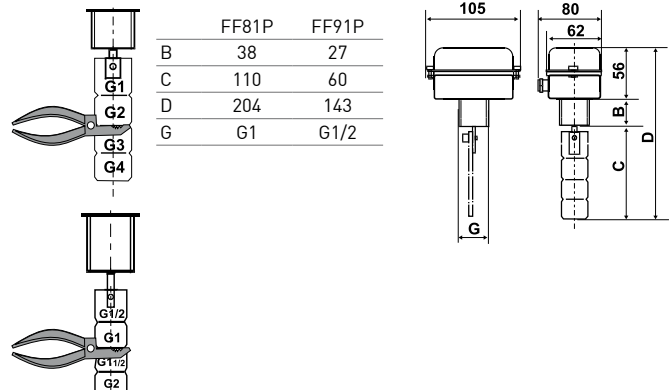
CODE	PIPE DIAMETER	MINIMUM CALIBRATION VALUE (dm <sup>3</sup> /sec) WITH FLOW:		MAXIMUM CALIBRATION VALUE (dm <sup>3</sup> /sec) WITH FLOW:		PROTECTION DEGREE
		INCREASING	DECREASING	INCREASING	DECREASING	
FF81P	G 1	0.26	0.16	0.58	0.53	IP54
	G 2	0.87	0.65	1.65	1.74	IP54
	G 3	1.85	1.3	3.49	3.27	IP54
	G 4	2.39	1.85	5.56	5.23	IP54
FF91P	G 1/2	0.13	0.8	0.29	0.26	IP54
	G 1	0.26	0.16	0.58	0.53	IP54
	G 2	0.39	0.24	0.87	0.79	IP54

- With plastic housing and blade
- Operating temperature 0 ÷ 100°C

IP54 10 bar

Dimensions (mm)	FF81P blade dimensions
G1	35
G2	60
G3	90
G4	110

Dimensions (mm)	FF91P blade dimensions
G1/2	17
G1	35
G1 1/2	52
G2	60



## Liquid flow switch, with plastic housing and stainless steel blade

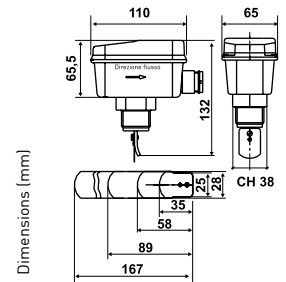


CODE	PIPE DIAMETER	BLADE LENGTH MM	MINIMUM CALIBRATION VALUE (m³/h) WITH FLOW:		MAXIMUM CALIBRATION VALUE (m³/h) WITH FLOW:	
			INCREASING	DECREASING	INCREASING	DECREASING
FF82	G 1	35	1	0.5	2	1.9
	G 1 1/4	35	1.2	0.7	2.9	2.7
	G 1 1/2	58	1.6	1	3.9	3.6
	G 2	58	2.9	2.1	6.1	5.7
	G 2 1/2	89	4	2.7	7	6.5
	G 3	89	6.1	4.3	11.4	10.7
	G 4 *	89	14.7	11.3	28.9	27.6
		167	7.9	6.1	18.4	17.3
	G 5 *	89	28.3	22.8	55.5	53
		167	12.8	9.2	26.7	25
	G 6 *	89	43	35.8	85	81.6
		167	16.8	12.2	32.5	30.5
	G 8 *	89	85	72.4	172.3	165.5
		167	46.4	38.5	94	90.7

\* These values are obtained adding the longest paddle

- With plastic housing and stainless steel blade
- Operating temperature -20 ÷ 110 °C

IP65 10 bar



## AIR FLOW SWITCHES

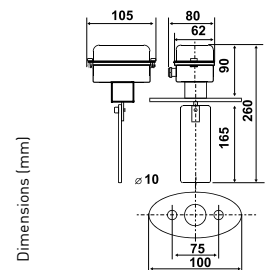
### Air flow switch, with stainless steel blade



CODE	MIN DISENGAGE VALUE (C-NO opens, C-NC closes)	MIN ENGAGE VALUE (C-NC opens, C-NO CLOSES)	MAX DISENGAGE VALUE (C-NO opens, C-NC CLOSES)	MAX ENGAGE VALUE (C-NC opens, C-NO closes)
FF71A	2.5 m/sec	3.1 m/sec	6.4 m/sec	7 m/sec

- Flexible blade in AISI 301 stainless steel
- PVC flange
- The data in the table refer to a conducted surface of approx 320cm²

IP54





DIRECT  
SOLENOID  
VALVE S

page 48



SERVO-ASSISTED  
SOLENOID  
VALVES

page 49



Suitable for water, air, fuel-oil, inert gases and other fluids non-corrosive for copper alloys, with viscosity up to 2° Engler



2-way execution



Closing time 10 msec.



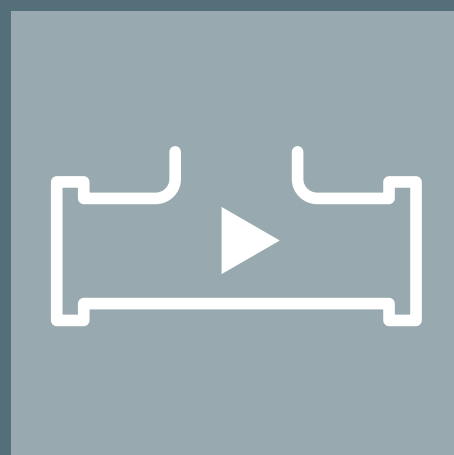
Protection degree  
IP65



CONTROL COILS

page 49

# ELECTROVALVES



# DIRECT SOLENOID VALVES

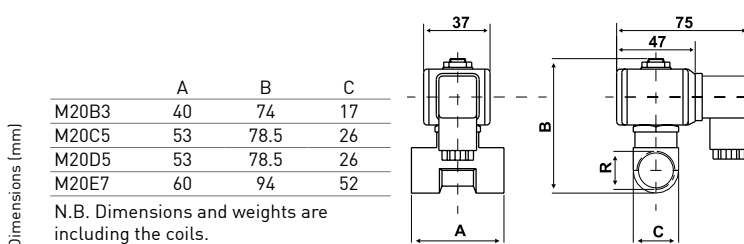
## Direct operation solenoid valve bodies, normally-closed



CODE	ORIFICE DIAMETER	FEMALE CONNECTION	Kv m <sup>3</sup> /h	MAXIMUM DIFFERENTIAL PRESSURE		TESTING PRESSURE (DIN2401) PN bar
				VN	0.85VN	
M20B3	3 mm	G 1/4	0.27	16	10	25
M20C5	5 mm	G 3/8	0.612	6	2	25
M20D5	5 mm	G 1/2	0.612	5	2	25
M20E7	7 mm	G 3/4	1	2.5	1.8	25

CODE	CONTROL COIL INCLUDED 24V	CONNECTOR	PASSAGE mm	FEMALE CONNECTION
M20C51	IM22	1578501	5	G 3/8

- Closing time 10 msec.
- The control coils are supplied separately from valve bodies.
- Kv = water flow in m<sup>3</sup>/h with pressure drop of 1 bar (1 bar = 100kPa).



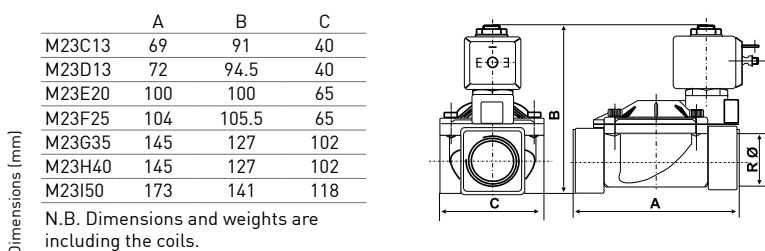
# SERVO-ASSISTED SOLENOID VALVES

## Servo-assisted diaphragm solenoid valve bodies, normally-closed



CODE	ORIFICE DIAMETER	FEMALE CONNECTION	KV m <sup>3</sup> /h	CLOSING TIME DP OF 1 BAR	MAXIMUM DIFFERENTIAL PRESSURE	MINIMUM DIFFERENTIAL PRESSURE	TEST PRESSURE (DIN2401) PN
M23C13	13 mm	G 3/8	3	1 sec.	20 bar	0.1 bar	25 bar
M23D13	13 mm	G 1/2	3	1 sec.	20 bar	0.1 bar	25 bar
M23E20	20 mm	G 3/4	8.4	1.5 sec.	20 bar	0.1 bar	25 bar
M23F25	25 mm	G 1	9.6	1.5 sec.	20 bar	0.1 bar	25 bar
M23G35	35 mm	G 1 1/4	25.2	2.5 sec.	10 bar	0.1 bar	16 bar
M23H40	40 mm	G 1 1/2	30	3 sec.	10 bar	0.1 bar	16 bar
M23I50	50 mm	G 2	37.2	3.5 sec.	10 bar	0.1 bar	16 bar

- Quick connection connector for the coils.
- Kv = water flow in m<sup>3</sup>/h with pressure drop of 1 bar (1 bar = 100kPa).





## Servo-assisted diaphragm valve bodies, normally-open



- Closing time 10 msec.
- Quick connection connector for the coils.
- Kv = water flow in m<sup>3</sup>/h with pressure drop of 1 bar (1 bar = 100kPa).

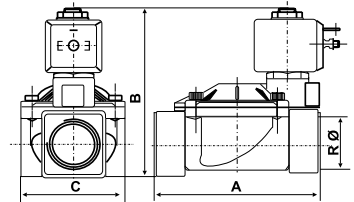


CODE	ORIFICE DIAMETER	FEMALE CONNECTION	KV m <sup>3</sup> /h	CLOSING TIME DP OF 1 BAR	MAXIMUM DIFFERENTIAL PRESSURE	MINIMUM DIFFERENTIAL PRESSURE	TEST PRESSURE (DIN2401) PN
M29C13	13 mm	G 3/8	3	1	20 bar	0.1 bar	25 bar
M29D13	13 mm	G 1/2	3	1	20 bar	0.1 bar	25 bar
M29E20	20 mm	G 3/4	8.4	1.5	20 bar	0.1 bar	25 bar
M29F25	25 mm	G 1	9.6	1.5	20 bar	0.1 bar	25 bar
M29G35	35 mm	G 1 1/4	25.2	2.5	10 bar	0.1 bar	16 bar
M29H40	40 mm	G 1 1/2	30	3	10 bar	0.1 bar	16 bar
M29I50	50 mm	G 2	37.2	3.5	10 bar	0.1 bar	16 bar

	A	B	C
M29C13	69	91	40
M29D13	72	94.5	40
M29E20	100	100	65
M29F25	104	105.5	65
M29G35	145	127	102
M29H40	145	127	102
M29I50	173	141	118

Dimensions (mm)

N.B. Dimensions and weights are including the coils.



## CONTROL COILS

### Control coils for solenoid valve bodies



CODE	SUITABLE FOR	POWER SUPPLY	COIL ABSORPTION		ACTIVE POWER W
			START VA	STOP VA	
IM21F	M20 - M23	24 Vac 50/60Hz	25	16	9
IM21H	M20 - M23	115 Vac 50/60Hz	25	16	9
IM21M	M20 - M23	230 Vac 50/60 Hz	25	16	9
IM21D	M20 - M23	12 Vac 50/60 Hz	25	16	9
IM22	M20 - M23	24 Vdc			12
IM22A	M23	12 Vdc			14
IM29A	M29	12 Vac 50/60 Hz	33	25	14
IM29F	M29	24 Vac 50/60Hz	33	25	14
IM29M	M29	230Vac 50/60Hz	33	25	14
IM30A	M29	12 Vdc			16

1578501 Quick connector DIN 43650 suitable for all IM2 coils  
Cable gland Pg9 (cable diameter 6÷8 mm), Pg11 cable gland thread



ASSEMBLED MANIFOLD FOR HEATING SYSTEMS page 52



CONTROL UNITS FOR SOLAR PANEL HEATING SYSTEMS page 52



CONTROL UNITS FOR UNDERFLOOR HEATING SYSTEM page 53



CONTROL UNITS FOR BOILER HEATING SYSTEM page 53



ELECTRIC SERVOCONTROLS page 56



ROTOR AND MIXING VALVES page 57




















REMOTE CONTROL page 60



TEMPERATURE PROBES AND SENSORS page 62



INDUSTRIAL GAS DETECTORS page 63

-  DIN rail mounting
-  Wall mounting
-  230V 230V-50Hz power supply
-  24V 24V power supply
-  For solar panel
-  For underfloor heating system
-  Humidity control
-  Heating and air-conditioning control
-  Boiler control
-  Valve control
-  Pump control
-  Burner control
-  For sanitary water control
-  Remote control via SMS
-  Remote control via PC
-  IP40 Protection degree IP40
-  IP40 Protection degree IP40 with back panel mounting

# THERMOREGULATION AND GAS DETECTORS



# ASSEMBLED MANIFOLD

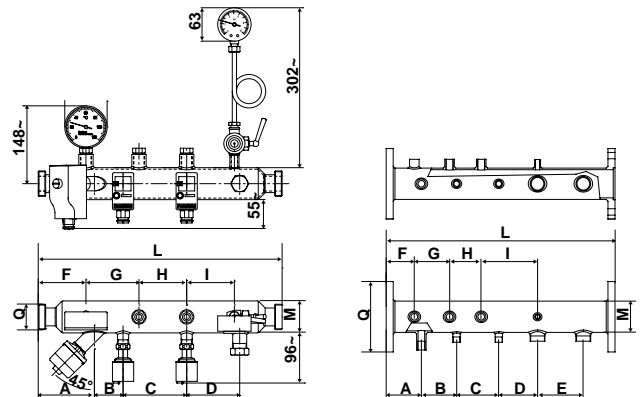
## Assembled manifold for heating systems



CODE	CONNECTION	CONNECTIONS FOR THE SAFETY RELIEF VALVE NUM	SAFETY VALVE CONNECTION TYPE	WEIGHT KG
ETKB	1"1/4	1	3/4"	5.4
ETKC	1"1/2	1	1"	8.4
ETKD	2"	1	1"	8.7
ETK50	DN50	1	1"	7.1
ETK65	DN65	2	1"1/4 and 1"	8.5
ETK80	DN80	2	1"1/4 and 1"1/4	11.9

### COMPONENTS

- ETK series must be installed on the supply pipe. They are suitable for either horizontal vertical installation
- Immersion thermostat with manual reset, code 9P6-99306-00A;
- High limit safety pressure switch with manual reset, code B01BMX
- Low limit safety pressure switch with manual reset, code B01FML
- Thermometer, code 1590872
- Manometer, code 1590872
- Tap holder, code 7750-14-0A
- Shock absorber, code 7760-14-0A
- Connections
- Inspection connection
- Connection for fuel valve
- Safety valve connection



Dimensions (mm)		A	B	C	D	E	F	G	H	I	L	M	Q
ETKB	1"1/4(*)	106	54	120	100	-	90	100	90	90	460	60	1"1/2
ETKC	1"1/2(*)	106	121	120	125	-	90	100	90	90	568	101	2"
ETKD	2"(*)	106	121	120	125	-	90	100	90	90	568	101	2"1/2
ETK50	DN 50	100	100	120	100	-	80	100	90	160	520	60	DN 50
ETK65	DN 65	100	100	120	100	120	80	100	90	160	640	76	DN 65
ETK80	DN 80	100	100	120	110	130	80	100	90	160	650	89	DN 80

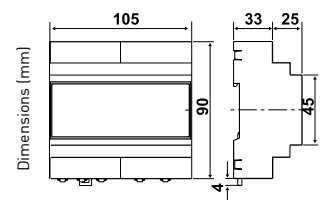
# CONTROL UNIT FOR SOLAR HEATING SYSTEM

## Control unit for solar heating systems and solar cooling



CODE	POWER SUPPLY	CONTACT RATING	OPERATING TEMPERATURE	CONSUMPTION	PROTECTION DEGREE
EV40	230V 50Hz	5(3)A - 250Vac	0 ÷ 50 °C	5 VA	IP40 back panel

- DIN-rail mounting (6 modules).
- 8 types of preconfigured systems.
- 3 probe and 2 optoisolated inputs.
- 3 output relays.



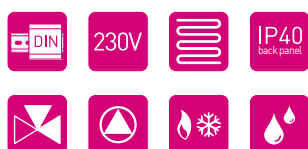
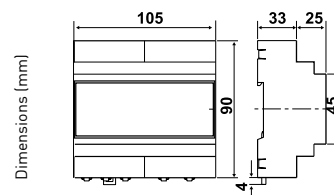
# CONTROL UNITS FOR UNDERFLOOR HEATING SYSTEM

## Control unit for floor heating and cooling systems



CODE	POWER SUPPLY	CONTACT RATING	OPERATING TEMPERATURE	CONSUMPTION	PROTECTION DEGREE
EV84A	230V 50Hz	5(3)A - 250Vac	0 ÷ 50 °C	4 VA	IP40 back panel

- DIN-rail mounting (6 modules).
- Humidity regulation.
- 3 output relays.
- 3 analog inputs to control the external, limit and flow temperature.
- 1 correction probe  $\pm 3$  °C.
- 1 humidistat input.
- 1 digital input summer/winter.



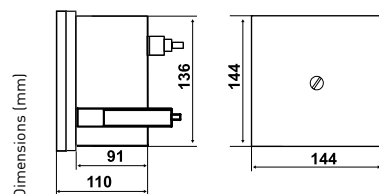
# CONTROL UNIT FOR BOILER HOUSES

## Analog control unit for climate temperature regulation



CODE	PROGRAMME	CONTACT RATING	OPERATING TEMPERATURE	CONSUMPTION	PROTECTION DEGREE
EV02F	daily	5(3)A - 250Vac	0 ÷ 50 °C	4 VA	IP40 back panel
EV05M	weekly	5(3)A - 250Vac	0 ÷ 50 °C	4 VA	IP40 back panel

- Flush, wall or rear panel mounting
- Mechanical clock.
- Potentiometers to select the heating curve and for regulation of the comfort and energy saving temperatures.

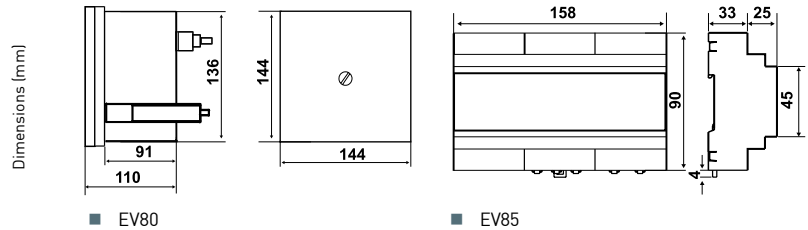


## Digital controller for climatic systems with remote control



CODE	MOUNTING	CONTACT RATING	OPERATING TEMPERATURE	CONSUMPTION	PROTECTION DEGREE
EV80	box 144mm	5(3)A - 250Vac	0 ÷ 50 °C	7 VA	IP40 back panel
EV85	DIN-rail mounting, 9 mod.	5(3)A - 250Vac	0 ÷ 50 °C	7 VA	IP40 back panel
TCEV80	RS232 cable, controller modem				

- Valve, pump and burner control
- 2 generic alarm inputs.
- Probe inputs: external, flow, limit and ambient.

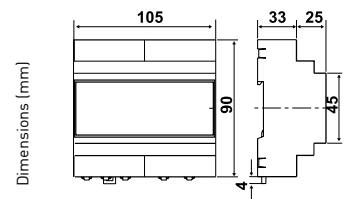


## Regulation control unit for climatic systems



CODE	MOUNTING	CONTACT RATING	OPERATING TEMPERATURE	CONSUMPTION	PROTECTION DEGREE
EV60	DIN-rail mounting, 6 mod.	5(3)A - 250Vac	0 ÷ 50 °C	5 VA	IP40 back panel

- Circulation pump control.
- Valve or burner control
- Thermal disinfection program to prevent legionnaires' disease
- Probe inputs: external, flow and ambient.

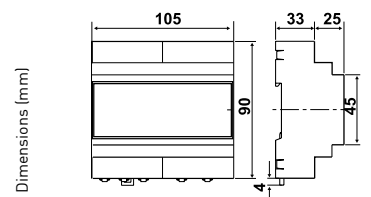


## Regulation control unit for climatic systems



CODE	MOUNTING	CONTACT RATING	OPERATING TEMPERATURE	CONSUMPTION	PROTECTION DEGREE
EV83	DIN-rail mounting, 6 mod.	5(3)A - 250Vac	0 ÷ 50 °C	3 VA	IP40 back panel

- Circulation pump control
- Valve control
- Burner control
- Probe inputs: external, flow and ambient.

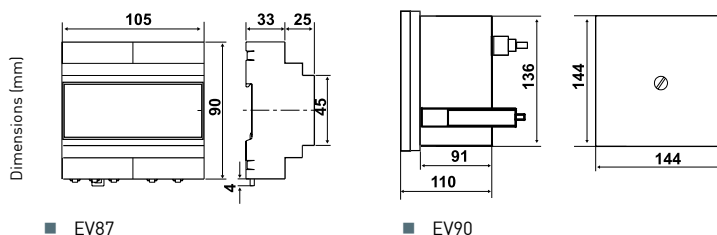


# Multifunction expandable digital controller for climatic systems



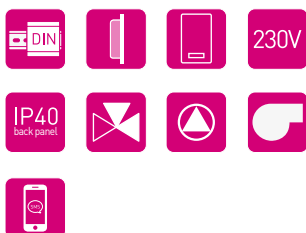
CODE	MOUNTING	CONTACT RATING	OPERATING TEMPERATURE	CONSUMPTION	PROTECTION DEGREE
EV87	DIN-rail mounting, 6 mod.	5(3)A - 250Vac	0 ÷ 45 °C	5 VA	IP40 back panel
EV90	box 144mm	5(3)A - 250Vac	0 ÷ 50 °C	5 VA	IP40 back panel

- Expandable and remote controllable
- 4 output relays: mixing valve and pump, multistage burner (from 2 to 4), cascade boilers (2 to 4), 2 cascade boilers
- 2 digital inputs can be used as alarms.
- 1 input 4..20mA (only EV87).
- 1 output 0..10V (only EV87).



■ EV87

■ EV90

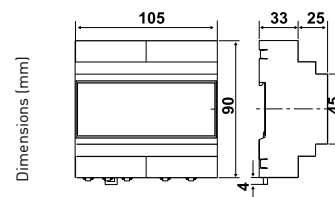


## Expansion modules for digital controllers EV87 and EV90



CODE	DESCRIPTION	CONTACT RATING	CONSUMPTION
EV91A	temperature control module with external probe	5(3)A - 250Vac	7 VA
EV91B	fixed point temperature control module for sanitary hot water	5(3)A - 250Vac	5 VA
EV91C	control module for 2 or more boilers in cascade	5(3)A - 250Vac	5 VA
EV91D	generic output module	5(3)A - 250Vac	3 VA
EV92	digital input module	5(3)A - 250Vac	3 VA

- DIN-rail mounting, 6 modules.
- Operating temperature 0 ÷ 50 °C



# ELECTRIC SERVOCONTROLS

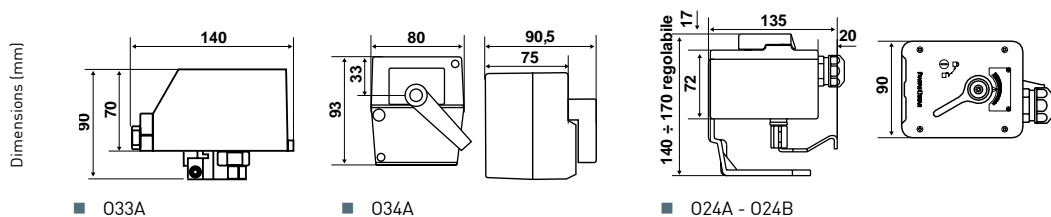
## Electric servocontrols



CODE	SUITABLE FOR	ROTATION TIME	RATED TORQUE	PROTECTION DEGREE
033A	zone valves	90 seconds for 90°	4 Nm	IP40
034A	mixing valves	280 seconds for 90°	10 Nm	IP40
024A	mixing valves	10 minutes for 90°	15 Nm	IP40
024B	mixing valves	5 minutes for 90°	18 Nm	IP40

■ Suitable for valves Z6...

230V IP40



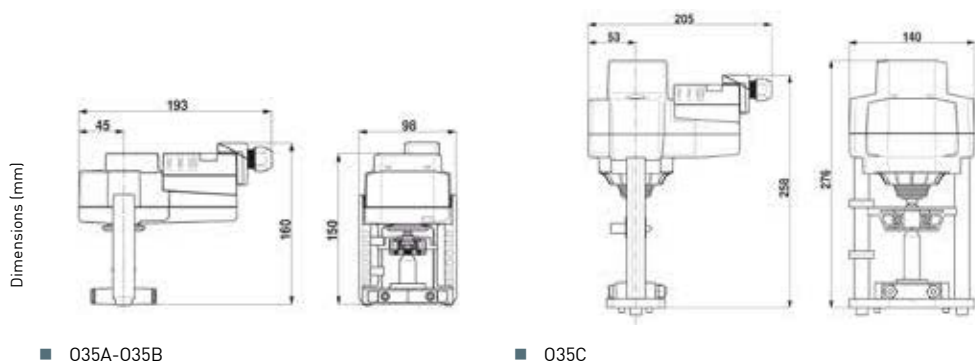
## Electric servocontrols for globe valves



CODE	ACTUATING FORCE	POWER CONSUMPTION IN OPERATION	POWER CONSUMPTION IN REST POSITION	NOMINAL STROKE
035A	500 N	3.5 W	0.5 W	15 mm
035B	1000 N	2 W	1 W	20 mm
035C	2500 N	5.5 W	1 W	40 mm

■ Suitable for valves ZL...

230V





# ROTOR AND MIXING VALVES

## 3-way and 4-way sector mixing valves

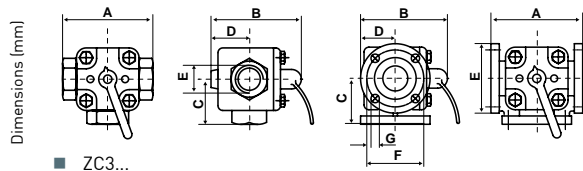


CODE	WAY	KV	CONNECTION	TYPE DI CONNECTION	SUITABLE FOR	WEIGHT KG
ZC3A	3	15 m³/h	G 1	female threaded PN 6	O24A-O24B-034A	2.50
ZC3B	3	20 m³/h	G 1 1/4	female threaded PN 6	O24A-O24B-034A	3.47
ZC3C	3	40 m³/h	G 1 1/2	female threaded PN 6	O24A-O24B-034A	3.67
ZC340	3	40 m³/h	DN 40	flange PN 6	O24A-O24B-034A	6.17
ZC350	3	60 m³/h	DN 50	flange PN 6	O24A-O24B-034A	8.15
ZC365	3	100 m³/h	DN 65	flange PN 6	O24A-O24B-034A	11.23
ZC380	3	185 m³/h	DN 80	flange PN 6	O24A-O24B-034A	18.40
ZC3100	3	300 m³/h	DN 100	flange PN 6	O24A-O24B-034A	23.75
ZC3125	* 3	525 m³/h	DN 125	flange PN 6	O24A-O24B-034A	41.48
ZC3150	* 3	825 m³/h	DN 150	flange PN 6	O24A-O24B-034A	49.17
ZC4M	4	11 m³/h	G 3/4	female threaded PN 6	O24A-O24B-034A	2.67
ZC4A	4	20 m³/h	G 1	female threaded PN 6	O24A-O24B-034A	2.92
ZC4B	4	30 m³/h	G 1 1/4	female threaded PN 6	O24A-O24B-034A	4.55
ZC4C	4	60 m³/h	G 1 1/2	female threaded PN 6	O24A-O24B-034A	4.75
ZC440	4	60 m³/h	DN 40	flange PN 6	O24A-O24B-034A	8.15
ZC450	4	80 m³/h	DN 50	flange PN 6	O24A-O24B-034A	9.88
ZC465	4	150 m³/h	DN 65	flange PN 6	O24A-O24B-034A	13.43
ZC480	4	200 m³/h	DN 80	flange PN 6	O24A-O24B-034A	22.86
ZC4100	4	300 m³/h	DN 100	flange PN 6	O24A-O24B-034A	29.34

\* delivery time and minimum purchase quantity upon request

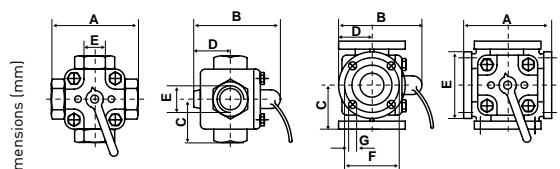
- Can be installed as mixing valves and as deflection valves
- Suitable for medium and large systems.
- Suitable for servocontrols O24A-O24B with linkage kit T01D.
- Adatte for servocontrols O34A with linkage kit T04E.
- Cast iron valve body.
- Maximum operating temperature 120°C.
- Operating pressure PN6.

IP40



■ ZC3...

	A	B	C	D	E	F	G
3/4"	110	105	55	26	25	-	-
1"	110	117	55	35	31	-	-
1 1/4"	130	126	63	37	40	-	-
1 1/2"	130	130	65	40	45	-	-
40 DN	180	155	90	65	130	100	14
50 DN	180	170	90	70	140	110	14
60 DN	200	185	100	80	160	130	14
80 DN	230	205	112	95	190	150	18
100 DN	260	225	130	105	210	170	18
125 DN	320	305	160	120	240	200	18
150 DN	350	340	175	132	265	225	18



■ ZC4...

	A	B	C	D	E	F	G
3/4"	110	122	55	40	25	-	-
1"	110	122	55	40	31	-	-
1 1/4"	130	145	65	55	40	-	-
1 1/2"	130	145	65	55	45	-	-
40	180	155	90	65	130	100	14
50	180	165	90	70	140	110	14
65	200	185	100	80	160	130	14
80	230	205	115	95	190	150	18
100	260	225	130	105	210	170	18
125 DN	320	305	160	120	240	200	18
150 DN	350	340	175	132	265	225	18

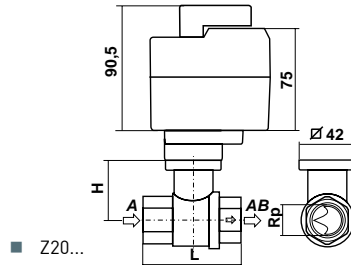
## 2-3-way threaded ball valves



CODE	WAY	DN	THREADED FEMALE CONNECTION	SUITABLE FOR	TRACE TIME	KV	WEIGHT KG
Z20AB	2	32	G 1 1/4	O34A + T04H	140 sec.	16 m³/h	1.4
Z20AC	2	40	G 1 1/2	O34A + T04H	140 sec.	25 m³/h	1.65
Z20AD	2	50	G 2	O34A + T04H	140 sec.	40 m³/h	2.4
Z30AB	3	32	G 1 1/4	O34A + T04H	140 sec.	16 m³/h	1.7
Z30AC	3	40	G 1 1/2	O34A + T04H	140 sec.	25 m³/h	2
Z30AD	3	50	G 2	O34A + T04H	140 sec.	40 m³/h	2.9

- Suitable for servocontrols O34A- with linkage kit T04H.
- Power consumption 3.5VA.
- Protection degree IP40.
- Fluid temperature 5 ÷ 100°C.

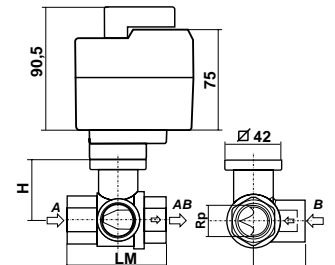
IP40



■ Z20...

Dimensions (mm)

	DN	L	H	max. thread length
Z20AB	32	105	52	19
Z20AC	40	111	52	19
Z20AD	50	125	58	22



■ Z30...

	DN	L	H	M	max. thread length
Z30AB	32	105	52	55.5	19
Z30AC	40	111	52	56	19
Z30AD	50	125	58	68	22

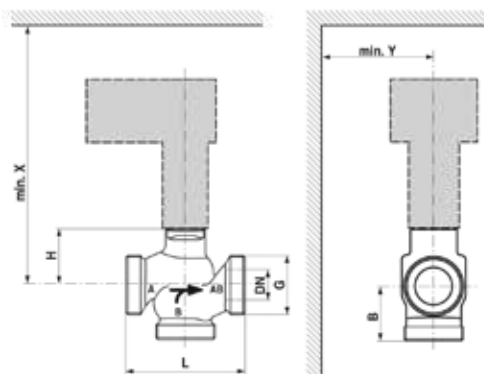
## 3-way threaded globe valves



CODE	KV	DN	CONNECTION	ps (kPa)	SUITABLE FOR SERVOCONTROL	Δpmax [kPa]	WEIGHT KG
ZL30AA	4 m³/h	15	G 1 1/8	1600	O35A	400	1.1
ZL30AB	6.3 m³/h	20	G 1 1/4	1600	O35A	400	1.2
ZL30AC	10 m³/h	25	G 1 1/2	1600	O35A	400	1.4
ZL30AD	16 m³/h	32	G 2	1600	O35A	400	2
ZL30AE	25 m³/h	40	G 2 1/4	1600	O35A	400	2.5
ZL30AF	40 m³/h	50	G 2 3/4	1600	O35A	400	3.6

CODE	DESCRIPTION	SUITABLE FOR VALVE
1583204	Connection for globe valves DN15 Rp 1/2"	ZL30AA
1583205	Connection for globe valves DN20 Rp 3/4"	ZL30AB
1583206	Connection for globe valves DN25 Rp 1"	ZL30AC
1583207	Connection for globe valves DN32 Rp 1 1/4"	ZL30AD
1583208	Connection for globe valves DN40 Rp 1 1/2"	ZL30AE
1583209	Connection for globe valves DN50 Rp 2"	ZL30AF

- Suitable for hot and cold water, antifreeze up to 50% of the volume.
- Fluid temperature: 5 ÷ 120°C.
- Suitable for servocontrol O35A.



Dimensions (mm)

	DN	L	B	H	X	Y
ZL30AA	15	80	55	46	290	100
ZL30AB	20	90	55	46	290	100
ZL30AC	25	110	55	52	300	100
ZL30AD	32	120	55	56	300	100
ZL30AE	40	130	60	65	310	100
ZL30AF	50	150	65	65	310	100

## 3-way flanged globe valves

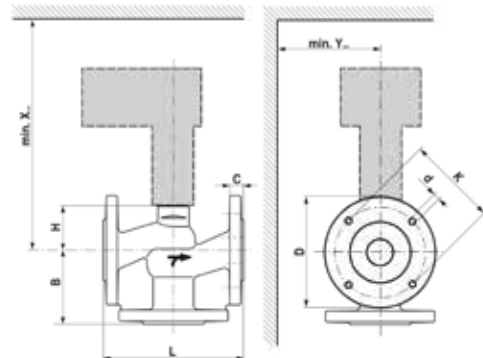


- Suitable for hot and cold water, antifreeze up to 50% of the volume.
- Fluid temperature: 5 ÷ 120°C.
- Suitable for servocontrols 035...

CODE	KV	DN	RATED TRACE mm	ps (kPa)	SUITABLE FOR	Δpmax [kPa]	WEIGHT KG
ZL31AA	10 m³/h	25	15	1600	035A	400	4.7
ZL31AB	16 m³/h	32	15	1600	035A	400	7.2
ZL31AC	25 m³/h	40	15	1600	035A	400	9.2
ZL31AD	40 m³/h	50	15	1600	035A	400	12.2
ZL31AE	58 m³/h	65	18	1600	035B	400	19
ZL31AF	90 m³/h	80	18	1600	035B	400	24
ZL31AG	145 m³/h	100	30	1600	035C	400	34
ZL31AH *	220 m³/h	125	40	1600	035C	400	54.4
ZL31AI *	320 m³/h	150	40	1600	035C	400	72.6

\* delivery time and minimum purchase quantity upon request

Dimensions (mm)	DN	L	B	H	C	D	d	K	Y
	ZL31AA	25	160	75	52	16	115	4 x 14	85
ZL31AB	32	180	95	56	18	140	4 x 18	100	100
ZL31AC	40	200	100	64	18	150	4 x 18	110	100
ZL31AD	50	230	100	64	20	165	4 x 18	125	100
ZL31AE	65	290	120	100	20	185	4 x 18	145	100
ZL31AF	80	310	130	110	22	200	8 x 18	160	150
ZL31AG	100	350	150	125	24	220	8 x 18	180	150
ZL31AH	125	400	200	281	26	250	8 x 18	210	150
ZL31AI	150	480	210	343	26	285	8 x 22	240	150



## Linkage kits for mixing valves with servocontrols



CODE	SUITABLE FOR
T01A	Linkage kit for valves FANTINI COSMI-BUCHE
T01B	Linkage kit for valves HONEYWELL Ø 24
T01D	Linkage kit for valves FANTINI COSMI, LAZZARI
T01E	Linkage kit for valves ZENTRA Ø 20.8
T01F	Linkage kit for valves VILB Ø 11
T01G	Linkage kit for valves STARK Ø 12
T01H	Linkage kit for valves LOELL Ø 20
T01L	Linkage kit for valves WIMAT Ø 14
T01M	Linkage kit for valves VEMA Ø 12
T01N	Linkage kit for valves BESSER Ø 12
T01P	Linkage kit for valves COSTER Ø 16
T01Q	Linkage kit for valves COSTER Ø 12
T01R	Linkage kit for valves IVK Ø 14
T01S	Linkage kit for valves SAUTER Ø 16
T01T	Linkage kit for valves WAYSSMANN Ø 6
T01U	Linkage kit for valves WAYSSMANN Ø 9
T01Z	Linkage kit for valves MIXETTE Ø 12
T02A	Linkage kit for valves VEMA Ø 10
T02B	Linkage kit for valves VILB Ø 25
T02C	Linkage kit for valves JUCKER Ø 14
T02D	Linkage kit for valves TAM STADL. Ø 12
T02G	Linkage kit for valves ESBE Ø 12
T04A	Linkage kit for valves FANTINI COSMI-BUCHE
T04B	Linkage kit for valves MUT
T04C	Linkage kit for valves SIEMENS L. & G. (SERIE 1)
T04D	Linkage kit for valves SIEMENS L. & G. (SERIE 2)
T04E	Linkage kit for valves FANTINI COSMI
T04F	Linkage kit for valves CENTRA SERIE DR & ZR
T04G	Linkage kit for valves ESBE, TERMOMIX, POMMERENING
T04H	Linkage kit for valves FANTINI - BELIMO
T05A	Linkage kit for valves FANTINI COSMI ZC series
TAUX	KIT for an auxiliary contact mounting for servocontrol O34A
O24AUX	KIT for mounting an auxiliary contact for servocontrol O24A

# REMOTE CONTROL UNIT

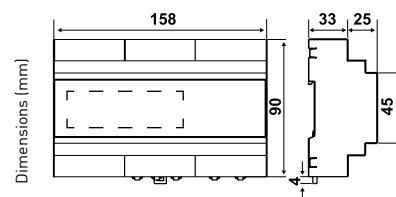
## Remote control and monitoring system, via SMS and PC



- 4 digital inputs ON-OFF.
- 3 digital inputs for temperature probes.
- 1 digital input for probe 4-20 mA.
- 4 output relays
- RS232 serial port.
- FANBUS serial port.



CODE	COMPOSITION	POWER SUPPLY	PROTECTION DEGREE
EV70D	control unit with display + connection cable	230Vac 50Hz	IP40 back panel
EV70DK	assembly kit including control unit, GSM modem EM70S, modem connection cable, power supply, antenna		
EV70DQ	board with EV70A control unit completely wired		
EV70DQB	board with EV70A control unit completely wired and with battery backup		



## Modem and accessories for remote control



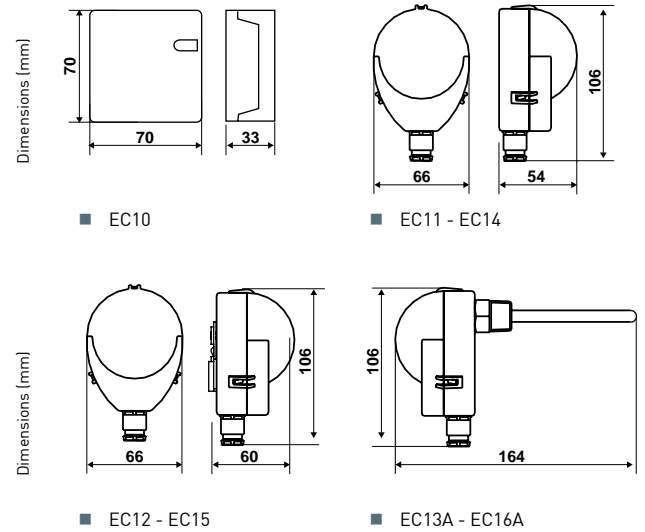
CODE	TYPE	SUITABLE FOR
EM70S	GSM modem with power supply and antenna	EV40 - EV70A - EV70D - EV80 EV87 - EV85 - EV90
1590029	rechargeable battery 12V-1.2Ah	EV40 - EV70A - EV80 - EV85 EV87 - EV90 - CT3MA
N70A	power supply and battery charger	EV40 - EV70D - EV80 - EV85 EV87 - EV90 - CT3MA

# TEMPERATURE PROBES AND SENSORS

## Temperature probes and sensors for electronic control units



CODE	TYPE	SUITABLE FOR	PROTECTION DEGREE
EC10	ambient sensor	EV80 - EV83 - EV85 - EV87	IP55
EC11	external sensor	EV02F - EV05M	IP55
EC12	contact pipe sensor	EV02F - EV05M	IP55
EC13A	immersion probe	EV02F - EV05M	IP55
EC14	external sensor	EV83 - EV70D - EV80 - EV84A EV85 - EV87 - EV90 - EV91	IP55
EC15	pipe sensor	EV60 - EV83 - EV70A - EV70D - EV80 - EV80E - EV84A EV85 - EV85E - EV87 - EV90 - EV91	IP55
EC16A	immersion probe	EV60 - EV83 - EV70A - EV70D - EV80 - EV80E - EV84A EV85 - EV85E - EV87 - EV90 - EV91	-
EC17	immersion probe	EV60 - EV83 - EV70A - EV70D - EV80 - EV80E - EV84A EV85 - EV85E - EV87 - EV90 - EV91	-
EC21	high temperature probe	EV40	-



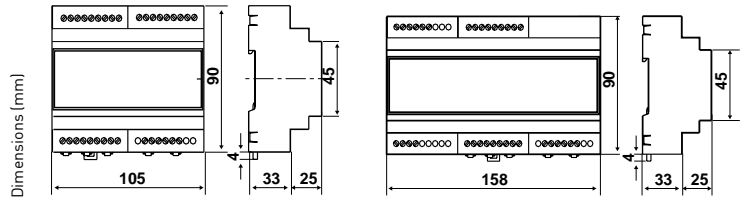
# INDUSTRIAL GAS DETECTORS

## Electronic control unit for gas leak detection



CODE	POWER SUPPLY	CONTACT RATING	CONNECTED SENSORS	MOUNTING	PROTECTION DEGREE
P81	12 Vac o 12/14 Vdc	5A - 250Vac	1	DIN rail 6 modules	IP40
P82	12Vac/dc ± 10%	8A - 250Vac	4	DIN rail 9 modules	IP40

■ P81 and P82 4÷20mA sensors.



■ P81

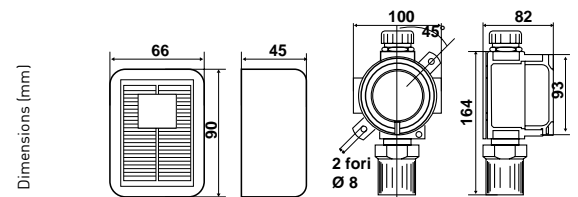
■ P82

## Gas detection sensors for electronic control units



CODE	GAS TYPE	POWER SUPPLY	PROTECTION DEGREE
S81	METHANE gas, or other light gases	from P81 or P82 unit	IP44
S82	LPG gas (cylinder liquid gas) or other heavy gases	from P81 or P82 unit	IP44
S83	CO carbon monoxide	from P81 or P82 unit	IP44
S84	METHANE gas, or other light gases	11 ÷ 28Vdc	IP65
S85	LPG gas (cylinder liquid gas) or other heavy gases	11 ÷ 28Vdc	IP65
S86	CO carbon monoxide	11 ÷ 28Vdc	IP65
1590080	optional board 4 relays outputs with fixed threshold for probes S84-S85-S86		

■ Models S84-S85-S86 are ATEX Certificate II 2G Ex d IIC T6.



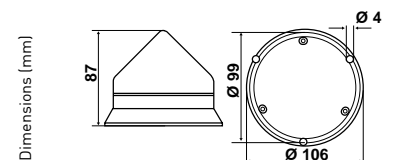
■ S81 - S82 - S83

■ S84 - S85 - S86

## Acoustic and light signaling device



CODE	SIGNAL TYPE	POWER SUPPLY	PROTECTION DEGREE
S80	acoustic and visual	240V 50Hz	IP30





CONSTANT POWER  
HEATING CABLES

page 66



CONSTANT POWER  
HEATING CABLES  
WITH THERMOSTAT  
AND PLUG

page 66

230V

230V-50Hz  
power supply



Cables shall be provided  
with control thermostats



With Shuko plug for direct power  
supply connection



SELF-REGULATING  
HEATING CABLES

page 67



ACCESSORIES

page 68



# HEATING CABLES



# CONSTANT POWER HEATING CABLES

## Constant power heating cables



CODE	CABLE LENGTH	SURFACE HEATED WITH 130W/m	TOTAL ABSORBED POWER AT 230V	MINIMUM INSTALLATION ROOM TEMPERATURE	MAXIMUM ROOM TEMPERATURE
K17C29	30.42 m	3 m <sup>2</sup>	510 W	-5 °C	65 °C
K17C73	74.28 m	6 m <sup>2</sup>	1260 W	-5 °C	65 °C
K17C82	89.34 m	7 m <sup>2</sup>	1530 W	-5 °C	65 °C
K17C102	101.98 m	9 m <sup>2</sup>	1750 W	-5 °C	65 °C
K17C129	124.58 m	11 m <sup>2</sup>	2200 W	-5 °C	65 °C

- Output power ~17W/m.



## Constant power heating cables



CODE	CABLE LENGTH	MINIMUM INSTALLATION ROOM TEMPERATURE	MAXIMUM ROOM TEMPERATURE POWERED	MAXIMUM LENGTH OF THE HEATING CIRCUIT FROM THE SUPPLY POINT
K12C25	25 m	-20 °C	40 °C	160 m
K12C50	50 m	-20 °C	40 °C	160 m
K12C75	75 m	-20 °C	40 °C	160 m

- Output power ~10W/m.
- Maximum length of heating circuit from supply point 80m.



# CONSTANT POWER HEATING CABLES WITH THERMOSTAT AND PLUG

## Heating cables with integrated thermostat and plug




CODE	CABLE LENGTH	MINIMUM INSTALLATION ROOM TEMPERATURE	MAXIMUM ROOM TEMPERATURE POWERED	MAXIMUM ROOM TEMPERATURE POWERED
K10C3KIT	3 m	-5 °C	65 °C	65 °C
K10C6KIT	6 m	-5 °C	65 °C	65 °C
K10C9KIT	9 m	-5 °C	65 °C	65 °C
K10C14KIT	14 m	-5 °C	65 °C	65 °C

- With integrated thermostat and plug
- Power tolerance ±2.5W.



# SELF-REGULATING HEATING CABLES

## Self-regulating heating cables




CODE	CABLE LENGTH	MINIMUM INSTALLATION ROOM TEMPERATURE	MAXIMUM ROOM TEMPERATURE POWERED	MAXIMUM LENGTH OF HEATING CIRCUIT FROM POWER POINT
K15A25	25 m	-35 °C	65 °C	110 m
K15A50	50 m	-35 °C	65 °C	110 m
K15A75	75 m	-35 °C	65 °C	110 m
K15A100	100 m	-35 °C	65 °C	110 m
K15A500 *	500 m	-35 °C	65 °C	110 m
K15A1000 *	1000 m	-35 °C	65 °C	110 m

\* delivery time and minimum purchase quantity upon request

230V

## Self-regulating heating cables




CODE	CABLE LENGTH	OUTPUT POWER AT 10°C	MINIMUM INSTALLATION ROOM TEMPERATURE	MAXIMUM ROOM TEMPERATURE POWERED	MAXIMUM LENGTH OF HEATING CIRCUIT FROM POWER POINT
K20A25	25 m	20 W/m	-35 °C	65 °C	170 m
K20A50	50 m	20 W/m	-35 °C	65 °C	170 m
K20A100	100 m	20 W/m	-35 °C	65 °C	170 m
K20A500 *	500 m	20 W/m	-35 °C	65 °C	170 m
K30A25	25 m	30 W/m	-35 °C	65 °C	140 m
K30A50	50 m	30 W/m	-35 °C	65 °C	140 m
K30A100	100 m	30 W/m	-35 °C	65 °C	140 m
K40A25	25 m	40 W/m	-35 °C	65 °C	120 m
K40A50	50 m	40 W/m	-35 °C	65 °C	120 m
K40A100	100 m	40 W/m	-35 °C	65 °C	120 m

\* delivery time and minimum purchase quantity upon request

230V

## Self-regulating heating cables



CODE	CABLE LENGTH	POWER	MAXIMUM ROOM TEMPERATURE POWERED	MAXIMUM ROOM TEMPERATURE NOT POWERED	MINIMUM INSTALLATION ROOM TEMPERATURE
K55A100	100 m	9 W/m 55 °C	80 °C	100 °C	130 m
K65A100	100 m	13 W/m 65 °C	80 °C	100 °C	110 m

230V

# ACCESSORIES

## Junction box



CODE		SUITABLE FOR
KBE3A	Junction box	K15A - K12C - K17C - K20A - K30A - K40A - K55A - K65A
KSUPP	Support for junction box	K15A - K12C - K17C - K20A - K30A - K40A - K55A - K65A

## Fixing tape



CODE		SUITABLE FOR
K50	Fixing tape for pipes	K15A - K12C - K20A - K30A - K40A - K55A - K65A
K50AL	Fixing tape for plastic pipes	K15A - K12C - K20A - K30A - K40A - K55A - K65A

## Spacer



CODE		SUITABLE FOR
KJSSP	1 mt PVC spacer	K17C
KFAN	Adhesive yellow labels	K15A - K12C - K20A - K30A - K40A - K55A - K65A

## Sealing kit



CODE		SUITABLE FOR
KIT1	Sealing kit for constant power cables	K12C
KIT2	Sealing kit for self-regulating cables	K15A - K20A - K30A - K40A - K55A - K65A

## Humidistats



CODE		SUITABLE FOR
L23EM1A	Humidistat ON/OFF	K17C
LS160A	Probe for humidistat	K17C

## Thermostats



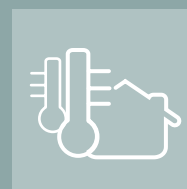
CODE		SUITABLE FOR
L03BM1A	ON/OFF thermostat - P.I.D. 1 output - 230V 50Hz power supply	K17C - K15A - K20A - K30A - K40A - K55A - K65A
C03A3	Immersion thermostat for pipes	K20A - K30A - K40A - K55A - K65A



# SMART HOME

## PROGRAMMABLE THERMOSTATS, THERMOSTATS AND TEMPERATURE CONTROLS

ROOM THERMOSTATS ■ PROGRAMMABLE THERMOSTATS ■ HUMIDISTATS ■ REMOTE CONTROL ■ WIRELESS MULTI-ZONE THERMOREGULATION SYSTEM ■ COMPONENTS FOR HEATING SYSTEMS WITH RADIATORS ■ COMPONENTS FOR UNDER FLOOR HEATING SYSTEMS ■ ACCESSORIES



page 72

## HOME AUTOMATION

MIA - HOME AUTOMATION ■ ROLLER SHUTTERS AND SUNBLINDS AUTOMATION



page 94

## GAS DETECTORS

DOMESTIC GAS DETECTORS ■ SAFETY VALVES ■ GAS KIT



page 104



ROOM THERMOSTATS page 74



PROGRAMMABLE THERMOSTATS page 78



ACCESSORIES page 83



WIRELESS MULTI-ZONE THERMOREGULATION SYSTEM page 84



HUMIDISTATS page 85



REMOTE CONTROL page 85



COMPONENTS FOR HEATING SYSTEMS WITH RADIATORS page 86

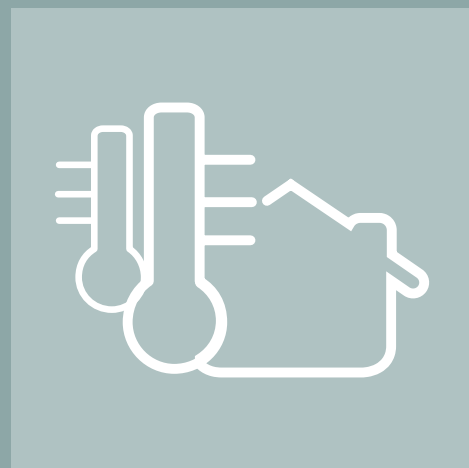


COMPONENTS FOR UNDER FLOOR HEATING SYSTEMS page 91

-  Flush mounting
-  Wall mounting
-  DIN rail mounting
-  Radiators mounting
-  For under floor heating system
-  230V 230V-50Hz power supply
-  Batteries power supply
-  Heating and air-conditioning control
-  Heating control
-  2 adjustable temperatures
-  3 adjustable temperatures
-  3 adjustable speed
-  3 + AUTO adjustable speed
-  Humidity control
-  Wireless model
-  Remote control via SMS
-  Remote control via APP
-  Valve control
-  MiA Can be connected to MiA home automation system
-  Heating and water consumption direct readings



PROGRAMMABLE  
THERMOSTATS,  
THERMOSTATS  
AND TEMPERATURE  
CONTROLS

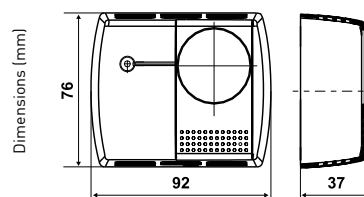


# ROOM THERMOSTATS

## Electromechanical room thermostats



CODE	TEMPERATURE RANGE	DIFFERENTIAL	MAXIMUM BODY TEMPERATURE	CONTACT RATING	LED POWER SUPPLY
C16	10 ÷ 30 °C	0.8 K	-10 ÷ 50 °C	10(2.5)A 250Vac	---
C16L	with pilot light				230Vac
C16I	with on-off switch				---
C16IL	with on-off switch and pilot light				230Vac
C16EH	with summer-winter switch				---
C16EHL	with summer -winter switch and pilot light				230Vac

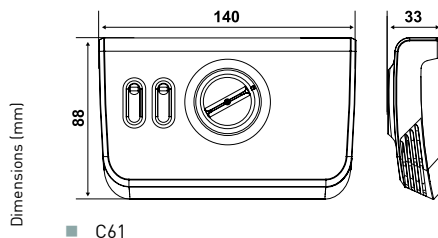
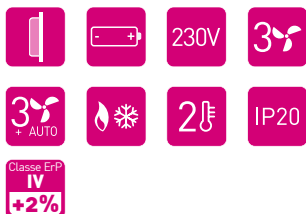


## Fan-coil thermostat

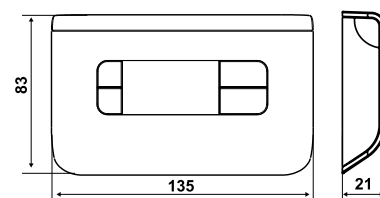


CODE	DESCRIPTION	SPEEDS	TEMPERATURE RANGE	POWER SUPPLY
C61	with knob	3 speeds	6 ÷ 30 °C	230Vac
CH130RR	with key + remote actuator	3 speeds	2 ÷ 40 °C	actuator CH172D
CH130ARR	with key + remote actuator	3 speeds + auto	2 ÷ 40 °C	actuator CH172D
<b>WIRELESS VERSION</b>				
CH130RFR	with key + wireless remote actuator	3 speeds	2 ÷ 40 °C	2 batteries AA 1.5V
CH130ARFR	with key + wireless remote actuator	3 speeds + auto	2 ÷ 40 °C	2 batteries AA 1.5V
<b>ADDITIONAL ACTUATORS</b>				
CH172DRF	wireless remote relay for CH130RFR and CH130ARFR			
CH172DS	remote relay for CH130RR and CH130ARR			

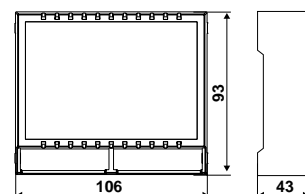
■ Possibility to visualize Celsius or Fahrenheit temperature values, only CH13... series



■ C61



■ CH130...

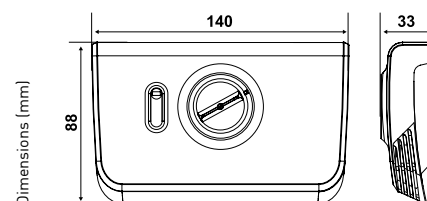


■ CH172...

## Room thermostats



CODE	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
C60	6 ÷ 30°C	230V-50HZ	6(1.5)A 250Vac
C63	6 ÷ 30°C	3 batteries AAA 1.5 V	5(3)A-250Vac

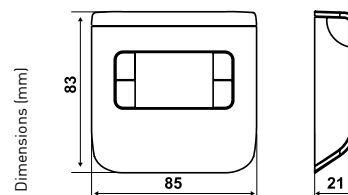
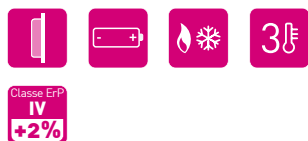


## Room thermostats



CODE	COLOR	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH110	white	2 ÷ 40 °C	2 batteries AAA 1.5V	5(3)A 250Vac
CH111	silver	2 ÷ 40 °C	2 batteries AAA 1.5V	5(3)A 250Vac
CH112	anthracite	2 ÷ 40 °C	2 batteries AAA 1.5V	5(3)A 250Vac
CH110R	room thermostat powered by the wiring center code EVWC8R			see page 92

- Possibility to visualize Celsius or Fahrenheit temperature values.



## Room thermostats



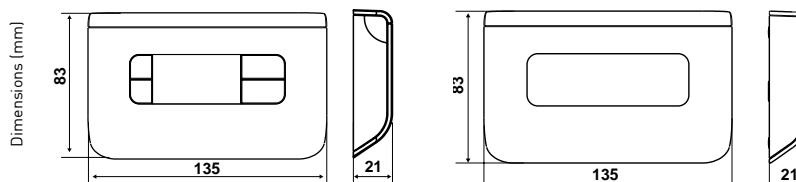
- CH115...



- CH115TS

CODE	COLOR	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH115	white	2 ÷ 40 °C	2 batteries AA 1.5V	5(3)A 250Vac
CH116	silver	2 ÷ 40 °C	2 batteries AA 1.5V	5(3)A 250Vac
CH117	anthracite	2 ÷ 40 °C	2 batteries AA 1.5V	5(3)A 250Vac
CH115-16	white	2 ÷ 40 °C	2 batteries AA 1.5V	16(4)A 250Vac
<b>WIRELESS VERSION</b>				
CH115RF	white	2 ÷ 40 °C	2 batteries AA 1.5V	5(3)A 250Vac
CH173D	receiver actuator, DIN rail mounting - power supply 230Vac 50Hz - contact rating 5(3)A 250Vac			
<b>TOUCH SCREEN VERSION</b>				
CH115TS	white	2 ÷ 40 °C	2 batteries AA 1.5V	5(3)A 250Vac

- Possibility to visualize Celsius or Fahrenheit temperature values.



- CH115...

- CH115TS

## Touch screen room thermostat



- White positive backlight LCD touch screen



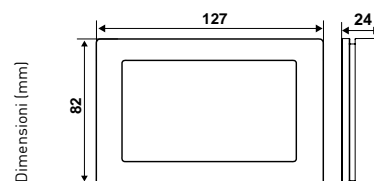
CODE	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH120	2 ÷ 40 °C	2 batteries AA 1.5V	5(3)A 250Vac
CH120-230V	2 ÷ 40 °C	230V-50HZ	5(3)A 250Vac

### WIRELESS VERSION

CH120RF	Connectable room thermostat to wireless multizone Intellicomfort+ system		see page 84
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### ACCESSORIES

1598089	Stand-alone power supply kit CH-230VAC / 3.3VCC series
1598090	Power supply kit for CH180 and CH120 series



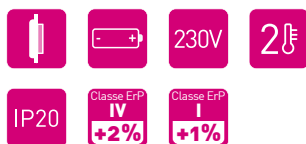
## Flush mounting room thermostats



- C44



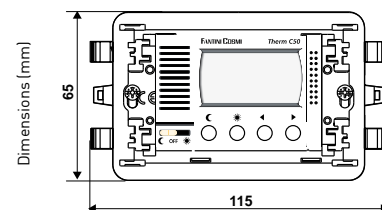
- C50



CODE	COLOR	TEMPERATURE RANGE	CONTACT RATING	POWER SUPPLY
C44	anthracite	2 ÷ 40 °C	5(3)A-250Vac	230V-50HZ
C44B	white	2 ÷ 40 °C	5(3)A-250Vac	230V-50HZ
C44C	silver	2 ÷ 40 °C	5(3)A-250Vac	230V-50HZ
C50	anthracite	8 ÷ 40°C	5(3)A-250Vac	3 batteries AAA 1.5 V
C50B	white	8 ÷ 40°C	5(3)A-250Vac	3 batteries AAA 1.5 V
C50C	silver	8 ÷ 40°C	5(3)A-250Vac	3 batteries AAA 1.5 V

### COMPATIBLE PLATES

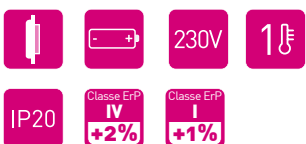
BTICINO Axolute, Livinglight, Light, Light tech, Living ■ VIMAR Idea, Rondò, Plana, Eikon ■ GEWISS Playbus e Playbus Young - AVE Banquise, Ave Yes ■ LEGRAND Cross.



## Flush mounting room thermostats



CODE	COLOR	TEMPERATURE RANGE	CONTACT RATING	POWER SUPPLY
C37	anthracite	5 ÷ 30 °C	5(3)A-250Vac	230V-50HZ
C37B	white	5 ÷ 30 °C	5(3)A-250Vac	230V-50HZ
C38	anthracite	5 ÷ 30 °C	5(3)A-250Vac	2 batteries AAA 1.5 V
C38B	white	5 ÷ 30 °C	5(3)A-250Vac	2 batteries AAA 1.5 V



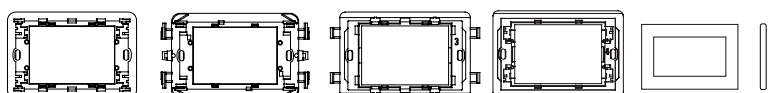
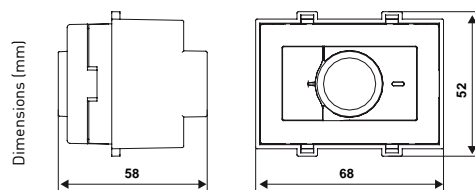
### KIT

Plate kit composed by thermostat, frames, adaptors and 2 anthracite covers for C37-C38 and 2 white covers for C37B-C38B

### COMPATIBLE PLATES

BTICINO Axolute, Axolute Air, Livinglight Air, Livinglight, Light, Light tech, Matix, Living ■ VIMAR Arké, Eikon Evo, Idea, Rondò, Plana, Eikon ■ GEWISS Chorus One, Lux, Art - AVE Sistema 45, Sistema 44 ■ LEGRAND Cross, Vela ■ ABB Elos, Mylos.

1571050	adapters for Bticino Living Now plate (Anthracite)
1571051	adapters for Bticino Living Now plate (White)



# Flush mounting room thermostats



■ CH121-CH123

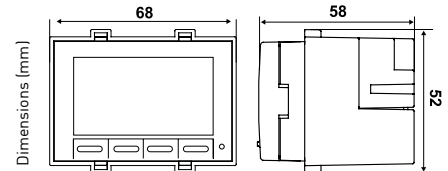


■ CH121TS-CH123TS

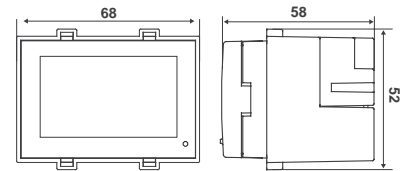
- LED, back lighting (blue) display.
- Compatibility KIT for the most common plates.
- Flush mounting in 3-module 503 boxes.



CODE	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH121	2 ÷ 40 °C	2 batteries AAA 1.5 V	5(3)A 250Vac
CH123	2 ÷ 40 °C	230V 50Hz	5(3)A 250Vac
CH123MB	connectable thermostat to MiA home automation system		
<b>TOUCH SCREEN VERSION</b>			
CH121TS	2 ÷ 40 °C	2 batteries AAA 1.5 V	5(3)A 250Vac
CH123TS	2 ÷ 40 °C	230V 50Hz	5(3)A 250Vac
1571050	adapters for Bticino Living Now plate (Anthracite)		
1571051	adapters for Bticino Living Now plate (White)		



■ CH121-CH123



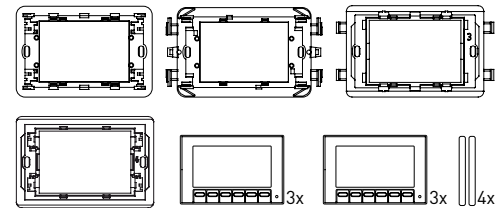
■ CH121TS-CH123TS

### KIT

Plate kit composed by thermostat, colored covers (white, silver and anthracite), frames and adaptors.

### COMPATIBLE PLATES

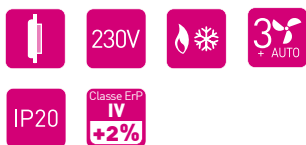
BTICINO Axolute, Axolute Air, Livinglight Air, Livinglight, Light, Light tech, Matix, Living ■ VIMAR Arké, Eikon Evo, Idea, Rondò, Plana, Eikon ■ GEWISS Chorus One, Lux, Art - AVE Sistema 45, Sistema 44 ■ LEGRAND Cross, Vela ■ ABB Elos, Mylos.



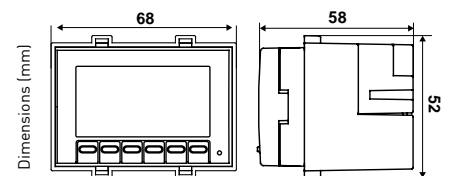
# Flush mounting fan-coil thermostats



- LED, back lighting (blue) display.
- Compatibility KIT for the most common plates.
- Flush mounting in 3-module 503 boxes.



CODE	DESCRIPTION	SPEEDS	TEMPERATURE RANGE	POWER SUPPLY
CH133RR	thermostat + actuator CH172D	3 speeds+AUTO	2 ÷ 40 °C	actuator CH172D
CH172DS	additional actuator for control more CH133RR			

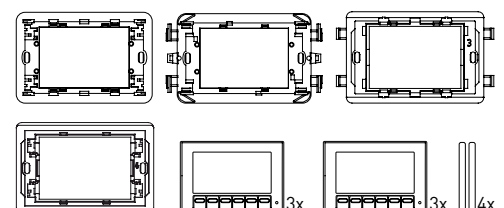


### KIT

Plate kit composed by thermostat, colored covers (white, silver and anthracite), frames and adaptors.

### COMPATIBLE PLATES

BTICINO Axolute, Axolute Air, Livinglight Air, Livinglight, Light, Light tech, Matix, Living ■ VIMAR Arké, Eikon Evo, Idea, Rondò, Plana, Eikon ■ GEWISS Chorus One, Lux, Art - AVE Sistema 45, Sistema 44 ■ LEGRAND Cross, Vela ■ ABB Elos, Mylos.



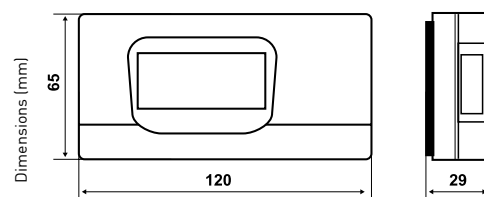
# PROGRAMMABLE THERMOSTATS

## Weekly programmable thermostat



CODE	COMFORT AND ECONOMY TEMPERATURE RANGE	PRESET ANTIFREEZE TEMPERATURE	POWER SUPPLY	CONTACT RATING
C31	5 ÷ 40 °C	5 °C	3 batteries AA 1.5 V	5(3)A 250Vac

- Six daily switching points.

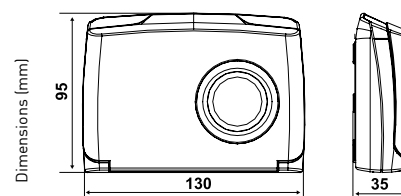


## Daily programmable thermostat with mechanical clock



CODE	COMFORT TEMPERATURE RANGE	ECONOMY TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
C32	16 ÷ 34 °C	5 ÷ 23 °C	2 batteries AA 1.5 V	5(2)A 250Vac

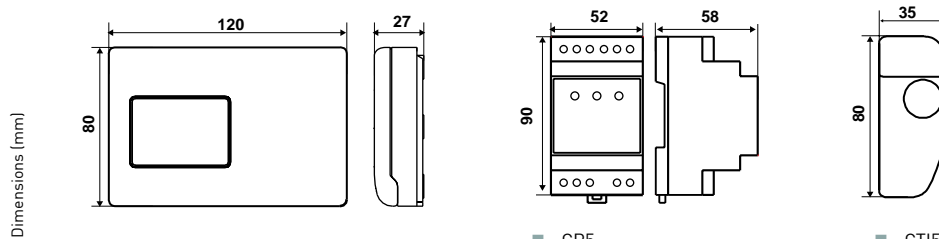
- Test button to check battery charge status.



## Weekly programmable thermostat



CODE	COMFORT AND ECONOMY TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
C55AX	2 ÷ 62 °C	3 batteries AA 1.5 V	5(3)A 250Vac
CR5	radio wave control for C55AX composed of a transmitter module and a control receiver		
CTI5	interface for GSM remote control CT3MA		



- CR5
- CTI5

## Intellitherm - Weekly and daily programmable thermostats

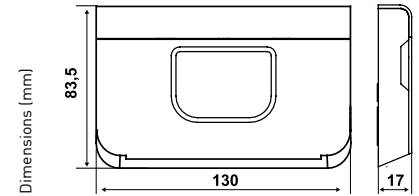


CODE	PROGRAMME	COLOR	COMFORT AND ECONOMY TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
C57	weekly	white	2 ÷ 62 °C	2 batteries AA 1.5 V	5(3)A 250Vac
C57C	weekly	silver	2 ÷ 62 °C	2 batteries AA 1.5 V	5(3)A 250Vac
C57N	weekly	anthracite	2 ÷ 62 °C	2 batteries AA 1.5 V	5(3)A 250Vac
C58	daily	white	2 ÷ 62 °C	2 batteries AA 1.5 V	5(3)A 250Vac
C57CT	weekly	white	2 ÷ 62 °C	2 batteries AA 1.5 V	5(3)A 250Vac
C57RFR	KIT weekly programmable thermostat + wireless actuator				
C58RFR	KIT daily programmable thermostat + wireless actuator				

- C57CT model is suitable for connection with GSM remote control model CT3MA



Look at the video instructions on the Fantini Cosmi channel



## Intellitherm - Weekly and daily programmable thermostats, with knobs

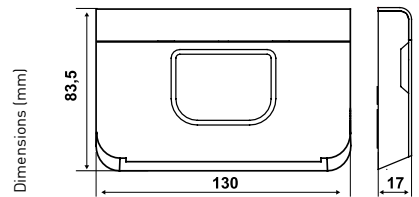


CODE	PROGRAMME	COLOR	COMFORT TEMPERATURE RANGE	ECONOMY TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
C67	weekly	white	16 ÷ 34 °C	5 ÷ 23 °C	2 batteries AA 1.5 V	5(3)A 250Vac
C68	daily	white	16 ÷ 34 °C	5 ÷ 23 °C	2 batteries AA 1.5 V	5(3)A 250Vac

- Temperature regulation with knobs.



Look at the video instructions on the Fantini Cosmi channel

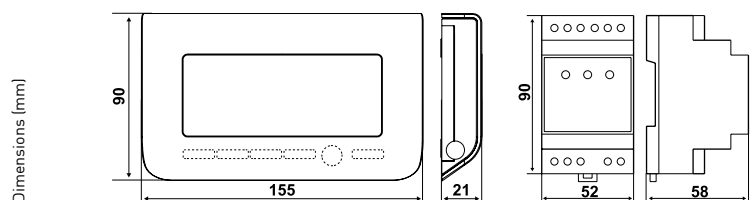
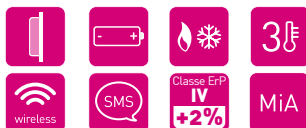


## Intellicomfort - Weekly programmable thermostats



CODE	DESCRIPTION	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH150		2 ÷ 40 °C	2 batteries AA 1.5V	5(3)A 250Vac
CH150-16	relay 16A	2 ÷ 40 °C	2 batteries AA 1.5V	16(4)A 250Vac
CH150RF	wireless	2 ÷ 40 °C	2 batteries AA 1.5V	5(3)A 250Vac
CH150R	remote actuator	2 ÷ 40 °C	from remote relay	5(3)A 250Vac
CH170D	wireless actuator for CH150RF. 230V-50HZ. 5(3)A 250Vac			
CH171D	remote actuator for CH150R. 230V-50HZ. 5(3)A 250Vac			
CH150MB	connectable programmable thermostat to MiA home automation system			see page 97

- Wide display with graphic icons
- Suitable for connection with GSM remote control model CT3MA (not available for CH150R)



■ CH150...

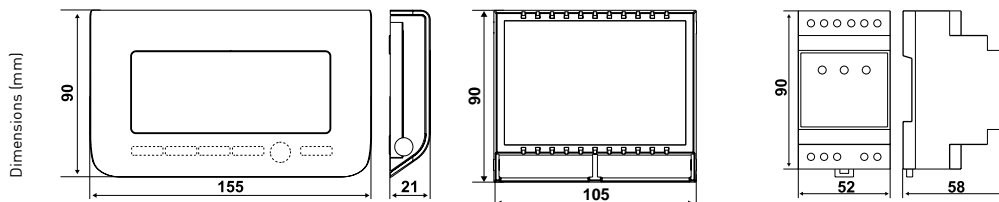
■ CH170D - CH171D

## Weekly programmable thermostats with 3 points or bistage control



CODE	TEMPERATURE RANGE	DIFFERENTIAL	POWER SUPPLY	TEMPERATURE DISPLAYED RANGE	HUMIDITY DISPLAYED RANGE
CH150REV	2 ÷ 40 °C	0.25 K	from actuator	-30 ÷ 60 °C	20 ÷ 90 RH%
CH174D	actuator, 6 modules DIN rail mounting - 230Vac - contact rating 5(3)A 250Vac				
CH150RBS	2 ÷ 40 °C	0.25 K	2 batteries AA 1.5V	-30 ÷ 60 °C	20 ÷ 90 RH%
CH171DBS	actuator, 3 modules DIN rail mounting - 230Vac - contact rating 5(3)A 250Vac				

- Wide display with graphic icons



■ CH150REV

■ CH174D

■ CH171DBS

## Intellicomfort - Weekly programmable thermostat with integrated GSM



CODE	TEMPERATURE RANGE	DIFFERENTIAL	POWER SUPPLY	CONTACT RATING
CH140GSM2	2 ÷ 40 °C	0.3 ÷ 5 K	230V 50Hz	5(3)A 250Vac

- Integrated GSM modem
- SIM card slot
- SIM card not included.

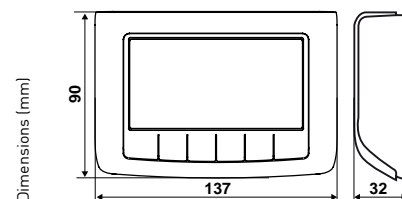


The Intelliclima+ APP is available for free on:



### FUNCTIONS

By means of an APP or TXT messages the following features are available: indoor temperature control and management ■ alarms warning such as too low temperature ■ SIM card expiry notification ■ power black out notification ■ additional control f.e. of garden irrigation.



Look at the video instructions on the Fantini Cosmi channel

## Intellicomfort - Touch screen weekly programmable thermostat



CODE	TEMPERATURE RANGE	ANTIFREEZE TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH180	2 ÷ 40 °C	0 ÷ 7 °C	2 batterie AA 1.5V	5(3)A 250Vca
CH180-230V	2 ÷ 40 °C	2 ÷ 7 °C	2 batteries AA 1.5V	5(3)A 250Vca

### WIRELESS VERSION

CH180RF	Connectable weekly programmable thermostat to wireless multizone Intellicomfort+ system	see page 84
CH180RFWIFI	With remote control through APP, connectable to wireless multizone Intellicomfort+ system	see page 84

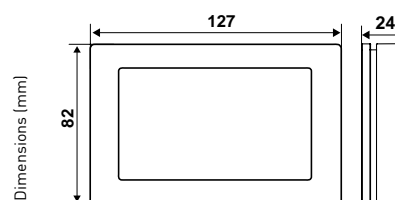
### ACCESSORIES

1598089	Stand-alone power supply kit CH-230VAC / 3.3VCC series
1598090	Power supply kit for CH180 and CH120 series

- White positive backlight LCD touch screen
- Auxiliary relay output: external probe or alarm management (only code CH180 e CH180RF).



Look at the video instructions on the Fantini Cosmi channel





# Intellicomfort WiFi - touchscreen programmable thermostat with WiFi connection for remote control



CODE	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH180WIFI	2 ÷ 40 °C	230V 50Hz	5(3)A 250Vca

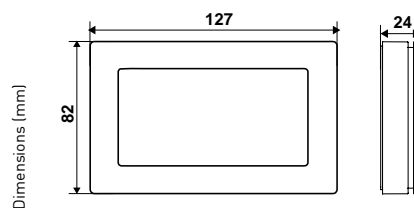
- With WiFi connection for remote control through APP Intelliclima+ for Smartphone and Tablet.
- WiFi connection 2.4 GHz (802.11 b/g/n)
- Wall mounting or in 3-module embedded box (503) or in round box;



The Intelliclima+ APP is available for free on:



Look at the video instructions on the Fantini Cosmi channel



# Intellicomfort WiFi LITE - touchscreen programmable thermostat with WiFi connection for remote control



CODE	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH180WIFILITE	2 ÷ 40 °C	230V 50Hz	5(3)A 250Vca

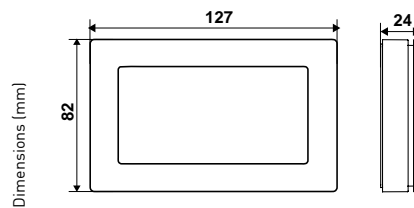
- Operating modes set only by APP Intelliclima+ : MAN manual program, AUTO weekly program and OFF system off or with antifreeze program.
- With WiFi connection for remote control through APP Intelliclima+ for Smartphone and Tablet.
- WiFi connection 2.4 GHz (802.11 b/g/n)
- Wall mounting or in 3-module embedded box (503) or in round box;



The Intelliclima+ APP is available for free on:



Look at the video instructions on the Fantini Cosmi channel

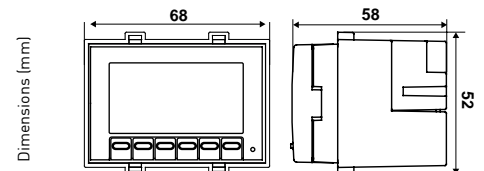


## Intellicomfort - Flush mounting weekly programmable thermostats



CODE	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH141A	2 ÷ 40 °C	2 batteries AAA 1.5 V	5(3)A 250Vac
CH143A	2 ÷ 40 °C	230V 50Hz	5(3)A 250Vac
CH143MB	connectable weekly programmable thermostat to MiA home automation system		see page 97
CH141A-EC	flush mounting weekly programmable thermostat with connections to energy meters series ECCM..." to display the sanitary water and heating readings from the display of the thermostat		see page 123
1571050	adapters for Bticino Living Now plate (Anthracite)		
1571051	adapters for Bticino Living Now plate (White)		

- LED, back lighting (blue) display.
- Compatibility KIT for the most common plates.
- Flush mounting in 3-module 503 boxes.



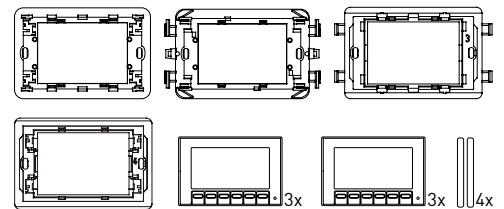
Look at the video instructions on the Fantini Cosmi channel

### KIT

Plate kit composed by thermostat, colored covers (white, silver and anthracite), frames and adaptors.

### COMPATIBLE PLATES

BTICINO Axolute, Axolute Air, Livinglight Air, Livinglight, Light, Light tech, Matix, Living ■ VIMAR Arké, Eikon Evo, Idea, Rondò, Plana, Eikon ■ GEWISS Chorus One, Lux, Art - AVE Sistema 45, Sistema 44 ■ LEGRAND Cross, Vela ■ ABB Elos, Mylos.



## Intellitouch - Semi flush mounting touch screen weekly programmable thermostats

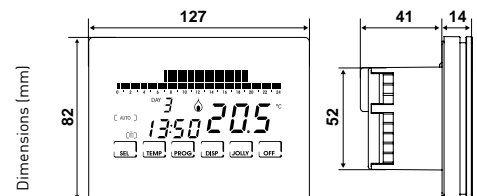


CODE	COLOR	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH191	black	2 ÷ 40 °C	2 batteries AA 1.5 V	5(3)A 250Vac
CH191B	white	2 ÷ 40 °C	2 batteries AA 1.5 V	5(3)A 250Vac
CH193	black	2 ÷ 40 °C	230V 50Hz	5(3)A 250Vac
CH193B	white	2 ÷ 40 °C	230V 50Hz	5(3)A 250Vac
CH193MB	connectable programmable thermostat to MiA home automation system			see page 97

- Negative LCD display and white back lighting.
- Semi flush mounting in flush wall boxes module type 503.
- Suitable for connection with GSM remote control model CT3MA



Look at the video instructions on the Fantini Cosmi channel



# Intellitouch WiFi- Weekly programmable thermostat, ultraflat and touch screen, with WiFi connection for remote control

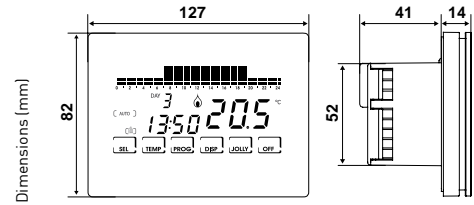


CODE	COLOR	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH193WIFI	black	2 ÷ 40 °C	230V 50Hz	5(3)A 250Vca
CH193BWIFI	white	2 ÷ 40 °C	230V 50Hz	5(3)A 250Vca

- Negative LCD display and white back lighting.
- With WiFi connection for remote control through APP Intelliclimate+
- Wireless connection: Wi-Fi 2.4 GHz;
- Semi flush mounting in flush wall boxes module type 503.



The Intelliclimate+ APP is available for free on:



Look at the video instructions on the Fantini Cosmi channel

# Weekly programmable thermostat with NFC communication

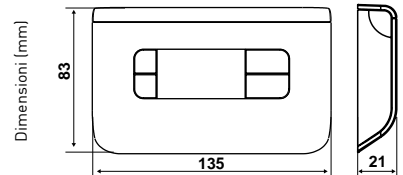


CODE	COLOR	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH119NFC	white	2 ÷ 40 °C	2 batteries AA 1,5V	5(3)A 250Vca

- To control the heating or cooling systems
- Remote control through APP Intelliclimate+ for NFC smartphone



The Intelliclimate+ APP is available for free on:



# C800WiFi - Led programmable thermostat with smart functions



CODE	TEMPERATURE RANGE	AMBIENT RH DISPLAY RANGE	POWER SUPPLY	CONTACT RATING
C800WIFIPRO	2 ÷ 40 °C	0 ÷ 99 %, increase 1%	2 batteries 1,5V AA or 3,3 Vdc @1500mA Max (by C800AL)	5(3)A 250Vca
C800WIFIQ	2 ÷ 40 °C	0 ÷ 99 %, increase 1%	2 batteries AA 1,5V	5(3)A 250Vca
C800WIFIR	2 ÷ 40 °C	0 ÷ 99 %, increase 1%	2 batteries AA 1,5V	5(3)A 250Vca
C800AL	--	--	230Vca / 3,3 Vdc @1500mA Max	5(3)A 250Vca

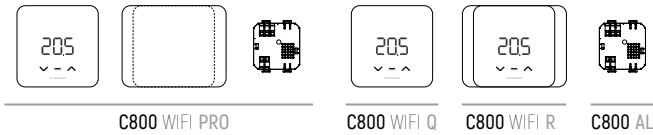
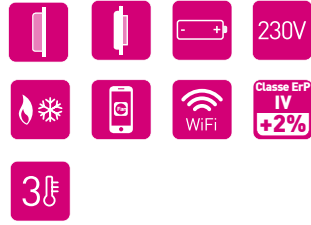
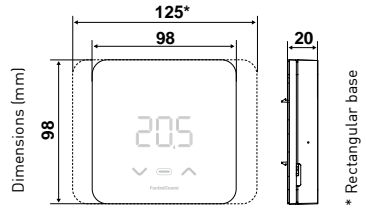


voice control available on demand

- SMART functions for an innovative approach to environmental comfort
- With WiFi connection for remote control through APP Intelliclima+
- Wireless connection: Wi-Fi 2.4 GHz;
- Wall mounting (with batteries) or flush mounting (with 230Vac power supply) in flush wall round boxes, 2 module boxes or 3 module boxes

## CODES

C800WIFIPRO: Smart Programmable Thermostat with power supply kit, square and rectangular bases  
 C800WIFIQ: Smart Programmable Thermostat with square base  
 C800WIFIR: Smart Programmable Thermostat with rectangular base  
 C800AL: Power supply kit 230Vac/3.3Vcc for C800 series



# ACCESSORIES

## Temperature probes



CODE	TYPE	
EC18	external probe	CH150 all models - CH180 all models - CH191 - CH193 - CH140GSM2
EC19	floor probe	CH130 all models- CH180 all models - CH133RR - CH115-16 - CH140GSM2
EC20	ambient probe	CH150 all models - CH180 all models - CH191 - CH193 - CH140GSM2

# WIRELESS MULTI-ZONE THERMOREGULATION SYSTEM

## Intellicomfort+ Wireless multi-zone thermoregulation system



■ CH180RFWIFI - CH180RF



■ CH120RF



■ O60RF

■ CH175



■ 1590880

- With Intellicomfort + you are able to achieve any kind of room thermoregulation system;
- The CH180RFWIFI/CH180RF "MASTER" performs for the Intellicomfort+ functions as controlling and communicating with CH120RF thermostats, with O60RF radiator actuators, with boiler actuators or solenoid valves zone CH175;
- Remote control 1590880 easily configures the various components of the system;
- Max. 8 zones control.

### DETECTION COMPONENTS

CODE	POWER SUPPLY	TRANSCEIVER FREQUENCY	CONTACT RATING	TEMPERATURE RANGE
WEEKLY WIRELESS PROGRAMMABLE THERMOSTAT WITH WIFI CONNECTION FOR REMOTE CONTROL THROUGH APP				
CH180RFWIFI	230V-50Hz	Wireless 868MHz	5(3)A 250Vca	2 ÷ 40 °C
WEEKLY WIRELESS PROGRAMMABLE THERMOSTAT				
CH180RF	2 batteries AA 1.5V	Wireless 868MHz	5(3)A 250Vca	2 ÷ 40 °C
WIRELESS THERMOSTAT				
CH120RF	2 batteries AA 1.5V	Wireless 868MHz	5(3)A 250Vca	2 ÷ 40 °C

### IMPLEMENTING COMPONENTS

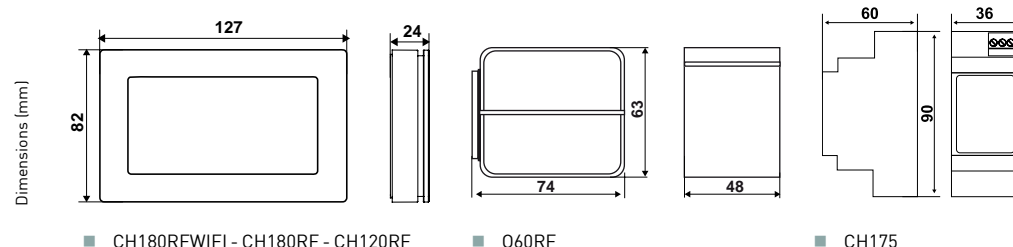
CODE	DESCRIPTION	POWER SUPPLY	TRANSCEIVER FREQUENCY	MOUNTING
O60RF	radiator actuator	2 batteries AA 1.5V	Wireless 868MHz	M30x1.5 valve
CH175	1 relay actuator	230Vca - 50Hz	Wireless 868MHz	DIN rail

### CONFIGURATION COMPONENTS

CODE	DESCRIPTION	POWER SUPPLY	TRANSCEIVER FREQUENCY
1590880	system programmer	2 batteries AA 1.5V	Wireless 868MHz

### ACCESSORIES

CODE	DESCRIPTION
1598089	Stand-alone power supply kit CH-230VAC / 3.3VCC series
1598090	Power supply kit for CH180 and CH120 series
309703	Adaptor for Caleffi valves (338, 339, 401, 402, 421, 425, 426, 4001, 4003, 4004, 3380, 455) - kit including 10 pcs
309704	Adaptor for Giacomini valves
309705	Adaptor for Herz valves
309706	Adaptor for FAR, R.B.M. Siemens valves



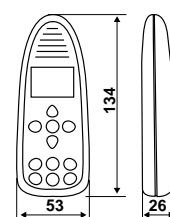
■ CH180RFWIFI - CH180RF - CH120RF

■ O60RF

■ CH175



The Intelliclima+ APP is available for free on:

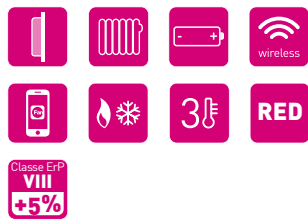


■ 1590880

# Wireless thermoregulation kit with wifi connection



- Preset and ready to use kit
- To control the heating systems
- Remote control through APP Intelliclima+ for Smartphone and Tablet
- Expansion possibility for the cooling and dehumidification control system
- Expansion possibility up to 8 temperature zones

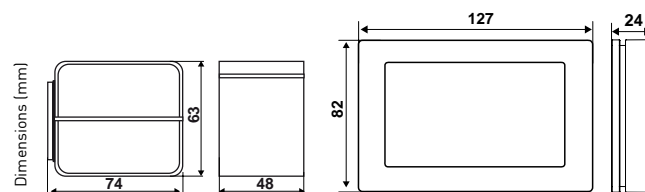


Classe EFP  
VIII  
+5%

CODE	COMPOSITION KIT	TEMPERATURE CONTROLLED ZONE
CH180K2	1 pc. CH180RFWIFI weekly wireless programmable thermostat with WiFi connection 2 pc. O60RF wireless radiator actuators	2-ZONE ■ Zone n. 1 = CH180RFWIFI + O60RF ■ Zone n. 2 = O60RF
CH180K3	1 pc. CH180RFWIFI weekly wireless programmable thermostat with WiFi connection 3 pc. O60RF wireless radiator actuators	3-ZONE ■ Zone n. 1 = CH180RFWIFI + O60RF ■ Zone n. 2 = O60RF ■ Zone n. 3 = O60RF
CH180T3K5	1 pc. CH180RFWIFI weekly wireless programmable thermostat with WiFi connection 3 pc. CH120RF wireless room thermostats 5 pc. O60RF wireless radiator actuators	4-ZONE ■ Zone n. 1 = CH180RFWIFI + O60RF ■ Zone n. 2 = CH120RF + O60RF ■ Zone n. 3 = CH120RF + O60RF ■ Zone n. 4 = CH120RF + O60RF



The Intelliclima+ APP is available for free on:



■ O60RF

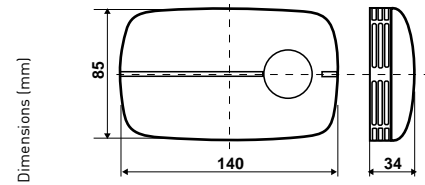
■ CH180RFWIFI - CH120RF

# HUMIDISTATS

## Electronic room humidistat



CODE	RELATIVE HUMIDITY RANGE	DIFFERENTIAL	POWER SUPPLY	CONTACT RATING
D40	30 ÷ 90 RH%	5 RH%	230Vac 50Hz	6(3)A 250Vac



# REMOTE CONTROL

## GSM remote control

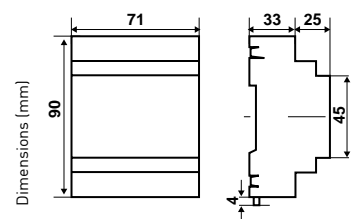


CODE	ANTENNA	POWER SUPPLY	CONSUMPTION W	PROTECTION DEGREE
CT3MA	external	10 ÷ 20 Vdc o Vac	10 max	IP40 (back panel)
1560053	litio battery back-up to send alarm messages in case of power failure			
1590029	rechargeable battery 12V-1.2Ah			
N70A	power supply and battery charger			

- 1 output relay 4(2)A-250Vac
- 2 alarm inputs
- LED signal intensity.

CONNECTABLE PRODUCTS

Serie Intellitouch	CH191 - CH193 - CH191B - CH193B
Serie Intellicomfort	CH150 - CH150RF
Serie Intellitherm	C57CT

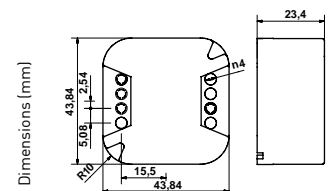


## Interface for remote control



CODE	MOUNTING	REMOTE RELAY POWER SUPPLY	OUTPUT 1	OUTPUT 2	PROTECTION DEGREE
CTIRM	flush mounting 2-3 modules	12 ÷ 24Vac-Vdc	summer/winter	economy/comfort	IP00

- Interface for remote control of programmable thermostats with serial CT input economy/comfort/summer-winter remote controls



# COMPONENTS FOR HEATING SYSTEMS WITH RADIATORS

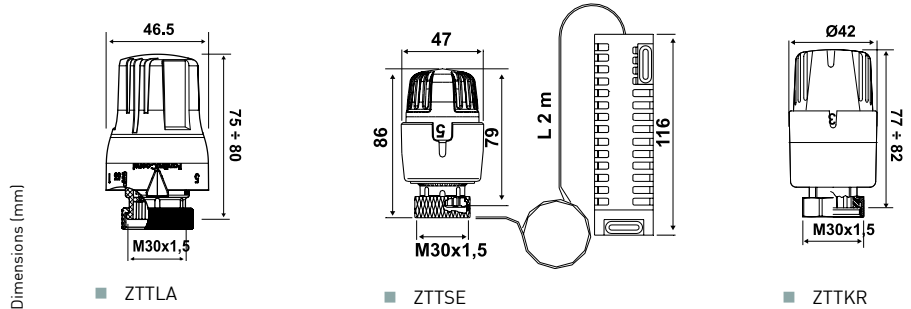
## Manual radiator thermostats



CODE	DESCRIPTION	SUITABLE FOR	TEMPERATURE RANGE	ANTIFREEZE POSITION	SENSITIVE ELEMENT
ZTTLA	manual	valves series 158...	6 ÷ 30 °C	6 °C	liquid
ZTTSE	with external probe	valves series 158... 159...	10 ÷ 30 °C	7 °C	built-in liquid filled sensor
ZTTKR *	chrome plated finishing	valves series 158... 159...	8 ÷ 30 °C	8 °C	built-in liquid filled sensor

\* delivery time and minimum purchase quantity upon request

■ Connection M30x1,5mm.



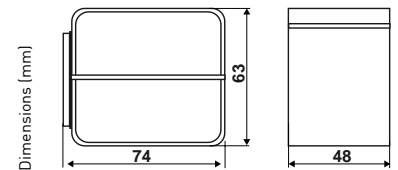
## Wireless radiator actuator for Intellicomfort+ system



CODE	DESCRIPTION	
060RF	Connectable to wireless multizone Intellicomfort+ system	see page 85

CODE	DESCRIPTION
309703	Adapter for Caleffi valves (338, 339, 401, 402, 421, 425, 426, 4001, 4003, 4004, 3380, 455)
309706	Adapter for Caleffi, FAR, R.B.M. and Siemens valves
309704	Adapter for Giacomini valves
309705	Adapter for Herz valves

■ Valve connection: M30x1.5.

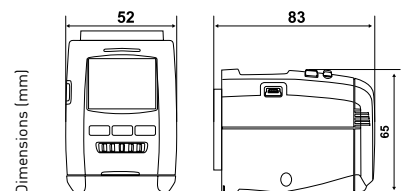


## Electronic radiator programmable thermostat



CODE	TYPE OF PROGRAM	POWER SUPPLY	TEMPERATURE RANGE	CONNECTION
062C	weekly	2 batteries AA 1.5V	8 ÷ 28 °C	M30x1.5mm
064P	programmer for 062C			

- Weekly program with 4 daily activation time bands.
- 3 temperature set-points: comfort, economy/night, antifreeze.



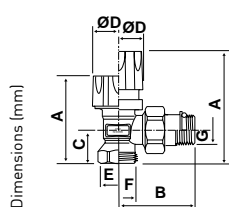


# Thermostatic radiator valves with pre-setting, series 158...



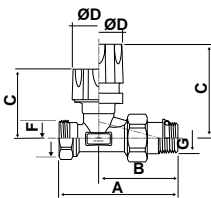
CODE	FINISH	DN	PIPE CONNECTION	TYPE	RADIATOR CONNECTION	MAXIMUM PRESSURE
1583068	brass	DN10 3/8	iron	corner	3/8"	10 bar
1583069	brass	DN15 1/2	iron	corner	1/2"	10 bar
1583070	brass	DN20 3/4	iron	corner	3/4"	10 bar
1583071	brass	DN10 3/8	iron	straight	3/8"	10 bar
1583072	brass	DN15 1/2	iron	straight	1/2"	10 bar
1583073	brass	DN20 3/4	iron	straight	3/4"	10 bar
1583074	brass	DN10 3/8	eurocone copper	corner	3/8"	10 bar
1583075	brass	DN15 1/2	eurocone copper	corner	1/2"	10 bar
1583076	brass	DN10 3/8	eurocone copper	straight	3/8"	10 bar
1583077	brass	DN15 1/2	eurocone copper	straight	1/2"	10 bar
1583177EK *	brass	DN15 1/2	eurocone copper	reverse body	1/2"	10 bar
1583120EK *	brass	DN15 1/2	iron	reverse body	1/2"	10 bar
1583124KR *	chrome plated	DN15 1/2	eurocone copper	straight	1/2"	10 bar
1583125KR *	white chrome plated	DN15 1/2	eurocone copper	straight	1/2"	10 bar
1583126KR *	chrome plated	DN15 1/2	eurocone copper	corner	1/2"	10 bar
1583127KR *	white chrome plated	DN15 1/2	eurocone copper	corner	1/2"	10 bar
1583128KR *	chrome plated	DN15 1/2	eurocone copper	coaxial right	1/2"	10 bar
1583129KR *	white chrome plated	DN15 1/2	eurocone copper	coaxial right	1/2"	10 bar
1583130KR *	chrome plated	DN15 1/2	eurocone copper	coaxial left	1/2"	10 bar
1583131KR *	white chrome plated	DN15 1/2	eurocone copper	coaxial left	1/2"	10 bar

- Suitable for: ZTTLA, ZTTSE, 062C and 081RF.
- Maximum temperature 120°C
- Knob made in white ABS RAL9010



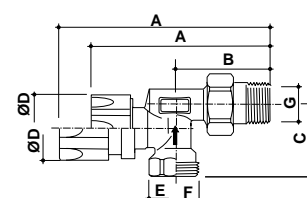
■ iron/copper corner

	A	B	C	D	E	F	G
1583068	58	50	20	37	G3/8	-	R3/8
1583069	61	54	23	37	G1/2	-	R1/2
1583070	62	62	27	37	G3/4	-	R3/4
1583074	57	50	19	37	-	G3/4EK	R3/8
1583075	60	54	22	37	-	G3/4EK	R1/2



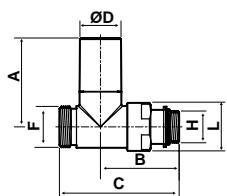
■ iron/copper straight

	A	B	C	D	E	F	G
1583071	76	51	47	37	G3/8	-	R3/8
1583072	83	55	47	37	G1/2	-	R1/2
1583073	97	65	48	37	G3/4	-	R3/4
1583076	77	52	47	37	-	G3/4EK	R3/8
1583077	82	55	46	35	-	G3/4EK	R1/2



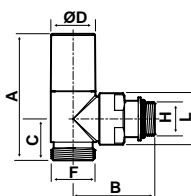
■ reverse body

	A	B	C	D	E	F	G
1583177EK	95	52	39	37	-	G3/4EK	R1/2
1583120EK	95	52	40	37	G1/2	-	R1/2



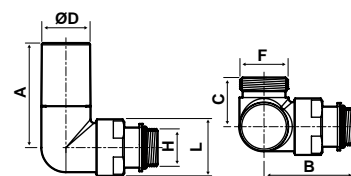
■ chrome plated straight

	A	B	C	D	F	H	L
1583124KR	48	51	78	37	G3/4EK	G1/2	28
1583125KR	48	51	78	37	G3/4EK	G1/2	28



■ chrome plated corner

	A	B	C	D	F	H	L
1583126KR	67	50	25	37	G3/4EK	G1/2	28
1583127KR	67	50	25	37	G3/4EK	G1/2	28



■ chrome plated coaxial

	A	B	C	D	F	H	L
1583128KR	48	51	27	37	G3/4EK	G1/2	28
1583129KR	48	51	27	37	G3/4EK	G1/2	28
1583130KR	48	51	27	37	G3/4EK	G1/2	28
1583131KR	48	51	27	37	G3/4EK	G1/2	28

# Thermostatic radiator valves single pipe, series 158...

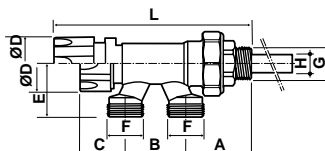


CODE	DN	PIPE CONNECTION	RADIATOR CONNECTION	MAXIMUM TEMPERATURE	MAXIMUM PRESSURE
1583155FS *	DN15 1/2	copper M24x19	1/2"	120° C	10 bar
1583156FS *	DN20 3/4	copper M24x19	3/4"	120° C	10 bar

\* delivery time and minimum purchase quantity upon request

- Suitable for: ZTTLA, ZTTSE, 062C e 081RF.

Dimensions (mm)



	A	B	C	D	E	F	G	H	L
1583155FS	46	40	30	37	35	M24x19	G1/2	12	115
1583156FS	46	40	30	37	35	M24x19	G3/4	16	115



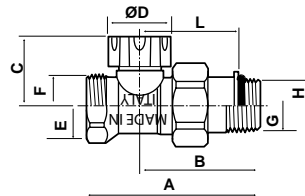
# Lockshield valves, series 158...



CODE	FINISH	DN	PIPE CONNECTION	TYPE	INPUT/OUTPUT	MAXIMUM TEMPERATURE
1583078	brass	DN10 3/8	iron	corner	3/8"	120°C
1583079	brass	DN15 1/2	iron	corner	1/2"	120°C
1583080	brass	DN20 3/4	iron	corner	3/4"	120°C
1583081	brass	DN10 3/8	iron	straight	3/8"	120°C
1583082	brass	DN15 1/2	iron	straight	1/2"	120°C
1583083	brass	DN20 3/4	iron	straight	3/4"	120°C
1583084 *	brass	DN10 3/8	EK copper	corner	3/8"	120°C
1583085 *	brass	DN15 1/2	EK copper	corner	1/2"	120°C
1583086 *	brass	DN10 3/8	EK copper	straight	3/8"	120°C
1583087 *	brass	DN15 1/2	EK copper	straight	1/2"	120°C
1583132KR *	chrome plated	DN15 1/2	eurocone copper	straight	1/2"	120°C
1583133KR *	white chrome plated	DN15 1/2	eurocone copper	straight	1/2"	120°C
1583134KR *	chrome plated	DN15 1/2	eurocone copper	corner	1/2"	120°C
1583135KR *	white chrome plated	DN15 1/2	eurocone copper	corner	1/2"	120°C
1583136KR *	chrome plated	DN15 1/2	eurocone copper	coaxial right	1/2"	120°C
1583137KR *	white chrome plated	DN15 1/2	eurocone copper	coaxial right	1/2"	120°C
1583138KR *	chrome plated	DN15 1/2	eurocone copper	coaxial left	1/2"	120°C
1583139KR *	white chrome plated	DN15 1/2	eurocone copper	coaxial left	1/2"	120°C

\* delivery time and minimum purchase quantity upon request

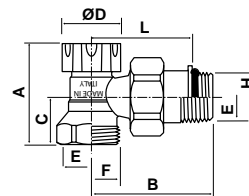
- Micrometric regulation
- Maximum pressure 10 bar.
- Auger retention with EPDM O Ring
- Teng retention with O Ring
- Thread according to UNI ISO 228
- Body made of brass



■ iron/copper straight

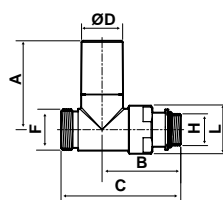
Dimensions (mm)

	A	B	C	D	E	F	G
1583081	65	45	28	25	G3/8	-	R3/8
1583082	69	48	27	25	G1/2	-	R1/2
1583083	80	56	29	25	G3/4	-	R3/4
1583086	65	45	28	25	-	G3/4EK	R3/8
1583087	69	48	28	25	-	G3/4EK	R1/2



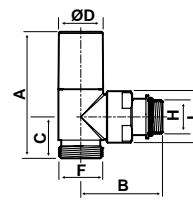
■ iron/copper corner

	A	B	C	D	E	F	G
1583078	40	49	18	25	G3/8	-	R3/8
1583079	42	52	20	25	G1/2	-	R1/2
1583080	47	61	25	25	G3/4	-	R3/4
1583084	42	49	20	25	-	G3/4EK	R3/8
1583085	42	52	20	25	-	G3/4EK	R1/2



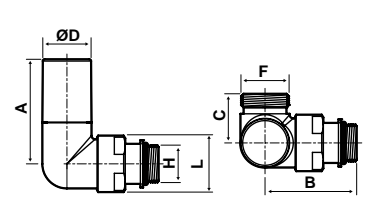
■ chrome plated straight

	A	B	C	D	F	H	L
1583132KR	42	51	78	27	G3/4EK	G1/2	28
1583133KR	42	51	78	27	G3/4EK	G1/2	28



■ chrome plated corner

	A	B	C	D	F	H	L
1583134KR	62	50	25	27	G3/4EK	G1/2	28
1583135KR	62	50	25	27	G3/4EK	G1/2	28



■ chrome plated coaxial

	A	B	C	D	F	H	L
1583136KR	42	51	27	27	G3/4EK	G1/2	28
1583137KR	42	51	27	27	G3/4EK	G1/2	28
1583138KR	42	51	27	27	G3/4EK	G1/2	28
1583139KR	42	51	27	27	G3/4EK	G1/2	28

## Pairs of pipe fittings for thermostatic and lockshield valves, series 158...



CODE	TYPE
FITTINGS FOR THERMOSTATIC RADIATOR VALVES AND LOCKING VALVES	
1583088	Pair of fittings for polyethylene pipe - eurocono - 10x1.2
1583089	Pair of fittings for polyethylene pipe - eurocono thread - 10x1.2
1583090	Pair of fittings for polyethylene pipe - eurocono thread - 12x2
1583091	Fitting for multilayer polyethylene pipe- eurocono thread - 14x2
1583092	Fitting for multilayer polyethylene pipe- eurocono thread - 15x1.5
1583093	Fitting for multilayer polyethylene pipe- eurocono thread - 16x2
1583094	Fitting for multilayer polyethylene pipe- eurocono thread - 16x2.5
1583095	Fitting for multilayer polyethylene pipe- eurocono thread - 17x2
1583096	Fitting for multilayer polyethylene pipe- eurocono thread - 17x2.5
1583097	Fitting for multilayer polyethylene pipe- eurocono thread - 17x2.75
1583098	Fitting for multilayer polyethylene pipe- eurocono thread - 18x2
1583099	Fitting for multilayer polyethylene pipe- eurocono thread - 20x2
1583100	Fitting for multilayer polyethylene pipe- eurocono thread - 20x2.25
1583101	* Fitting for multilayer polyethylene pipe- eurocono thread - 20x2.5
1583102	Fitting copper pipe - eurocono thread - 10mm
1583103	Fitting copper pipe - eurocono thread - 12mm
1583104	Fitting copper pipe - eurocono thread - 14mm
1583105	Fitting copper pipe - eurocono thread - 15mm
1583106	Fitting copper pipe - eurocono thread - 16mm
1583107	Fitting copper pipe - eurocono thread - 18mm
FITTINGS FOR SINGLE PIPE THERMOSTATIC RADIATOR VALVES	
1583157FS *	Fitting copper pipe - thread 24x19 - 10mm
1583158FS *	Fitting copper pipe - thread 24x19 - 12mm
1583159FS *	Fitting copper pipe - thread 24x19 - 14mm
1583160FS *	Fitting copper pipe - thread 24x19 - 15mm
1583161FS *	Fitting copper pipe - thread 24x19 - 16mm
1583162FS *	Fitting for polyethylene pipe - thread 24x19 - 10.5x1.25
1583163FS *	Fitting for polyethylene pipe - thread 24x19 - 12x1
1583164FS *	Fitting for polyethylene pipe - thread 24x19 - 12x1.5
1583165FS *	Fitting for polyethylene pipe - thread 24x19 - 12x2
1583166FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 14x2
1583167FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 16x2
1583168FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 16x2.25
1583169FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 16.5x3
1583170FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 17x2.75
1583171FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 17x2
1583172FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 17x2.5
1583173FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 18x2
1583174FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 20x2
1583175FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 20x2.25
1583176FS *	Fitting for multilayer polyethylene pipe- thread 24x19 - 20x2.5
FITTINGS FOR VALVES, LOCKERS, CHROME PLATED HEAD	
1583140KR *	Chrome plated fitting for copper pipe - eurocono thread - 10mm
1583141KR *	Chrome plated fitting for copper pipe - eurocono thread - 12mm
1583142KR *	Chrome plated fitting for copper pipe - eurocono thread - 14mm
1583143KR *	Chrome plated fitting for copper pipe - eurocono thread - 15mm
1583144KR *	Chrome plated fitting for copper pipe - eurocono thread - 16mm
1583145KR *	Chrome plated fitting for multilayer polyethylene pipe - eurocono thread - 14x2
1583146KR *	Chrome plated fitting for multilayer polyethylene pipe- eurocono thread - 16x2
1583147KR *	Chrome plated fitting for multilayer polyethylene pipe- eurocono thread - 17x2
1583148KR *	Chrome plated fitting for multilayer polyethylene pipe- eurocono thread - 18x2
1583149KR *	Chrome plated fitting for multilayer polyethylene pipe- eurocono thread - 20x2

\* delivery time and minimum purchase quantity upon request

## Accessories series 158...



CODE	TYPE
1583122 *	thermostatic screw with presetting
1583123 *	EPDM o-rings for thermostatic valves
1583114 *	key to replace thermostatic screw

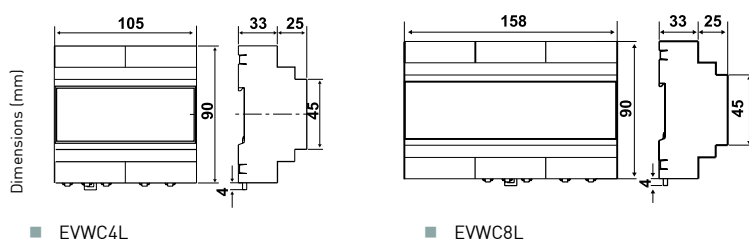
\* delivery time and minimum purchase quantity upon request

# COMPONENTS FOR UNDER FLOOR HEATING SYSTEMS

## Wiring center 4-8 channels with timer and safety thermostat inputs



CODE	INPUTS	OUTPUTS	MOUNTING	MAX. LOAD	CONSUMPTION
EVWC4L	4 for room thermostats, ON/OFF type 1 for safety thermostat 1 for timer	4 for thermal actuators	DIN-rail 6 mod.	3A	2.5 VA
EVWC8L	8 for room thermostats ON/OFF type; 1 for safety thermostat; 1 for timer.	8 output for thermal actuators	DIN-rail 9 mod.	3A	2.5 VA

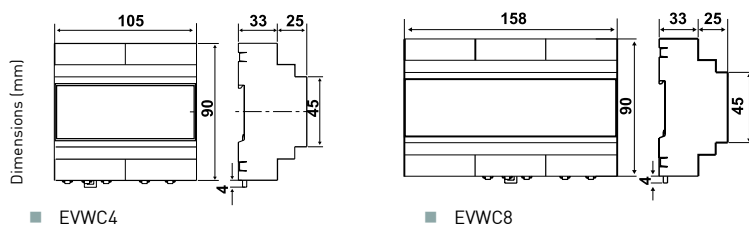


## Wiring center 4-8 channels with timer, safety thermostat inputs and auxiliary control pump



CODE	INPUTS	OUTPUTS	MAX. LOAD	MOUNTING	CONSUMPTION
EVWC4	4 for room thermostats, ON/OFF type 1 for safety thermostat 1 for timer	4 for thermal actuators and auxiliary control pump	3A	DIN-rail 6 mod.	2.5 VA
EVWC8	8 for room thermostats ON/OFF type 1 for safety thermostat 1 for timer	8 for thermal actuators and auxiliary control pump	3A	DIN-rail 9 mod.	2.5 VA

■ Auxiliary relay pump 5(3)A

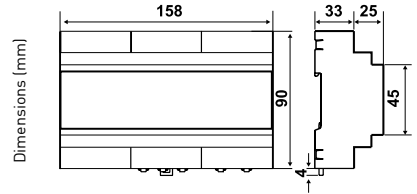


## Wiring center suitable for 8 channels with 2 wires connection directly to CH110R room thermostat



CODE	INPUTS	OUTPUTS	CONTACT RATING	AUXILIARY RELAY PUMP
EVWC8R	8 for both room thermostats or for CH110R model powered directly by the output line	8 for thermal actuators and auxiliary control pump	5(3)A	8(5)A

- Selectors for driving more outputs with the same input and for define all outputs in NO or NC mode;
- Consumption 2.5 VA.
- DIN-rail mounting, 9 mod.

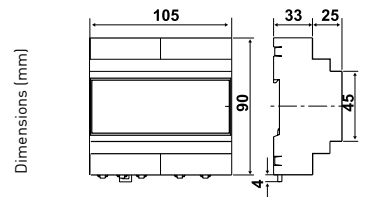


## Control unit for floor heating and cooling systems



CODE	POWER SUPPLY	CONTACT RATING	OPERATING TEMPERATURE	CONSUMPTION	PROTECTION DEGREE
EV84A	230V 50Hz	5(3)A - 250Vac	0 ÷ 50 °C	4 VA	IP40 back panel

- DIN-rail mounting (6 modules).
- Humidity regulation.
- 3 output relays.
- 3 analog inputs to control the external, limit and flow temperature.
- 1 correction probe  $\pm 3$  °C.
- 1 humidistat input.
- 1 digital input summer/winter.

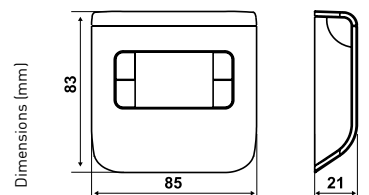


## Room thermostat powered by the wiring center



CODE	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH110R	2 ÷ 40 °C	24Vdc supply from the wiring center EVWC8R	5(3)A 250Vac

- 24Vdc supply from the wiring center EVWC8R

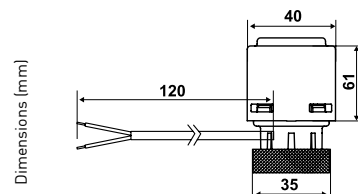


# Electrothermal actuators



CODE	POWER SUPPLY	RUNNING TIME	MAX STROKE	INTEGRATED AUXILIARY CONTACT	WITHOUT TENSION VALVE
041NCMAUX	230V	4 min	4.5 mm	yes	closed

- Suitable for Z4... valve series
- Operating power consumption 2.5W, starting power consumption 36W.
- Axial torque 125N.
- M30x1.5 coupling.

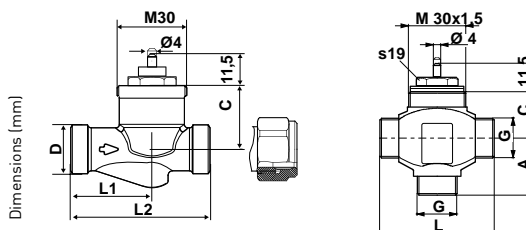


# Zone control valves with male thread connection



CODE	NOMINAL SIZE DN	TYPE	KVS	CONNECTION	STROKE
Z42M	15	2 way	3.5	G3/4B	4 mm
Z42A	20	2 way	4.5	G1B	4 mm
Z43M	15	3 way	4.0	G3/4B	3.7 mm
Z43A	20	3 way	5.0	G1B	3.7 mm
1592022	threaded connection with flat gasket 1/2" M 3/4"F				
1592023	threaded connection with flat gasket 3/4" M 1"F				

- Suitable for 041NCMAUX electrothermal actuator
- Nominal pressure PN 16.
- 2-way valve in bronze.
- 3-way valve in nickel-plated brass.



	DN	D	L1	L2	C		DN	A	C	G	L	
	Z42M	15	G 3/4	36.5	65	33.7	Z43M	15	30	27	G 3/4	60
	Z42A	20	G 1	30	65	33.7	Z43A	20	30	27	G 1	60





















MIA  
HOME AUTOMATION

page 96



ROLLER SHUTTERS  
AND SUNBLINDS  
AUTOMATION

page 102

-  MiA system
-  BUS connection
-  24Vcc power supply
-  230V 230V-50Hz power supply
-  LAN connection
-  DIN rail mounting
-  Common built-in boxes installation
-  Flush mounting
-  Wall mounting
-  Heating and air-conditioning control
-  Humidity control
-  2 adjustable temperatures
-  3 adjustable temperatures
-  Protection degree IP20
-  Protection degree IP44
-  Protection degree IP56



# HOME AUTOMATION



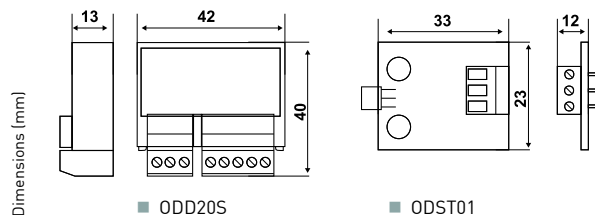
# MIA - HOME AUTOMATION

## Modules for temperature monitoring



CODE	DESCRIPTION	INPUTS	OUTPUTS	POWER SUPPLY FROM BUS
ODD20S	module	1 digital data (only for ODST01)	-	24Vdc - 8mA
ODST01	sensor	-	1 digital data (only for ODD20S)	24Vdc - 5mA

■ Common built-in boxes installation



## Flush-mounting room thermostat



CODE	COLOR	TEMPERATURE RANGE	POWER SUPPLY FROM BUS
CH123MB	white-silver-anthracite	2 ÷ 40 °C	24Vdc 50mA

- LED, back lighting (blue) display.
- Compatibility KIT for the most common plates.
- Flush mounting in 3-module 503 boxes.

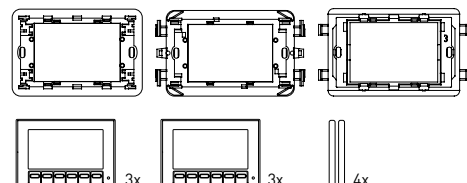
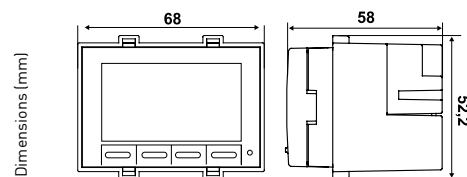


### KIT

Plate kit composed by thermostat, colored covers (white, silver and anthracite), frames and adaptors.

### COMPATIBLE PLATES

BTICINO Axolute, Axolute Air, Livinglight Air, Livinglight, Light, Light tech, Matix, Living ■ VIMAR Arké, Eikon Evo, Idea, Rondò, Plana, Eikon ■ GEWISS Chorus One, Lux, Art - AVE Sistema 45, Sistema 44 ■ LEGRAND Cross, Vela ■ ABB Elos, Mylos.



## Flush-mounting programmable thermostat



CODE	COLOR	TEMPERATURE RANGE	POWER SUPPLY FROM BUS
CH143MB	white-silver-anthracite	2 ÷ 40 °C	24Vdc 50mA

- LED, back lighting (blue) display.
- Compatibility KIT for the most common plates.
- Flush mounting in 3-module 503 boxes.

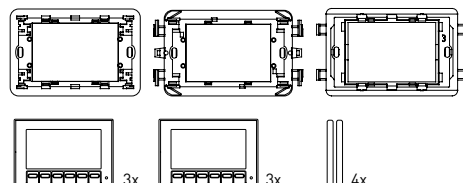
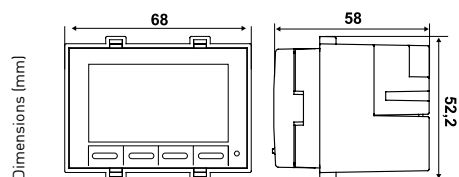


### KIT

Plate kit composed by thermostat, colored covers (white, silver and anthracite), frames and adaptors.

### COMPATIBLE PLATES

BTICINO Axolute, Axolute Air, Livinglight Air, Livinglight, Light, Light tech, Matix, Living ■ VIMAR Arké, Eikon Evo, Idea, Rondò, Plana, Eikon ■ GEWISS Chorus One, Lux, Art - AVE Sistema 45, Sistema 44 ■ LEGRAND Cross, Vela ■ ABB Elos, Mylos.

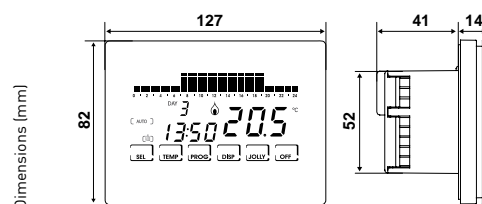


## Touch screen programmable thermostat with humidistat



CODE	COLOR	TEMPERATURE RANGE	POWER SUPPLY FROM BUS
CH193MB	black	2 ÷ 40 °C	24Vdc 50mA

- Negative LCD display and white black lighting.
- Semi flush wall mounting in flush wall boxes module type 503.

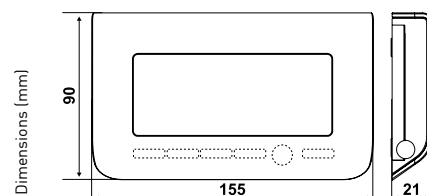


## Programmable thermostat with humidistat



CODE	COLOR	TEMPERATURE RANGE	POWER SUPPLY FROM BUS
CH150MB	white	2 ÷ 40 °C	24Vdc 50mA

- Wide display with graphic icons.
- Wall mounting

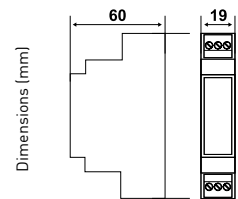


## Module with OR logic for circulation pump



CODE	INPUTS	OUTPUTS	POWER SUPPLY FROM BUS	MOUNTING
ODDOR	BUS	OR logic	24Vdc - 45mA	DIN rail 1 module

- For control the circulation pump in the heating system when opening the zone valve
- Control up to 256 valves.

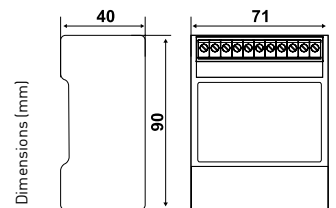


## Fan-coil modules



CODE	INPUTS	OUTPUTS	POWER SUPPLY FROM BUS	MOUNTING
ODD55F	5 digital 1 NTC	3 relays (16A) fan-coil 2 relays (6A) valve	24Vdc - 200mA	DIN rail 4 modules

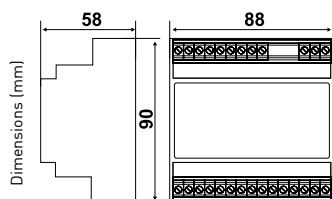
- 1 input for connecting a 10K NTC
- 1 for detecting the window status
- 2 inputs for technical alarms
- 1 input for presence sensors



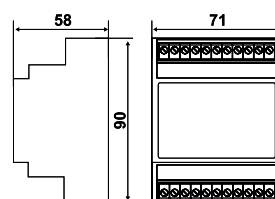
## Modules with digital inputs and relay outputs



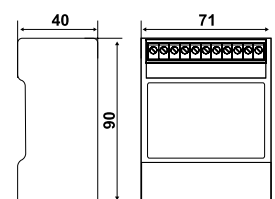
CODE	INPUTS	OUTPUTS	POWER SUPPLY FROM BUS	MOUNTING
ODD08	-	8 relay (230Vac - 12A - AC1)	24Vdc - 180mA	DIN rail 5 modules
ODD80	8 digitals	-	24Vdc - 75mA	DIN rail 4 modules
ODD98	9 digitals	8 relay (230Vac - 6A - cosφ 1)	24Vdc - 120mA	DIN rail 4 modules
ODD532	5 digitals	3 relay (16A) - 2 relay 6A	24Vdc - 200mA	DIN rail 4 modules
ODD532R	5 digitals	3 relay (16A) - 2 relay 6A	24Vdc - 200mA	DIN rail 4 modules



■ ODD08



■ ODD80 - ODD98 - ODD532



■ ODD532R

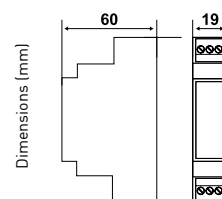


## Module with 0-10V control for lighting dimmer



CODE	INPUTS	OUTPUTS	POWER SUPPLY FROM BUS	MOUNTING
ODA02	-	2 outputs 0÷10V (max 4mA)	24Vdc - 45mA	DIN rail 1 module

- To control up to 2 independent lighting dimmers
- Installation in control panels or false-ceilings

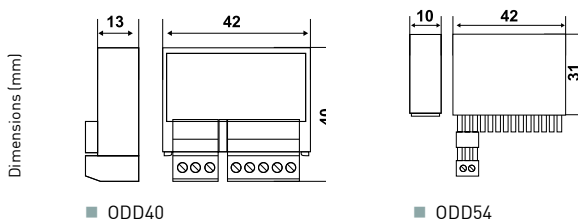


## Modules equipped with digital inputs and outputs at 24 Vdc



CODE	INPUTS	OUTPUTS	POWER SUPPLY FROM BUS	MOUNTING
ODD40	12 (4 digitals + 8 virtuals)	-	24Vdc - 18mA	flush mounting
ODD54	5 physical	4 live, "available" (24 Vdc - 50 mA)	24Vdc - 20mA	flush mounting

- Installation in the built-in or wall mounted boxes.

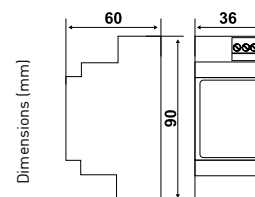


## Module for controlling the electric load of the dwelling



CODE	INPUTS	OUTPUTS	POWER SUPPLY FROM BUS	MOUNTING
ODA10C	1 (TA Internal transformer max 40A)	-	24Vdc - 20mA	DIN rail 2 modules

- For automatically disconnects those home appliances that could cause the electrical overload when run at the same time.



## Automation modules for roller shutters and venetian blinds

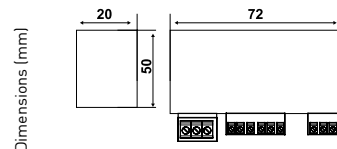


CODE	INPUTS	OUTPUTS	POWER SUPPLY FROM BUS	MOUNTING
ODD52T	5 digital (shutter automation)	2 relay (230Vac - 250W max)	24Vdc - 30mA	flush mounting
ODD52V	5 digital (venetian blind automation)	2 relay (230Vac - 250W max)	24Vdc - 30mA	flush mounting

CODE	KIT COMPONENTS	POWER SUPPLY
ODK01T	n.1 power source 24Vdc 300mA n.5 modules ODD52T	Power source: 230 Vac, 50 Hz, 10 W Modules: 24 Vdc, 30 mA each
ODK02E	n. 2 modules ODD52T	Modules: 24 Vdc, 30 mA each

- Installation into junction boxes or directly in the shutters' box.
- KITS available (code ODK01T - ODK02E) for the automation of up to 5 shutters (expandable to 9)

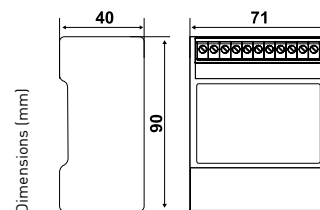


## Climate modules for sun, wind and rain



CODE	INPUTS	POWER SUPPLY FROM BUS	MOUNTING
ODAMETE0	digital, sun, wind and rain sensors	24Vdc - 180mA	DIN rail 4 modules
1582021	wind sensor		
1582022	sun and wind sensor		
1582023	rain sensor		

- Installation into built-in or surface boxes and it's equipped with sun, wind and rain sensors.

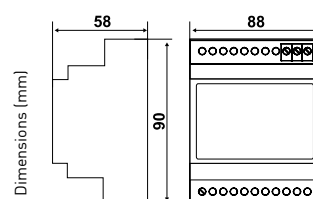


## Power supply module with Bus socket included



CODE	POWER SUPPLY	BUS GENERAL SUPPLY	OUTPUT	MOUNTING
ODAL2A	230Vca - 50Hz - 60VA	24Vcc - 2A	1 Mia-Bus data output (only for ODU5B)	5 modules DIN RAIL

- ODAL2A provides the 24Vcc power supply through the Bus to all the system modules.



## Supervision products and software



CODE	DESCRIPTION	INPUTS	OUTPUTS	POWER SUPPLY
ODUSB	USB data interface	1 Bus data port	1 USB data port	24Vdc - 20mA

CODE	DESCRIPTION
ODHW04	Multi-user supervision system with web pages MIA-SMART PRO2 suitable for MiA home automation systems max. manageable points 1,000
ODHW04	Multi-user supervision system with web pages MIA-SMART PRO2 suitable for MiA home automation systems max. manageable points 80

- Suitable for villas and condominiums.
- Net connection with LAN wire
- Connection with MiA with ODUSB interface
- Feeder 110-240 Vac included

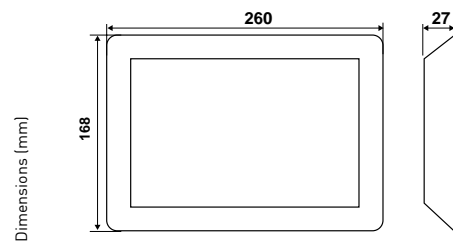


## Tablet for control and supervision MiA system



CODE	DISPLAY	OPERATING SYSTEM	POWER SUPPLY
ODTS10	10" in 16:9	Android 5.1 or 6.0	+12 Vdc

- Mounting: on box 503 with supports (supplied) or table with support (supplied)



# ROLLER SHUTTERS AND SUNBLINDS AUTOMATION

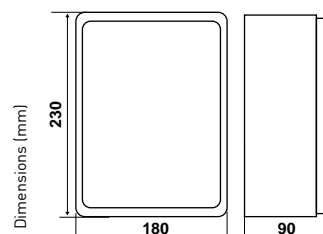
## Sequential control and RF unit for motorized rolling shutters



- OCS1 sequential control unit from 2 to 10 motors.

230V

CODE	POWER SUPPLY	OPERATING TEMPERATURE	PROTECTION DEGREE
OCS1	230Vac 50Hz	-10 ÷ 60 °C	IP55
1573505	expansion module for the sequential control of an additional motor		



■ OCS1

## Climate sensors, sun, wind and rain

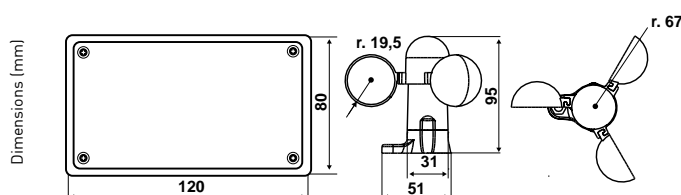


- Maximum relay rating (4A inductive 250Vac) 10(4)Vac.

230V

IP56

CODE	CONTROL	WIND ALARM REGULATION RANGE	BRIGHTNESS REGULATION RANGE	OPERATING TEMPERATURE	PROTECTION DEGREE
OCV1A	wind	1 Km/h ÷ 35 Km/h	-	-10 ÷ 60 °C	IP56
OCSV1A	sun and wind	5 ÷ 40 Km/h	0 ÷ 50 lux	-10 ÷ 60 °C	IP56
OCM1A	sun, wind and rain	5 ÷ 40 Km/h	0 ÷ 50 lux	-10 ÷ 60 °C	IP56
OCVP1	wind and rain	1 Km/h ÷ 35Km/h	-	-10 ÷ 60 °C	IP56
1582021	spare part wind sensor				
1582022	spare part sun-wind sensor				
1582023	spare part rain sensor				



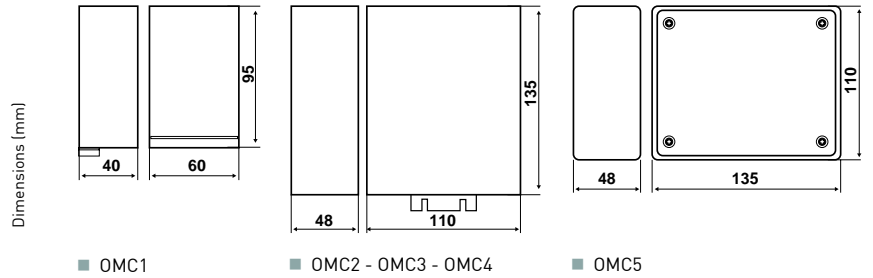


# Control unit from 1 to 5 motors



CODE	NUMBER OF CONTROLLED MOTORS	POWER SUPPLY	SWITCH CONTACT RATING	OPERATING TEMPERATURE	PROTECTION DEGREE
OMC1	1	230Vac 50Hz	10(4)A 250Vac	-20 ÷ 60 °C	IP44
OMC2	2	230Vac 50Hz	10(4)A 250Vac	-20 ÷ 60 °C	IP44
OMC3	3	230Vac 50Hz	10(4)A 250Vac	-20 ÷ 60 °C	IP44
OMC4	4	230Vac 50Hz	10(4)A 250Vac	-20 ÷ 60 °C	IP44
OMC5	5	230Vac 50Hz	10(4)A 250Vac	-20 ÷ 60 °C	IP56

■ 230Vac 50Hz power supply





DOMESTIC  
GAS DETECTORS

page 106



SAFETY  
VALVES

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GAS KIT

page 109



Flush  
mounting



Wall  
mounting



DIN rail  
mounting



230V  
230V-50Hz  
power supply



Batteries  
power supply



24V  
24V  
power supply



Protection degree  
IP40



Protection degree  
IP42



Protection degree  
IP54

# GAS DETECTORS



# DOMESTIC GAS DETECTORS

## Gas leak detectors for methane gas, LPG and CO carbon monoxide



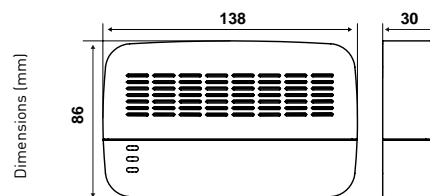
CODE	SENSOR	GAS TYPE	POWER SUPPLY	CONTACT RATING	CONSUMPTION	PROTECTION DEGREE
P11	semiconductor	Methane	230Vac - 50Hz	6(2)A - 250Vac	4 VA	IP42
P12	semiconductor	LPG	230Vac - 50Hz	6(2)A - 250Vac	4 VA	IP42
P21	catalytic	METHANE	230Vac - 50Hz	6(2)A - 250Vac	4 VA	IP42
P22	catalytic	LPG	230Vac - 50Hz	6(2)A - 250Vac	4 VA	IP42
P13	semiconductor	CO carbon monoxide	230Vac - 50Hz	6(2)A - 250Vac	4 VA	IP42

- P21 and P22 with catalytic sensor and pre-alarm



### REPLACEMENT SENSOR

CODE	REPLACEMENT SENSOR
EP11	replacement semiconductor sensor for P21 - methane
EP12	replacement semiconductor sensor for P22 - LPG
EP21	replacement catalytic sensor for P21 - methane
EP22	replacement catalytic sensor for P22 - LPG



## Gas leak detectors for methane gas, LPG and CO carbon monoxide



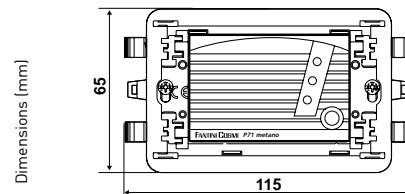
CODE	GAS TYPE	COLOR	POWER SUPPLY	CONTACT RATING	OPERATING TEMPERATURE	PROTECTION DEGREE
P71	Methane	Anthracite	230Vac - 50Hz	5(3)A - 250Vac	0 ÷ 40 °C	IP42
P71B	Methane	White	230Vac - 50Hz	5(3)A - 250Vac	0 ÷ 40 °C	IP42
P71C	Methane	Silver	230Vac - 50Hz	5(3)A - 250Vac	0 ÷ 40 °C	IP42
P72	LPG	Anthracite	230Vac - 50Hz	5(3)A - 250Vac	0 ÷ 40 °C	IP42
P73	CO carbon monoxide	Anthracite	230Vac - 50Hz	5(3)A - 250Vac	0 ÷ 40 °C	IP42

- With button/pull cord for alarm silencing.
- Flush mounting in 3-module 503 boxes.



### COMPATIBLE PLATES

BTICINO Axolute, Livinglight, Light, Light tech, Living ■ VIMAR Idea, Rondò, Plana, Eikon ■ GEWISS Playbus e Playbus Young ■ AVE Banquise, Ave Yes ■ LEGRAND Cross.



# SAFETY VALVES

## Normally closed electromagnetic safety valves for air and gas



- For air and non-aggressive gases (according to EN437)
- Closing time < 1 second

230V

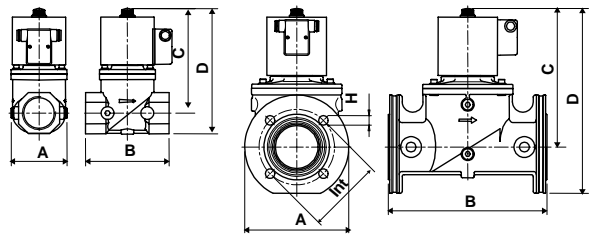
24V

IP54

CODE	CONNECTION TYPE	PASSAGE DN	POWER SUPPLY	BODY	PRESSIONE MASSIMA Mbar	ABSORPTION W
ZDEV10	threaded RP 3/8	10	230Vac 50/60Hz	brass	200	16
ZDEV15	threaded RP 1/2	15	230Vac 50/60Hz	brass	200	16
ZDEV20A	threaded RP 3/4	20	230Vac 50/60Hz	aluminum	500	45
ZDEV25A	threaded RP 1	25	230Vac 50/60Hz	aluminum	500	45
ZDEV32A	threaded RP 1 1/4	32	230Vac 50/60Hz	aluminum	500	20/80
ZDEV40A	threaded RP 1 1/2	40	230Vac 50/60Hz	aluminum	500	20/80
ZDEV50A	threaded RP 2	50	230Vac 50/60Hz	aluminum	500	20/80
ZDEVRF65	flanged DN 65	65	230Vac 50/60Hz	aluminum	200	45/180
ZDEVRF80	flanged DN 80	80	230Vac 50/60Hz	aluminum	200	45/180
ZDEVRF100	flanged DN 100	100	230Vac 50/60Hz	aluminum	200	45/180
ZDEV10F	threaded RP 3/8	10	24Vac	brass	200	16
ZDEV15F	threaded RP 1/2	15	24Vac	brass	200	16
ZDEV20F	threaded RP 3/4	20	24Vac	aluminum	200	45
ZDEV25F	threaded RP 1	25	24Vac	aluminum	200	45
ZDEV32F	threaded RP 1 1/4	32	24Vac	aluminum	200	20/80
ZDEV40F	threaded RP 1 1/2	40	24Vac	aluminum	200	20/80
ZDEV50F	threaded RP 2	50	24Vac	aluminum	200	20/80
ZDEVRF65F	flanged DN 65	65	24Vac	aluminum	200	45/180
ZDEVRF80F	flanged DN 80	80	24Vac	aluminum	200	45/180
ZDEVRF100F	flanged DN 100	100	24Vac	aluminum	200	45/180

DN	A	B	C	D	Int	h
10	30	58	95	110	-	-
15	30	58	95	110	-	-
20	88	96	150	164	-	-
25	88	96	150	164	-	-
32	120	153	188	220	-	-
40	120	153	188	220	-	-
50	106	156	192	230	145	4x18
65	200	305	266	355	160	8x18
80	200	305	266	355	160	8x18
100	252	350	352	492	180	8x18

Dimensions (mm)



■ ZDEV...10 ÷ 50

■ ZDEV...65 ÷ 100

## Normally open electromagnetic safety valves for air and gas with manual reset



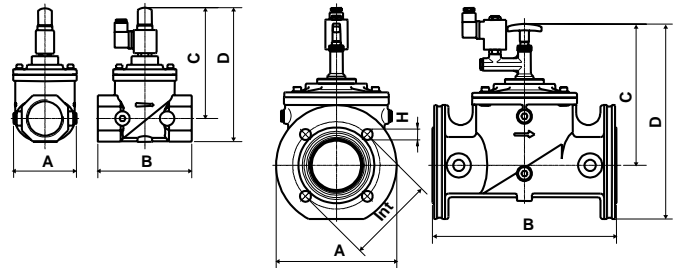
- For air and non-aggressive gases (according to EN437)
- Closing time < 1 second

230V 24V IP54

CODE	CONNECTION TYPE	PASSAGE DN	POWER SUPPLY	BODY	MAXIMUM PRESSURE Mbar	ABSORPTION W
ZDVGRM15NA	threaded RP 1/2	15	230Vac 50/60Hz	brass	500	16
ZDVGRM20NA	threaded RP 3/4	20	230Vac 50/60Hz	brass	500	16
ZDVGRM25NA	threaded RP 1	25	230Vac 50/60Hz	brass	500	16
ZDEVRM32NA	threaded RP 1 1/4	32	230Vac 50/60Hz	aluminum	500	16
ZDEVRM40NA	threaded RP 1 1/2	40	230Vac 50/60Hz	aluminum	500	16
ZDEVRM50NA	threaded RP 2	50	230Vac 50/60Hz	aluminum	500	16
ZDEVRMF65NA	flange DN 65	65	230Vac 50/60Hz	aluminum	500	19
ZDEVRMF80NA	flange DN 80	80	230Vac 50/60Hz	aluminum	500	19
ZDEVRMF100NA	flange DN 100	100	230Vac 50/60Hz	aluminum	500	19
ZDVGRM15NAF	threaded RP 1/2	15	24Vac	brass	500	16
ZDVGRM20NAF	threaded RP 3/4	20	24Vac	brass	500	16
ZDVGRM25NAF	threaded RP 1	25	24Vac	brass	500	16
ZDEVRM32NAF	threaded RP 1 1/4	32	24Vac	aluminum	500	16
ZDEVRM40NAF	threaded RP 1 1/2	40	24Vac	aluminum	500	16
ZDEVRM50NAF	threaded RP 2	50	24Vac	aluminum	500	16
ZDEVRMF65NAF	flange DN 65	65	24Vac	aluminum	500	19
ZDEVRMF80NAF	flange DN 80	80	24Vac	aluminum	500	19
ZDEVRMF100NAF	flange DN 100	100	24Vac	aluminum	500	19

DN	A	B	C	D	Int	h
15	30	58	115	130	-	-
20	35	55	113	130	-	-
25	40	62	115	137	-	-
32	120	153	170	203	-	-
40	120	153	170	203	-	-
50	106	156	175	213	-	-
65	200	305	260	350	145	4x18
80	200	305	260	350	160	8x18
100	252	350	280	410	180	8x18

Dimensions (mm)



## Normally closed electromagnetic safety valves for air and gas with manual reset



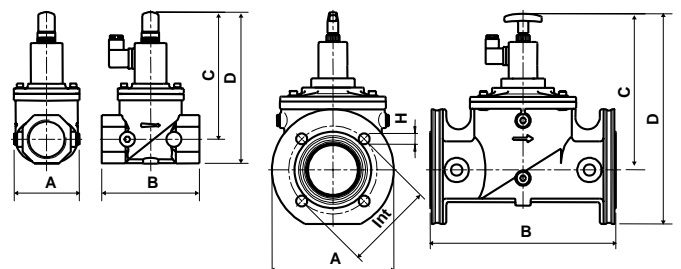
- For air and non-aggressive gases (according to EN437)
- Closing time < 1 second

230V 24V IP54

CODE	CONNECTION TYPE	PASSAGE DN	POWER SUPPLY	BODY	MAXIMUM PRESSURE Mbar	ABSORPTION W
ZDVGRM15NC	threaded RP 1/2	15	230Vac 50/60Hz	brass	500	8
ZDVGRM20NC	threaded RP 3/4	20	230Vac 50/60Hz	brass	500	8
ZDVGRM25NC	threaded RP 1	25	230Vac 50/60Hz	brass	500	8
ZDEVRM32NC	threaded RP 1 1/4	32	230Vac 50/60Hz	aluminum	500	12
ZDEVRM40NC	threaded RP 1 1/2	40	230Vac 50/60Hz	aluminum	500	12
ZDEVRM50NC	threaded RP 2	50	230Vac 50/60Hz	aluminum	500	12
ZDEVRMF65NC	flange DN 65	65	230Vac 50/60Hz	aluminum	500	12
ZDEVRMF80NC	flange DN 80	80	230Vac 50/60Hz	aluminum	500	12
ZDEVRMF100NC	flange DN 100	100	230Vac 50/60Hz	aluminum	500	45
ZDVGRM15NCF	threaded RP 1/2	15	24Vac	brass	500	8
ZDVGRM20NCF	threaded RP 3/4	20	24Vac	brass	500	8
ZDVGRM25NCF	threaded RP 1	25	24Vac	brass	500	8
ZDEVRM32NCF	threaded RP 1 1/4	32	24Vac	aluminum	500	12
ZDEVRM40NCF	threaded RP 1 1/2	40	24Vac	aluminum	500	12
ZDEVRM50NCF	threaded RP 2	50	24Vac	aluminum	500	12
ZDEVRMF65NCF	flange DN 65	65	24Vac	aluminum	500	12
ZDEVRMF80NCF	flange DN 80	80	24Vac	aluminum	500	12
ZDEVRMF100NCF	flange DN 100	100	24Vac	aluminum	500	45

Dimensions (mm)

DN	A	B	C	D	Int	h
15	30	58	115	130	-	-
20	35	55	113	130	-	-
25	40	62	115	137	-	-
32	120	153	202	234	-	-
40	120	153	202	234	-	-
50	106	156	206	244	-	-
65	200	305	262	352	145	4x18
80	200	305	262	352	160	8x18
100	252	350	305	405	180	8x18



# GAS KIT

## Kit including a gas leak detector and safety valve



CODE	KIT COMPONENTS
PKD2115NA	Detector P21 + normally open electromagnetic safety valves with manual reset G1/2"
PKD2115NC	Detector P21 + normally closed electromagnetic safety valves with manual reset G1/2"
PKD2120NA	Detector P21 + normally open electromagnetic safety valves with manual reset G3/4"
PKD2120NC	Detector P21 + normally closed electromagnetic safety valves with manual reset G3/4"
PKD2125NA	Detector P21 + normally open electromagnetic safety valves with manual reset G1"
PKD2215NA	Detector P22 + normally open electromagnetic safety valves with manual reset G1/2"
PKD2220NA	Detector P22 + normally open electromagnetic safety valves with manual reset G3/4"
PKD2225NA	Detector P22 + normally open electromagnetic safety valves with manual reset G1"

# HEAT METERING SYSTEMS



## INDIRECT HEAT METERING SYSTEM

HEAT COST ALLOCATOR ■ M-BUS CONCENTRATOR WIRED AND WIRELESS OMS ■ WATER METERS RADIO MODULE ■ RADIO REPEATER ■ VOLUMETRIC METERS



page 112

## DIRECT HEAT METERING SYSTEM

MASTER UNITS ■ PROBES ■ DATA CONCENTRATOR UNITS ■ WATER METERS RADIO MODULE ■ VOLUMETRIC METERS ■ HYDRAULIC MODULES



page 118



INDIRECT  
HEAT METERING  
SYSTEM

page 114



DIN rail  
mounting



Wall  
mounting



Radiators  
mounting



Power supply  
230V-50Hz



Batteries  
power supply



Wireless M-Bus data  
transmission



Wired M-Bus data  
transmission



Remote control  
by PC



Heating and air-conditioning  
control



Protection degree  
IP68



Protection degree  
IP52



Protection degree  
IP54



Protection degree  
IP40



Protection degree  
IP64

# INDIRECT HEAT METERING SYSTEM



## Heat cost allocator

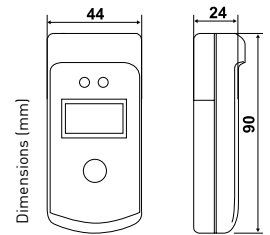


- 2 temperature sensors.
- Consumption/temperature average log up to 24 previous months.
- Installation kit for all types of radiators.



CODE	PROBES	DATA READING	POWER SUPPLY	DISPLAY
ECVRB	2 internal	optical + M-Bus Wireless	batteries	LCD 6 digits
ECVRBSE	1 internal + 1 external	optical + M-Bus Wireless	batteries	LCD 6 digits
ECVK1	Installation kit for neoclassic cast iron radiators, cast iron radiators with baffle, decorative radiators/towel rails			
ECVK3	Installation kit for cast iron plate-type radiators			
ECVK4	Installation kit for steel tubular radiators (h>120cm) and decorative radiators/towel rails			
ECVK1A	Installation kit for steel radiators with baffle and decorative radiators/towel rails			
ECVK2	Installation kit for decorative radiators/towel rails			
ECVK3A	Installation kit for aluminium radiators			
ECVK5	Installation kit for smooth or ribbed panel-type radiators			
1592293 *	Sticking kit for ECVK5			
ECVK6	Lamellar radiators fixing KIT			
ECVK10	Installation kit for standard radiators			

\* delivery time and minimum purchase quantity upon request



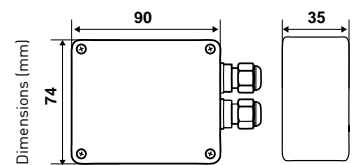
## Water meters radio module with impulse output



- Suitable to interface volumetric impulse meters with wireless readers / data displays.



CODE	POWER SUPPLY	INPUT	OUTPUT	PROTECTION DEGREE
ECV-TXE	Lithium battery 3.6V Li-SOCI2	2 reed sensors	Wireless M-Bus	IP65



## USB optical interface



CODE	DESCRIPTION
ECVUSBO	Optical pen drive
ECVSW	Installation/setup software and data reading (optical or radio)

## USB radio receiver



CODE	COMMUNICATION BAND	RADIO RANGE under optimal ambient conditions	CONNECTION AND POWER SUPPLY	PROTECTION DEGREE
ECVUSBR	868MHz	up to 400 meters*	USB	IP50

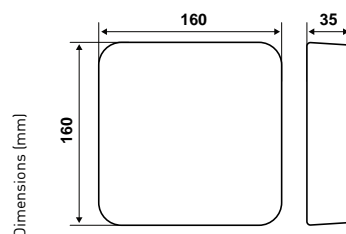
- Dimensions 65x22x15 mm.

## Radio repeater



CODE	M-BUS INTERFACE	COMMUNICATION BAND	MAX TRANSMISSION POWER	POWER SUPPLY	PROTECTION DEGREE
ECVRRB	Wireless OMS	868 MHz	27 dBm	100 - 240 Vac	IP40

- Manages up to 500 devices
- Web interface with code ECVCONB



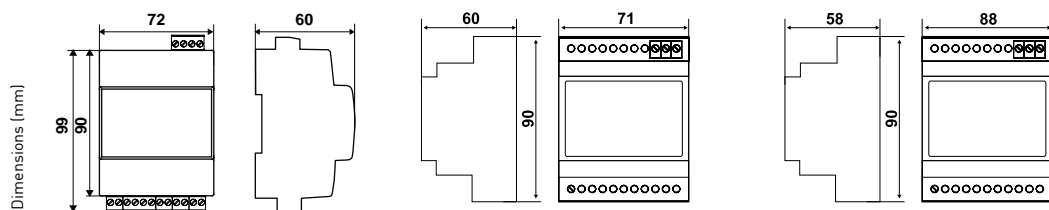
## M-BUS concentrator wired and wireless OMS



CODE	POWER SUPPLY	SLAVE CONNECTABLE	M-BUS INTERFACE	PROTECTION DEGREE	WEIGHT KG
ECVCONB	24Vac/dc	500	wired + wireless OMS	IP20	0.23 Kg
ODAL1	Power source module 24Vdc 15W				
ODAL2A	Power supply module 24Vcc - 2A with Bus socket included.				

- Manages up to 500 devices
- 3 digital INPUTS and 2 output relays
- DIN rail mounting 35mm (EN60715) (4 modules).

- ODAL1 (to be used with Wireless systems only)
- ODAL2 (to be used with Wired and Wireless systems)



■ ECVCONB

■ ODAL1

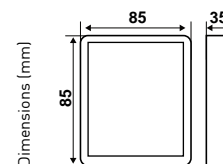
■ ODAL2A

## Router 3G Wireless



CODE	DESCRIPTION	SUITABLE FOR
ECVRT	Router 3G - UMTS with power supply and antenna	ECC250LOG - ECVCONB

- Data transmission: GSM-GPRS-UMTS-HSPA power supply included
- Ethernet ports LAN-WAN
- GSM antennas and Wi-Fi

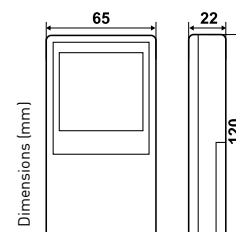


## Portable terminal with optical interface for ECVRB and ECVRBSE



CODE	DESCRIPTION
ECVBOX	Portable terminal with optical interface for ECV/ECVR

- Data management up to 1000 allocators.
- Configuration/reading allocator software included.



## Single-jet volumetric meters for hot water



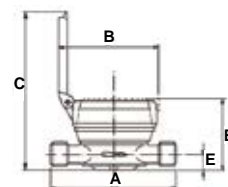
CODE	NOMINAL SIZE INCH - DN	PERMANENT FLOW RATE Q3	MAXIMUM FLOW RATE Q4	MINIMUM FLOW RATE Q1	TEMPERATURE CLASS
ECCS15GSA	1/2" - 15 mm	2.5 m <sup>3</sup> /h	3.125 m <sup>3</sup> /h	31.25 l/h	T90
ECCS20GSA	3/4" - 20 mm	4.0 m <sup>3</sup> /h	5.0 m <sup>3</sup> /h	50 l/h	T90
1592022	Connections for DN15 volumetric meters.				
1592023	Connections for DN20 volumetric meters				

- K=10 litri / pulse.
- Vertical, horizontal or oblique installation
- Connections not included

IP68 MID

Dimensions (mm)

	A	B	C	D	E
ECCS15GSA	110	72	138	70	16
ECCS20GSA	130	72	143	74	19



## Single-jet volumetric meters for cold water



CODE	NOMINAL SIZE INCH - DN	PERMANENT FLOW RATE Q3	MAXIMUM FLOW RATE Q4	MINIMUM FLOW RATE Q1	TEMPERATURE CLASS
ECCF15GSA	1/2" - 15 mm	2.5 m³/h	3.125 m³/h	31.25 l/h	T30
ECCF20GSA	3/4" - 20 mm	4.0 m³/h	5.0 m³/h	50 l/h	T30
1592022	Connections for DN15 volumetric meters.				
1592023	Connections for DN20 volumetric meters				

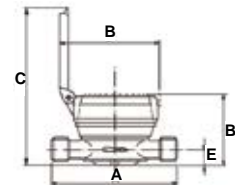
- K=10 liters / pulse.
- Vertical, horizontal or oblique installation
- Connections not included

IP68

MID

Dimensions (mm)

	A	B	C	D	E
ECCF15GSA	110	72	138	70	16
ECCF20GSA	130	72	143	74	19



## Radiator thermostat, thermostatic valves, lockshield valves and connections



For radiator thermostat, thermostatic valves, lockshield valves and connections  
see COMPONENTS FOR HEATING SYSTEMS WITH RADIATORS section

see page 86



DIRECT  
HEAT METERING  
SYSTEM

page 120



DIN rail  
mounting



Wall  
mounting



Power supply  
230V-50Hz



Batteries  
power supply



Wireless M-Bus data  
transmission



Wired M-Bus data  
transmission



Remote control  
by PC



MID 2004/22/EC  
approval



Heating and air-conditioning  
control



Protection degree  
IP68



Protection degree  
IP52



Protection degree  
IP54



Protection degree  
IP40



Protection degree  
IP64



# DIRECT HEAT METERING SYSTEM

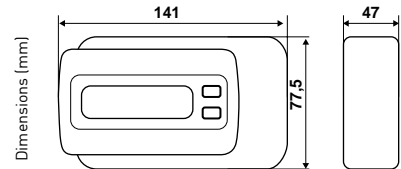


## Calculation master units for heat metering systems



CODE	POWER SUPPLY	TEMPERATURE RANGE	TYPES OF SENSORS	INPUTS
ECCM32	battery	2 ÷ 150 °C	Pt500	1 for heating and cooling - 2 for sanitary water
ECCM42	battery	2 ÷ 150 °C	Pt500	2 for heating and cooling - 2 for sanitary water 1 heat. and cool. - 2 sanit. water - 1 dual water
ECCM Service	software to set the calculation units by M-Bus			

- The unit can meter at the same time: thermal energy of a heating / cooling system, hot and cold sanitary water
- MID approval.
- Possibility of connecting with CH141A-EC to display the readings on the thermostat



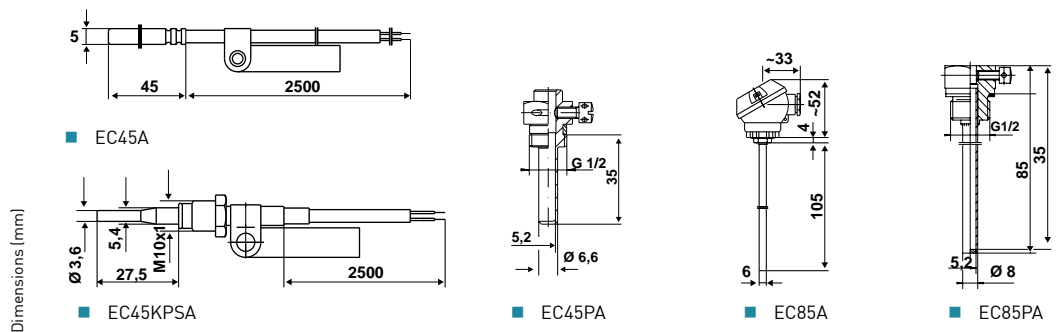
MID

## Probes for water metering systems



CODE	DESCRIPTION	PN	MEASURING RANGE
EC45A	pair of sensors 45mm for GS-GM	25	0 ÷ 150 °C
EC45KPSA	pair of sensors 45mm with probe holder for GS-GM	25	0 ÷ 150 °C
EC85A	pair of sensors 85mm for Woltmann	40	0 ÷ 180 °C
EC85PA	screw-in pocket 85mm G 1/2"		
EC45PA	screw-in pocket 45mm G 1/2"		
EC45PS	probe holder M10-G1/4" for EC45KPSA sensors		

MID



## Single-jet compact heat meters



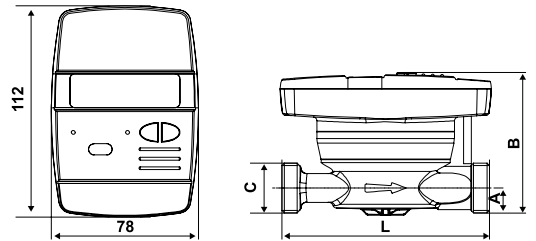
CODE	NOMINAL SIZE INCH - DN	NOMINAL FLOW RATE Qp	INPUTS	OUTPUTS	INTERFACE COMMUNICATION
ECC15CA	1/2" - DN15	1.5 m³/h	2 pulse	1 pulse	M-Bus (M-Bus Wireless optional)
ECC20CA	3/4" - DN20	2.5 m³/h	2 pulse	1 pulse	M-Bus (M-Bus Wireless optional)
ECCMBRF	MBUS wireless radio module suitable for ECC15CA - ECC20CA				

- Horizontal and vertical installation
- MID 2004/22/EC - MI004 approval EN1434.
- Installation on the return pipe
- Power supply: lithium battery
- Connections included



Dimensions (mm)

	L	A	B	C
ECC15CA	110	13	74	3/4"
ECC20CA	130	17	78	1"



## Single-jet compact heat meters



CODE	NOMINAL SIZE INCH - DN	NOMINAL FLOW RATE Qp	INPUTS	OUTPUTS	INTERFACE COMMUNICATION
ECC20C2I	3/4" - 20mm	2.5 m³/h	2 pulse	-	wired M-Bus
ECC15HC2I *	1/2" - 15mm	1.5 m³/h	2 pulse	-	wired M-Bus
ECC20HC2I *	3/4" - 20mm	2.5 m³/h	2 pulse	-	wired M-Bus

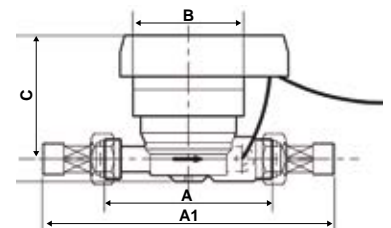
- 10 liters/pulse.
- Volumetric unit temperature range 5 ÷ 90 °C.
- Calculation unit separable with 30 cm connecting cable.



Dimensions (mm)

	A	A1	B	C	D
ECC15...	110	190	75x110	76	95
ECC20...	130	228	75x110	76	97.5

A length without connection  
A1 length with connection

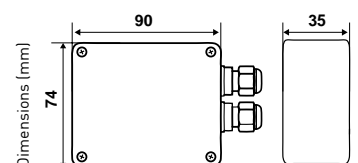


## Water meters radio module with impulse output



CODE	POWER SUPPLY	INPUT	OUTPUT	PROTECTION DEGREE
ECV-TXE	Lithium battery 3.6V Li-SOCI2	2 reed sensors	Wireless M-Bus	IP65

- Suitable to interface volumetric impulse meters with wireless readers / data displays.



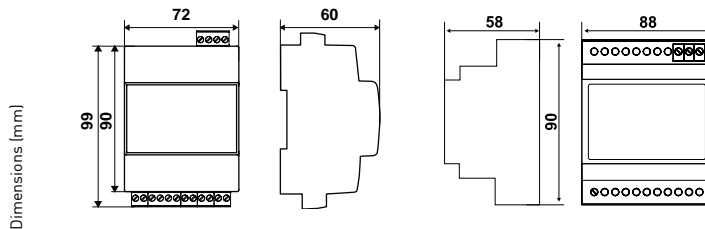
## Data concentrator units



CODE	DESCRIPTION	POWER SUPPLY	SLAVE CONNECTABLE	PROTECTION DEGREE
ECC250LOG	Datalogger M-BUS concentrator	24 Vac/dc	250	IP20
ECC60MBUS	M-BUS converter	24Vdc +/-10%	60	IP20
ODAL2A	ODAL2A Power supply module 24Vcc – 2A with Bus socket included.			

- ODAL2 (to be used with Wired and Wireless systems)

- Data acquisition from M-Bus meters



■ ECCM...

■ ODAL2A

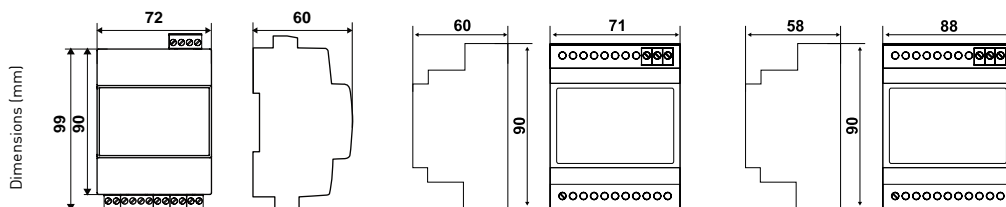
## M-BUS concentrator wired and wireless OMS



CODE	POWER SUPPLY	SLAVE CONNECTABLE	M-BUS INTERFACE	PROTECTION DEGREE	WEIGHT KG
ECVCONB	24Vac/dc	500	wired + wireless OMS	IP20	0.23 Kg
ODAL1	Power source module 24Vdc 15W				
ODAL2A	ODAL2A Power supply module 24Vcc – 2A with Bus socket included.				

- ODAL1 (to be used with Wireless systems only)
- ODAL2 (to be used with Wired and Wireless systems)

- Manages up to 500 devices
- 3 digital INPUTS and 2 output relays
- DIN rail mounting 35mm (EN60715) (4 modules).



■ ECVCONB

■ ODAL1

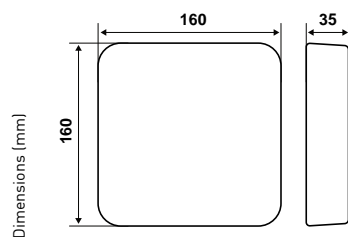
■ ODAL2A

## Radio repeater



CODE	M-BUS INTERFACE	COMMUNICATION BAND	MAX TRANSMISSION POWER	POWER SUPPLY	PROTECTION DEGREE
ECVRRB	Wireless OMS	868 MHz	27 dBm	100 - 240 Vac	IP40

- Manages up to 500 devices
- Web interface with code ECVCONB

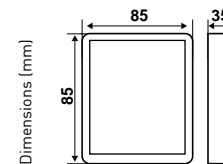


# Router 3G Wireless



CODE	DESCRIPTION	SUITABLE FOR
ECVRT	Router 3G - UMTS with power supply and antenna	ECC250LOG - ECVC0NB

- Data transmission: GSM-GPRS-UMTS-HSPA power supply included;
- Ethernet ports LAN-WAN;
- GSM antennas and Wi-Fi.

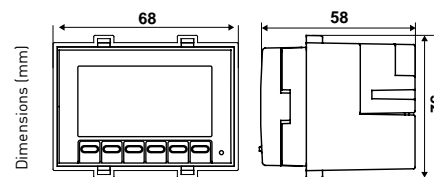


# Intellicomfort - Weekly programmable thermostat with heating and water consumption direct readings



CODE	TEMPERATURE RANGE	POWER SUPPLY	CONTACT RATING
CH141A-EC	2 ÷ 40 °C	2 batteries AAA 1.5 V	5(3)A 250Vac

- Connected to calculation master units ECCM...2 series for consumption direct readings;
- LED, back lighting (blue) display;
- Flush mounting in 3-module 503 boxes.

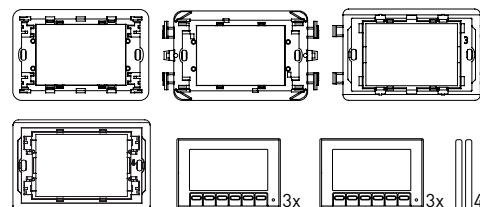


## KIT

Plate kit composed by thermostat, colored covers (white, silver and anthracite), frames and adaptors.

## COMPATIBLE PLATES

BTICINO Axolute, Axolute Air, Livinglight Air, Livinglight, Light, Light tech, Matix, Living ■ VIMAR Arké, Eikon Evo, Idea, Rondo, Plana, Eikon ■ GEWISS Chorus One, Lux, Art - AVE Sistema 45, Sistema 44 ■ LEGRAND Cross, Vela ■ ABB Elos, Mylos.



## Single-jet volumetric meters up to 120°C



CODE	NOMINAL SIZE INCH - DN	NOMINAL FLOW RATE Q <sub>p</sub>	MAXIMUM FLOW RATE Q <sub>s</sub>	MINIMUM FLOW RATE Q <sub>i</sub>	TEMPERATURE CLASS
ECC15GSA	1/2" - 15 mm	1.5 m <sup>3</sup> /h	3 m <sup>3</sup> /h	30 l/h	T120
ECC20GSA	3/4" - 20 mm	2.5 m <sup>3</sup> /h	5 m <sup>3</sup> /h	50 l/h	T120

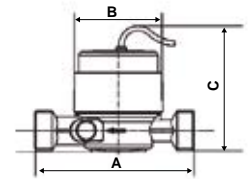
- 10 liters/pulse
- Horizontal or vertical installation
- Connections included

IP68

MID

Dimensions (mm)

	A	B	C	D	E
ECC15GSA	110	106.5	81.5	71	16
ECC20GSA	130	110.5	85.5	71	19



## Single-jet volumetric meters pierced with probe holder, up to 120°C



CODE	NOMINAL SIZE INCH - DN	NOMINAL FLOW RATE Q <sub>p</sub>	MAXIMUM FLOW RATE Q <sub>s</sub>	MINIMUM FLOW RATE Q <sub>i</sub>	TEMPERATURE CLASS
ECC15GSF *	1/2" - 15 mm	1.5 m <sup>3</sup> /h	3 m <sup>3</sup> /h	30 l/h	T120
ECC20GSF *	3/4" - 20 mm	2.5 m <sup>3</sup> /h	5 m <sup>3</sup> /h	50 l/h	T120

\* delivery time and minimum purchase quantity upon request

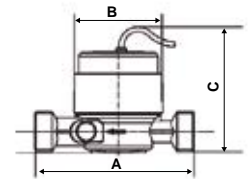
- 10 liters/pulse
- Horizontal or vertical installation
- Connections included

IP68

MID

Dimensions (mm)

	A	B	C	D	E
ECC15GSF	110	106.5	81.5	71	16
ECC20GSF	130	110.5	85.5	71	19



## Multiple-jet volumetric meters up to 120-130°C



CODE	NOMINAL SIZE INCH - DN	NOMINAL FLOW RATE Q <sub>p</sub>	MAXIMUM FLOW RATE Q <sub>s</sub>	MINIMUM FLOW RATE Q <sub>i</sub>	TEMPERATURE CLASS
ECC15GM *	1/2" - 15 mm	1.5 m <sup>3</sup> /h	2.25 m <sup>3</sup> /h	60 l/h	T120
ECC20GM	3/4" - 20 mm	1.5 m <sup>3</sup> /h	3.75 m <sup>3</sup> /h	100 l/h	T120
ECC25GM	1" - 25 mm	3.5 m <sup>3</sup> /h	5.25 m <sup>3</sup> /h	140 l/h	T120
ECC32GM	1 1/4" - 32 mm	6 m <sup>3</sup> /h	9 m <sup>3</sup> /h	240 l/h	T120
ECC40GM	1 1/2" - 40 mm	10 m <sup>3</sup> /h	15 m <sup>3</sup> /h	300 l/h	T120
ECC50GM	2" - 50 mm	15 m <sup>3</sup> /h	30 m <sup>3</sup> /h	300 l/h	T130

\* delivery time and minimum purchase quantity upon request

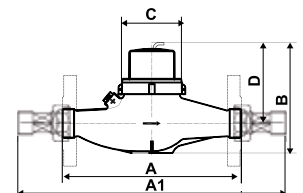
- 10 liters/pulse
- Horizontal installation (for vertical installation contact Fantini Cosmi technical support)
- Connections included

IP68

MID

Dimensions (mm)

	A length without connection A1 length with connection				
	A	A1	B	C	D
ECC15GM	165	245	135	96	40
ECC20GM	190	288	135	96	40
ECC25GM	260	378	140	102	45
ECC32GM	260	378	140	102	45
ECC40GM	300	438	155	137	50
ECC50GM	300	454	199	151	57



## Single-jet volumetric meters for hot water



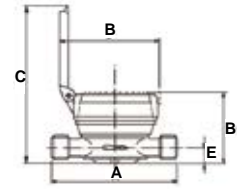
CODE	NOMINAL SIZE INCH - DN	PERMANENT FLOW RATE Q3	MAXIMUM FLOW RATE Q4	MINIMUM FLOW RATE Q1	TEMPERATURE CLASS
ECCS15GSA	1/2" - 15 mm	2.5 m³/h	3.125 m³/h	31.25 l/h	T90
ECCS20GSA	3/4" - 20 mm	4.0 m³/h	5.0 m³/h	50 l/h	T90
1592022	Connections for DN15 volumetric meters.				
1592023	Connections for DN20 volumetric meters				

- K=10 litri / pulse.
- Vertical, horizontal or oblique installation
- Connections not included

IP68 MID

Dimensions (mm)

	A	B	C	D	E
ECCS15GSA	110	72	138	70	16
ECCS20GSA	130	72	143	74	19



## Single-jet a volumetric meters for cold water



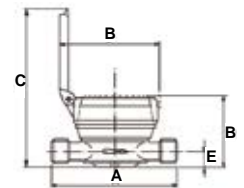
CODE	NOMINAL SIZE INCH - DN	PERMANENT FLOW RATE Q3	MAXIMUM FLOW RATE Q4	MINIMUM FLOW RATE Q1	TEMPERATURE CLASS
ECCF15GSA	1/2" - 15 mm	2.5 m³/h	3.125 m³/h	31.25 l/h	T30
ECCF20GSA	3/4" - 20 mm	4.0 m³/h	5.0 m³/h	50 l/h	T30
1592022	Connections for DN15 volumetric meters				
1592023	Connections for DN20 volumetric meters				

- K=10 liters / pulse.
- Vertical, horizontal or oblique installation
- Connections not included

IP68 MID

Dimensions (mm)

	A	B	C	D	E
ECCF15GSA	110	72	138	70	16
ECCF20GSA	130	72	143	74	19



## Multiple-jet volumetric meters for hot water



CODE	NOMINAL SIZE INCH - DN	PERMANENT FLOW RATE Q3	MAXIMUM FLOW RATE Q4	MINIMUM FLOW RATE Q1	TEMPERATURE CLASS
ECCS15GMA *	1/2" - 15 mm	2.5 m³/h	3.125 m³/h	31.25 l/h	T90
ECCS20GMA *	3/4" - 20 mm	4.0 m³/h	5 m³/h	50 l/h	T90
ECCS25GMA *	1" - 25 mm	6.3 m³/h	7.875 m³/h	78.75 l/h	T90
ECCS32GMA *	1 1/4" - 32 mm	10 m³/h	12.5 m³/h	125 l/h	T90
ECCS40GMA *	1 1/2" - 40 mm	16 m³/h	20 m³/h	200 l/h	T90
ECCS50GMA *	2" - 50 mm	25 m³/h	31.250 m³/h	312.5 l/h	T90

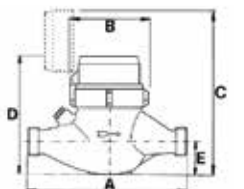
\* delivery time and minimum purchase quantity upon request

- 10 liters/pulse.
- Horizontal installation (for vertical installation contact Fantini Cosmi technical support)
- Connections included

IP68 MID

Dimensions (mm)

	A	B	C	D	E
ECCS15GMA	110	96	185	130	35
ECCS20GMA	160	96	185	130	35
ECCS25GMA	220	100	200	145	40
ECCS32GMA	220	100	200	145	40
ECCS40GMA	300	136	210	155	60
ECCS50GMA	300	136	220	165	70



## Multiple-jet volumetric meters for cold water



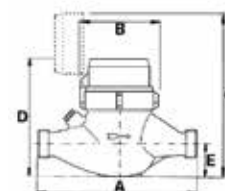
CODE	NOMINAL SIZE INCH - DN	PERMANENT FLOW RATE Q3	MAXIMUM FLOW RATE Q4	MINIMUM FLOW RATE Q1	TEMPERATURE CLASS
ECCF15GMA *	3/4" - 15 mm	2.5 m³/h	3.125 m³/h	31.25 l/h	T50
ECCF20GMA *	3/4" - 20 mm	4.0 m³/h	5 m³/h	50 l/h	T50
ECCF25GMA *	1" - 25 mm	6.3 m³/h	7.875 m³/h	78.75 l/h	T50
ECCF32GMA *	1 1/4" - 32 mm	10 m³/h	12.5 m³/h	125 l/h	T50
ECCF40GMA *	1 1/2" - 40 mm	16 m³/h	20 m³/h	200 l/h	T50
ECCF50GMA *	2" - 50 mm	25 m³/h	31.250 m³/h	312.5 l/h	T50

\* delivery time and minimum purchase quantity upon request

- K 10 litri / pulse.
- Horizontal installation
- Connections included

IP68 MID

Dimensions (mm)					
	A	B	C	D	E
ECCF15GMA	110	96	185	130	35
ECCF20GMA	160	96	185	130	35
ECCF25GMA	220	100	200	145	40
ECCF32GMA	220	100	200	145	40
ECCF40GMA	300	136	210	155	60
ECCF50GMA	300	136	220	165	70



## Woltmann volumetric meters for hot water



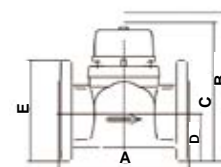
CODE	PULSE WEIGHT K (l/imp)	NOMINAL SIZE DN	NOMINAL FLOW RATE Qp	MAXIMUM FLOW RATE Qs	MINIMUM FLOW RATE Qi	TEMPERATURE CLASS
ECC50WA	100	50 mm	15 m³/h	30 m³/h	0.6 m³/h	T130
ECC65WA	100	60 mm	25 m³/h	50 m³/h	1 m³/h	T130
ECC80WA	100	80 mm	40 m³/h	80 m³/h	1.6 m³/h	T130
ECC100WA	100	100 mm	60 m³/h	120 m³/h	2.4 m³/h	T130
ECC125WA *	100	125 mm	100 m³/h	200 m³/h	4 m³/h	T130
ECC150WA *	1000	150 mm	150 m³/h	300 m³/h	6 m³/h	T130
ECC200WA *	1000	200 mm	250 m³/h	500 m³/h	10 m³/h	T130
ECC250WA *	1000	250 mm	400 m³/h	1800 m³/h	40 m³/h	T130
ECC300WA *	1000	300 mm	600 m³/h	1200 m³/h	20 m³/h	T130

\* delivery time and minimum purchase quantity upon request

- Vertical, horizontal or oblique installation
- K: 100-1000 liters / pulse

IP66 MID

Dimensions (mm)					
	A	B	C	D	E
ECC50WA	200	287	187	72	165
ECC65WA	200	297	197	83	185
ECC80WA	225	339	219	95	200
ECC100WA	250	349	229	105	220
ECC125WA	250	377	257	120	250
ECC150WA	300	582	357	135	285
ECC200WA	350	607	382	160	340
ECC250WA	450	652	427	193	400
ECC300WA	500	722	497	230	460



## Woltmann volumetric meters for cold water

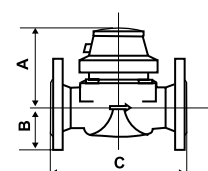


CODE	PULSE WEIGHT K (l/imp)	NOMINAL SIZE DN	NOMINAL FLOW RATE Qp	MAXIMUM FLOW RATE Qs	MINIMUM FLOW RATE Qi	TEMPERATURE CLASS
ECCF50W *	100	50 mm	15 m³/h	30 m³/h	0.45 m³/h	T50
ECCF65W *	100	60 mm	25 m³/h	50 m³/h	0.75 m³/h	T50
ECCF80W *	100	80 mm	40 m³/h	80 m³/h	1.2 m³/h	T50
ECCF100W *	100	100 mm	70 m³/h	120 m³/h	1.8 m³/h	T50
ECCF125W *	100	125 mm	100 m³/h	200 m³/h	3 m³/h	T50
ECCF150W *	1000	150 mm	150 m³/h	300 m³/h	4.5 m³/h	T50
ECCF200W *	1000	200 mm	250 m³/h	500 m³/h	7.5 m³/h	T50
ECCF250W *	1000	250 mm	400 m³/h	800 m³/h	12 m³/h	T50
ECCF300W *	1000	300 mm	600 m³/h	1200 m³/h	18 m³/h	T50

- Vertical, horizontal or oblique installation
- K: 100-1000 liters / pulse

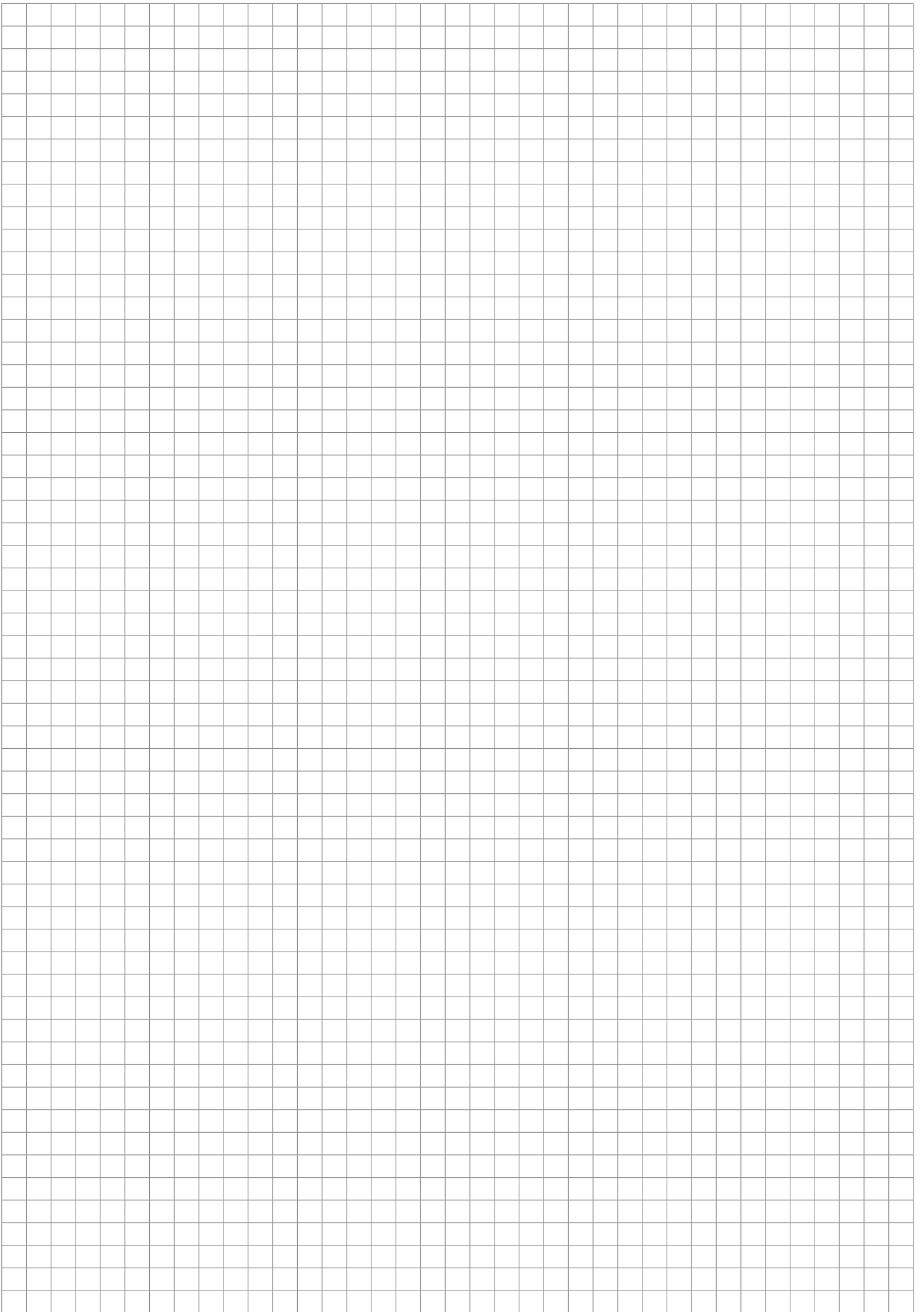
IP68 MID

Dimensions (mm)							
	A	B	C	A	B	C	
ECCF50W	120	73	200	ECCF150W	167	135	300
ECCF65W	120	85	200	ECCF200W	206	162	350
ECCF80W	150	95	225	ECCF250W	231	194	450
ECCF100W	150	105	250	ECCF300W	256	226	500
ECCF125W	160	118	250				











The features referring to the units described in this catalog are not binding. Fantini Cosmi S.p.A. reserve the right to make modifications, owing to technological advances and commercial and normative developments, without giving any previous notice or communication, being it understood that the models' main functional features will not change.



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