CATALOGUE

March 2021

MADE IN ITALY

costergroup


coster group
PERSONAL
AUTOMATION

summary

CONTROLLERS AND EXPANDERS

Programmable BACnet

Configurable Modbus

Preconfigured C-BUS

Monitoring Modbus BACnet M-Bus

PRODUCTS

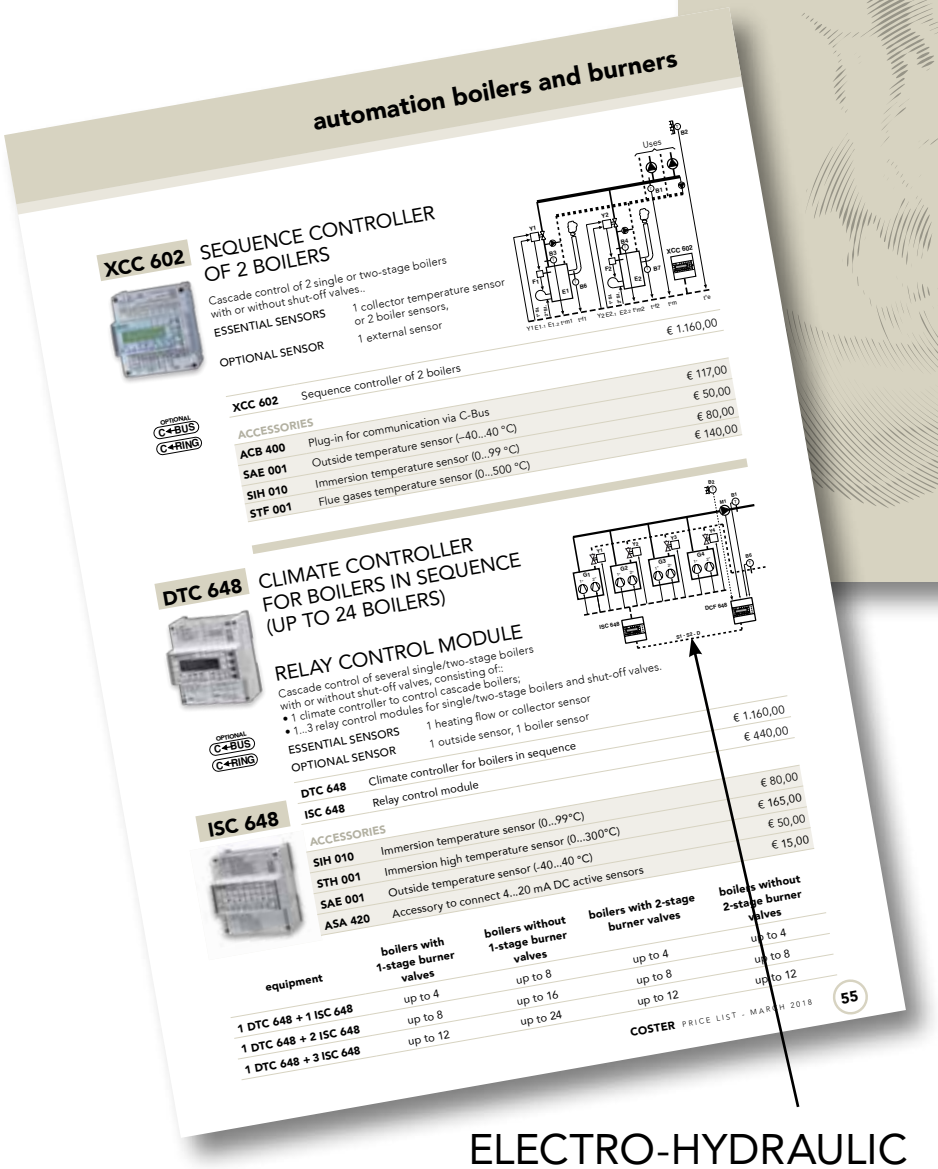
Plant telemanagement WEBGARAGE, C-BUS, M-Bus

guidelines

ICON AND COLOUR CODE

Each section of the catalogue, both printed and online, can be easily identified by the colour code and the reference icon

AUTOMATION
BOILERS
AND BURNERS


automation boilers and burners

XCC 602 SEQUENCE CONTROLLER OF 2 BOILERS

Cascade control of 2 single or two-stage boilers with or without shut-off valves..

ESSENTIAL SENSORS 1 collector temperature sensor or 2 boiler sensors, 1 external sensor

OPTIONAL SENSOR

XCC 602	Sequence controller of 2 boilers	€ 1.160,00
ACCESSORIES		
ACB 400	Plug-in for communication via C-Bus	€ 117,00
SAE 001	Outside temperature sensor (–40...40 °C)	€ 50,00
SIH 010	Immersion temperature sensor (0...99 °C)	€ 80,00
STF 001	Flue gases temperature sensor (0...500 °C)	€ 140,00

DTC 648 CLIMATE CONTROLLER FOR BOILERS IN SEQUENCE (UP TO 24 BOILERS)

RELAY CONTROL MODULE

Cascade control of several single/two-stage boilers with or without shut-off valves, consisting of:
• 1 climate controller to control cascade boilers;
• 1...3 relay control modules for single/two-stage boilers and shut-off valves.

ESSENTIAL SENSORS 1 heating flow or collector sensor

OPTIONAL SENSOR 1 outside sensor, 1 boiler sensor

DTC 648	Climate controller for boilers in sequence	€ 1.160,00
ISC 648	Relay control module	€ 440,00
ACCESSORIES		
SIH 010	Immersion temperature sensor (0...99°C)	€ 80,00
STH 001	Immersion high temperature sensor (0...300°C)	€ 165,00
SAE 001	Outside temperature sensor (-40...40 °C)	€ 50,00
ASA 420	Accessory to connect 4...20 mA DC active sensors	€ 15,00

equipment	boilers with 1-stage burner valves	boilers without 1-stage burner valves	boilers with 2-stage burner valves	boilers without 2-stage burner valves
1 DTC 648 + 1 ISC 648	up to 4	up to 8	up to 4	up to 4
1 DTC 648 + 2 ISC 648	up to 8	up to 16	up to 8	up to 8
1 DTC 648 + 3 ISC 648	up to 12	up to 24	up to 12	up to 12

COSTER PRICE LIST - MARCH 2018 55

ELECTRO-HYDRAULIC DIAGRAMS

An electro-hydraulic diagram is found next to many components in this price list. It is a typical diagram and represents one of the many possible applications with the tool it is associated with

QR-CODE

To access the internet directly with a Tablet, point the Tablet toward the QR CODE until the reading is completed and the system will go directly to the relevant internet page of the class of products represented by that QR CODE. You must be registered and logged in to access all the detailed technical information

alphanumeric index

H

W

Notes

Z SERIE

index

building automation

BACnet® is a registered trademark of ASHRAE

simplicity and operational freedom

High levels of efficiency, interoperability and flexibility to meet any need, from single installation to multi-site systems.

The versatility and functionality of our solution makes it possible to design **advanced control strategies**, customized according to the user's specific needs and mainly aimed at efficiency and energy saving.

The range of **freely programmable** controllers and expansion modules as well as the software design provides countless **unique solutions**.

Just as in an organism, in every building-plant system the balanced interaction of all components makes it possible to supply **the right energy at the right time**, at the lowest cost.

Web Garage licenses have no point limits and no expiration date. The license is sold at fixed price, with no recurring royalties. **It allows infinite simultaneous accesses**.
The programming and supervision logic of the plants is available to the customer as source code and can be modified independently.

your personal energy trainer

BUILDING ENERGY WELLNESS, FOR BUILDINGS

Our method for energy wellness is a virtuous path along which Coster Group is a guide and trainer.

It consists of a few precise rules for constant improvement in performance.

THE METHOD

MONITORING

awareness of energy use

ANALYSIS

interpretation of data obtained

ACTION

energy regulated according to the building requirements

MAINTENANCE

constant performance over time

Our consumption monitoring solutions make the performance and comfort levels of the building-plant system visible at all times.
Consumption awareness in energy management can generate significant savings(up to 15%).

From a systematic data analysis and in-depth knowledge of the plant assets, to the identification of the opportunities for improvement of a system in terms of redevelopment, **replacement of components and introduction of automation.**

Actions follow the analysis:
Investment decisions are based on achieving efficiency and maximum reliability. Targeted upgrades and changes for specific objectives in terms of energy savings and plant regeneration, with the most suitable and least expensive technological solutions. Thanks to our interventions, achieved savings ranged between 25% and 70%.

The required path is completed with control and maintenance functions: the monitoring system ensures that the achievement of objectives is constantly verified, maintenance is checked and new efficiency measures are identified and assessed.

ZHC 602

NEW 2021

NETWORK-MANAGER BACNET MS/TP

ZHC 602 allows data exchange between the ZBC controllers and the alarm relaunch, allowing remote accessibility to the supervision system through Ethernet cable using the BACNET MS/TP - BACNET IP protocol
12Vdc power supply.
In 6-module DIN enclosure

ZHC 602	Network manager BACNET MS/TP

WEBGARAGE

BACnet

ACCESSORIES	
ALM 1210	DIN rail power supply 12V-10W
ALM 1225	DIN rail power supply 12V-25W

ZBC 862

NEW 2021

MS/TP BACNET CONTROLLER

ZBC 862 is a controller for HVAC systems that can be configured through applications CosterCAD is programmable through the new CosterBlocks application.
Application and FW download locally through USB port and remotely. Possibility of configuration through external display DSP 120.
Control and telemanagement only from WebGarage. 12Vdc and 24Vac power supply

INPUT/OUTPUT

UI	DO	AO (0-10 V)
8*	6	2
ZBC 862		

WEBGARAGE

BACnet

*The universal inputs are: analogue, digital and sensors.
The first two are also 4...20mA

ACCESSORIES	
DSP 120	Display for configuation ZBC 862
ZHC 602	Network manager BACNET
MDM 232	Modem GSM/3G
CST 800	Sensor concentrator
PEU 002	Expansion module 2 x 0-10V
ESP 442	Expansion module (UI - T° - DO)
ESU 402	Expansion module 4 x 0-10V
ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-10W bar power supply unit

DSP 120

NEW 2021

DISPLAY FOR CONFIGURATION ZBC 862

This is an external display that allows to configure the ZBC 862 controller via RJ11 port.
It is powered directly from the main controller.

DSP 120	Display for configuration ZBC 862

ESP 442

EXPANSION MODULE (UI - T° - DO)

NEW 2021

I/O expansion module capable of communicating with the YLC 740/880 control unit and that allows the plant structure expansion.

The module is provided with RS485 port that makes communication possible through the Modbus RTU 485 protocol. Power supply 12 Volt dc and 24 Volt ac.dc.

INPUT/OUTPUT

1-wire sensors	PT1000 (1) sensors	UI	DO	AO (0-10 V)
0	2*	4	4	0

ESP 442	Expansion module (UI - T° - DO)

(1) PT1000 sensors are passive elements that must be connected to the specific terminals of the ESP 442 module, NTC 10K and PT 1000 sensors can be connected (see wiring diagram)

ACCESSORIES	
SAB 002	Ambient temperature sensor PT 1000
STA 002	Air channel temperature sensor PT 1000
SAE 002	Outside temperature sensor PT 1000
SIH 002	Immersion temperature sensor PT 1000
STH 001	Immersion temperature sensor
STF 001	Flue gases temperature sensor
SAF 002	Cable type temperature sensor PT 1000
ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

ESU 402

EXPANSION MODULE (4 AO 0-10V)

NEW 2021

The ESU 402 is an expansion module with 4 analogue 0-10V outputs which can communicate with the YLC 880 control unit and the ZBC 862.
4 DIN modules device

The expansion module is provided with RS485 port that makes possible communication with the main controller through Modbus/RTU protocol.

Power supply 12Vdc and 24Vac .

AVAILABLE FROM JUNE 2021

INPUT/OUTPUT

ESU 402	Expansion module (4AO 0-10V)

ACCESSORIES	
ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

CST 800 SENSOR CONCENTRATOR

Expansion module of analogue inputs (temperature sensors T5 and PT1000) able to communicate with the YLC 780 and YLC 740 control units, which allows for the expansion of the system structure. The module has an RS485 port, which allows for communication via the Modbus RTU485 protocol and 8 sensor inputs.
Power supply 12 Volt

CST 800	Sensor concentrator
ACCESSORIES	
SAB 002	Ambient temperature sensor PT 1000
STA 002	Air channel temperature sensor PT 1000
SAE 002	Outside temperature sensor PT 1000
SIH 002	Immersion temperature sensor PT 1000
STH 001	Immersion temperature sensor
SAF 002	Cable type temperature sensor PT 1000
STF 001	Flue gases temperature sensor
ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

BRG 868C WIRELESS BRIDGE CONCENTRATOR

Modbus

Concentrator BRG 868 C is a device that allows you to create a radio connection between a Master and one or more BRG 868 (up to 32), also connected to field devices via bus RS485.
ANTENNA INCLUDED

BRG 868C	Wireless bridge concentrator
ACCESSORIES	
APA 500	5 metre long SMA antenna extension
ANT 868	Upgraded antenna for 868 concentrators

BRG 868 WIRELESS BRIDGE MODULE

Modbus

Bridge Module BRG 868 is a tool that allows you to create a radio connection between the Bridge Concentrator BRG 868C and one or more field devices.
ANTENNA INCLUDED.

BRG 868	Wireless bridge module
ACCESSORY	
APA 500	5 metre long SMA antenna extension

CSW 868 WIRELESS SENSOR CONCENTRATOR

The sensor concentrator CSW 868 is a device that allows you to create a radio connection between a Master and one or more radio sensors (up to 40).
It guarantees bi-directional communication with the radio sensors.
ANTENNA INCLUDED.

CSW 868	Wireless sensor concentrator

ACCESSORIES

APA 500	5 metre long SMA antenna extension
ANT 868	Upgraded antenna for 868 concentrators
THP 868	Radio temperature/humidity probe with data logger
STT 868H	Waterproof wireless sensor
STU 868H	Waterproof wireless humidity-temperature sensor

CONFIGURABLE

Y SERIE

index

WEBGARAGE

OPEN INTEGRATION

The distances between the plant and the office are eliminated.

The platform integrates the basic functionality of a **Building Automation System (BACS)** which supervises and controls **HVAC systems**, offers the additional benefits of a **Building Operating System (BOS)** to govern, display and give value to relevant data.
The technology on which it is developed uses tagging and data modeling to ensure functionality and potential still unexplored.

Communication between the Control Centre and the Peripheral Units is bidirectional and can use either a telephone SIM M2M or Ethernet connection.

WebGarage by Coster Group allows to collect, control and integrate data from different systems in order to optimise a building performance for its occupants in terms of comfort, productivity, energy efficiency and sustainability.

The platform allows to remotely supervise and manage the two generations of Coster Group controllers, X-series and Y-series.

For small plants and non web based applications it is always possible to use the Coster Office remote management software

COMFORT

Heating/cooling stations; substations; environments; comfort and energy saving with Zero-Km management.

AIR TREATMENT

Stand alone or integrated solutions for controlling air treatment units

MONITORING

For metering and acquiring all the buildings consumption data and their environmental parameters.

DOMESTIC HOT WATER

Efficient solutions for temperature controlled production and distribution.

Full adjustment, easily programmable, web-based plant supervision

For the automation, management and supervision of technological systems we offer a complete and integrated range of DDC

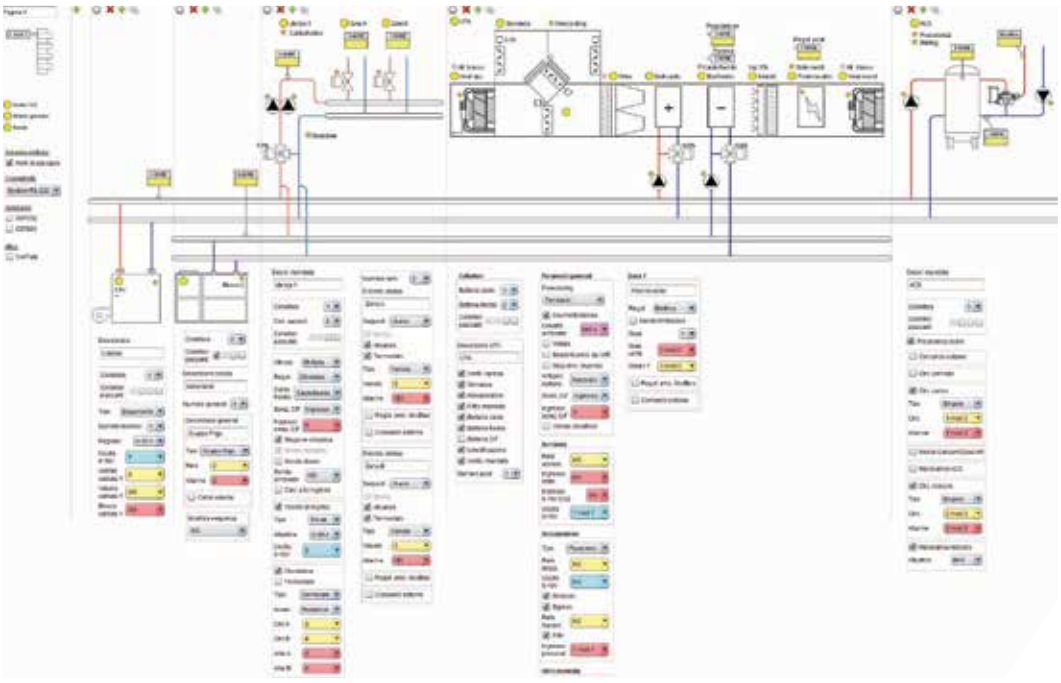
We supply complete remote control and telemanagement of plants to operators who use and perform maintenance on the systems by means of the latest generation connectivity.

Logic functions pre-engineered and configured by the customer

costercad

Each item selected from the menu is interpreted by the software as a tile of the control system. The file generated by CAD provides the device with the necessary information to control the plant, communicate with the outside, configure the user interface, recognize and send alarms.

The software also implements the terminal board wiring diagram for the controller according to the control logic of the function blocks selected from the menu.



Compose your system, assemble function blocks easily and immediately

YHC 700

MODBUS NETWORK-MANAGER

YHC 700 is an integral part of the platform for the adjustment and control of YLC Series plant control and monitoring systems.
It allows the data exchange between YLC 880 controllers and the alarm relay, allowing remote accessibility to the supervision system through MDM 232, GSM 232 or through Ethernet cable using MODBUS/TCP protocol.
It can be connected to CDP 180 and 120 devices for integration of M-BUS devices
It can work stand alone or in a network. 12V power supply in 6 DIN modules container

YHC 700	Modbus Network-Manager
YHC CWE	YHC Embedded version with 200 points license included (of which up to 40 points are historicized)

CAN BE COMBINED WITH:

YLC 880	Multi-configurable controller in a 8 module DIN box
MDM 232	Modem GSM / GPRS modem
RUT 002	4G router with Wireless/Ethernet port

YLC 880

MULTI-CONFIGURABLE CONTROLLER IN A 8-MODULE DIN BOX

YLC 880 is a multi-configurable controller for heating, cooling, domestic hot water production, air treatment and automation in BMS applications. 12 VDC power supply required.
Programming is implemented using COSTER CAD software and is imported into the control unit through an SD card.
It's possible to equip YLC systems with touch screen user interfaces with customizable graphics.

INPUT/OUTPUT

1-wire sensor [1]	(UI (digital/ analogue)	DO	AO (0-10 V)	Serial port
16	8	8	2	RS232 e RS485 (Modbus RTU)

(*) The control unit requires the PEC 442 and CST 800 expansion modules to read Pt 1000 sensors. YLC 780 is not fitted with inputs dedicated to this type of sensor.

YLC 880	Multi-configurable controller

ACCESSORIES

YHC 700	Network manager Modbus
MDM 232	Modem GSM/3G
CST 800	Sensor concentrator
PEU 002	Expansion module 0-10V
ESP 442	Expansion module (UI - T° - DO)
SDC 020	SD card
SAV 210	Temperature/humidity room sensor 2 x 0-10V YLC only
STA 001W	Air duct temperature sensor 1W
SAE 420	Outside digital sensor modulation in 4-20 mA current
SCH 001W	Temperature sensor in contact 1W
SIH 001W	Immersion temperature sensor 1W
SAF 001W	Cable type temperature sensor 1W
ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

YLC 780

196 X 44 MM MULTI-CONFIGURABLE FRONT PANEL CONTROLLER

YLC 780 is a multi-configurable controller for heating, cooling, domestic hot water production air treatment and automation in BMS applications. It requires a 12 vdc power supply.
THE APPLICATIONS GENERATED BY COSTERCAD ARE IMPORTED VIA THE SD CARD

INPUT/OUTPUT

1-wire sensor [1]	(UI (digital/ analogue)	DO	AO (0-10 V)	Serial port
16	8	8	2	RS232 and RS485 RTU

YLC 780	Multi-configurable controller

ACCESSORIES

YHC 700	Network manager modbus
MDM 232	GSM/3G modem
CST 800	Sensor concentrator
PEU 002	Expansion module 0-10V
PEC 442	Expansion module (DI - T° - DO)
ESP 442	Expansion module (UI - T° - DO)
STE 000	RS 232 - ETHERNET converter
SDC 020	SD card
SAB 002	Room temperature sensor PT 1000
SAV 210	Temperature/humidity room sensor 2 x 0-10V YLC only
STA 001W	Air duct temperature sensor 1W
STA 002	Air duct temperature sensor PT 1000
SAE 420	Outside digital sensor modulation in 4-20 mA current
SAE 002	Outside temperature sensor PT 1000
SCH 002	Temperature sensor in contact PT 1000
SCH 001W	Temperature sensor in contact 1W
SIH 001W	Immersion temperature sensor 1W
SIH 002	Immersion temperature sensor PT 1000
SAF 001W	Cable type temperature sensor 1W
SAF 002	Cable type temperature sensor PT 1000
ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

(*) The control unit requires the PEC 442 expansion modules to read the Pt 1000 sensors.
YLC 780 is not fitted with inputs dedicated to this type of sensor.

(1) 1-wire sensors (SIH 001W – SAB001W – STA 001W) are polarised and can be connected on a 2-wire Bus.
For further details, refer to the technical sheet regarding 1-wire sensors

CST 800 SENSOR CONCENTRATOR

Expansion module of analogue inputs (temperature sensors T5 and PT1000) able to communicate with the YLC 780 and YLC 740 control units, which allows for the expansion of the system structure. The module has an RS485 port, which allows for communication via the Modbus RTU485 protocol and 8 sensor inputs.
Power supply 12 Volt

CST 800	Sensor concentrator

ACCESSORIES

SAB 002	Ambient temperature sensor PT 1000
STA 002	Air channel temperature sensor PT 1000
SAE 002	Outside temperature sensor PT 1000
SIH 002	Immersion temperature sensor PT 1000
STH 001	Immersion temperature sensor
SAF 002	Cable type temperature sensor PT 1000
STF 001	Flue gases temperature sensor
ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

ESP 442 EXPANSION MODULE (UI - T° - DO)

NEW 2021

I/O expansion module capable of communicating with the YLC 740/880 control unit and that allows the plant structure expansion.
The module is provided with RS485 port that makes communication possible through the Modbus RTU 485 protocol.
Power supply 12 Volt dc and 24 Volt ac.

INPUT/OUTPUT

1-wire sensors	PT1000 sensors (1)	UI	DO	AO (0-10 V)
0	2*	4	4	0

ESP 442	Expansion module (UI - T° - DO)

ACCESSORIES

SAB 002	Ambient temperature sensor PT 1000
STA 002	Air channel temperature sensor PT 1000
SAE 002	Outside temperature sensor PT 1000
SIH 002	Immersion temperature sensor PT 1000
STH 001	Immersion temperature sensor
SAF 002	Cable type temperature sensor PT 1000
STF 001	Flue gases temperature sensor
ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

(1) PT1000 sensors (SIH 002 – SAB 002 – SAE 002 – STA 002 are passive elements that must be connected to specific terminals of module PEC 442 (refer to the wiring diagram)

PEC 442

EXPANSION MODULE (DI - T5 - DO)

PEC 442 is an I/O expansion module that can communicate with the YLC 880 control unit, which allows for the expansion of the system structure.
The module has an RS485 port, which allows for communication via the Modbus RTU485 protocol
Power supply 12 V.

INPUT/OUTPUT

1-wire sensors (1)	PT1000 sensors (2)	DI	DO	AO (0-10 V)
0	2*	4	4	0

(*) If there are two types of sensors, two different expansion modules must be used

(1) 1-wire sensors (SIH001W STA 001W) are polarised and can be connected on a 2-wire Bus. For further details, refer to the technical sheet regarding 1-wire sensors

(2) PT1000 sensors (SIH 002 – SAB 002 – SAE 002 – STA 002 are passive elements that must be connected to specific terminals of module PEC 442 (refer to the wiring diagram)

PEC 442	Expansion module (DI - T5 - DO)

ACCESSORIES

SAB 002	Ambient temperature sensor PT 1000
STA 002	Air channel temperature sensor PT 1000
SAE 002	Outside temperature sensor PT 1000
SIH 002	Immersion temperature sensor PT 1000
STH 001	Immersion temperature sensor
STF 001	Flue gases temperature sensor
ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

ESU 402

EXPANSION MODULE (4 AO 0-10V)

NEW 2021

The ESU 402 is an expansion module with 4 analogue 0-10V outputs which can communicate with the YLC 880 control unit and the ZBC 862.
4 DIN modules device
The expansion module is provided with RS485 port that makes possible communication with the main controller through Modbus/RTU protocol.
Power supply 12Vdc and 24Vac .

AVAILABLE FROM JUNE 2021

ESU 402	Expansion Module (AO 0-10V)

ACCESSORIES

ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

PEU 002

EXPANSION MODULE (AO 0-10V)

PEU 002 is an expansion module with analogue outputs 0 – 10V, able to communicate with the YLC 880 and control unit, which allows for the expansion of the system structure.
The module has an RS485 port, which allows for communication via the Modbus RTU485 protocol.
Power supply 12 V.

INPUT/OUTPUT

1-wire sensors [1]	PT1000 sensors [2]	DI	DO	AO (0-10 V)
0	0	0	0	2

PEU 002	Expansion module (AO 0-10V)

ACCESSORIES

ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

GPC 642

COMPACT CONTROLLER

NEW 2021

GPC 642 is a compact controller with preloaded applications.
6-module DIN device, with built-in 4G communication engine.
Equipped with RS485 and M-Bus port for integration of devices with Modbus protocol and IEF276 heat integrators respectively.
Control and telemanagement with Climaoffice and WebGarage.
12Vdc and 24Vac power supply.

AVAILABLE FROM JULY 2021

INPUT/OUTPUT

UI (0-10Vdc, DI, resistive temperature sensors)	DO	AO (0-10 V)	Porta RS 485 RTU, 3RD PARTS	Porta M-Bus
6	4	1	1	1

GPC 642	Compact controller

ACCESSORIES

SAB 002	Ambient temperature sensor PT 1000
STA 002	Air channel temperature sensor PT 1000
SAE 002	Outside temperature sensor PT 1000
SIH 002	Immersion temperature sensor PT 1000
STH 001	Immersion temperature sensor
STF 001	Flue gases temperature sensor
ALM 1210	DIN 12V-10W bar power supply unit

ACCESSORIES (CABLES) GENERIC FOR ELECTRICAL CONNECTIONS

USB 485	Necessary to configure wireless devices
USB 232	Necessary to interface with the YLC control units

BRG 868C

WIRELESS BRIDGE CONCENTRATOR

Concentrator BRG 868 C is a device that allows you to create a radio connection between a Master and one or more BRG 868 (up to 32), also connected to field devices via bus RS485.
ANTENNA INCLUDED.

BRG 868C	Wireless bridge concentrator

ACCESSORY

APA 500	5 metre long SMA antenna extension
ANT 868	Upgraded antenna for 868 concentrators

BRG 868

WIRELESS BRIDGE MODULE

Bridge Module BRG 868 is a tool that allows you to create a radio connection between the Bridge Concentrator BRG 868C and one or more field devices.
ANTENNA INCLUDED.

BRG 868	Wireless bridge module

ACCESSORY

APA 500	5 metre long SMA antenna extension

CSW 868

WIRELESS SENSOR CONCENTRATOR

The sensor concentrator CSW 868 is a device that allows you to create a radio connection between a Master and one or more radio sensors (up to 40).
It guarantees bi-directional communication with the radio sensors.
ANTENNA INCLUDED.

CSW 868	Wireless sensor concentrator

ACCESSORIES

APA 500	5 metre long SMA antenna extension
ANT 868	Upgraded antenna for 868 concentrators
THP 868	Radio temperature/humidity probe with data logger
STT 868H	Waterproof wireless sensor
STU 868H	Waterproof wireless humidity-temperature sensor

JOY ...

CONTROLLER/ROOM TERMINAL

Room terminal for various types of use with universal power supply 85...260V AC, wall mounting in box 503.
The module has an RS485 port, which allows for communication via the Modbus RTU 485 protocol.

JOY 879W	Hot/cold room terminal for 6-way valves, ModBus RS485 port, white two relay outputs, one 0-10V d.c. output
JOY 771W	Hot/cold room terminal for fan coils with 2-way valves, ModBus RS485 port, 5 relay outputs, white
JOY 363W	Hot/cold room terminal for fan coils with 2-way valves, EC 0-10Vdc fan, ModBus RS485 port white

Black version available on request

WRF ...

CONTROLLER/ROOM TERMINAL

Measures the ambient temperature
The module has an RS485 port, which allows for communication via the Modbus RTU 485 protocol.

WEBGARAGE

WRF 679	Room thermostat 2 inputs, 1 relay output, 1 0-10V output, RS485 modbus,
WRF 020	Room thermostat 2 inputs, 2 0-10V outputs, RS485 modbus, LCD
WRF 266	Room thermostat 2 inputs, 2 output relay, RS485 modbus
WRF 327	Room thermostat 2 inputs, 2 outputs relay, RS485 modbus, LCD
WRF 891	Room thermostat 2 inputs, 1 output relay, 1 0-10V output, RS485 modbus, LCD
WRF 956	Room thermostat 2 inputs, 2 outputs 0-10V, RS485 modbus

Q-...-.

ELECTRICAL PANELS BUILDING CONTROLS SYSTEM

Electrical panels created specifically for Building Controls systems complete with equipment of regulation.
For other compositions please contact your local agency.

WEBGARAGE

PANELS with YLC 880

	Interr. 230V	ALM 1210	ALM 1225	GSM 232	GPT 412	YLC 880	CST 800	PEC 442	PEU 002	PANEL		Composition of possible accessories A = GSP 232 B = BRG 868C C = CSW 868 D = CST 800								
Q880	1		1	1		1	1			2 X 12		A	B	C				BC		
Q881	1		1	1		1	1		1	2 X 18										
Q882	1		1	1		1	1	1	1	3 X 18		A	B	C	D	AB	AC	BC	BD	CD
Q883	1		1	1		1	1	1	2	3 X 18		A	B	C	D	AB	AC	BC	BD	CD
Q884	1		1	1		1	1	2	2	3 X 18										
Q885	1		1	1		1	1	2	3	4 X 18		A	B	C	D	AB	AC	BC	BD	CD
Q886	1		1	1		1	1	3	3	4 X 18										
Q887	1		1	1		1	1	4	1	4 X 18			B	C				BC		
Q888	1		1	1			1	5		4 X 18			B	C						

Electrical panels cannot be supplied without equipment

ACCESSORIES	CODE	Number of DIN modules	Extra cost	Extra component code
M-BUS/MODBUS CONVERTER	GSP 232	3		**A**
BRIDGE CONCENTRATOR	BRG 868C	1		**B**
WIRELESS SENSOR RECEIVER	CSW 868	1		**C**
PT1000 SENSOR INTERFACE No. 1pz	CST 800	3		**D**

NOTE: The composition of the panels with accessories is obtained by adding the cost of the extra component to the cost of the single panel. In some cases of complexity, the sizes of the panel will be moved to the next model, compared to the standard model reported in this table. The code of the panel is obtained by placing the letters of the extra component next to the standard code (E.g.: Q741BC includes a solution with YLC740+ALM+1xPEC442/PEU002+BRG 868C+CSW868+1xCST800).

QHC.-QWG. ELECTRICAL PANELS BUILDING CONTROLS SYSTEMS

Electrical panels created specifically for Building Controls systems complete with control equipment.

WEBGARAGE Main component YHC 700 multi-configurable controller.

For other compositions contact your local retailer.

PANELS with YHC 700

	Switch 230 V	ALM 1210	ALM 1225	YHC 700	GPT 412	YLC 880	CST 800	PEC 442	PEU 002	QUADRO		DIN AVAILABLE FOR ACCESSORIES
QHC0	1			1		1				3 X 18		7
QHC1	1		1	1		1	1		1	3 X 18		7
QHC2	1		1	1		1	1	1	1	3 X 18		7
QHC3	1		1	1		1	1	1	2	3 X 18		6
QHC4	1		1	1		1	1	2	2	4 X 18		2
QHC5	1		1	1		1	1	3		4 X 18		4
QHC6	1		1	1		1	1	3	1	4 X 18		1

Electrical panels cannot be supplied without equipments

PANELS with YHC CWE and Web Garage

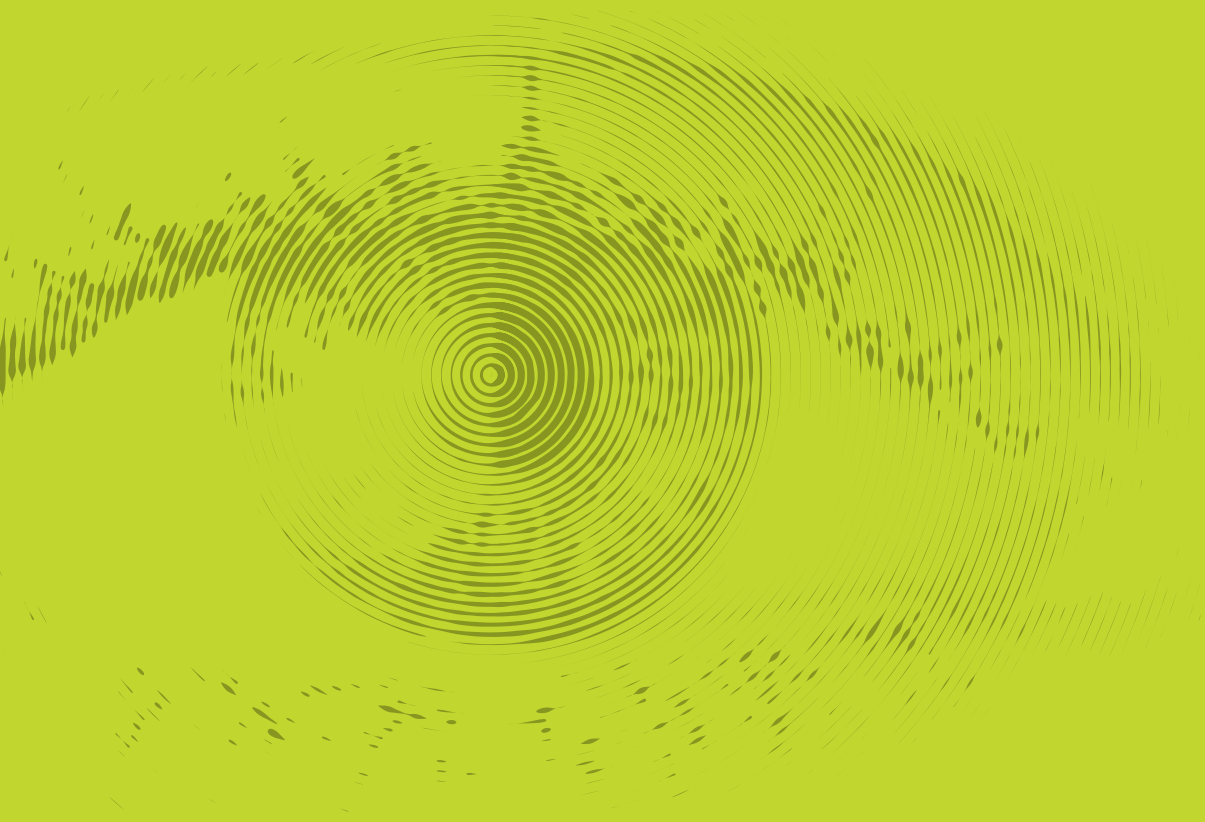
	Switch 230 V	ALM 1210	ALM 1225	YHC CWE	GPT 412	YLC 880	CST 800	PEC 442	PEU 002	QUADRO		DIN AVAILABLE FOR ACCESSORIES
QWG0	1		1	1		1	1			3 X 18		7
QWG1	1		1	1		1	1		1	3 X 18		7
QWG2	1		1	1		1	1	1	1	3 X 18		7
QWG3	1		1	1		1	1	1	2	3 X 18		6
QWG4	1		1	1		1	1	2	2	4 X 18		2
QWG5	1		1	1		1	1	3		4 X 18		4
QWG6	1		1	1		1	1	3	1	4 X 18		1

ACCESSORIES ACCORDING TO AVAILABLE DIN IN THE PANEL (see table above)	Code	Accessory code	Number of DIN modules	Extra price
MODEM	MDM 232	A	1	
M-BUS/MODBUS CONVERTER	CDP 120	B	1	
M-BUS/MODBUS CONVERTER	CDP 180	C	1	
BRIDGE CONCENTRATOR	BRG 868C	D	1	
WIRELESS SENSOR RECEIVER	CSW 868	E	1	
PT1000 SENSOR INTERFACE No. 1pz	CST 800	F	3	

Electrical panels cannot be supplied without equipments

NOTE: The composition of the panels with accessories is obtained by adding the cost of the extra component to the cost of the single panel. In some cases of particular complexity, the dimensions of the panel will change to the next model, compared to the standard one shown in this table. The code of the panel is obtained by putting the letters of the extra component next to the
standard code (E.g.: QHC0DEF provides a solution with YLC880+ALM+BRG 868C+CSW868+1xCST800).

MONITORING SYSTEM



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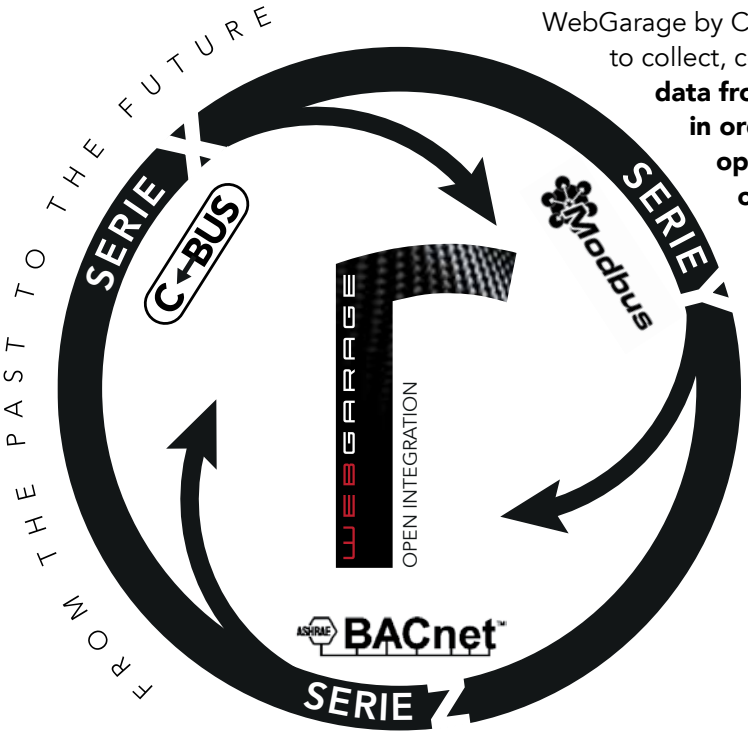
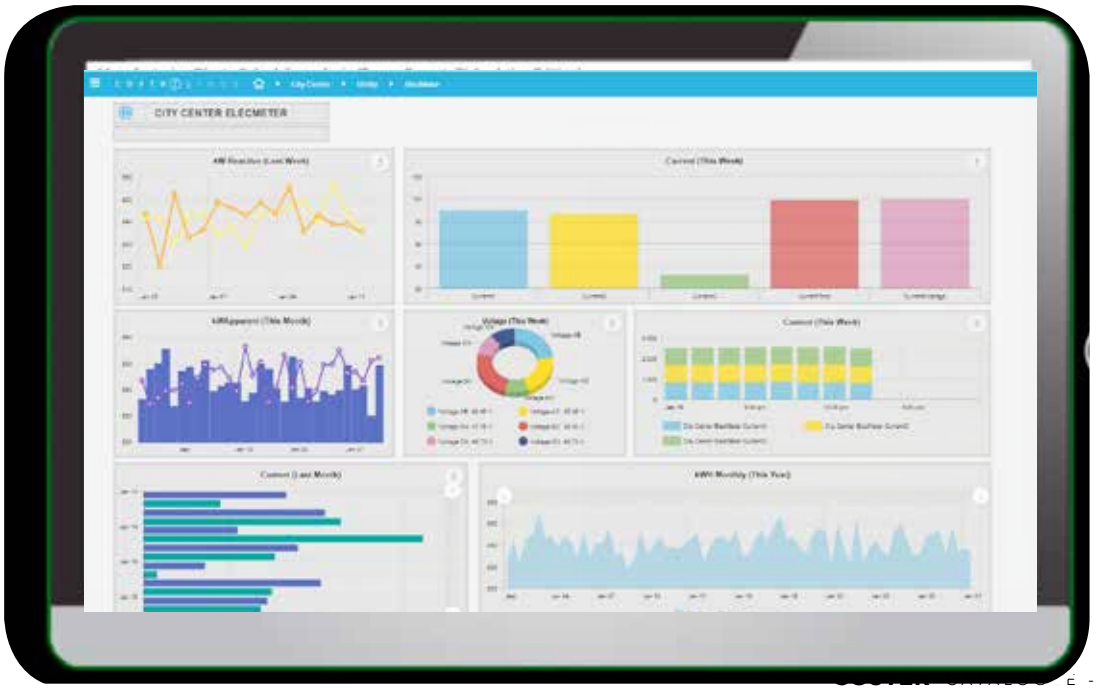
Monitoring energy for conscious and efficient use



WebGarage by Coster Group allows to collect, control and **integrate data from different systems in order to measure and optimize the performance of a building** in terms of comfort, productivity and energy efficiency and sustainability.

Webgarage is the ideal platform for monitoring consumption and environmental parameters but also for controlling technical plants.
Monitoring and adjustment in one integrated system.



OPEN INTEGRATION

WEBGARAGE

Systems dedicated to consumption metering in the industrial, tertiary and management sectors.

In addition to metering the main consumptions of a building (electricity, water, heat energy and fuel) our systems are able to acquire measurements of all kinds.

Data logging on TSDB (Time Series Data Base) that allows quick query and data export.

Query of the equipment through dashboard and customizable diagrams

Advanced system access management with display and action rights attributable to each user

YHC 700

NETWORK-MANAGER MODBUS

WEBGARAGE

Modbus

YHC 700 is an integral part of the platform for the adjustment and control of YLC Series plant control and monitoring systems.
It allows the data exchange between YLC 880 controllers and the alarm relay, allowing remote accessibility to the supervision system through MDM 232, GSM 232 or through Ethernet cable using MODBUS/TCP protocol.
It can be connected to CDP 180 and 120 devices for integration of M-BUS devices
It can work stand alone or in a network. 12V power supply in 6 DIN modules container

YHC 700	Network-Manager Modbus
YHC CWE	YHC Embedded version with 200 points license included (of which up to 40 points are historicized)

CAN BE COMBINED WITH:

YLC 780	Multi-configurable controller in a 8 module DIN box (only using GTW 232485)
YLC 880	Multi-configurable controller in a 8 module DIN box
MDM 232	GSM / GPRS modem
RUT 002	4G router with Wireless/Ethernet port

MNT 485

GATEWAY MONITORING 3G

Modbus

It is a device that interrogates field elements, CSW 868 and BRG 868C radio receivers, collects the data and transfers it to the monitoring system via SIM CARD M2M with connectivity up to 3 G. ANTENNA INCLUDED.

MNT 485	Gateway monitoring 3G

ACCESSORIES

APA 500	Antenna extension SMA length 5 meters
ANT 500D	4G directional antenna

ESP 442

EXPANSION MODULE (UI - T° - DO)

NEW 2021

Modbus

I/O expansion module capable of communicating with the YLC 740/880 control unit and that allows the plant structure expansion.
The module is provided with RS485 port that makes communication possible through the Modbus RTU 485 protocol.
Power supply 12 Volt DC and 24 Volt AC/DC.

INPUT/OUTPUT

1-wire sensor	PT1000 sensors (1)	UI	DO	AO (0-10 V)
0	2*	4	4	0

ESP 442	Expansion module (UI - T° - DO)

ACCESSORIIES

SAB 002	Room temperature sensor PT 1000
STA 002	Air duct temperature sensor PT 1000
SAE 002	Outside temperature sensor PT 1000
SIH 002	SImmersion temperature sensor PT 1000
STH 001	Immersion temperature sensor
SAF 002	Cable type temperature sensor PT 1000
STF 001	Flue gases temperature sensor
ALM 1210	DIN 12V-10W bar power supply unit
ALM 1225	DIN 12V-25W bar power supply unit

(1) PT1000 sensors are passive elements that must be connected to specific terminals of module ESP 442 (refer to the wiring diagram)

BRG 868 WIRELESS BRIDGE MODULE

Bridge Module BRG 868 is a tool that allows you to create a radio connection between the Bridge Concentrator BRG 868C and one or more field devices.

ANTENNA INCLUDED.

BRG 868	Wireless bridge module

ACCESSORY

APA 500	5 metre long SMA antenna extension

BRG 868C WIRELESS BRIDGE CONCENTRATOR

Concentrator BRG 868 C is a device that allows you to create a radio connection between a Master and one or more BRG 868 (up to 32), also connected to field devices via bus RS485.

ANTENNA INCLUDED.

BRG 868C	Wireless bridge concentrator

ACCESSORIES

APA 500	5 metre long SMA antenna extension
ANT 868	Upgraded antenna for 868 concentrators

CSW 868 WIRELESS SENSOR CONCENTRATOR

The sensor concentrator CSW 868 is a tool that allows you to create a radio connection between a Master and one or more radio sensors (up to 40).
It guarantees bi-directional communication with the radio sensors.

Can only be combined with the Y... series

Power supply 12 V.

ANTENNA INCLUDED.

CSW 868	Wireless sensor concentrator

ACCESSORY

APA 500	5 metre long SMA antenna extension
ANT 868	Upgraded antenna for 868 concentrators
THP 868	Radio temperature/humidity probe with data logger
STT 868H	Waterproof wireless sensor
STU 868H	Waterproof wireless humidity-temperature sensor

THP 868 WIRELESS TEMPERATURE/HUMIDITY SENSOR

It acquires and transmits via radio the temperature/humidity values to the CSW 868 reciever.
Used in both control and monitoring applications.

THP 868	THP 868 Wireless temperature/humidity sensor with data logger

STT-STU..H WATERTIGHT WIRELESS SENSORS

Watertight temperature sensors in a 105 x 105 x 55 mm box.
Can be combined with the X .. and Y ... series (with SWB 912)

STT 868H	Watertight wireless sensor
STU 868H	Watertight wireless temperature/humidity sensor

GSP 485 RS 485 CONVERTER

Module GSP 485 is a device used to read meters with pulse output.
The device, with three DIN modules, allows the user to query the instruments connected to it, using the RS485 interface.

GSP 485	Converter with RS485 interface

ACCESSORIES

ACB 232/S1	RS 232/C-Bus conversion cable powered by COSTER equipment with auxiliary 12 V– power supply
PCB 332	Medium power C-Bus converter and amplifier

CDP ... MBUS/MODBUS CONVERTER

MBus/ModBus protocol converter for thermal energy counter data acquisition.

CDP 120	MBus / ModBus converter 2 devices
CDP 180	MBus / ModBus converter 8 devices

ADF 485 MODBUS TCP SLAVE/MODBUS MASTER CONVERTER

ModBus RTU to ModBus TCP level converter.

ADF 485	ModBus TCP Slave / ModBus Master converter

EQL ...

M-BUS LEVEL CONVERTER

To manage 60 or 250 devices. Data reading from M-Bus counters.

EQL O60	M-Bus converter to manage up to 60 devices on the same M-Bus line. Power supply unit included
EQL 250	M-Bus converter to manage up to 250 devices on the same M-Bus line. Power supply unit included

IEF 276

ELECTRONIC HOT/COLD ENERGY INTEGRATORS

M←BUS

They meter the thermal and cooling energy. With two additional inputs

ESSENTIAL ACCESSORIES AND SENSOR: 1 pair of sensors + 1 immersion kit, or 1 pair of, sensors + 1 pair of sockets, or 1 pair of sensors + 1 kit for direct immersion
The sensors and accessories comply with MID 2004/22/EC directives

IEF 276	Electronic cold-hot energy integrator

ACCESSORIES

SPT 106	Pair of sensors with 10 m cable with 6 mm diameter
SPT 006	Pair of sensors with 3 m cable with 6 mm diameter
GIS 062	Pair of brass sockets for sensors (1/4") 62 + 18 mm
GIS 112	Pair of brass sockets for sensors (1/4") 112 + 18 mm
CMC 328	M-Bus - C-Bus Converter
3 IMP	3 additional pulse inputs

MHF ...

COMPACT MECHANICAL THERMAL ENERGY METERS (3...90°C)

M←BUS

Suitable for measuring thermal energy in heating systems.
They can be installed either on the delivery or on the return.
Energy meters with:
- Data transmission via M-Bus via cable
- hot/cold

Prices and further details in the METERING section

UHF ...

COMPACT ULTRASONIC THERMAL ENERGY METERS (3...90°C)

M←BUS

Suitable for measuring thermal energy in heating systems.
They can be installed either on the delivery or on the return.
Energy meters with:
- hot/cold
- Data transmission via M-Bus via cable

Prices and further details in the METERING section

KMHG - F

ULTRASONIC VOLUMETRIC METERS (20...130°C) WITH ELECTRONIC PULSE TRANSMITTER FOR CIRCULATION WATER IN HEATING SYSTEMS

Ultrasonic volumetric meters to measure the circulation water in heating systems, which can be installed on the delivery or return.
Output with electronic pulse transmitter compatible with IET 7 ..., IEF ... and IEW ... thermal energy integrators

Prices and further details in the METERING section

MFD 4.. ELECTRICAL NETWORK ANALYSER

MFD 448	Multifunction network analyser. Possibility of direct AT connection with secondary 1-5A Power supply 80...265V CA 100...300VCC Modbus RS485 communication protocol
MFD 438	Multifunction network analyser. Power supply 80...265V CA 100...300VCC Bacnet MS/TP communication protocol
MFD 548	Network analysers are available Possibility of direct AT connection with secondary 1-5A Power supply 80...265V CA 100...300VCC Modbus RS485 communication protocol **MID aproval model**

OPTIONAL FEATURES

Other available versions: MID-certified

NEWS'

Network analysers are available for reading electrical data in conjunction with control systems with YLC control units

AMPEROMETRIC TRANSFORMER ACCESSORIES

	Amperometric transformer type	Window dimensions	Primary current/secondary current
TBM 061 ÷ TBM 401	openable	20x30 mm	from 60/1A to 400/1A
TBM 065 ÷ TBM 405	openable	20x30 mm	from 60/5A to 400/5A
TAN 051 ÷ TAN 601	pass-through	32.5x10,5 mm	from 50/1A to 600/1A
TAN 055 ÷ TAN 605	pass-through	32.5x10,5 mm	from 50/5A to 600/5A
TAO 101 ÷ TAO 1001	pass-through	40.5x10,5 mm	from 100/1A to 1000/1A
TAO 105 ÷ TAO 1005	pass-through	40.5x10,5 mm	from 100/5A to 1000/5A

Other windows on request::

- pass-through 16 x 12.5 mm up to 200A,
- pass-through 50,5 x 12,5 mm up to1200A
- openable 50 x 80 mm up to 1000A
- openable 80 x 120 mm up to 1500A
- openable 80 x 160 mm up to 5000A

Available on request also with a Rogowski amperometric transformers

Transcoding

Txy jkh where:
x = A if secondary is pass-through, B if secondary is openable
y = M if window is 20x30mm, N if window is 32.5x10.5, O if window is 40.5x10.5, P if window is 16x12.5mm, Q if window 50.5x12.5, R if window is 50x80mm, S if window is 80x120mm, T if window is 80x160mm)
jk = primary current/10, e.g.: 60A=06, 500A=50
h = 1 if secondary is 1A, 5 if secondary is 5A

Example: TAO 101 = Pass-through amperometric transformer
Window dimensions 40.5x10.5 mm
Primary current/secondary current: from 100/1A.

SPF 000 PRESSURE TRANSDUCER FOR HCFC REFRIGERANT GAS

The pressure sensors have been developed to be applied in the refrigeration and air conditioning sectors.

SPF 000	Pressure transducer (0...10V)

SPW 2.. PRESSURE TRANSMITTER FOR LIQUIDS

Power supply 24 Volt AC/DC.
Output signal: 0 - 10 V–

SPW 204	Pressure transmitter for liquids (0...4 bar)
SPW 210	Pressure transmitter for liquids (0...10 bar)
SPW 216	Pressure transmitter for liquids (0...16 bar)

SDW 2.. DIFFERENTIAL PRESSURE TRANSMITTER FOR LIQUIDS

Power supply 24 Volt AC/DC.
Output signal: 0 - 10 V–

SDW 201	Differential pressure transmitter for liquids (0...1 bar)
SDW 202	Differential pressure transmitter for liquids (0...2,5 bar)
SDW 206	Differential pressure transmitter for liquids (0...6 bar)

SDA 700 DIFFERENTIAL PRESSURE TRANSDUCER

Differential pressure transducer with 8 measurement fields that can be selected and an adjustable output signal (0...10 V or 4...20mA) or Modbus.

Power supply : 15...24 V = (± 10%); 24 Volt AC (± 10%)

SDA 700	Differential pressure transducer (0...26 mbar adjustable)

Q-MONIT.. ELECTRICAL MONITORING PANELS

Electrical panels specially designed for monitoring systems.
Contact our offices for more information

HEATING

index

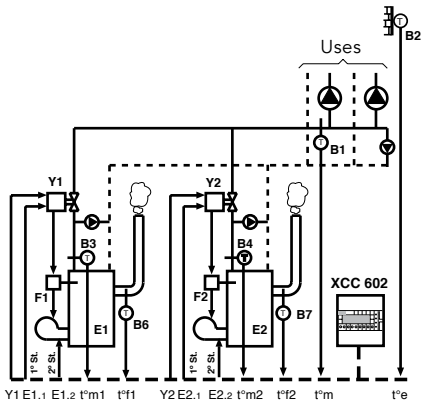
XCC 602

SEQUENCE CONTROLLER OF 2 BOILERS

Cascade control of 2 single or two-stage boilers with or without shut-off valves.

ESSENTIAL SENSORS — 1 collector temperature sensor or 2 boiler sensors,

OPTIONAL SENSOR — 1 external sensor
1 flue gases temperaure sensor



OPTIONAL
C-BUS
C-RING

XCC 602	Sequence controller of 2 boilers

ACCESSORIES

ACB 400	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SAF 010	Cable-type temperayture sensor (0...99 °C)
STF 001	Flue gases temperature sensor (0...500 °C)
SCH 010	Surface temperature sensor (0...99 °C)

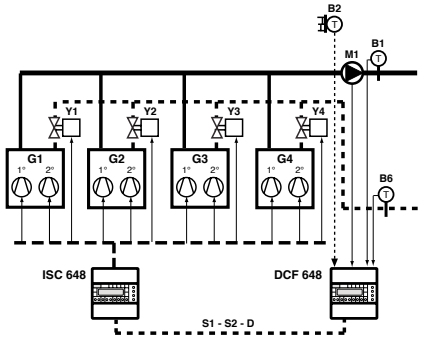
DTC 648

CLIMATE CONTROLLER FOR BOILERS IN SEQUENCE (UP TO 24 BOILERS)

RELAY CONTROL MODULE

Cascade control of several single/two-stage boilers with or without shut-off valves, consisting of:
- 1 climate controller to control cascade boilers;
- 1...3 relay control modules for single/two-stage boilers and shut-off valves.

ESSENTIAL SENSORS — 1 heating flow or collector sensor
OPTIONAL SENSOR — 1 outside sensor, 1 boiler sensor



OPTIONAL
C-BUS
C-RING

ISC 648

DTC 648	Climate controller for boilers in sequence
ISC 648	Relay control module

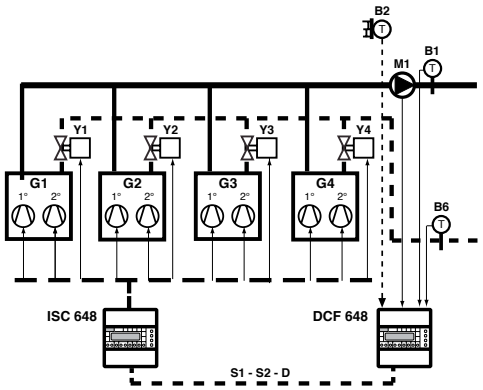
ACCESSORIES

SIH 010	Immersion temperature sensor (0...99°C)
STH 001	Immersion high temperature sensor (0...300°C)
SAE 001	Outside temperature sensor (-40...40 °C)
ASA 420	Accessory to connect 4...20 mA DC active sensors

equipment	boilers with 1-stage burner valves	boilers without 1-stage burner valves	boilers with 2-stage burner valves	boilers without 2-stage burner valves
1 DTC 648 + 1 ISC 648	up to 4	up to 8	up to 4	up to 4
1 DTC 648 + 2 ISC 648	up to 8	up to 16	up to 8	up to 8
1 DTC 648 + 3 ISC 648	up to 12	up to 24	up to 12	up to 12

DCF 648

CLIMATE CONTROLLER FOR CHILLER UNITS OR HEAT PUMPS SEQUENCE



ISC 648

RELAY CONTROL MODULE

Cascade control of chiller units and heat pumps with or without shut-off valves, consisting of:
- 1 climate controller for cascade control;
- 1...3 relay control modules for single/two-stage units and shut-off valves.

ESSENTIAL SENSORS 1 system flow or collector sensor

OPTIONAL SENSORS 1 outside sensor, 1 generic sensor

C◄BUS
C◄RING

DCF 648	Climate controller for chiller units or heat pumps sequence
ISC 648	Relay control module

ACCESSORIES

SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SIH 010	Immersion temperature sensor (0...99°C view-only)
SAF 001	Immersion temperature sensor (–40...+40 °C)
ASA 420	Accessory to connect 4...20 mA DC active sensors

equipment	generators with 1-stage valves	generators without 1-stage valves	generators with 2-stage valves	generators without 2-stage valves
1 DCF 648 + 1 ISC 648	up to 4	up to 8	up to 4	up to 4
1 DCF 648 + 2 ISC 648	up to 8	up to 16	up to 8	up to 8
1 DCF 648 + 3 ISC 648	up to 12	up to 24	up to 12	up to 12

XTC 638

WEBGARAGE

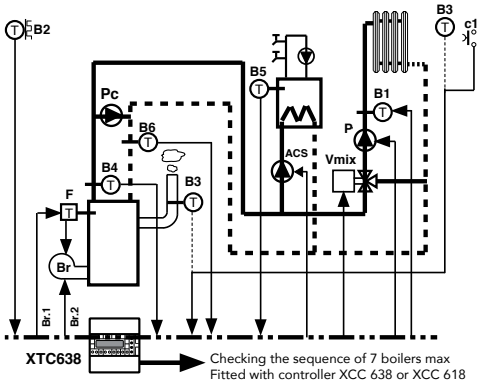
OPTIONAL
C-BUS
C-RING

CENTRAL CLIMATIC OPTIMISER FOR ANY TYPE OF BURNER, COMPLETE WITH A SEQUENCE FOR MULTIPLE BOILERS

Suitable for adjusting the temperature of any type of burner.

Control the sequence up to a maximum of 7 boilers, all equipped with an XCC 638 or XCC 618 controller.

ESSENTIAL AND OPTIONAL SENSORS
Examine the technical data sheet for the type of system



Checking the sequence of 7 boilers max
Fitted with controller XCC 638 or XCC 618

XTC 638	Control panel optimiser with sequence control

ACCESSORIES

ACB 460	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SAF 010	Cable-type temperayture sensor (0...99 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SAB 010	Room temperature sensor (0...40 °C)
SCH 010	Surface temperature sensor (0...99 °C)
STF 001	Flue gases temperature sensor (0...500 °C)

XCC 618

WEBGARAGE

OPTIONAL
C-BUS
C-RING

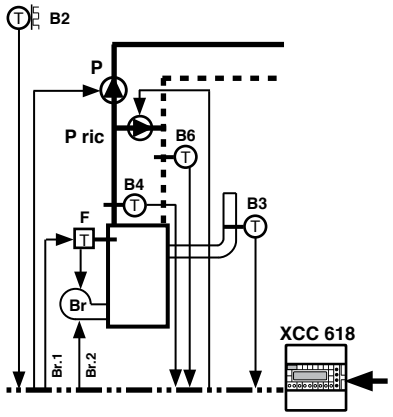
CONTROLLER FOR BURNERS 1, 2-STAGE, 3-POINT MODULATING OR WITH 0...10 V DC INPUTC

Suitable for full control of the burner for a condensing or non condensing boiler.

Under the control of XTC 638, it can set the boiler in sequence with others (up to 7).

ESSENTIAL SENSOR 1 boiler sensor

OPTIONAL SENSORS 1 anti-condensation sensor, 1 Flue gases, 1 outside



Sequence control from XTC 638 controller

XCC 618	Boiler controller that can be controlled in sequence

ACCESSORIES

ACB 400	Plug-in for communication via C-Bus
SAE 001	External temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SAF 010	Cable-type temperayture sensor (0...99 °C)
SCH 010	Temperature sensor in contact (0...99 °C)
STF 001	Flue gases temperature sensor (0...500 °C)

XCC 638

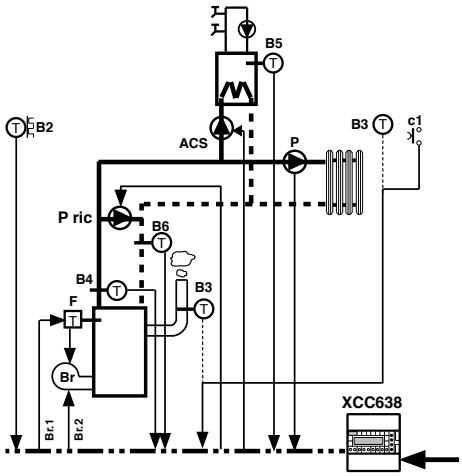
CLIMATE OPTIMISER FOR BURNERS 1, 2-STAGE, 3-POINT MODULATING OR WITH 0...10 V DC INPUT

OPTIONAL
C◄BUS
C◄RING

Suitable for full control of the burner for a condensing or non condensing boiler.

Under the control of XTC 638, it can set the boiler in sequence with others (up to 7).

ESSENTIAL SENSORS	1 boiler sensor 1 external sensor
OPTIONAL SENSORS	1 anti-condensation sensor 1 ambient or Flue gases 1 boiler sensor



Boiler controller that can be controlled in sequence

XCC 638	Sequence control from XTC 638 controller

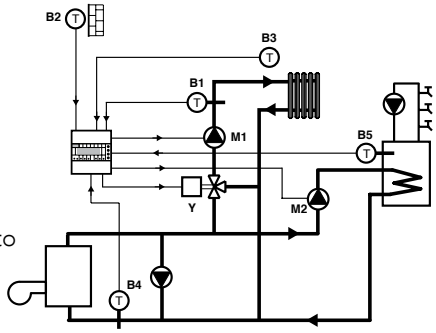
ACCESSORIES

ACB 400	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SAB 010	Room temperature sensor (0...40 °C)
SCH 010	Surface temperature sensor (0...99 °C)
STF 001	Flue gases temperature sensor (0...500 °C)

XTE 643

C-RING

DIGITAL COMPENSATING CONTROLLER FOR HEATING PLANT ROOM



Suitable for climate control of a central heating system and to control domestic hot water.

ESSENTIAL SENSORS 1 outside sensor,
1 plant flow sesnsor

OPTIONAL ACCESSORIES AND SENSORS 1 outside sensor,
1 boiler sensor,
1 anticondensing sensor
1 remote control

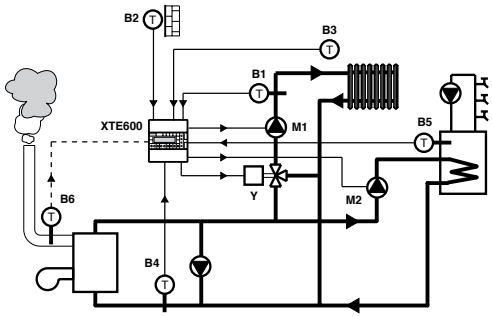
XTE 643	Compensating controller and regulator for domestic hot water production (DHW)

ACCESSORIES

SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SCH 010	Surface temperature sensor (0...99 °C)
STF 001	Flue gases temperature sensor (0...500 °C)
SAB 010	Room temperature sensor (0...40 °C)
CDB 300	Remote control to change the program in use
ACD 655	Accessory for 144 x 144 flush-mounting

XTE 600

OPTIMISING COMPENSATOR FOR HEATING PLANT ROOM OPTIONAL REMOTE MONITORING



WEBGARAGE

OPTIONAL

C◄BUS

C◄RING

Suitable for climate optimisation of a central heating system and to control domestic hot water.

ESSENTIAL SENSOR 1 outside sensor, 1 plant flow sensor

OPTIONAL ACCESSORIES AND SENSORS 1 room sensor, 1 flue gases sensor or 1 remote control, 1 x 4...20mA DC sensor, 1 anti-condensation sensor

XTE 600	Optimising compensator
XTE 600/S1	Optimising compensator with 25 daily programs

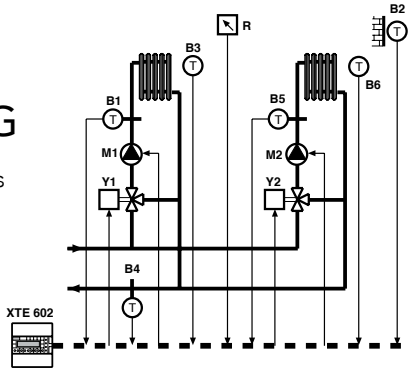
ACCESSORIES

ACB 468	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SCH 010	Surface temperature sensor (0...99 °C)
STF 001	Flue gases temperature sensor (0...500 °C)
SAB 010	Room temperature sensor (0...40 °C)
CDB 300	Remote control to change the program in use

XTE 602

OPTIMISING COMPENSATOR FOR TWO SEPARATE CIRCUITS OPTIONAL REMOTE MONITORING

Suitable for climate optimisation of two central heating circuits



WEBGARAGE

PREDISPOSTO

C◄BUS

C◄RING

ESSENTIAL SENSOR 1 outside sensor, 2 plant flow sensors

OPTIONAL SENSOR 1 or 2 room sensors, 1 santicondensing sensor, 1 remote control

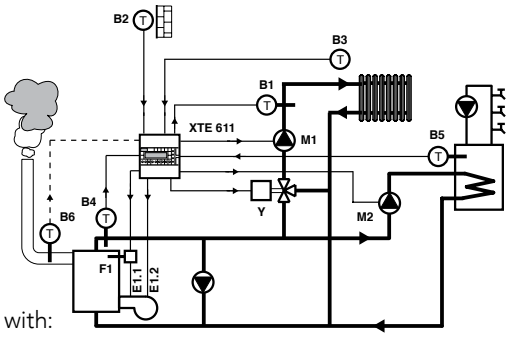
XTE 602	Optimising compensator

ACCESSORIES

ACB 468	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SCH 010	Surface temperature sensor (0...99 °C)
SAB 010	Room temperature sensor (0...40 °C)
CDB 300	Remote control to change the program in use

XTE 611

OPTIMISING COMPENSATOR HEATING PLANT ROOM OPTIONAL REMOTE MONITORING



Suitable for the climatic optimisation of a thermal control unit with:
- control of a central heating system
- control of a domestic hot water
- ccontrol of two single-stage burners or a two-stage burner

WEBGARAGE

OPTIONAL
C◂BUS
C◂RING

ESSENTIAL SENSORS: 1 outside sensor, 1 boiler sensor, 1 plant flow sensor

OPTIONAL ACCESSORIES AND SENSORS: 1 room sensor, 1 boiler sensor, 1 or 2 flue gases sensors, 1 remote control,

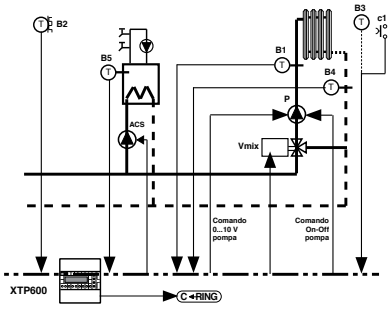
XTE 611	Optimising compensator

ACCESSORIES

ACB 468	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SCH 010	Surface temperature sensor (0...99 °C)
STF 001	Flue gases temperature sensor (0...500 °C)
SAB 010	Room temperature sensor (0...40 °C)
CDB 300	Remote control to change the program in use

XTP 600

OPTIMISING COMPENSATOR OF TEMPERATURE & FLOW OPTIONAL REMOTE MONITORING SUITABLE FOR CONDENSATION BOILERS



Suitable for the climatic optimisation of a central heating system, which optimises the flow by controlling a circulation pump with variable speed.
Optimises the performance of the condensing boilers.

OPTIONAL
C◂BUS
C◂RING

ESSENTIAL SENSORS: 1 outside sensor, 1 return site sensor, 1 heating flow sensor

OPTIONAL ACCESSORIES AND SENSORS: 1 room sensor, 1 water heater sensor, 1 flue gases sensor, 1 remote control

XTP 600	Optimising compensator

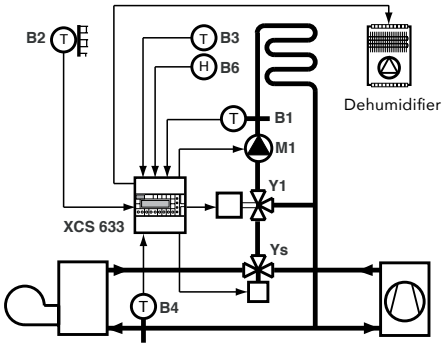
ACCESSORIES

ACB 468	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SCH 010	Surface temperature sensor (0...99 °C)
STF 001	Flue gases temperature sensor (0...500 °C)
SAB 010	Room temperature sensor (0...40 °C)
CDB 300	Remote control to change the program in use

XCS 633

COMPENSATING CONTROLLER WITH SEASON SWITCHING OPTIONAL REMOTE MONITORING

Winter and summer climate control of the radiant panel or fan coil system delivery temperature.



ESSENTIAL SENSOR: 1 outside sensor, 1 flow sensor

ACCESSORIES AND SENSORS: OPTIONAL 1 room sensor, 1 room temperature/humidity sensor, 1 remote control,

OPTIONAL C-BUS C-RING

XCS 633	Compensating controller with season switching

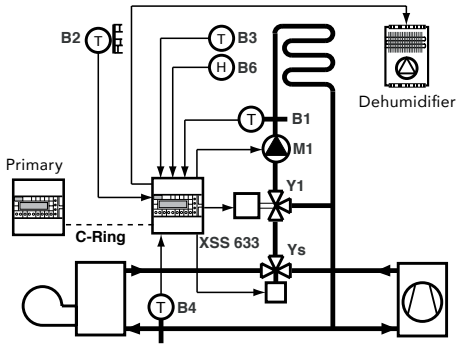
ACCESSORIES

ACB 468	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SCH 010	Surface temperature sensor (0...99 °C)
SAB 010	Room temperature sensor (0...40 °C)
SAU 914	Relative humidity & temperature sensor
CDB 333	Remote control to change the program in use

XSS 633

COMPENSATING CONTROLLER WITH SEASON SWITCHING OPTIONAL REMOTE MONITORING OF SLAVE UNIT FOR MULTICOSTER SYSTEM

Winter and summer controller of the radiant panel or fan coil system delivery temperature.



ESSENTIAL SENSOR: 1 outside sensor, 1 flow sensor

ACCESSORIES AND SENSORS: OPTIONAL 1 room sensor, 1 room temperature/humidity sensor, 1 remote control,

OPTIONAL C-BUS C-RING

XSS 633	Compensating controller with season switching

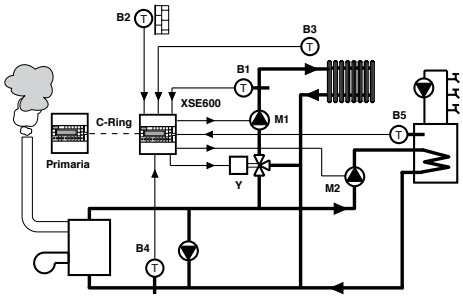
ACCESSORIES

ACB 400	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SCH 010	Surface temperature sensor (0...99 °C)
SAB 010	Room temperature sensor (0...40 °C)
SAU 914	Relative humidity & temperature sensor
CDB 333	Remote control to change the program in use

This unit needs to be connected to at least one C-RING master unit to operate

XSE 600

OPTIMISER COMPENSATOR "SLAVE" FOR HEATING PLANT ROOM OPTIONAL REMOTE MONITORING FOR MULTICOSTER SYSTEM



Suitable for climate optimisation of a central heating system and to control domestic hot water.

WEBGARAGE

OPTIONAL
C◂BUS
C◂RING

ESSENTIAL SENSOR: 1 outside sensor (alternative to the outside temperature value on C-Ring), 1 flow sensor

ACCESSORIES AND SENSORS OPTIONAL: 1 room sensor, 1 temperature room sensor, 1 remote control

XSE 600	Optimiser compensator
XSE 600/S1	Optimiser compensator with 25 daily programs

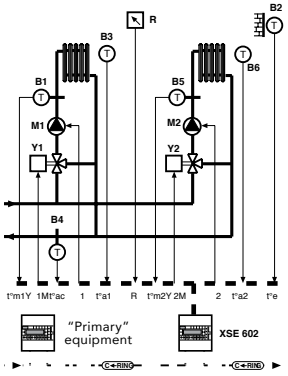
ACCESSORIES

ACB 400	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SCH 010	Surface temperature sensor (0...99 °C)
STF 001	Flue gases temperature sensor (0...500 °C)
SAB 010	Room temperature sensor (0...40 °C)
CDB 300	Remote control to change the program in use

This unit needs to be connected to at least one C-RING master unit to operate

XSE 602

OPTIMISER COMPENSATOR"SLAVE" FOR TWO CIRCUITS OPTIONAL REMOTE MONITORING FOR MULTICOSTER SYSTEM



Suitable for climate optimisation of two central heating circuits.

WEBGARAGE

OPTIONAL
C◂BUS
C◂RING

ESSENTIAL SENSOR: 1 outside sensor (alternative to the outside temperature value on C-Ring)

ACCESSORIES AND SENSORS OPTIONAL: 1 or 2 room sensor, 1 anticondensing sensors, 1 remote control

XSE 602	Optimiser compensator

ACCESSORIES

ACB 400	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SCH 010	Surface temperature sensor (0...99 °C)
SAB 010	Room temperature sensor (0...40 °C)
CDB 300	Remote control to change the program in use

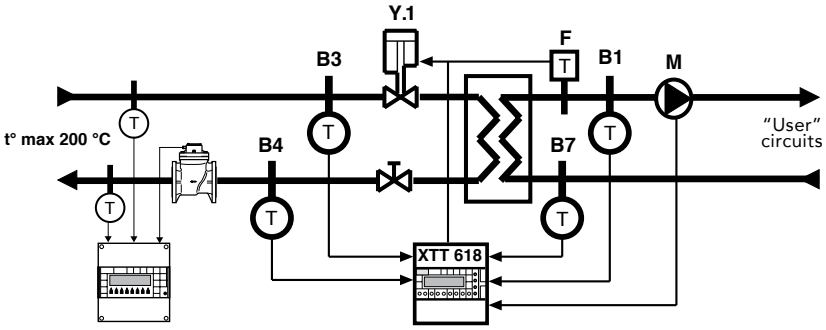
This unit needs to be connected to at least one C-RING master unit to operate

XTT 618

CONTROLLER FOR DISTRICT HEATING SUBSTATIONS WITH A SINGLE EXCHANGER OPTIONAL REMOTE MONITORING

WEBGARAGE

OPTIONAL
C-BUS
C-RING



Control of district heating substations, consisting of one exchanger with a valve and a secondary circuit pump.

ESSENTIAL SENSOR: 1 secondary flow sensor

ACCESSORIES AND SENSORS: 1 outside sensor,
OPTIONAL: 1 primary flow sensor
1 primariy return sensor
1 secondary return sensor

XTT 618	Controller for district heating substations
XTT 618/S1	Controller for high temperature district heating substations

ACCESSORIES

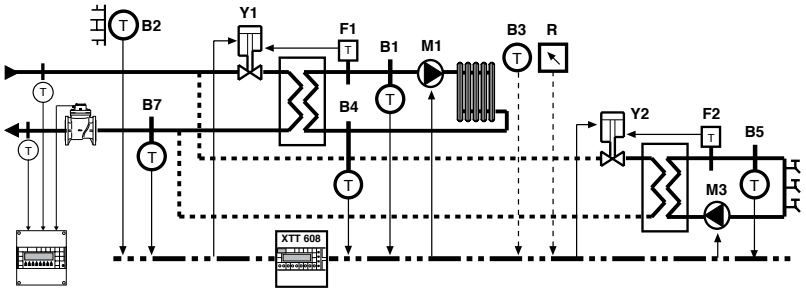
ACB 400	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C)
SAF 010	Cable-type temperayture sensor (0...99 °C)
SHF 001	Cable-type temperayture sensor (0...180 °C)
STH 001	Immersion temperature sensor (0...300 °C) primary flow, primary return (XTT 608), secondary flow (XTT 618/S1)

XTT 608

OPTIMISING COMPENSATOR FOR DISTRICT HEATING SUBSTATIONS WITH TWO EXCHANGERS FOR THE SYSTEM AND HOT WATER, OPTIONAL REMOTE MONITORING

WEBGARAGE

OPTIONAL
C-BUS
C-RING



Control of district heating substations, consisting of two exchangers with valves and a secondary circuit pump.

ESSENTIAL SENSOR: 1 heating flow sensor,
1 DHW distribution sensor

ACCESSORIES AND SENSORS OPTIONAL: 1 outside sensor, 1 room sensor, 1 primary return sensor, 1 heating return sensor, 1 DHW distribution sensor
1 remote conrtol

XTT 608	Optimising compensator

ACCESSORIES

ACB 460	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40 °C)
SIH 010	Immersion temperature sensor (0...99 °C) primary flow, primary return, hot water storage and distribution
SAB 010	Room temperature sensor (0...40 °C)
SHF 001	Immersion temperature sensor (system return) (0...180 °C)
CDB 300	Remote control to change the program in use

"MULTIZONE" distribution and ambient temperature control system

MRL 608 CENTRAL CONTROL, DISPLAY AND MANAGEMENT UNIT

WEBGARAGE

OPTIONAL

C-BUS

C-RING

Communication master with the peripheral units

MRL 608	Central control unit of the system

ACCESSORY

ACB 400	Plug-in for communication via C-Bus

ALD 018 AUXILIARY POWER SUPPLY UNIT FOR 50 ZONES (25 WITH THE RTL 120-520 CONTROLLERS)

When the zones are more than 20, ALD 018 will be necessary, since it is the maximum that the master MRL 608 can power.

Without galvanic separation on P-Loc.

ALD 018	Auxiliary power supply unit

RTL 110 LOCAL UNIT (SLAVE) WITH RELAY OUTPUT, FLUSH-MOUNTED

WEBGARAGE

Room temperature controller via an On-Off type of actuator.

RTL 110	Flush-mounted ambient controller with relay output.

RTL 510

LOCAL UNIT (SLAVE) WITH RELAY OUTPUT, WALL-MOUNTED

WEBGARAGE

P←LOC

RTL 510	Wall-mounted ambient controller with relay output (standard white)

RTL 120

WEBGARAGE

LOCAL UNIT (SLAVE) WITH 0...10V DC AND RELAY OUTPUT, FLUSH-MOUNTED

Room temperature controllers via an On-Off and/or 0..10 V AC type of actuator.

RTL 520

WEBGARAGE

P←LOC

LOCAL UNIT (SLAVE) WITH 0...10V DC AND RELAY OUTPUT, WALL-MOUNTED

RTL 120	Flush-mounted ambient controller with 0...10V DC or relay output
RTL 520	Wall-mounted ambient controller with 0...10 V DC or relay output (standard white)

RTL 111

FLUSH-MOUNTED ROOM CONTROLLER FOR 2-PIPE FAN COIL WITH DEP 658 EXPANSION UNIT

WEBGARAGE

Room temperature controllers with:
- fan coil with On-Off valve and fan up to 3 speeds
- fan coil with modulating valve and fan up to 3 speeds
- fair handling unit with one battery and fan

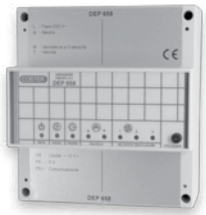
RTL 511

WALL-MOUNTED ROOM CONTROLLER FOR 2-PIPE FAN COIL WITH DEP 658 EXPANSION UNIT

WEBGARAGE

DEP 658

OUTPUT EXPANSION UNIT FOR RTL 111-511



WEBGARAGE

P←LOC

RTL 111	Flush-mounted ambient controller for expansion unit
RTL 511	Wall-mounted ambient controller for expansion unit (standard white)
DEP 658	Output expander for ambient controllers RTL 111 - 511

ACCESSORY

ALD 110	Accessory to control up to 10 DEP 658 with a single RTL 111-511

UPM 678

CONTROL UNIT FOR PUMPS, BURNERS, CHILLERS, ETC.

Control unit for pumps, burners, chillers, etc. according to the thermal and/or cooling load of the zones.

OPTIONAL

C←BUS

P←LOC

WEBGARAGE

UPM 678	Control unit for pumps or similar, MULTI-ZONE system

ACCESSORIES

ACB 400	Plug-in for communication via C-Bus

RTL 141

WEBGARAGE

FLUSH-MOUNTED AMBIENT CONTROLLER FOR 4-PIPE FAN COIL WITH EXPANSION UNIT

Room temperature controllers via :
- fan coil with On-Off valve and fan up to 3 speeds
- fan coil with modulating valve and fan up to 3 speeds
- air handling unit with 2 batteries and fan.

RTL 541

WEBGARAGE

P←LOC

WALL-MOUNTED AMBIENT CONTROLLER FOR 4-PIPE FAN COIL WITH EXPANSION UNIT

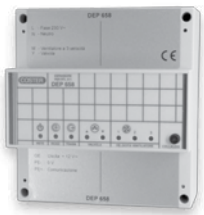
RTL 141	Flush-mounted ambient controller for expansion unit
RTL 541	Wall-mounted ambient controller for expansion unit (standard white)
DEP 648	Output expander for ambient controllers RTL 141 - 541
DEP 678	Output expander for ambient controllers RTL 141 - 541

For 10-piece minimum batch special versions. Enquire with the sales network for availability and delivery times.

ACCESSORY

ASA 2418	24 Volt AC power cable for the controller

DEP 648



WEBGARAGE

P←LOC

EXPANSION UNIT WITH 1 ANALOGUE INPUT, 4 TRIAC OUTPUTS, 3 INTERLOCKED RELAY OUTPUTS

DEP 648	Output expander for RTL 141 - 541

DEP 678

P←LOC

EXPANSION UNIT WITH 1 ANALOGUE INPUT, 4 RELAY OUTPUTS, 3 INTERLOCKED RELAY OUTPUTS

DEP 678	Output expander for RTL 141 - 541

WTD 910 DIGITAL WEEKLY PROGRAMMABLE THERMOSTAT

Digital weekly programmable thermostat to control the ambient temperature on three levels (Comfort - Reduced - Off/Antifreeze).

On-Off control, to activate loads (e.g. boilers, heat pumps, valves, circulators or similar) in heating/cooling systems for domestic or office environment.

WTD 910	Digital weekly programmable thermostat

WTW 900 WIRELESS DIGITAL WEEKLY PROGRAMMABLE THERMOSTAT

It consists of:

WTB 900 Battery-powered radio weekly programmable thermostat to control the ambient temperature on three levels: Comfort, Reduced or Off/Antifreeze.

WTR 900 One-channel radio receiver with On-Off control, to activate loads (e.g. boilers, heat pumps, valves, circulators or similar) in heating/cooling systems for domestic or office environments.

WTW 900	Wireless digital weekly programmable thermostat

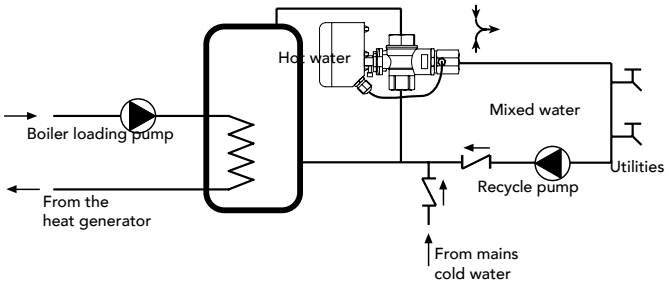
DOMESTIC HOT WATER MIXER

index

MAS 6../T REMOTE CONTROLLED HOT WATER MIXERS FROM 1/2" TO 1"/1/4

MAS 7../T REMOTE CONTROLLED HOT WATER MIXERS FROM 1"1/2 TO 2"

Compact unit, suitable for adjusting the fixed point temperature in DHW distribution circuits that can be remotely controlled via ModBus



Modbus

	DN inches	DN mm	Nominal Flow l/min (1)	Kvs m³/h (2)	Setting range
MAS 615/T	1/2"	15	40	2,5	30 ... 70 °C
MAS 620/T	3/4"	20	70	5	30 ... 70 °C
MAS 625/T	1"	25	130	9	30 ... 70 °C
MAS 632/T	1"1/4	32	180	13,5	30 ... 70 °C
MAS 740/T	1"1/2	40	270	19,2	30 ... 70 °C
MAS 750/T	2"	50	390	28,9	30 ... 70 °C

ACCESSORIES FOR ALL MODELS

TMT 500	Additional sealing element for MAS 615/T, which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part
TMT 600	Additional sealing element for MAS 620/T...632/T, which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part
TMT 700	Additional sealing element for MAS 7../T, which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part

MAS 6../T/AL

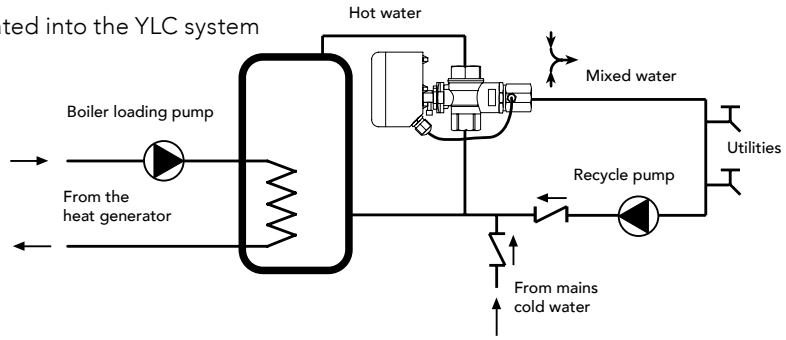
REMOTE CONTROLLED HOT WATER MIXERS WITH ANTI-LEGIONELLA FROM 1/2" TO 1"/1/4

MAS 7../T/AL

REMOTE CONTROLLED HOT WATER MIXERS WITH ANTI-LEGIONELLA FROM 1" 1/2 TO 2"

Compact unit, suitable for adjusting the fixed point temperature in DHW distribution circuits.

Can be integrated into the YLC system



	DN inches	DN mm	Nominal Flow l/min (1)	Kvs m³/h (2)	Setting range
MAS 615/T/AL	1/2"	15	40	2,5	30 ... 70 °C
MAS 620/T/AL	3/4"	20	70	5	30 ... 70 °C
MAS 625/T/AL	1"	25	130	9	30 ... 70 °C
MAS 632/T/AL	1"1/4	32	180	13,5	30 ... 70 °C
MAS 740/T/AL	1"1/2	40	270	19,2	30 ... 70 °C
MAS 750/T/AL	2"	50	390	28,9	30 ... 70 °C

(1) Flow rate with an average of 4 bar and a pressure drop of approx. 20%

(2) Flow rate coefficient in m^3 with the valve open with a pressure drop of 100 KPa

ACCESSORIES FOR ALL MODELS

TMT 500	Additional sealing element for MAS 615/T/AL, which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part
TMT 600	Additional sealing element for MAS 620/T/AL...632/T/AL, which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part
TMT 700	Additional sealing element for MAS 7../T/AL which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part

LGO 070

LEGIONELLA MONITORING

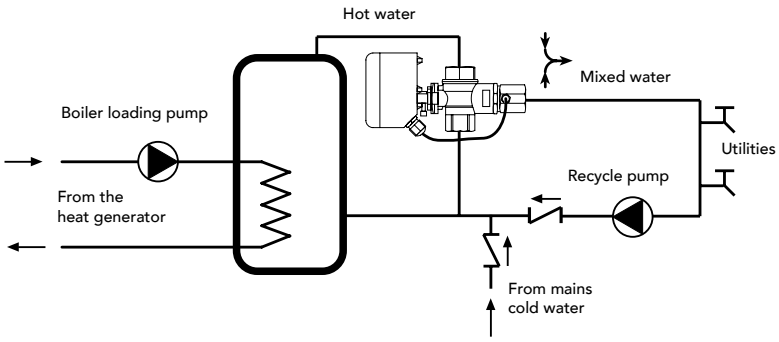
Pre-assembled plug and play monitoring system consisting of a panel of control and touch screen display combined with MAS .../T.

LGO 070	version with 7.0" display

MAS 6.. ELECTRONIC MIXING VALVES FOR DHW FROM 1/2" TO 1"/1/4

MAS 7.. ELECTRONIC MIXING VALVES FOR DHW FROM 1"/1/2 TO 2"

Compact unit, suitable for adjusting the fixed point temperature in DHW distribution circuits that can be remotely controlled via ModBus.



	DN inches	DN mm	Nominal flow l/min (1)	Kvs m³/h (2)	Setting range
MAS 615	1/2"	15	40	2,5	30 ... 70 °C
MAS 620	3/4"	20	70	5	30 ... 70 °C
MAS 625	1"	25	130	9	30 ... 70 °C
MAS 632	1"1/4	32	180	13,5	30 ... 70 °C
MAS 740	1"1/2	40	270	19,2	30 ... 70 °C
MAS 750	2"	50	390	28,9	30 ... 70 °C

ACCESSORIES FOR ALL MODELS

TMS 500	Additional sealing element for MAS 615, which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part
TMS 600	Additional sealing element for MAS 620...632, which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part
TMS 700	Additional sealing element for MAS 7.. which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part

(1) Flow rate with an average of 4 bar and a pressure drop of approx. 20%
(2) Flow rate coefficient in m^3 with the valve open with a pressure drop of 100 KPa

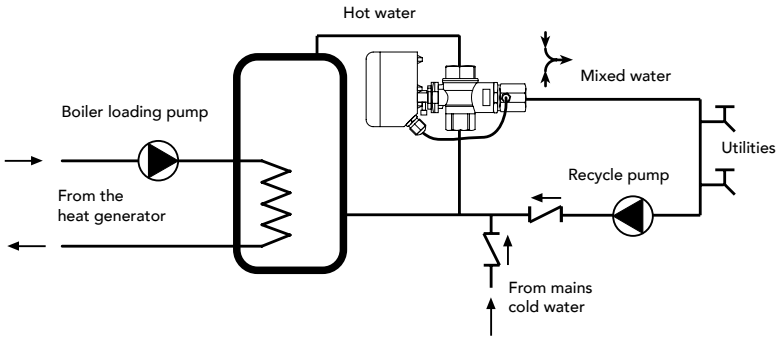
MAS 6../AL

HOT WATER MIXERS WITH ANTI-LEGIONELLA FROM 1/2" TO 1"/1/4

MAS 7../AL

HOT WATER MIXERS WITH ANTI-LEGIONELLA FROM 1"1/2 TO 2"

Compact unit, suitable for adjusting the fixed point temperature in DHW distribution circuits with anti-legionella function .



	DN inches	mm	Nominal flow l/min (1)	Kvs m³/h (2)	Setting range
MAS 615/AL	1/2"	15	40	2,5	30 ... 70 °C
MAS 620/AL	3/4"	20	70	5	30 ... 70 °C
MAS 625/AL	1"	25	130	9	30 ... 70 °C
MAS 632/AL	1"1/4	32	180	13,5	30 ... 70 °C
MAS 740/AL	1"1/2	40	270	19,2	30 ... 70 °C
MAS 750/AL	2"	50	390	28,9	30 ... 70 °C

ACCESSORIES FOR ALL MODELS

TMS 500	Additional sealing element for MAS 615, which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part
TMS 600	Additional sealing element for MAS 620...632, which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part
TMS 700	Additional sealing element for MAS 7.. which can be installed without having to remove the valve from the hydraulic system. This sealing component is treated as a spare part

(1) Flow rate with an average of 4 bar and a pressure drop of approx. 20%

(2) Flow rate coefficient in m^3 with the valve open with a pressure drop of 100 KPa

PRECONFIGURED

CONTROLLERS & INSTRUMENTS FOR VARIOUS USES

index

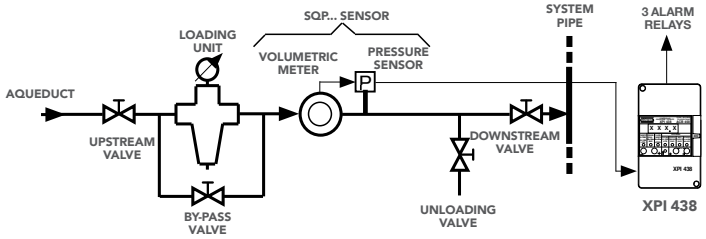
XPI 438

UNITS OF MEASUREMENT AND ALARM OF HYDRAULIC LEAKS

It is used with the system volumetric meter and pressure sensor.
It measures the pressure and detects any possible leaks in the system due to pressure loss.
It provides alarms and contacts to safeguard the heating system from flooding.

SQP 1..

PRESSURE AND FLOW RATE SENSOR



OPTIONAL C-BUS

XPI 438	Units of measurement, pressure and alarm for hydraulic leaks
SQP 103	Pressure and flow rate sensor (0...3 bar)
SQP 110	Pressure and flow rate sensor (0...10 bar)

ACCESSORY

ACB 400	Plug-in for communication via C-Bus

DAM 675

UNIT OF 5 CONTROLS, WITH COMPLETE TIME PROGRAMMING AND DISPLAY OF MEASUREMENT ALARMS AND STATUS

5 On-Off controls with independent time programs and annual periods
7 measurement inputs or On-Off alarms
3 On-Off alarms

WEBGARAGE

DAM 675	Unit for programming controls, measurements, alarms and states

ACCESSORIES

STF 001	Flue gases temperatura sensor (0...500 °C)
STH 001	Immersion temperatura sensor (0...300 °C)
SIH 010	Immersion temperatura sensor (0...99 °C)
SAE 001	Outside temperatura sensor (–40...+40 °C)
SAB 010	Room temperatura sensor (0...40 °C)
ASA 420	Accessory to connection active sensor 4...20 mA
ASA 010	Accessory to connection active sensor 0...10 V DC

PLE 608

UNIT FOR CONTROLS WITH PROGRAMMABLE LOGIC FUNCTIONS

C◂BUS

6 On-Off controls with time programs and logic functions (PLC).

PLE 608	Unit for programming controls, measurements, alarms and states

XCO 428

TIME PROGRAMMER WITH TWO OUTPUTS AND TWO ALARMS PRESET FOR SMS

OPTIONAL
C◂BUS
RS 232

XCO 428 is a universal time programmer with 2 outputs, complete with alarms, preset to be controlled via SMS. The kit with a GSM modem is also included, to obtain a complete mini-telemanagement.

XCO 428	Time programmer with 2 outputs + 2 alarms

ACCESSORY

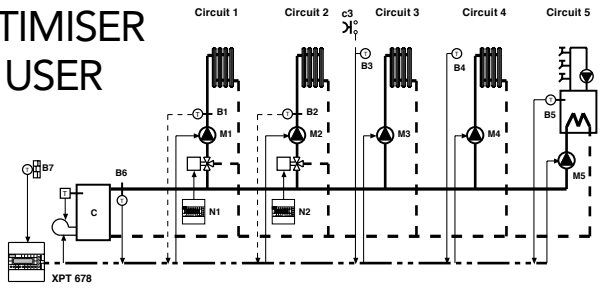
ACB 400	Plug-in for communication via C-Bus

XPT 678

ROOM TEMPERATURE OPTIMISER AND CONTROLLER FOR 5 USER CIRCUITS AND BOILER

PREDISPOSTO
C◂BUS
C◂RING

On-Off control of 5 thermal systems with time programming and/or with room temperature adjustment.
Boiler control according to the system request.



XPT 678	Temperature controller for user circuits and boiler

ACCESSORIES

ACB 460	Plug-in for communication via C-Bus
SIH 010	Immersion temperature s (0...99 °C)
SAE 001	Outside temperature sensor (–40...+40 °C)
SAB 010	Room temperature sensor (0...+40 °C)

IPG 318

TWIN PUMP STEP CONTROLLER

C-BUS

Adapts the pump control On-Off signal of a controller to the control of twin pumps.

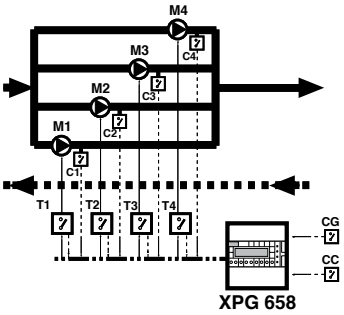
IPG 318	Twin pump step controller

XPG 658

SEQUENCE CONTROLLER OF 5 PUMPS OR 5 ELECTRICAL LOADS

OPTIONAL C-BUS

It controls up to 5 pumps in sequence depending on an On-Off control signal, or a 0 ... 10 Volt DC signal.
It can also be used as sequence controller of 5 electrical loads.
.



XPG 658	Sequence controller of up to 5 pumps or electrical loads

ACCESSORIES

ACB 460	Plug-in for communication via C-Bus

IPS 328

DOUBLE UNIVERSAL RELAY CONTROL CONVERTER

Converts any 2 On-Off controls into 2 relay controls.
It controls the recirculation pump for condensing boilers, to optimise efficiency.
It controls the circulation pump with variable speed in systems with zones with boxes.

IPS 328	Universal inserter

CSA 344

0...10 V DC SIGNAL SELECTOR

Selects the minimum, arithmetic mean and maximum value between 2...6 signals 0...10 V DC.

CSA 344	0...10 V DC signal selector

DRP 414

CONTROLLER FOR CIRCULATION PUMPS WITH VARIABLE SPEED OR FIXED SPEED

C◂BUS

Controls the flow rate of the circulation pump in a system to optimise the efficiency of the condensing boilers.

- one or two variable speed pumps
- a pump with fixed rpm plus one with variable speed
- two fixed speed pumps

24 V AC controller power supply, 24 Vac pump head sensors to be used.

DRP 414	Controller for circulation pumps

ACCESSORIES		Measurement range
SDW 201	Liquid differential pressure sensor	0 ... 1 bar
SDW 202	Liquid differential pressure sensor	0 ... 25 bar
SDW 206	Liquid differential pressure sensor	0 ... 6 bar

OCR 348

CONNECTING IN C-RING: OF VARIOUS COMMANDS FOR CONTROLLING ONE OR MORE BOILERS

C◂RING

Connects in C-Ring to control the emperature required by the boilers

- a temperature measured by a standard sensor
- a 0...10 V– input wich can be set with any scale
- a remote control type CDB 100
- a general use switch

OCR 348	Connecting in C-Ring of various commands: Power Supply 230 V ~

LCR 348

CONVERTER FOR C-RING: C-RING DATA CONVERSION TO RELAY AND 0...10 V DC

C-RING

Reader and converter of the signals in the C-Ring

- reads the maximum temperature required by the equipment connected in C-Ring
- converts this temperature into a 0...10 V DC signal to be sent to the boilers with this input
- relay output when this temperature exceeds a certain value
- relay output for no C-Ring alarm

LCR 348	Auxiliary unit for C-Ring

CSV 328

SIGNAL CONVERTER 0...10V DC, 4...20 MA OR TEMPERATURE IN 2 MODULATING RELAY CONTROLS, 2-STAGE ON-OFF; OR MINIMUM AND MAXIMUM LIMITS

WEBGARAGE

C-BUS

Converts a 0...10 Volt DC signal, or 4...20 mA into 2 relay controls to have:

- 3-point modulating control, to convert a 3-point servo motor into a 0...10 V DC input
- 2-stage On-Off command to control for example 2 burners in sequence
- 2 minimum and maximum limit On-Off controls

CSV 328	Converter of 0...10 V DC, 4...20 mA or temp. signals

CSC 328

0...10 V DC OR 4...20 MA 3-POINT SIGNAL CONVERTER INTO TWO FREELY CONFIGURABLE 0...10 V DC SIGNALS

WEBGARAGE

C-BUS

Converts a 3-point signal (example: the 2 open and close relays of a controller), or a 0...10 Volt or 4...20 mA output, into 2 0...10 Volt outputs, which can be freely programmed to control the sequence of 2 units (e.g. burners) that have a 0...10 V DC input

CSC 328	Auxiliary unit for C-Ring

CAP 328

CONVERTER AND AMPLIFIER OF ACTIVE AND PASSIVE TEMPERATURE SENSORS

Converts the temperature measurement of a standard NTC passive sensor, or a 0...10 Volt DC or 4...20mA active temperature sensor into 2 outputs compatible with the inputs of the temperature sensors of the various COSTER GROUP equipment. It amplifies the 2 compatible outputs to feed up to a maximum of 35 devices, all the same, having the inputs with the same characteristics.

type of temperature sensor	groups of equipment with identical measurement characteristics
NTC 1 outside Kohm (–30...40 °C)	check in the technical data sheet of CAP 328
NTC 10 room Kohm (0...40 °C)	
NTC 10 flow Kohm (0...60 °C)	
NTC 10 water Kohm (0...100 °C)	

CAP 328	Converter/amplifier for temperature sensors

RTP 318

ON-OFF DIFFERENTIAL TEMPERATURE CONTROLLER

Suitable for the adjustment of a fixed point temperature or the adjustment of the difference of 2 temperatures: Output = 1-stage On-Off control

ESSENTIAL ACCESSORIES 1 sensor per fixed point or 2 sensors for a temperature difference

RTP 318	Temperature On-Off controller

ACCESSORIES

SIH 010	Immersion temperature sensor (0...+99 °C)
SAE 001	Outside temperature sensor (–40...+40 °C)
SAB 010	Room temperature sensor (0...+40 °C)
SCH 010	Surface temperature sensor (0...+99 °C)
STA 010	Air duct temperatura sensor (0...+99 °C)
SAF 010	Cable-type temperature sensor (0...+99 °C)
SAF 001	Cable-type temperature sensor (–40...+40 °C)

DDM 328 DIFFERENTIAL CONTROLLER OF 2 TEMPERATURES OR 2 0...10V DC SIGNALS

WEBGARAGE

C-BUS

Adjustment with 2 relay output and 0 ... 10 Volt DC, of the difference of two temperatures or of 2 values 0...10 Volt DC, with the following function:

- modulating
- 2-stage
- minimum and maximum limit

DDM 328	Temperature On-Off controller

ACCESSORIES

SIH 010	Immersion temperature sensor (0...+99 °C)
SAB 010	Room temperature sensor (0...+40 °C)
STA 010	Air duct temperatura sensor (0...+99 °C)
SUR 704	Relative humidity sensor (10...90%)
SUT 714	Air duct temperatura sensor for swimming pool (10...90%)
SAU 914	Relative humidity & temperature sensor (10...90%) & temperature sensor (0...40 °C)

DTF 31. TEMPERATURE CONTROLLER FOR VARIOUS USES WITH C-BUS REMOTE MONITORING

C-BUS

RTF 31. TEMPERATURE CONTROLLER FOR VARIOUS USES WITHOUT C-BUS REMOTE MONITORING

It can be used for any temperature adjustment requirement, with outputs:

- 3-point modulating with 2 relays
- On-Off with 1 or 2 stages
- On-Off proportional with 1-stage

ESSENTIAL SENSOR 1 temperature sensor
OPTIONAL ACCESSORIES AND SENSORS:1 limit temperature sensor, 1 variator

DTF 314	Controller with C-Bus remote monitoring, 24 Volt AC power supply
DTF 318	Controller with C-Bus remote monitoring, 230 Volt AC power supply
RTF 314	Controller without C-Bus remote monitoring, 24 Volt AC power supply
RTF 318	Controller without C-Bus remote monitoring, 230 Volt AC power supply

ACCESSORIES

SIH 010	Immersion temperature sensor (0...+99 °C)
SIR 010	Immersion water temperature sensor (rapid) (0...+99 °C)
SAB 010	Room temperature sensor (0...+40 °C)
STA 010	Air duct temperature sensor (0...+99 °C)
CDB 100	Set point adjuster with incorporated sensor (–5...+5 °C)

XTR 628

TEMPERATURE CONTROLER WITH TIMED PROGRAMMING

OPTIONAL
C←BUS
C←RING

There are 3 regulators in the same unit with these functions:

- 1 x 3-point modulating temperature controller or On-Off with 1 or 2-stage with its own time programming
- 2 On-Off temperature controllers with their own time programming

ESSENTIAL SENSOR: 1, 2 or 3 temperature sensor
OPTIONAL ACCESSORIES AND SENSORS: 1 flow temperature sensor, 1 set point adjuster

XTR 628	Temperature triple controller

ACCESSORIES

ACB 460	Plug-in for communication via C-Bus
SIH 010	Immersion temperature sensor (0...+99 °C)
SIR 010	Immersion water temperature sensor (rapid) (0...+99 °C)
SAB 010	Room temperature sensor (0...+40 °C)
STA 010	Air duct temperature sensor (0...+99 °C)
CDB 100	Set point adjuster with incorporated sensor (–5...+5 °C)

DRU 61.

UNIVERSAL CONTROLLER WITH RELAY OUTPUT

C←BUS

Temperature controller or of other physical variables, such as pressure, level, etc.

- passive temperature sensor input or 0...10 Volt DC or 4...20 mA, from other active sensors.
- outputs: 3-point modulating control or in sequence with 2...4 steps.

ESSENTIAL SENSOR: 1 passive or active sensor
OPTIONAL ACCESSORIES AND SENSORS: 1 set point adjuster

DRU 614	Universal controller, 24 Volt AC power supply
DRU 618	Universal controller, 230 Volt AC power supply

ACCESSORIES

SIH 010	Immersion temperature sensor (Normal) (0...99 °C)
SAF 001	Cable type sensor (–40...40 °C)
STH 001	Immersion temperature sensor (0...300 °C)
SAB 010	Room temperature sensor (0...40 °C)
SUR 704	Relative humidity sensor (10...90 %)
SUT 714	Air duct relative humidity sensor for swimming pool (10...90%)
SAU 914	Relative humidity sensor (10...90 %) and temperature (0...40 °C)
SPW 204	Pressure sensor for liquids (0...4 bar)
SPW 210	Pressure sensor for liquids (0...10 bar)
SPW 216	Pressure sensor for liquids (0...16 bar)
SDW 201	Differential pressure sensor for liquids (0...1 bar)
SDW 202	Differential pressure sensor for liquids (0...2,5 bar)
SDW 206	Differential pressure sensor for liquids (0...6 bar)
SDA 700	Differential pressure sensor for air (0...26 mbar settable)
CDB 100	Set point adjuster with incorporated sensor (–5...5 °C)

DRU 41.

UNIVERSAL CONTROLLER WITH OUTPUT RELAY 0...10 VOLT DC

C↔BUS

Temperature controller or of other physical variables, such as pressure, level, etc.

- passive temperature sensor input or 0...10 Volt DC, from other active sensors
- outputs: 3-point modulating control, On-Off 2-stage or 0...10 Volt DC

ESSENTIAL SENSOR: 1 passive or active sensor
OPTIONAL ACCESSORIES AND SENSORS: 1 set point adjuster

DRU 414	Universal controller, 24 Volt AC power supply
DRU 418	Universal controller, 230 Volt AC power supply

ACCESSORIES

SIH 010	Immersion temperature sensor (Normal) (0...99 °C)
SAB 010	Room temperature sensor (0...40 °C)
SUR 704	Relative humidity sensor (10...90 %)
SUT 714	Air duct relative humidity sensor for swimming pool (10...90%)
SAU 914	Relative humidity sensor (10...90 %) and temperature (0...40 °C)
SPW 204	Pressure sensor for liquids (0...4 bar)
SPW 210	Pressure sensor for liquids (0...10 bar)
SPW 216	Pressure sensor for liquids (0...16 bar)
SDW 201	Differential pressure sensor for liquids (0...1 bar)
SDW 202	Differential pressure sensor for liquids (0...2,5 bar)
SDW 206	Differential pressure sensor for liquids (0...6 bar)
SDA 700	Differential pressure sensor for air (0...26 mbar settable)
CDB 100	Set point adjuster with incorporated sensor (–5...5 °C)

DPS 638

CONTROL FOR SOLAR PANEL INSTALLATIONS WITH C-BUS REMOTE MONITORING

C↔BUS

Automation of solar panel systems with a maximum of 3 storages

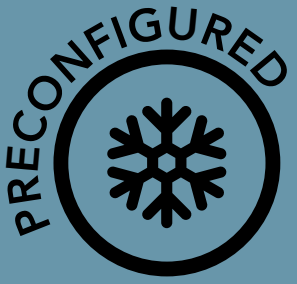
- On-Off setting of the thermal integration circuit
- modulating adjustment of the domestic hot water distribution temperature

ESSENTIAL SENSORS: 1 passive or active sensor
OPTIONAL ACCESSORIES AND SENSORS: 1 set point adjuster

DPS 638	Controller for solar panel systems with remote monitoring

ACCESSORIES

SIH 010	Immersion temp. sensor with brass socket (0...99 °C)
SAF 010	Cable type temperature sensor (0...99 °C)
SHF 001	Cable type temperature sensor with 3-metre cable (0...180 °C)
GIS 090	Cable type sensor pocket (1/2" x 80 mm)
GIS 160	Cable type sensor pocket (1/2" x 160 mm)
GIS 500	Cable type sensor pocket (1/2" x 500 mm)



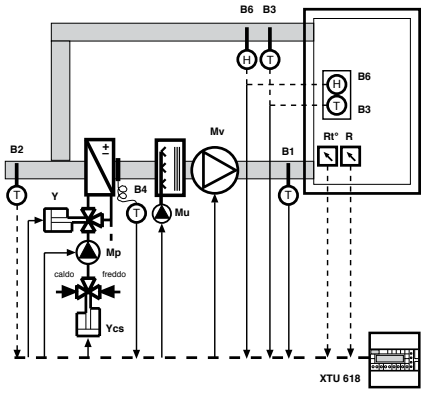
AIR TREATMENT/ CONDITIONING

index

XTU 618 TEMPERATURE AND HUMIDITY CONTROLLER FOR FAN COILS OPTIONAL REMOTE MINITORING

WEBGARAGE

OPTIONAL C-BUS



Suitable for winter and summer adjustment of the ambient temperature and humidity and/or delivery air in thermoventilation systems (fan coils) consisting of:

- 1 hot and cold coil
- 1 humidifier

ESSENTIAL SENSORS	1 duct or room temperature sensor
OPTIONAL ACCESSORIES AND SENSOR	1 flow temperature sensor 1 outside sensor 1 room/air duct humidity sensor 1 battery frost protection sensor 1 set point adjuster 1 remote control

XTU 618	Temperature and relative humidity controller

ACCESSORIES

ACB 460	Plug-in for communication via C-Bus
SAE 001	Ouside temperature sensor (–40...40)
STA 010	Air duct temperatura sensor (outside) (return, flow condensation) (0...60 °C)
SAB 010	Room temperature sensor (0..40 °C)
STA 001	Air duct temperature sensor (outside) (–40...40 °C)
SAF 010	Cable type temperature sensor (frost protection) (0...40 °C)
SUR 704	Relative humidity sensor
SAU 914	Relative humidity (10...90%) & temperature sensor (0...40 °C)
CDB 100	Temperature set point adjuster with incorporated sensor (–5...5 °C)
CDB 333	Remote control to modification of programme in use

XTA 624

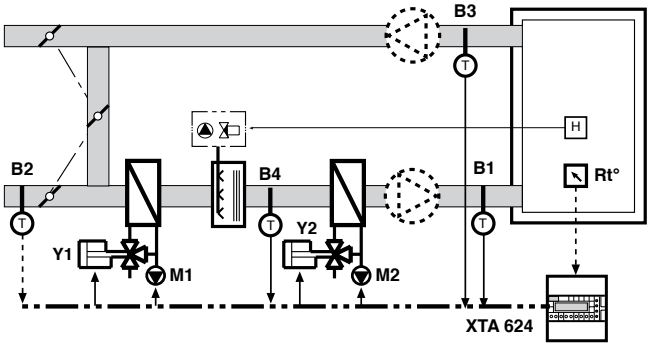
TEMPERATURE CONTROLLER FOR AHU WITH 2 BATTERIES OPTIONAL REMOTE MONITORING

WEBGARAGE

OPTIONAL C-BUS

Suitable for adjusting the ambient temperature and/or the delivery air in the Air Handling Unit, consisting of :

- 1 or 2 heating and/or cooling coils
- 1 air mixing unit (dampers) or 1 heat recovery unit



ESSENTIAL SENSOR	1 air duct or room temperature sensor
OPTIONAL SENSORS AND ACCESSORIES	1 flow sensor 1 outside sensor 1 preheating sensor 1 set point adjuster

XTA 624	Unit for programming controls, measurements, alarms and states

ACCESSORIES

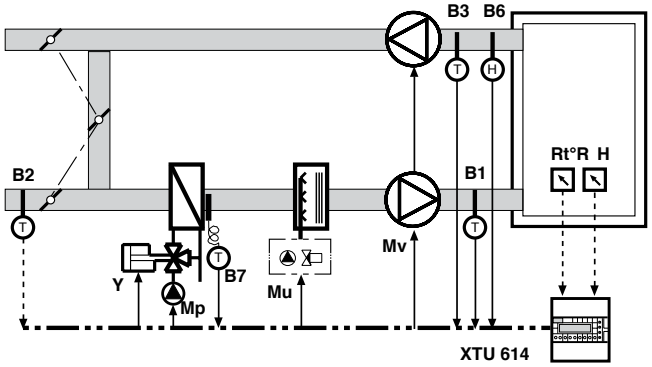
ACB 400	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensors (–40...40)
STA 001	Air duct temperature sensor (outside) (–40...40 °C)
STA 010	Air duct temperature sensor (return, flow condensation) (0...60 °C)
SAB 010	Room temperature sensor (0..40 °C)
CDB 100	Temperture set point adjuster with internal sensor (–5...5 °C)

XTU 614 TEMPERATURE AND HUMIDITY CONTROLLER FOR AHU WITH 1 BATTERY OPTIONAL REMOTE MONITORING

WEBGARAGE

OPTIONAL C←BUS

Suitable for winter and summer adjustment of the ambient temperature and humidity and/or delivery air in the air handling systems consisting of:
- 1 heating and/or cooling or pre-heating coil
- 1 On-Off humidification unit
- 1 air mixing unit (dampers) or 1 heat recovery unit



ESSENTIAL SENSOR	1 air duct or room temperature sensor
OPTIONAL SENSORS AND ACCESSORIES	1 flow or preheating sensor 1 outside sensor 1 air duct/ambient relative humidity sensor 1 battery frost protection sensor 1 set point adjuster 1 humidity set point adjuster

XTU 614	Temperature and relative humidity controller

ACCESSORIES

ACB 460	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensors (–40...40)
STA 010	Air duct temperatura sensor (outside) (return, flow condensation) (0...60 °C)
SAB 010	Room temperature sensor (0..40 °C)
STA 001	Air duct temperatura sensor (outside) (–40...40 °C)
SAF 010	Cable-Type temperature sensor (frost protecion) (0...40 °C)
SUR 704	Air duct relative humidity sensor
SUT 734	Air duct relative humidity sensor (for swimming pool) (10...90%)
SAU 914	Relative humidity sensor (0...90%) & temperature (0...50 °C)
CDB 100	Temperature set point adjuster with internal sensor (–5...5 °C)
CDB 200	Humidity set point adjuster

XTU 644

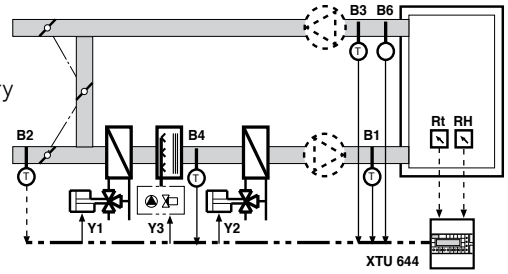
TEMPERATURE AND HUMIDITY CONTROLLER FOR AHU WITH 2 BATTERIES OPTIONAL REMOTE MONITORING

WEBGARAGE

OPTIONAL C-BUS

Suitable for winter and summer adjustment of the ambient temperature and humidity and/or delivery air in the air handling systems consisting of:

- 2 heating and/or cooling or pre-heating coils
- 1 On-Off humidification unit
- 1 air mixing unit (dampers) or 1 heat recovery unit



ESSENTIAL SENSOR	1 air duct or room temperature sensor
OPTIONAL SENSORS AND ACCESSORIES	1 flow temperature sensor 1 outside sensor 1 air duct ambient relative humidity sensor 1 outside relative humidity sensor 1 window dew-point sensor, 1 temperature set point adjuster 1 humidity set point adjuster

XTU 644	Temperature and relative humidity controller

ACCESSORIES

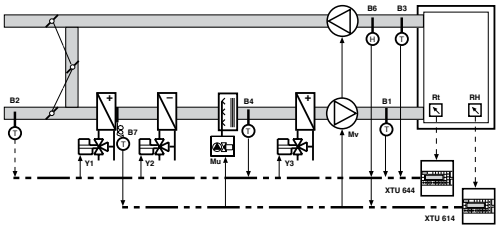
ACB 460	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensors (–40...40)
STA 010	Air duct temperatura sensor (return, flow condensation) (0...60 °C)
SAB 010	Room temperature sensor (0..40 °C)
STA 001	Air duct temperatura sensor (outside) (–40...40 °C)
SUR 704	Relative humidity sensor
SUT 734	Air duct relative humidity sensor. (for swimming pool) (10...90%)
SAU 914	Relative humidity sensor (0...90%) & temperature (0...50 °C)
CDB 100	Set point adjuster with incorporated sensor (–5...5 °C)
CDB 200	Humidity set point adjuster

XTU 614/644

WEBGARAGE

PREDISPOSTO C←BUS

PAIR OF TEMPERATURE AND HUMIDITY CONTROLLERS WITH 3 BATTERIES OPTIONAL REMOTE MONITORING



2 standard controllers coupled for AHU with 3 coils, consisting of:

- 3 heating/pre-heating, cooling and post-heating coils
- 1 On-Off humidification unit
- 1 air mixing unit (dampers) or 1 heat recovery unit

ESSENTIAL SENSOR — see controllers XTU 614 and XTU 644

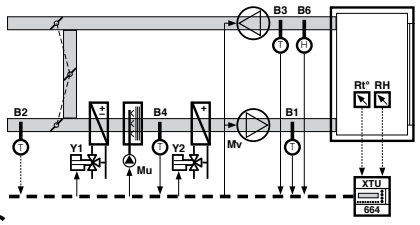
SENSOR AND ACCESSORIES — see controllers XTU 614 and XTU 644

XTU 614/644	Pair of controllers for AHU (single package)

ACCESSORIES

ACB 460	Plug-in for communication via C-Bus (use 2 plug in, one for each controller)

XTU 664 TEMPERATURE AND HUMIDITY CONTROLLER FOR AHU WITH 2 BATTERIES WITH TIME PROGRAMMING OPTIONAL REMOTE MONITORING



WEBGARAGE

OPTIONAL C-BUS

Suitable for adjusting the ambient temperature and/or the delivery air in the AHU, consisting of:

- 1 or 2 heating and/or cooling coils
- 1 modulating or On-Off humidification unit
- 1 air mixing unit (dampers) or 1 heat recovery unit
- 1 ventilation unit

IT IS A SIMILAR UNIT TO XTU 644, BUT FITTED WITH A COMPLETE TIME PROGRAMMING.

ESSENTIAL SENSORS	1 air duct or room temperature sensor
OPTIONAL SENSORS AND ACCESSORIES	1 flow temperature sensor 1 preheating sensor, 1 outside sensor 1 air duct/ambient relative humidity sensor 1 outside relative humidity sensor 1 window dew point sensor, 1 set point adjuster 1 humidity set point adjuster

XTU 664	Temperature and relative humidity controller

ACCESSORIES

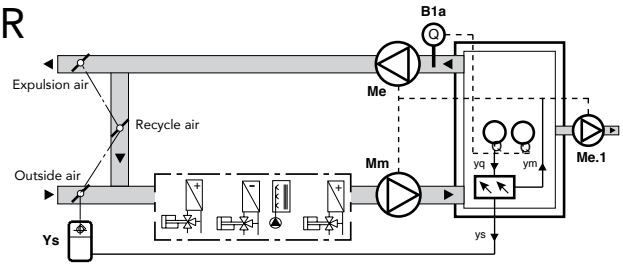
ACB 460	Plug-in for communication via C-Bus
SAE 001	Outside temperature sensor (–40...40)
STA 010	Air duct temp. sensor (return, delivery, condensation) (0...60 °C)
SAB 010	Room temperature sensor (0..40 °C)
STA 001	Air duct temperature sensor (outside) (–40...40 °C)
SUR 704	Air duct relative humidity sensor
SUT 734	Air duct relative humidity sensor. (for swimming pool) (10...90%)
SAU 914	Relative humidity sensor (0...90%) & temperature (0...50 °C)
CDB 100	Set point adjuster with incorporated sensor (–5...5 °C)
CDB 200	Humidity set point adjuster

RQA 410

AIR QUALITY CONTROLLER

Adjusts the percentage of outside air introduced into the room according to the air quality measured by 1 or more sensors.

IT CANNOT BE USED FOR FIRE SYSTEMS, GAS LEAKAGE SYSTEMS OR SIMILAR



ESSENTIAL SENSORS 1 or more room air duct air quality sensor

RQA 410	Air quality controller

ACCESSORIES

SQC 954	Room air quality sensor
SQS 954	Air quality sensor for air duct

SQC 954

ROOM AIR QUALITY SENSOR

SQC 954	Room air quality sensor

SQS 954

ROOM AIR QUALITY SENSOR

SQS 954	Room air quality sensor

UPA 798 ELECTROMECHANICAL ROOM HUMIDISTAT

On-Off switching of humidification or dehumidification units. Wall-mounted.

UPA 798	Room humidistat

UPC 799 AIR DUCT ELECTROMECHANICAL ROOM HUMIDISTAT

On-Off switching of humidification or dehumidification units. Mounted in air duct.

UPC 799	Air duct humidistat

TAG 797 ELECTROMECHANICAL FROST PROTECTION THERMOSTAT

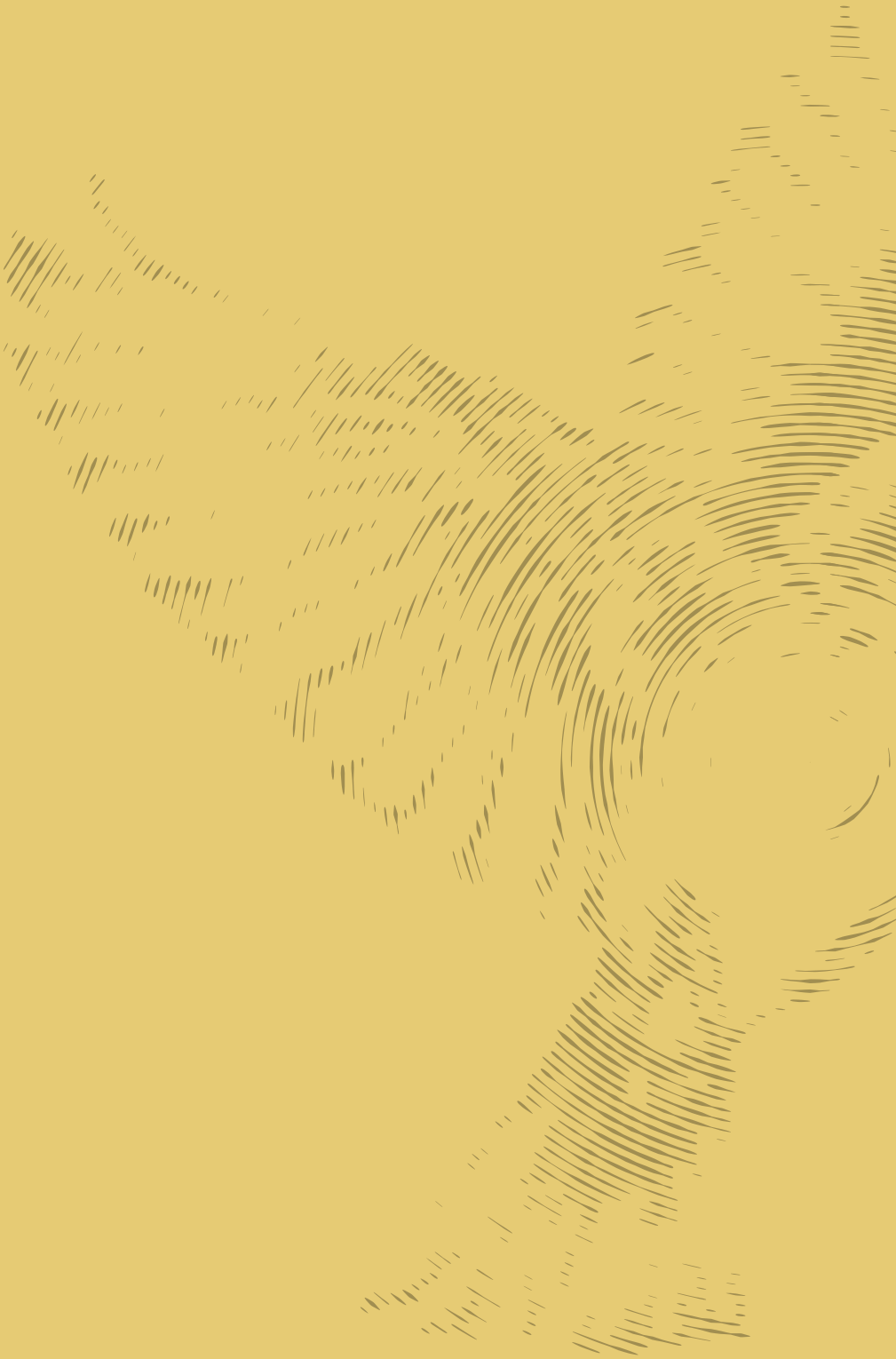
Suitable for frost protection of water battery heater units.

TAG 797	Frost protection electromechanical thermostat

PDF 795 DIFFERENTIAL PRESSURE SWITCH

Signals of the cleanliness of the filter units or fan operation.
- Calibration range: 50 ... 500 Pa
- Triggering differential: 20 Pa +/- 15%
- Max pressure: 5 kPa

PDF 795	Differential pressure switch



GAS SAFETY

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Range of gas leak detectors for domestic use "DOMOGAS"

DGD 1..-2.. DOMESTIC GAS LEAK DETECTORS WITH RELAY OUTPUT

Suitable for detecting methane or LPG gas leaks with the option of controlling a solenoid valve (NC or NO).
Interchangeable pre-calibrated sensor.
The detectors comply with IEC EN 50194-1 standards and feature the IMQ quality mark.

DGD 118	Methane gas leak detector
DGD 218	LPG gas leak detector

DGD 14.-24. DOMESTIC GAS LEAK DETECTORS COMPLETE WITH A MANUALLY RESET NO (NORMALLY OPEN) VALVE

They are gas leak detectors for methane or LPG gas, complete with a gas valve, NORMALLY OPEN, manually reset at 230 V AC.
Interchangeable pre-calibrated sensor.
The detectors comply with IEC EN 50194-1 standards and feature the IMQ quality mark.

DGD 148.15	Methane gas leak detector with 1/2" valve (GARO 815)
DGD 148.20	Methane gas leak detector with 3/4" valve (GARO 820)
DGD 148.25	Methane gas leak detector with 1" valve (GARO 825)
DGD 248.15	LPG gas leak sensor with 1/2" valve (GARO 815)
DGD 248.20	LPG gas leak sensor with 3/4" valve (GARO 820)
DGD 248.25	LPG gas leak sensor with 1" valve (GARO 825)

DGD 318 DOMESTIC CO (CARBON MONOXIDE) DETECTOR WITH STORAGE WITH RELAY OUTPUT

Carbon monoxide detector with the option of controlling solenoid valves, valves and other 230 V AC actuators directly.
The detector conforms to IEC EN 50291-1 standards.

DGD 318	Domestic CO (carbon monoxide) detector with relay output

RFG 361

GAS LEAK DETECTOR FOR AN EXTERNAL SENSOR

Suitable for detecting methane, LPG or CO leaks.
1 relay output to control NO or NC gas shut-off valves.

ESSENTIAL SENSOR 1 sensor for methane, LPG or CO.

RFG 361	Gas leak detector for an external sensor

ACCESSORIES

SRD 150	Wall-mounted domestic sensor for methane gas
SRD 250	Wall-mounted domestic sensor for LPG gas
SRS 150	Wall-mounted industrial sensor for methane gas
SRS 250	Wall-mounted industrial sensor for LPG gas
SRS 350	Wall-mounted industrial sensor for CO

RFG 65

GAS LEAK DETECTORS UP TO 3 EXTERNAL SENSORS FOR THERMAL CONTROL UNITS OR SIMILAR

Suitable for detecting methane, LPG or CO leaks.
Capable of serving up to a maximum of 3 external sensors for methane, LPG or CO.
2 relay outputs to control NO or NC gas shut-off valves and/or alarms.

ESSENTIAL SENSOR 1 sensor for methane, LPG or CO.

RFG 651	Gas detector for 1 external sensor
RFG 652	Gas detector for 2 external sensors
RFG 653	Gas detector for 3 external sensors

ACCESSORIES

SRD 150	Wall-mounted domestic sensor for methane gas
SRD 250	Wall-mounted domestic sensor for LPG gas
SRS 150	Wall-mounted industrial sensor for methane gas
SRS 250	Wall-mounted industrial sensor for LPG gas
SRS 350	Wall-mounted industrial sensor for CO

AL.

BACK UP POWER UNITS FOR GAS SAFETY SYSTEMS

Used for powering the gas safety systems at 12 V DC even in the event of a power failure:
Consisting of

- 1 Stabilised power supply unit.
- 1 Sealed accumulator.

STABILIZED POWER SUPPLY UNITS

Stabilised power supply units to keep the accumulators charged.

	power	input	output		dimensions	weight
	VA	V AC	V DC	ampere	LxPxH	Kg
ALI 310	30	230	13,8	2,25	130x100x38	0,5
ALP 114	90	230	13,8	6,75	200x260x110	6,7
ALP 120	120	230	13,8	9	185x290x130	8

ACC ...

WEATHERPROOF BATTERIES

Long-life sealed rechargeable lead accumulators.
They withstand heavy operating conditions, such as overcharging and a very low discharge.
They do not require maintenance.

	power	voltage	capacity	dimensions	weight
	VA	V DC	ampere/hour	LxPxH	Kg
ACC 019	25	12	2,3	178x34x65	0,9
ACC 060	77	12	7,0	151x64,5x97,5	2,5
ACC 150	180	12	17	181x76x167	6
ACC 240	260	12	24	175x166x125	8,1
ACC 400	480	12	40	197x165x170	14

Selection methods according to the system to be powered

- Calculate the total power absorbed Pt in VA of the system that must be fed by adding together all the absorption of the individual components of the system: Pr detectors, Ps sensors (SRS only), Pv valves, external Pa alarms.

  The absorption of SGC, SGR sensors must not be considered, as it is already calculated in the detectors that feed them.
  Pt = Pr + Ps + Pv +Pa. The power of the power supply unit must be greater than or equal to Pt.
- Multiply the absorbed power Pt by the number of hours h that you want, so as to keep the system efficient without the mains, to obtain the necessary effective power Pe.
  Pe = Pt x h. The power of the accumulator must not be less than Pe.
  If a single accumulator is not sufficient, use more accumulators in parallel.

GENERAL ACCESSORIES FOR GAS DETECTION SYSTEMS

SAS 880	Remote audible alarm
SAL 881	Remote visual alarm
CSL 882	Remote audible and visual alarm

GCAO

NORMALLY CLOSED GAS SOLENOID VALVES - BRASS BODY

With no power supply they are closed, with power supply they are open.
Class A Group 2 approval.

	DN	power supply V	VA	P max (1) mbar	flow rate m³/h (2) 05 m³/h	1 mbar
GCAO 810	3/8"	230 VAC	9	200	0,92	1,4
GCAO 410	3/8"	24 VAC	7	200	0,92	1,4
GCAO 210	3/8"	12 VDC	8,5	200	0,92	1,4
GCAO 815	1/2"	230 VAC	9	200	0,92	1,4
GCAO 415	1/2"	24 VAC	7	200	0,92	1,4
GCAO 215	1/2"	12 VDC	8,5	200	0,92	1,4
GCAO 820	3/4"	230 VAC	9	200	0,92	1,4
GCAO 420	3/4"	24 VAC	7	200	0,92	1,4
GCAO 220	3/4"	12 VDC	8,5	200	0,92	1,4

(1) Maximum working pressure

(2) Methane gas flow rates with pressure drops of 0.5 mbar (5 mm CA) and 1 mbar (10 mm CA)

100 mbar=10kPA=1,000 mmCA

GCRO

MANUALLY RESET GAS SOLENOID VALVES NORMALLY CLOSED - BRASS BODY

With no power supply they are closed, and open with manual reset and remain open only powered.
Class A Group 2 approval

	DN	power supply V	VA	P max (1) mbar	flow rate m³/h (2) 05 m³/h	1 mbar
GCRO 815	1/2"	230 VAC	9	500	1,8	2,6
GCRO 415	1/2"	24 VAC	8	500	1,8	2,6
GCRO 215	1/2"	12 VDC	8	500	1,8	2,6
GCRO 820	3/4"	230 VAC	9	500	3	4,5
GCRO 420	3/4"	24 VAC	8	500	3	4,5
GCRO 220	3/4"	12 VDC	8	500	3	4,5
GCRO 825	1"	230 VAC	9	500	4,5	6,6
GCRO 425	1"	24 VAC	8	500	4,5	6,6
GCRO 225	1"	12 VDC	8	500	4,5	6,6

(1) Maximum working pressure

(2) Methane gas flow rates with pressure drops of 0.5 mbar (5 mm CA) and 1 mbar (10 mm CA) 100 mbar=10kPA=1,000 mmCA

GARO

MANUALLY RESET GAS SOLENOID VALVES NORMALLY OPEN. BRASS BODY

With no power supply they are open, with power supply they are closed.
They open with manual reset and remain open only if not powered.

	DN	power supply V	VA	P max (1) mbar	flow rate m³/h (2) 05 m³/h	1 mbar
GARO 815	1/2"	230 VAC	7	500	1,8	2,6
GARO 415	1/2"	24 VAC	4	500	1,8	2,6
GARO 215	1/2"	12 VDC	6	500	1,8	2,6
GARO 820	3/4"	230 VAC	7	500	3	4,5
GARO 420	3/4"	24 VAC	4	500	3	4,5
GARO 220	3/4"	12 VDC	6	500	3	4,5
GARO 825	1"	230 VAC	8	500	4,5	6,6
GARO 425	1"	24 VAC	22	500	4,5	6,6
GARO 225	1"	12 VDC	8	500	4,5	6,6

(1) Maximum working pressure

(2) Methane gas flow rates with pressure drops of 0.5 mbar (5 mm CA) and 1 mbar (10 mm CA)

100mbar=10kPA=1.000 mmCA

GCR ...

MANUALLY RESET GAS SOLENOID VALVES NORMALLY CLOSED. ALUMINIUM BODY

With no power supply they are closed, and open with manual reset and remain open only if powered. Class A Group 2 approval

THREADED	DN	power supply V	VA	P max (1) mbar	flow rate m³/h (2) 05 m³/h	1 mbar
GCR 815	1/2"	230 VAC	9	500	6,6	8,7
GCR 415	1/2"	24 VAC	8	500	6,6	8,7
GCR 215	1/2"	12 VDC	8	500	6,6	8,7
GCR 820	3/4"	230 VAC	9	500	9,8	14
GCR 420	3/4"	24 VAC	8	500	9,8	14
GCR 220	3/4"	12 VDC	8	500	9,8	14
GCR 825	1"	230 VAC	9	500	15	19
GCR 425	1"	24 VAC	8	500	15	19
GCR 225	1"	12 VDC	8	500	15	19
GCR 832	1 1/4"	230 VAC	9	500	18	27
GCR 432	1 1/4"	24 VAC	8	500	18	27
GCR 232	1 1/4"	12 VDC	8	500	18	27
GCR 840	1 1/2"	230 VAC	9	500	20	30
GCR 440	1 1/2"	24 VAC	8	500	20	30
GCR 240	1 1/2"	12 VDC	8	500	20	30
GCR 850	2"	230 VAC	9	500	25	37
GCR 450	2"	24 VAC	8	500	25	37
GCR 250	2"	12 VDC	8	500	25	37

GCR ...

(1) Maximum working pressure

(2) Methane gas flow rates with pressure drops of 0.5 mbar (5 mm CA) and 1 mbar (10 mm CA)

100mbar=10kPA=1.000 mmCA

GCR ...

FLANGED	DN	power supply V	power supply VA	P max [1] mbar	flow rate m³/h [2] 05 m³/h	flow rate m³/h [2] 1 mbar
GCR 865	65	230 VAC	18	500	53	78
GCR 465	65	24 VAC	20	500	53	78
GCR 265	65	12 VDC	18	500	53	78
GCR 880	80	230 VAC	18	500	53	78
GCR 480	80	24 VAC	20	500	53	78
GCR 280	80	12 VDC	18	500	53	78
GCR 8100	100	230 VAC	18	500	83	130
GCR 4100	100	24 VAC	20	500	83	130
GCR 2100	100	12 VDC	18	500	83	130
GCR 8125	125	230 VAC	18	500	230	335
GCR 4125	125	24 VAC	20	500	230	335
GCR 2125	125	12 VDC	18	500	230	335
GCR 8150	150	230 VAC	18	500	230	335
GCR 4150	150	24 VAC	20	500	230	335
GCR 2150	150	12 VDC	18	500	230	335
GCR 8200	200	230 VAC	18	500	360	525
GCR 4200	200	24 VAC	20	500	360	525
GCR 2200	200	12 VDC	18	500	360	525
GCR 8300	300	230 VAC	18	500	800	1.200
GCR 4300	300	24 VAC	20	500	800	1.200
GCR 2300	300	12 VDC	18	500	800	1.200

[1] Maximum working pressure

[2] Methane gas flow rates with pressure drops of 0.5 mbar (5 mm CA) and 1 mbar (10 mm CA)

100mbar=10kPA=1.000 mmCA

SPECIAL MODELS

GCR .../C	Models with closure indicator microswitch KIT	extra price

GAR ...

MANUALLY RESET GAS SOLENOID VALVES NORMALLY OPEN.

ALUMINIUM BODY

With no power supply they are open, with power supply they are closed.
They open with manual reset and remain open only if not powered.

THREADED	DN	Power supply V	VA	P max (1) mbar	flow rate m³/h (2) 05 m³/h	1 mbar
GAR 832	1 1/4"	230 VAC	23	500	20	29
GAR 432	1 1/4"	24 VAC	22	500	20	29
GAR 232	1 1/4"	12 VDC	20	500	20	29
GAR 840	1 1/2"	230 VAC	23	500	20	29
GAR 440	1 1/2"	24 VAC	22	500	20	29
GAR 240	1 1/2"	12 VDC	20	500	20	29
GAR 850	2"	230 VAC	23	500	25	37
GAR 450	2"	24 VAC	22	500	25	37
GAR 250	2"	12 VDC	20	500	25	37

(1) Maximum working pressure

(2) Methane gas flow rates with pressure drops of 0.5 mbar (5 mm CA) and 1 mbar (10 mm CA))

100 mbar=10kPA=1.000 mmCA

GAR ...

FLANGED	DN	power supply V	power supply VA	P max (1) mbar	flow rate m³/h (2) 05 m³/h	flow rate m³/h (2) 1 mbar
GAR 865	65	230 VAC	23	500	63	92
GAR 465	65	24 VAC	22	500	63	92
GAR 265	65	12 VDC	20	500	63	92
GAR 880	80	230 VAC	23	500	76	115
GAR 480	80	24 VAC	22	500	76	115
GAR 280	80	12 VDC	20	500	76	115
GAR 8100	100	230 VAC	23	500	92	140
GAR 4100	100	24 VAC	22	500	92	140
GAR 2100	100	12 VDC	20	500	92	140
GAR 8125	125	230 VAC	23	500	275	400
GAR 4125	125	24 VAC	22	500	275	400
GAR 2125	125	12 VDC	20	500	275	400
GAR 8150	150	230 VAC	23	500	275	400
GAR 4150	150	24 VAC	22	500	275	400
GAR 2150	150	12 VDC	20	500	275	400
GAR 8200	200	230 VAC	57	500	360	525
GAR 4200	200	24 VAC	45	500	360	525
GAR 2200	200	12 VDC	40	500	360	525
GAR 8300	300	230 VAC	57	500	790	1.200
GAR 4300	300	24 VAC	45	500	790	1.200
GAR 2300	300	12 VDC	40	500	790	1.200

(1) Maximum working pressure

(2) Methane gas flow rates with pressure drops of 0.5 mbar (5 mm CA) and 1 mbar (10 mm CA))

100 mbar=10kPA=1.000 mmCA

GCA ...

GCA ...

GCA ...

AUTOMATIC NORMALLY CLOSED GAS SOLENOID VALVES. ALUMINIUM BODY

With no power supply they are closed, with power supply they are open. Class A Group 2 approval. DN 250 and 300 Class B Group 2 approval.

		power supply		P max [1]	flow rate m³/h [2]	
THREADED	**DN**	**V**	**VA**	**mbar**	**05 m³/h**	**1 mbar**
GCA 815	1/2"	230 VAC	18	200	3,5	5
GCA 415	1/2"	24 VAC	14	200	3,5	5
GCA 215	1/2"	12 VDC	16	200	3,5	5
GCA 820	3/4"	230 VAC	18	200	4,8	7
GCA 420	3/4"	24 VAC	14	200	4,8	7
GCA 220	3/4"	12 VDC	16	200	4,8	7
GCA 825	1"	230 VAC	9/30[3]	200	6	8,8
GCA 425	1"	24 VAC	7/24[3]	200	6	8,8
GCA 225	1"	12 VDC	6/23[3]	200	6	8,8
GCA 832	1 1/4"	230 VAC	25/89[3]	200	19	27
GCA 432	1 1/4"	24 VAC	18/68[3]	200	19	27
GCA 840	1 1/2"	230 VAC	25/89[3]	200	20	29
GCA 440	1 1/2"	24 VAC	18/68[3]	200	20	29
GCA 850	2"	230 VAC	25/89[3]	200	30	43
GCA 450	2"	24 VAC	18/68[3]	200	30	43
FLANGED						
GCA 865	65	230 VAC	75/290[3]	360	50	71
GCA 465	65	24 VAC	50/185[3]	360	50	71
GCA 880	80	230 VAC	75/290[3]	360	56	80
GCA 480	80	24 VAC	50/185[3]	360	56	80
GCA 8100	100	230 VAC	70/270[3]	360	90	137
GCA 4100	100	24 VAC	35/120[3]	360	90	137
GCA 8125	125	230 VAC	70/270[3]	360	180	255
GCA 4125	125	24 VAC	35/120[3]	360	180	255
GCA 8150	150	230 VAC	70/270[3]	360	180	255
GCA 4150	150	24 VAC	35/120[3]	360	180	255
GCA 8200	200	230 VAC	19/66[3]	360	380	550
GCA 4200	200	24 VAC	16/75[3]	360	380	550
GCA 8200C[4]	200	230 VAC	19/66[3]	360	380	550
GCA 4200C[4]	200	24 VAC	16/75[3]	360	380	550
GCA 8250C[4]	250	230 VAC	19/66[3]	360	570	950
GCA 4250C[4]	250	24 VAC	16/75[3]	360	570	950
GCA 8300C[4]	300	230 VAC	38/84[3]	360	900	1400
GCA 4300C[4]	300	24 VAC	33/96[3]	360	900	1400

[1] Maximum working pressure

[2] Methane gas flow rates with pressure drops of 0.5 mbar (5 mm CA) and 1 mbar (10 mm CA)
100 mbar=10kPA=1.000 mmCA

[3] Starting absorbed power.

[4] Complete with closing indicator microswitch.

OPTIONAL FEATURES:
The following versions are also available:
- DN 250 / DN 300

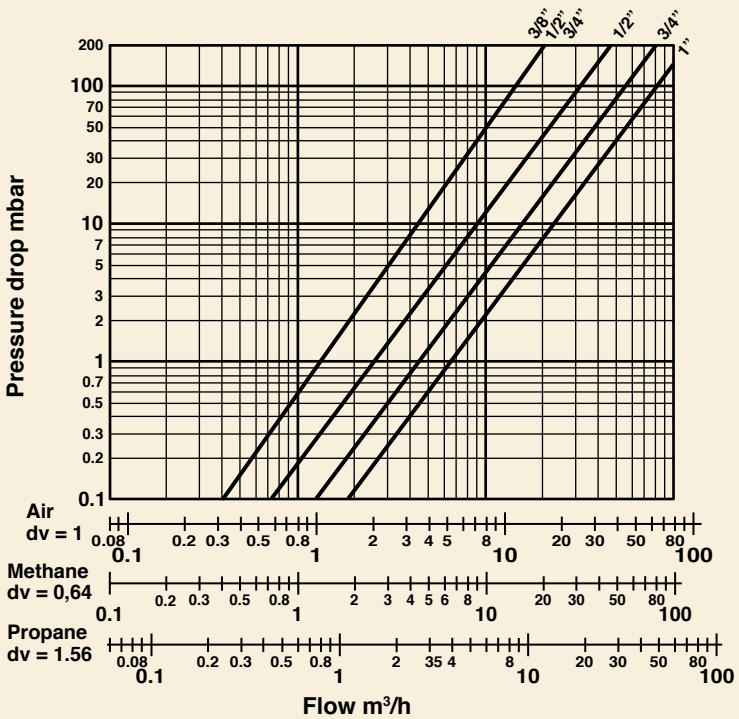
ACCESSORIES

FCM 15-20-25	Microswitch shut-off indicator kit for GCA DN 15-20-25 solenoid valves
FCM 32-40	Kit microswitch indicatore chiusura per GCA DN 32-40 solenoid valves
FCM 50	Microswitch shut-off indicator kit for GCA DN 50 solenoid valves
FCM 65-80	Microswitch shut-off indicator kit for GCA DN 65-80 solenoid valves
FCM 100	Microswitch shut-off indicator kit for GCA DN 100 solenoid valve
FCM 125-150	Microswitch shut-off indicator kit for GCA DN 125-150 solenoid valve

FUNCTIONAL CHARACTERISTICS OF THE GAS SOLENOID VALVES

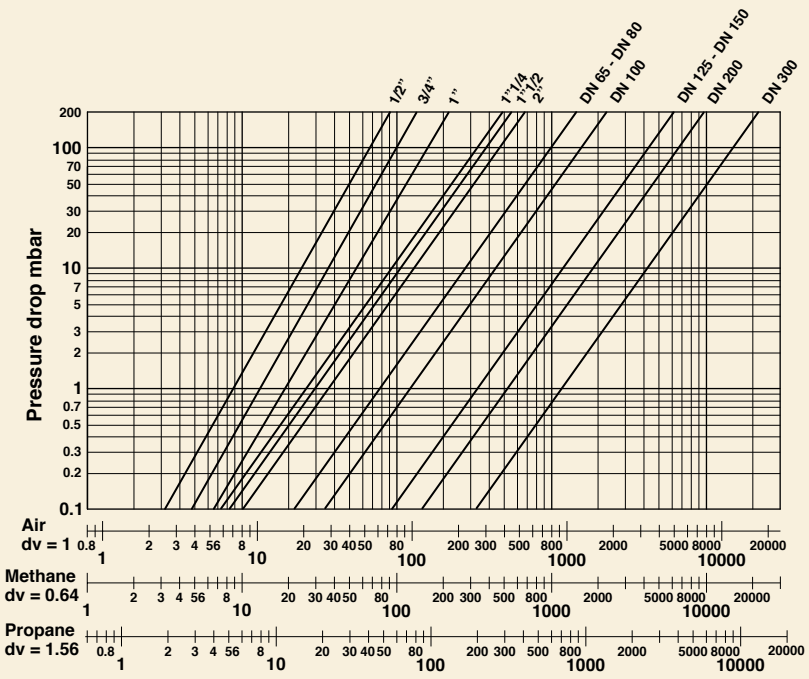
Type	Operation	Pros	Cons
Normally closed GCAO... GCA...	With no power it closes. With power it opens	Ideal for thermal control units. In case of gas leaks, the detector eliminates the power supply to the valve. The power supply is restored only with the detector being manually reset. In the event of a power failure, the valve closes; when it is restored, the valve re-opens automatically.	Not recommended in kitchens without a thermocouple. In the event of a power failure the valve closes and the flame goes out; when the power is restored, the valve re-opens and the gas escapes, thereby posing a hazardous situation.
Normally closed with manual reset GCRO... GCR...	With no power it closes. With power it opens only with manual action	Maximum safety in every use	Every time the power is interrupted, the valve closes. When the power is restored, it must be reopened manually. Not suitable for kitchens because, in the event of a power failure, the user tends to reopen the valve with mechanical artifices. When the power is restored, the safety system is no longer operational
Normally open with manual reset GARO ... GAR ...	With power it opens only with manual action. With no power it opens only with manual action	In the kitchen it is possible to use the gas even in the event of a power failure. In the thermal control unit, in the event of a power failure, the valve remains open and the burner safety systems intervene. When the power supply is restored, no manual intervention is required to restart the system.	In the event of a power failure, the valve remains open and the gas safety system remains active only if it is powered by a buffer battery. Currently they cannot be approved.

GCAO - GCRO - GARO VALVES



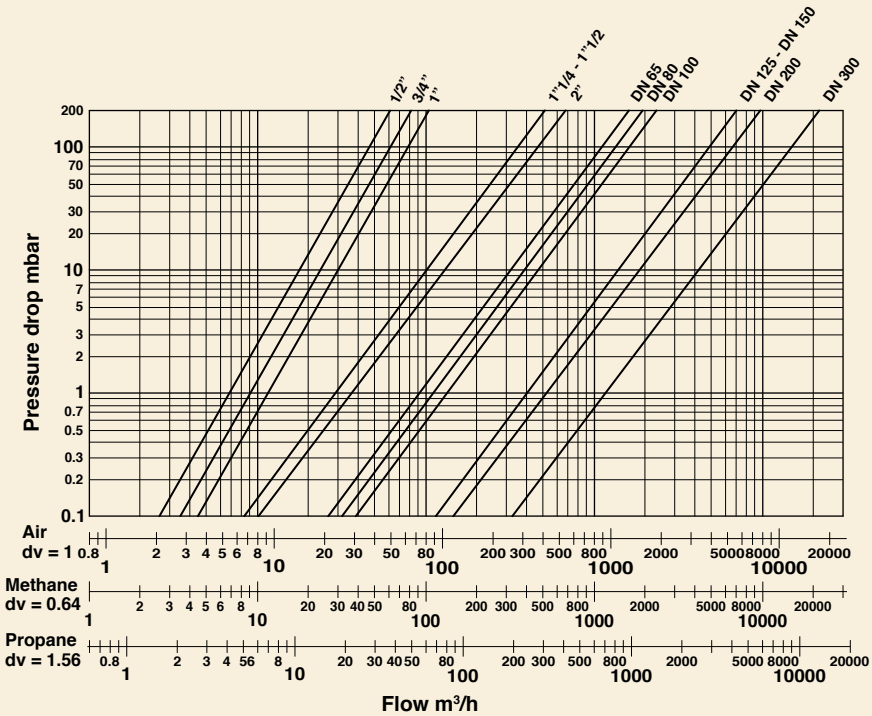
Pressure drops

GCR



Pressure drops

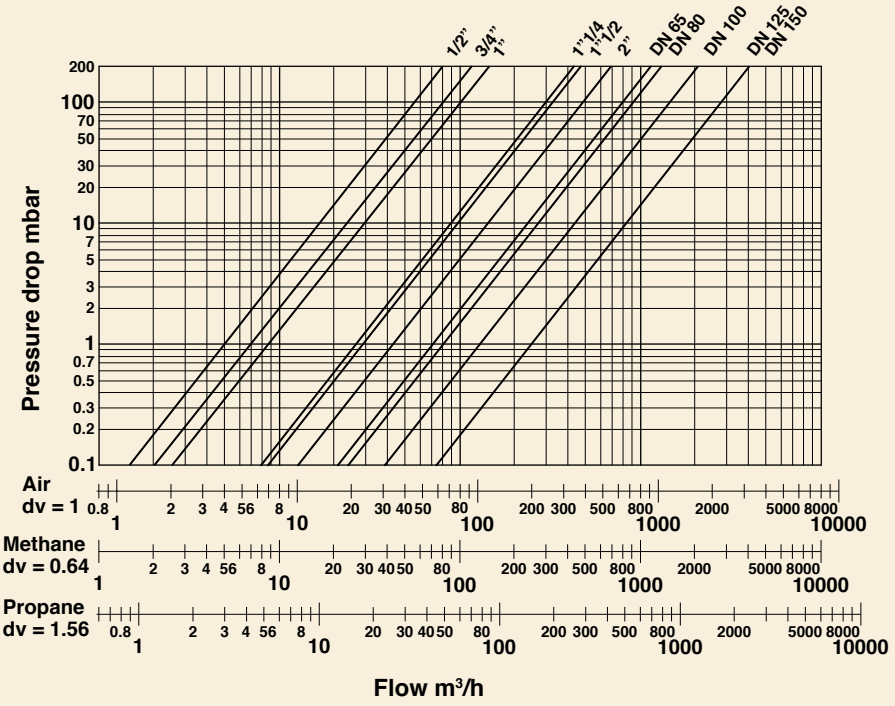
GAR



Pressure drops

100 mbar=10kPA=1.000 mmCA

GCA



Pressure drops

100 mbar=10kPA=1.000 mmCA

PRECONFIGURED

CONSUMPTION METERING AND HEAT COST ALLOCATION

index

IEF 276

ELECTRONIC HOT/COLD ENERGY INTEGRATORS

Metering of the thermal and cooling energy.

APPROVED MID MI 004
With additional inputs

ESSENTIAL SENSORS AND ACCESSORIES

1 pair of sensors + 1 immersion kit,
or 1 pair of sensors + 1 pair of sockets,
or 1 pair of sensors + 1 kit for direct immersion + 1 pair of T-fittings
The sensors and accessories comply with MID 2004/22/EC directives

M←BUS

IEF 276	Electronic energy integrator

ACCESSORIES

SPT 106	Pair of sensors with 10 m cable with 6 mm diameter	
SPT 006	Pair of sensors with 3 m cable with 6 mm diameter	
GIS 062	Pair of brass sockets for sensors (1/4") 62 + 18 mm (1/4")	
GIS 112	Pair of brass sockets for sensors (1/4") 112 + 18 mm	
CMC 328	M-Bus - C-Bus Converter	
3 IMP	3 additional pulse inputs	

IEW 278

ELECTRONIC WIRELESS HOT/COLD ENERGY INTEGRATORS

Metering of the thermal and cooling energy.
APPROVED MID MI 004
With additional inputs

ESSENTIAL SENSORS AND ACCESSORIES

1 pair of sensors + 1 immersion kit,
or 1 pair of sensors + 1 pair of sockets,
or 1 pair of sensors + 1 kit for direct immersion + 1 pair of T-fittings
The sensors and accessories comply with MID 2004/22/CE directives

Wireless M←BUS

IEW 278	Electronic energy integrator

ACCESSORIES

SPT 006	Pair of sensors with 3 m cable with 6 mm diameter	
GIS 062	Pair of brass sockets for sensors (1/4") 62 + 18 mm	
GIS 112	Pair of brass sockets for sensors (1/4") 112 + 18 mm	

MHN ...

COMPACT MECHANICAL THERMAL ENERGY METERS (3...90°C)

Suitable for measuring thermal energy in heating and conditioning systems. They can be installed either on the delivery or on the return.
Energy meters with:
- hot/cold
APPROVED : MID DE-07-MI004-PTB 025
PRECISION CLASS : EN 1434-1:2007, class 3

	DN inches	Tmax. °C	Qp m³/h	Qs m³/h	Qstart lt/h	Qi lt/h Horiz.	Qi lt/h Vert.	Kws m³/h	Δp Qp kPa
MHN 15-1,5	3/4"	90	1,5	3	7	7	7	3,5	19,6
MHN 20-2,5	1"	90	2,5	5	10	10	10	6,3	16,5

MHF ...

M-BUS VIA CABLE MECHANICAL COMPACT THERMAL ENERGY METERS (3...90°C)

Suitable for measuring thermal energy in heating and conditioning systems. They can be installed either on the delivery or on the return.
Energy meters with:
- Data transmission via M-Bus via cable
- hot/cold
APPROVAL : MID DE-07-MI004-PTB 025
PRECISION CLASS : EN 1434-1:2007, class 3
The unit is fitted with M-Bus, which can be converted to C-Bus with converter CMC 328.

M←BUS

	DN inches	Tmax. °C	Qp m³/h	Qs m³/h	Qstart lt/h	Qi lt/h Horiz.	Qi lt/h Vert.	Kws m³/h	Δp Qp kPa
MHF 15-1,5	3/4"	90	1,5	3	7	7	7	3,5	19,6
MHF 20-2,5	1"	90	2,5	5	10	10	10	6,3	16,5

ACCESSORIES

CMC 328	M-Bus - C-Bus Converter
3 IMP	3 additional pulse inputs

KEY
(1): Flange-to-flange length
(2): Approvals MI-001.
Qp: Nominal flow: maximum continuous flow that can be measured by the meter
Qs: Maximum temporary flow that can be supported by the meter
Qt: PoTransition flow: minimum limit with error less than2%
Qi: Minimum flow limit: minimum limit with error less than ±5%
Kvs: Flow coefficient: flow rate in m3/h with pressure drops of 100kPa=10mCA=1bar
Δp Qp: Pressure drop at nominal flow Qn

MHR ... WIRELESS THERMAL ENERGY METERS

It is an instrument used to meter the thermal energy supplied to utilities using water as an element to transport energy. It can be used in a vast range of systems: heating, conditioning and typical household systems.
APPROVAL MID MI004
Energy meters with:
- Data transmission via M-Bus wireless
- Hot/cold

wireless M←BUS

	DN inches	T max °C	Qp m³/h	Qs m³/h	Qi lt/h Horiz.	Qi lt/h Vert.	Kws m³/h	Δp Qp kPa
MHR 15-1,5	1/2"	90	1,5	3	7	7	3,5	19,6
MHR 20-2,5	3/4"	90	2,5	5	10	10	6,3	16,5

ACCESSORIES

3 IMP	3 additional pulse inputs

UHN ... COMPACT ULTRASONIC THERMAL ENERGY METERS (3...90°C)

Suitable for measuring thermal energy in heating and conditioning systems.
They can be installed either on the delivery or on the return.
Energy meters with:
- hot/cold
APPROVAL : MID DE-07-MI004-PTB 025
PRECISION CLASS : EN 1434-1:2007, class 3

	DN mm	Joints inches	T max °C	Qp m³/h	Qs m³/h	Qi lt/h	Δp Qp kPa
UHN 15-1,5	15	G3/4"	90	1,5	3	12	21,0
UHN 20-2,5	20	G1"	90	2,5	5	25	12,0
UHN 20-3,5	20	G1"	90	3,5	7	28	21,0
UHN 25-3,5	25	G1" 1/4	90	3,5	7	28	21,0
UHN 25-6	25	G1" 1/4	90	6	7	60	20,0
UHN 40-10	40	G2"	90	10	20	100	11,0

KEY
(1): Flange-to-flange length
(2): Approvals MI-001.
Qp: Nominal flow: maximum continuous flow that can be measured by the meter
Qs: Maximum temporary flow that can be supported by the meter
Qt: PoTransition flow: minimum limit with error less than2%
Qi: Minimum flow limit: minimum limit with error less than ±5%
Kvs: Flow coefficient: flow rate in m3/h with pressure drops of 100kPa=10mCA=1bar
Δp Qp: Pressure drop at nominal flow Qn

UHF ...

M-BUS COMPACT ULTRASONIC THERMAL ENERGY METERS (3...90°C)

M←BUS

Suitable for measuring thermal energy in heating and conditioning systems.
They can be installed either on the delivery or on the return.
Energy meters with:
- hot/cold
- Data transmission via M-Bus via cable
APPROVAL : MID DE-07-MI004-PTB 025
PRECISION CLASS : EN 1434-1:2007, class 3
The unit is fitted with M-Bus, which can be converted into C-Bus with converter CMC 328.

	DN mm	Joints inches	T max °C	Qp m³/h	Qs m³/h	Qi lt/h	Δp Qp kPa
UHF 15-1,5	15	G3/4"	90	1,5	3	12	21,0
UHF 20-2,5	20	G1"	90	2,5	5	25	12,0
UHF 20-3,5	20	G1"	90	3,5	7	28	21,0
UHF 25-3,5	25	G1" 1/4	90	3,5	7	28	21,0
UHF 25-6	25	G1" 1/4	90	6	7	60	20,0
UHF 40-10	40	G2"	90	10	20	100	11,0

ACCESSORIES

CMC 328	M-Bus - C-Bus converter
3 IMP	3 additional pulse inputs

UHR ...

WIRELESS ULTRASONIC COMPACT THERMAL ENERGY METERS (3...90°C)

wireless M←BUS

Suitable for measuring thermal energy in heating and conditioning systems.
They can be installed either on the delivery or on the return.
Energy meters with:
- hot/cold
- Data transmission via M-Bus wireless
APPROVAL : MID DE-07-MI004-PTB 025
PRECISION CLASS : EN 1434-1:2007, class 3

	DN mm	Joints inches	T max °C	Qp m³/h	Qs m³/h	Qi lt/h	Δp Qn kPa
UHR 15-1,5	15	G3/4"	90	1,5	3	12	21,5
UHR 20-2,5	20	G1"	90	2,5	5	25	11,0
UHR 20-3,5	20	G1"	90	3,5	7	28	21,0
UHR 25-3,5	25	G1" 1/4	90	3,5	7	28	20,0
UHR 25-6	25	G1" 1/4	90	6	7	60	20,0
UHR 40-10	40	G2"	90	10	20	100	11,00

ACCESSORIES

3 IMP	3 additional pulse inputs

KUF-KUC

SINGLE-JET TURBINE VOLUMETRIC METERS WITH "REED" CONTACT PULSE TRANSMITTER FOR DOMESTIC HOT AND COLD WATER

Turbine volumetric meters to measure the domestic hot and cold water consumption
Output with "reed" contact pulse transmitter compatible with all meters with a pulse input and IET 7... integrators
DO NOT USE THESE METERS FOR CIRCULATION HOT OR COLD WATER IN HEATING/ CONDITIONING SYSTEMS.
THE WATER IN THESE SYSTEMS CONTAINS MANY IMPURITIES THAT DO NOT ALLOW A CORRECT COUNT.

OPTIONS:
- wireless version suitable

Tmax 30 °C	DN inches	length.(1) mm	Qp m³/h	Qs m³/h	Qt lt/h	Qi lt/h	Kws m³/h	Δp Qp kPa	pulse transmitters lt/i
KUF 15D (2)	1/2"	110	2,5	3,13	40	25	3	24	10
KUF 20D (2)	3/4"	130	4,0	5	64	40	6	17	10
KUF 25C (2)	1"	160	6,3	7,9	100,8	63	7	25	100
Tmax 90 °C									
KUC 15D (2)	1/2"	110	2,5	3,13	40	25	3	24	10
KUC 20D (2)	3/4"	130	4,0	5	64	40	6	17	10

KUF ..W-N
KUC ..W-N

WIRELESS METERS

Single-jet dry dial meter with superdry magnetic transmission for cold or hot water. Conformity: (B) TCM 142/10-4794 (D) 0119-SJ-A010-08
MID MI001 APPROVAL
For remote reading with NETWORK system, use RTH 301 (repeater), UCD 708 (concentrator), SWC 301 (software).
The data can also be read in WALK-BY mode, with WBT 300 (receiver) and WST 301 (software); see the "HEAT COST ALLOCATOR SYSTEM" chapter.

Wireless M←BUS

	DN inches	length.(1) mm	T max °C	Qp m³/h	Qs m³/h	Qt lt/h	Qi lt/h	Kws m³/h
KUF 15W-N	1/2"	80-120	30	2,5	3,0	120	25	3
KUF 20W-N	3/4"	115-130	30	4,0	5,0	200	40	6
KUC 15W-N	1/2"	80-120	90	2,5	3,0	120	25	3
KUC 20W-N	3/4"	115-130	90	4,0	5,0	200	40	6

KUF ..W-V
KUC ..W-V

WIRELESS METERS WITH CONCENTRIC OPENINGS

Single-jet dry dial meter with superdry magnetic transmission for cold or hot water.

For remote reading with NETWORK system, use RTH 301 (repeater), UCD 708 (concentrator), SWC 301 (software).

The data can also be read in WALK-BY mode, with WBT 300 (receiver) and WST 301 (software).

	DN inches	T max °C	Qp m³/h	Qs m³/h	Qt lt/h	Qi lt/h	Kws m³/h
KUF 15W-V	1/2"	30	1,5	3,13	50	31,3	3
KUC 15W-V	1/2"	90	1,5	3,13	50	31,3	3

KMF ...

MULTIPLE-JET TURBINE VOLUMETRIC METERS WITH "REED" CONTACT PULSE TRANSMITTER

Multiple jet turbine volumetric meters to measure the domestic cold water.
Output with "reed" contact pulse transmitter compatible with all meters with a pulse input and IET 7 … integrators.

KMF ...: MI-001 APPROVAL

Wireless M←BUS

Tmax 50 °C horizontal	DN inches	lenght.(1) mm	Qp m³/h	Qs m³/h	Qt lt/h	Qi lt/h	Kws m³/h	pulse trans. litres/pulse
KMF 15D (3)	1/2"	165	2,5	3,1	40	25	3	10
KMF 20D (3)	3/4"	190	4,0	5,0	64	40	5	10
KMF 25C (3)	1"	260	6,3	7,9	108,8	63	6,8	100
KMF 32C (3)	1"1/4	260	10	12,5	160	100	9,5	100
KMF 40C (3)	1"1/2	300	16	20,0	256	160	20	100
KMF 50C (3)	2"	300	25	31,0	400	250	30	100

KEY
(1): Flange-to-flange length
(2): Approvals MI-001.
Qp: Nominal flow: maximum continuous flow that can be measured by the meter
Qs: Maximum temporary flow that can be supported by the meter
Qt: PoTransition flow: minimum limit with error less than2%
Qi: Minimum flow limit: minimum limit with error less than ±5%
Kvs: Flow coefficient: flow rate in m³/h with pressure drops of 100kPa=10mWC=1bar
Δp Qp: Pressure drop at nominal flow Qn

KWP-KWM

WOLTMAN TURBINE VOLUMETRIC METERS WITH "REED" CONTACT PULSE TRANSMITTER

Woltman turbine volumetric meters to measure the domestic hot and cold water (KWM) and circulation water in heating/conditioning systems (KWP).

Output with "reed" contact pulse transmitter compatible with all the meters having a pulse input and IET 7..., IEF, IEW integrators

MI-001 KWP APPROVAL
MI-004 KWM APPROVAL

Even if the KWM ... meters are approved up to 130 °C, for the application in heating/air conditioning systems, it is advisable to use static type ultrasonic volumetric meters, such as the KMHG and KMHF.

					Qi m³/h		pulse
Cold water	**DN inches**	**Tmax °C**	**Qp m³/h**	**Qs m³/h**	**vert.**	**horiz.**	**transmitters lt/p**
KWP 50C	50	50	40	50	0,64	–	100
KWP 65C	65	50	63	78,8	0,5	–	100
KWP 80C	80	50	100	125	0,5	–	100
KWP 100C	100	50	160	200	0,6	–	100
KWP 125C	125	50	160	200	0,6	–	100
KWP 150M	150	50	250	312,5	1,8	–	100
KWP 200M	200	50	250	500	4	–	100
Hot water							
KWM 50	50	130	15	30	1,5	0,6	250
KWM 65	65	130	25	50	2,5	1	250
KWM 80	80	130	40	80	4	1,6	250
KWM 100	100	130	60	120	6	2,4	250
KWM 125	125	130	100	200	10	4	250
KWM 150	150	130	150	300	15	6	250

KEY

Qp: Nominal flow: continuous flow that can be measured by the meter

Qs: Maximum temporary flow that can be supported by the meter

Qi: Minimum flow limit: minimum limit with error less than ±5%

Kvs: Flow coefficient: flow rate in m³/h with pressure drops of 100kPa=10mWC=1 bar

KMHG - F

ULTRASONIC VOLUMETRIC COUNTERS (20...130 °C) WITH ELECTRONIC PULSE FOR MEASURING FLOW AND QUANTITY OF WATER IN HEATING SYSTEMS HOT/COLD VERSION (replaces the KSHG-KSHF range)

Ultrasonic volumetric counters for the measurement of circulating water in heating and air conditioning systems, which can be installed on the return flow.
Not compatible with glycol.
Output with electronic pulse compatible with thermal energy integrators IET 7... , IEF ... and IEW ...
MID CERTIFICATION DE-07-MI004-OJC218 accuracy class EN 1434 class 2.
These ultrasonic counters are intended for use with fluid temperatures ranging from 10 to 130 °C for heating applications and 5 to 50 °C for air conditioning applications.
For dimensions see the technical data sheet on www.costergroup.eu

THREADED	DN mm	body thread	PN	Qp m³/h	Qs m³/h	Qi lt/h	Qstart lt/h	Kws m³/h	Δp Qp kPa	pulse litres
KMHG 15-0,6	15	3/4"	16	0,6	1,2	6	2,4	1,5	15	1
KMHG 15-1,5	15	3/4"	16	1,5	3	15	3,9	3,6	17	1
KMHG 20-2,5	20	1"	16	2,5	5	25	5,6	5,6	20	10
KMHG 25-3,5	25	1"1/4	16	3,5	7	35	14	15	5,5	10
KMHG 25-6	25	1"1/4	16	6	12	60	12	16	14	10
KMHG 40-10	40	2"	16	10	20	100	28	30	11	10
FLANGED	**mm**									
KMHF 25-3,5	25	–	25	3,5	7	35	7	15	5,5	10
KMHF 25-6	25	–	25	6	12	60	7	16	14	10
KMHF 40-10	40	–	25	10	20	100	15	28	13	10
KMHF 50-15	50	–	25	15	30	150	40	45	11	100
KMHF 65-25	65	–	25	25	50	250	50	77	10,5	100
KMHF 80-40	80	–	25	40	80	400	80	100	16	100
KMHF 100-60	100	–	25	60	120	600	120	177	11,5	100

XGG 618

COUNT AND STORAGE UNIT OF DEGREE DAYS

WEBGARAGE

OPTIONAL C-BUS

It counts and records the trend of conventional winter degree days.

ESSENTIAL SENSOR 1 external sensor to count the degree-days; model SGG 001

XGG 618	Degree-days saving and metering units

ACCESSORY

ACB 460	Plug-in for C-Bus comunication
SGG 001	Sensor for external temperature to measure degree-days

UCI 328

COUNT UNIT OF TWO PULSE INPUTS (CONTACT CLOSURES)

C-BUS

Meters and saves the consumption measured by meters fitted with pulse output upon the closure of a contact.

UCI 328	Pulse count unit

EQX 424 DATA LOGGER WITH M-BUS PROTOCOL

NEW 2021

It acquires and historicizes data from the repeater and level converter,
it makes it possible to read counters, generate reports and consult history data.
Cable and radio connected via repeater.
Power supply unit included.

EQX 442	Data logger with M-Bus protocol

EQL ... M-BUS LEVEL CONVERTER

To manage 60 or 250 devices. Data reading from M-Bus counters

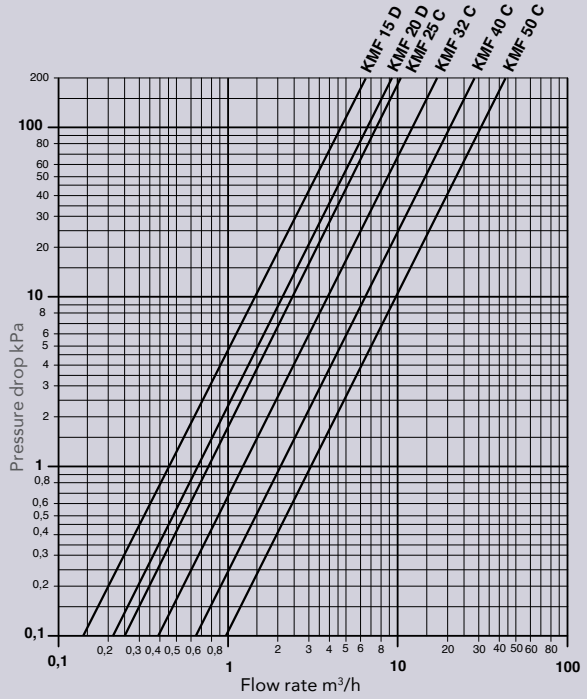
EQL 060	M-Bus converter to manage up to 60 devices on the same M-Bus line. Power supply unit included
EQL 250	M-Bus converter to manage up to 250 devices on the same M-Bus line. Power supply unit included

RPT 001 WIRELESS M-BUS REPEATER/RECEIVER

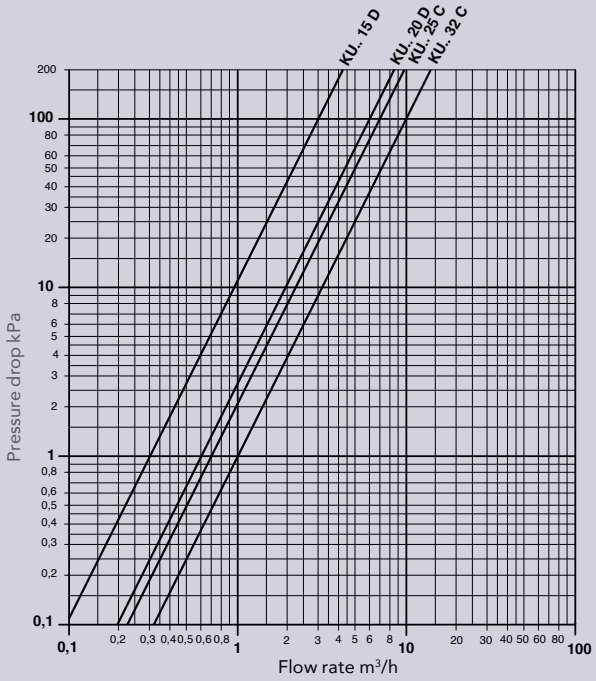
For metering units with M-Bus wireless protocol, the repeater makes it possible to extend the network by increasing the radio range, collecting the data of the relevant distribution units, and then transmitting them to the receiver.

RPT 001	Signal repeater for distribution system

KMF ...

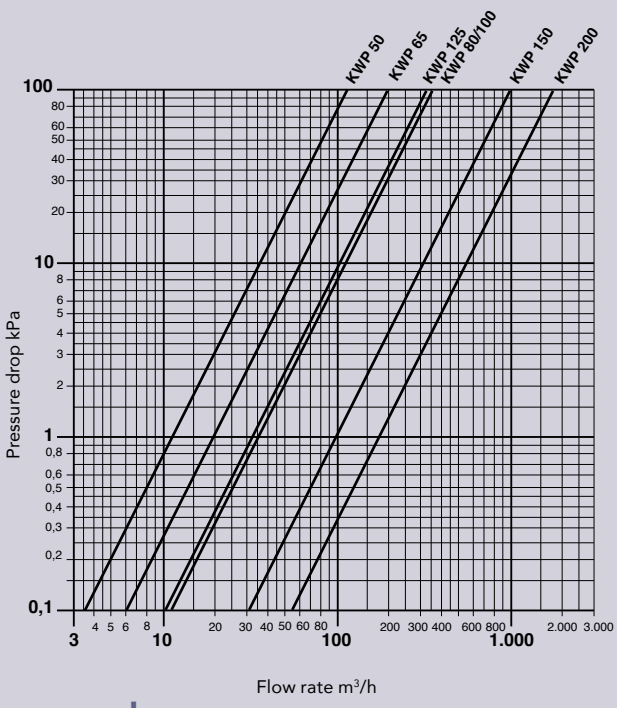


KU ...

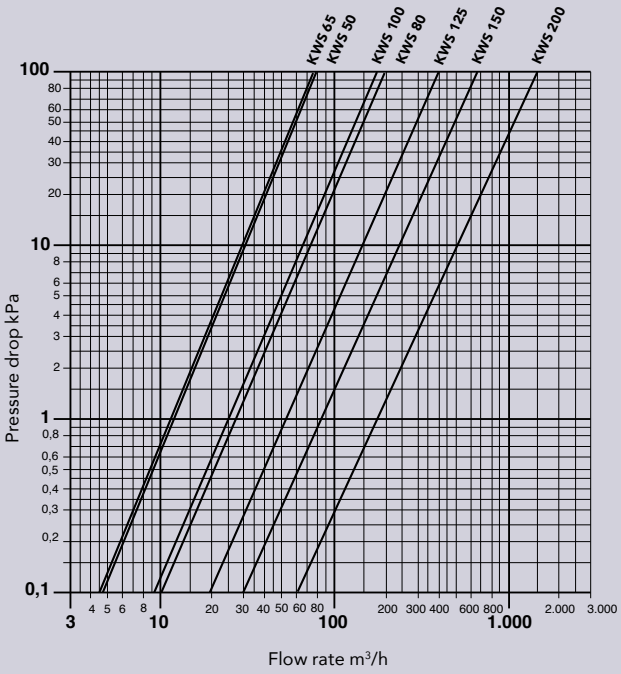


Pressure drop

KWP ...



KWM ...

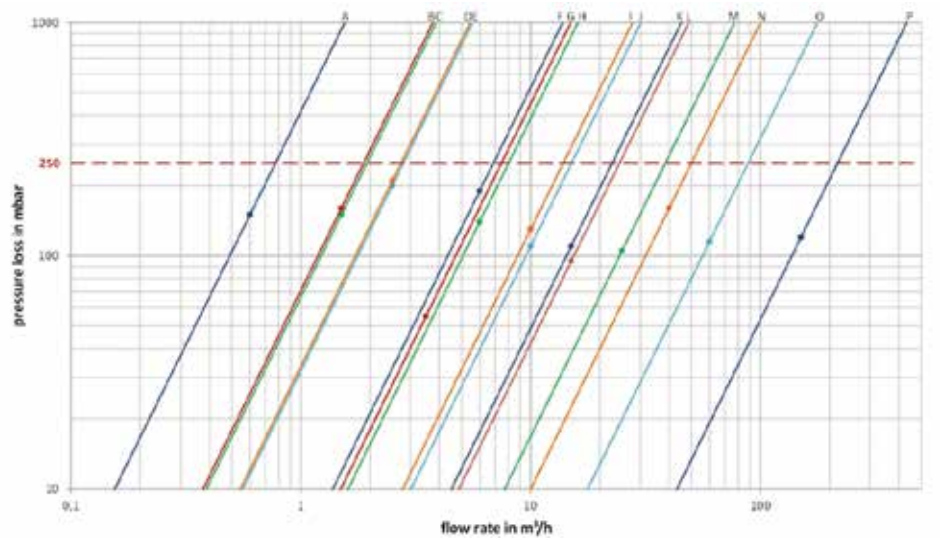


Pressure drop

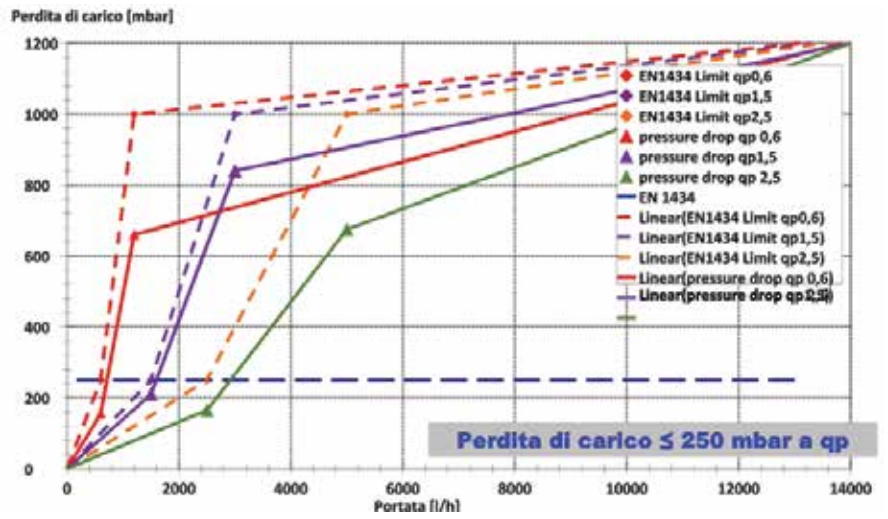
100 mbar=10kPA=1.000 mm WC

KSHG - KSHF ...

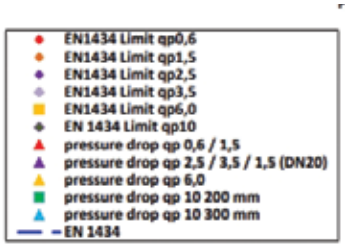
Pressure drop

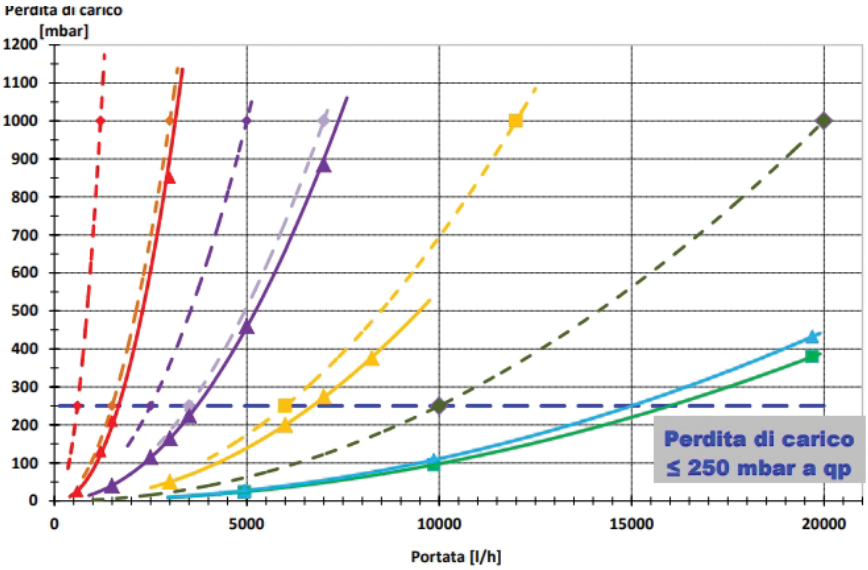


MHR - MHF - MHN ...



UHR - UHF -UHN ...





VALVES AND ACTUATORS

index

VFC 2..

VFC 3..

VFC 4..

MALE THREADED PN 16 SHUTTER VALVES FOR A 2, 3 AND 4-WAY FAN-COIL UP TO 3/4" (2...95 °C

	DN body mm	DN connection male	Kvs [1] m³/h direct	Suitable actuator ATC .... bar [2]
2 WAY				
VFC 212	15	1/2"	0,63	1
VFC 213	15	1/2"	1,0	1
VFC 214	15	1/2"	1,6	1
VFC 235	20	3/4"	2,5	1
VFC 237	20	3/4"	3,5	1
VFC 238	25	1"	4,5	1
3 WAY				
VFC 312	15	1/2"	0,63	1
VFC 314	15	1/2"	1,6	1
VFC 335	20	3/4"	2,5	1
VFC 338	25	1"	4,5	1
4 WAY				
VFC 412	15	1/2"	0,63	1
VFC 413	15	1/2"	1,0	1
VFC 414	15	1/2"	1,6	1
VFC 435	20	3/4"	2,5	1
VFC 437	20	3/4"	3,5	1
VFC 438	25	1"	4,5	1

Unions upon request

KEY

(1) Kvs: flow rate coefficient in m³/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mCA = 1 bar

(2) bar: maximum differential pressure Δp max. allowed by the actuator

ATC ...

ELECTROTHERMAL LINEAR ACTUATORS FOR VFC VALVES

These are the motors used for the automation of VFC type of valves.
Motor valve coupling adapter included (VA80)
The servo motors are of electrothermal type and therefore they are released in the event of no supply voltage.
The VFC valves are normally open. They close when the motor is mounted and there is no power supply.

	Power supply 50/60Hz (W)	control	force N	Run time	auxiliary end of run	valves VFC DN
ATC 220	230 V (1W)	On-Off	100	5 min.	–	15-25
ATC 24	24 V (1W)	On-Off	100	5 min.	–	15-25
ATC 220S	230 V (1W)	On-Off	100	5 min.	5 (230V 1A)	15-25
ATC 24S	24 V (1W)	On-Off	100	5 min.	3 (24V 1A)	15-25
ATC M24	24 V (1,4 W)	0÷10V cc	100	5 min.	–	15-25

HGT 1..

HGT 2..

HGT ... 2 PORT RADIATOR BALL VALVES PN 10 (5 ... 90 °C) UP TO 1"

They are right angle or straight valves, suitable for the On-Off radiator control.
Threaded valves with shank for DN 3/8"...1" radiators.

			Connections			CDK suitable actuator	
THROUGHPORT	**DN body**	**Kvs (1) m³/h**	**female input**	**rafit output**	**Male radiator shank**	**bar (2)**	**sec (3)**
HGT 110	3/8"	5,4	3/8"	1/2"	3/8"	6	60
HGT 115	1/2"	6	1/2"	3/4"	1/2"	6	60
HGT 120	3/4"	11	3/4"	1"	3/4"	6	60
HGT 125	1"	25,7	1"	1"1/4	1"	6	60
BY PASS							
HGT 210	3/8"	2,4	3/8"	1/2"	3/8"	6	60
HGT 215	1/2"	2,6	1/2"	3/4"	1/2"	6	60
HGT 220	3/4"	5	3/4"	1"	3/4"	6	60
HGT 225	1"	11,7	1"	1"1/4	1"	6	60

KEY

(1) Kvs: flow rate coefficient in m^3/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mWC = 1 bar

(2) bar: maximum differential pressure Δp max. allowed by the actuator

(3) sec: necessary time for the servo motor to make the valve complete the entire stroke

HGM 2..

2, 3 AND 4-WAY ZONE BALL VALVES PN 10 (5...90°C) UP TO 1"

HMM 2..

HMM 3..

HMM 4..

	DN body	Kvs (1) m³/h thr-port	by-pass	Connections		Suitable actuator CDK 06. bar (2)	sec (3)
2 WAY		**m³/h**	**m³/h**	**female**	**male**	**bar (2)**	**sec (3)**
HGM 210	3/8"	5,4	–	3/8"	3/8"	6	60
HGM 215	1/2"	6	–	1/2"	1/2"	6	60
HGM 220	3/4"	11	–	3/4"	3/4"	6	60
HGM 225	1"	25,7	–	1"	1"	6	60
2 WAY		**m³/h**	**m³/h**	**female**	**male**	**bar (2)**	**sec (3)**
HMM 210	3/8"	5,4	–	3/8"	3/8"	6	60
HMM 215	1/2"	6	–	1/2"	1/2"	6	60
HMM 220	3/4"	11	–	3/4"	3/4"	6	60
HMM 225	1"	25,7	–	1"	1"	6	60
3 WAY				**3 male**		**bar (2)**	**sec (3)**
HMM 320	3/4"	11	3	3/4"		6	60
HMM 325	1"	25,7	6,5	1"		6	60
4 WAY				**4 male**		**bar (2)**	**sec (3)**
HMM 410	3/8"	5,4	1,3	3/8"		6	60
HMM 415	1/2"	6	1,5	1/2"		6	60
HMM 420	3/4"	11	3	3/4"		6	60

KEY

(1) Kvs: flow rate coefficient in m^3/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mWC = 1 bar

(2) bar: maximum differential pressure Δp max. allowed by the servo motor

(3) sec: necessary time for the servo motor to make the valve complete the entire stroke

RTM 301 THERMOSTATIC HEAD

Thermostatic head with liquid sensor.

RTM 301	Thermostatic head

RTM 311 THERMOSTATIC HEAD WITH REMOTE SENSOR

Thermostatic head with liquid sensor and remote sensor.

RTM 311	Thermostatic head with liquid sensor and remote sensor.

DGT ... RADIATOR CONTROL VALVE PN 10 (5...90 °C)

It is the valve that is installed at the bottom of the radiator, as a lockshield, which cannot be motorized.

STRAIGHT	
DGT 110	Radiator lockshield DN 3/8"
DGT 115	Radiator lockshield DN 1/2"
DGT 120	Radiator lockshield DN 3/4"
DGT 110/R	Radiator lockshield DN 3/8" for copper pipe connection
DGT 115/R	Radiator lockshield DN 1/2" for copper pipe connection
ANGLED	
DGT 210	Radiator lockshield DN 3/8"
DGT 215	Radiator lockshield DN 1/2"
DGT 220	Radiator lockshield DN 3/4"
DGT 210/R	Radiator lockshield DN 3/8" for copper pipe connection
DGT 215/R	Radiator lockshield DN 1/2" for copper pipe connection
ACCESSORIES	
AGT 10	Nut with rubber dual-cone for copper pipe connection (10 mm)
AGT 12	Nut with rubber dual-cone for copper pipe connection (12 mm)
AGT 14	Nut with rubber dual-cone for copper pipe connection (14 mm)
AGT 15	Nut with rubber dual-cone for copper pipe connection (15 mm)
AGT 16	Nut with rubber dual-cone for copper pipe connection (16 mm)

VGT ...

RADIATOR CONTROL VALVE
PN 10 (5...90 °C)

Standard connection for standardized thermostatic heads, motor-driven

STRAIGHT	
VGT 110	Radiator control valve DN 3/8"
VGT 115	Radiator control valve DN 1/2"
VGT 120	Radiator control valve DN 3/4"
VGT 110/R	Radiator control valve DN 3/8" for copper pipe connection
VGT 115/R	Radiator control valve DN 1/2" for copper pipe connection
ANGLED	
VGT 210	Radiator control valve DN 3/8"
VGT 215	Radiator control valve DN 1/2"
VGT 220	Radiator control valve DN 3/4"
VGT 210/R	Radiator control valve DN 3/8" for copper pipe connection
VGT 215/R	Radiator control valve DN 1/2" for copper pipe connection

ACCESSORIES

AGT 10	Nut with rubber dual-cone for copper pipe connection (10 mm)
AGT 12	Nut with rubber dual-cone for copper pipe connection (12 mm)
AGT 14	Nut with rubber dual-cone for copper pipe connection (14 mm)
AGT 15	Nut with rubber dual-cone for copper pipe connection (15 mm)
AGT 16	Nut with rubber dual-cone for copper pipe connection (16 mm)

CDK 06.-03.

ACTUATORS FOR HGM ..., HMM ..., HGT VALVES (1...95°C)

Power supply 230, 24, 12 V AC, 3-point electrical control.
These actuators are provided with an auxiliary limit switch and removable terminal block connection.

	Power supply V (VA)	Control	Run time sec.	Nominal torque Kg/cm (Nm)	Starting torque Kg/cm (Nm)
CDK 068	230 AC (4)	3 points	60	15 (1,5)	30 (3)
CDK 064	24 AC (1)	3 points	60	15 (1,5)	30 (3)
CDK 062	12 AC (4)	3 points	60	15 (1,5)	30 (3)
CDK 038	230 AC (4)	3 points	30	10 (1)	20 (2)
CDK 034	24 AC (1)	3 points	30	10 (1)	20 (2)
CDK 032	12 AC (4)	3 points	30	10 (1)	20 (2)

YDG 2..

2-WAY BALL VALVES (-15...120 ° C) UP TO 4" CONNECTION WITH A SQUARE FLANGE

Ball shut-off valves for general use.
Threaded valves DN 1/2"...4"..

				Suitable actuators		
	DN	PN	Kvs [1] m³/h	CRB ... CVC ... bar [2]	CVH ... bar [2]	CVF ... bar [2]
YDG 215	1/2"	40	16,3	10	10	–
YDG 220	3/4"	40	29,5	10	10	–
YDG 225	1"	40	43	10	10	–
YDG 232	1"1/4	40	89	10	10	–
YDG 240	1"1/2	40	230	–	10	–
YDG 250	2"	40	265	–	10	–
YDG 265	2"1/2	25	540	–	10	–
YDG 280	3"	16	873	–	–	10
YDG 2100	4"	16	1.390	–	–	10

KEY

(1) Kvs: flow rate coefficient in m^3/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mCA = 1 bar
(2) bar: maximum differential pressure Δp max. allowed by the actuator

YDG 2/inox

2-WAY PN 64 STAINLESS STEEL BALL VALVES (-20...160°C) UP TO 2"

Stainless steel valves for high pressure and for liquids that require it.
Threaded valves DN 1/2"...2".

	DN	Kvs (1) m³/h	Suitable actuators CRB ... CVC ... bar (2)	Suitable actuators CVH ... bar (2)
YDG 215/Inox	1/2"	16,3	10	10
YDG 220/Inox	3/4"	29,5	10	10
YDG 225/Inox	1"	43	10	10
YDG 232/Inox	1"1/4	89	10	10
YDG 240/Inox	1"1/2	230	–	10
YDG 250/Inox	2"	265	–	10

XLG 3..

3-PORT BALL VALVES PN 6 (-15...120°C)

XLG 3... can be used for diverting water flow in heating or cooling systems.

	DN	Kvs (1) m³/h thr-port	Kvs (1) m³/h by-pass	Suitable actuators CRB ... CVC ... bar (2)	Suitable actuators CVH 11. bar (2)	Suitable actuators CVH 63./21./05 bar (2)
XLG 315	1/2"	16,3	1,5	6	6	6
XLG 320	3/4"	29,5	2,7	6	6	6
XLG 325	1"	43	3,9	6	6	6
XLG 332	1"1/4	89	7,9	6	6	6
XLG 341	1"1/2	160	14,8	-	6	6
XLG 351	2"	265	24,5	-	-	6

KEY

(1) Kvs: flow rate coefficient in m³/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mCA = 1 bar**(2)**

(1) bar: maximum differential pressure Δp max. allowed by the actuator

XDG 3..

3-PORT SCREWED FEMALE BALL VALVES PN 6 (-15...120°C)

3-port valves for general use used for diversion with straight inputs or outputs.
Diverter valves, threaded DN 1/2"...2".

	DN inches	Kvs (1) m³/h	Suitable actuators CRB ... CVC ... bar (2)	CVH 11. bar (2)	CVH 63./21./05 bar (2)
XDG 310	3/8"	1,8	6	6	6
XDG 315	1/2"	3,9	6	6	6
XDG 320	3/4"	7,9	6	6	6
XDG 325	1"	13	6	6	6
XDG 332	1"1/4	20,7	6	6	6
XDG 340	1"1/2	38,7	-	6	6
XDG 350	2"	54	-	-	6

2S

2-PORT FLANGED VALVES PN 16 (-15...120 °C)

Ball valves, sealed, to shut-off boilers and for other general uses, DN 40...200.

	DN mm	Kvs (1) m³/h	Suitable actuators CVH 63./21. bar (2)	CVF ... bar (2)	CVS 808 bar (2)
2S DN 40	40	230	6	-	-
2S DN 50	50	265	6	-	-
2S DN 65	65	540	6	-	-
2S DN 80	80	873	-	6	-
2S DN 100	100	1.390	-	6	-
2S DN 100S	100	1.390	-	-	10
2S DN 125	125	1.707	-	-	10
2S DN 150	150	2.024	-	-	10
2S DN 200	200	2.720	-	-	10

KEY

(1) Kvs: flow rate coefficient in m³/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mCA = 1 bar

(2) bar: rmaximum differential pressure Δp max. allowed by the actuator

CVS 808

REVERSIBLE ROTARY ACTUATOR 90° FOR 2S DN 100S - 200 BALL VALVES

	Power supply V (VA)	Run time sec.	Nominal torque Kg/cm (Nm)	Starting torque Kg/cm (Nm)	Valves 2S DN
CVS 808	230 AC (120)	55	8.000 (800)	8.000 (800)	100S-200

VSG/F

VFG/F

SLIPPER

BUTTERFLY

3 AND 4 PORT SLIPPER & BUTTERFLY VALVES PN 6 (10...110 °C)

Control valves for the delivery water temperature in heating systems, DN 15...150.

IN THE 4-WAY, THE ROTARY ELEMENT IS ONLY BUTTERFLY SHAPED
THE 3-WAY, THE ROTARY ELEMENT CAN BE SLIPPER OR BUTTERFLY SHAPED

					Suitable actuators		
3 Port Threaded	**DN inches**	**Kvs (1) m³/h**	**Rotor (3)**	**Length.(4) mm**	**CVC ... bar (2)**	**CVH... bar (2)**	**CVF ... bar (2)**
VSG 320	3/4"	13	slipper	130	0,3	0,5	-
VSG 325	1"	13	slipper	130	0,3	0,5	-
VSG 332	1"1/4	19	slipper	142	0,2	0,5	-
VSG 340	1"1/2	29	slipper	160	0,2	0,5	-
VSG 350	2"	57	slipper	190	0,2	0,5	-
VFG 320	3/4"	13	butterfly	130	0,3	0,5	-
VFG 325	1"	13	butterfly	130	0,3	0,5	-
VFG 332	1"1/4	19	butterfly	142	0,2	0,5	-
VFG 340	1"1/2	29	butterfly	160	0,2	0,5	-
VFG 350	2"	57	butterfly	190	0,2	0,5	-
3 Port Flanged	mm						
VSF 340	40	29	slipper	180	0,2	0,5	–
VSF 350	50	57	slipper	200	0,2	0,5	–
VSF 365	65	81	slipper	230	–	0,4	–
VSF 380	80	170	slipper	250	–	0,4	–
VSF 3100	100	240	slipper	280	–	0,3	0,5 (5)
VSF 3125	125	470	slipper	300	–	–	0,5
VSF 3150	150	700	slipper	350	–	–	0,5
VFF 340	40	29	butterfly	180	0,2	0,5	–
VFF 350	50	57	butterfly	200	0,2	0,5	–
VFF 365	65	81	butterfly	230	–	0,4	–
VFF 380	80	170	butterfly	250	–	0,4	–
VFF 3100	100	240	butterfly	280	–	0,3	0,5 (5)
VFF 3125	125	470	butterfly	300	–	–	0,5
VFF 3150	150	700	butterfly	350	–	–	0,5
4 Port Threaded	inches						
VFG 420	3/4"	13	butterfly	130	0,3	0,5	-
VFG 425	1"	13	butterfly	130	0,3	0,5	-
VFG 432	1"1/4	19	butterfly	142	0,2	0,5	-
VFG 440	1"1/2	29	butterfly	160	0,2	0,5	-
VFG 450	2"	57	butterfly	190	0,2	0,5	-
4 Port Flanged	mm						
VFF 440	40	29	butterfly	180	0,2	0,5	–
VFF 450	50	57	butterfly	200	0,2	0,5	–
VFF 465	65	81	butterfly	230	–	0,4	–
VFF 480	80	170	butterfly	250	–	0,4	–
VFF 4100	100	240	butterfly	280	–	0,3	0,5 (5)
VFF 4125	125	470	butterfly	300	–	–	0,5
VFF 4150	150	700	butterfly	350	–	–	0,5

KEY

(1) Kvs: flow rate coefficient in m³/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mCA = 1 bar

(2) bar: pmaximum differential pressure Ap max. allowed by the actuator

(3) Rotor type: pfor 3-way valves: sector = left or right side way always open; butterfly = central way always open

(4) Lenght Flange-to-flange length

(5) With CVF: can only be coupled with an AVF 171 connection

With CVH: direct coupling

2F 2-PORT BUTTERFLY VALVES PN 6 (10...110 °C)

Single-flange valves to shut-off boilers, DN 50...200

	DN mm	Kvs (1) m³/h	Suitable actuators CVC ... bar (2)	Suitable actuators CVH ... bar (2)
2F DN 50	50	100	1,5	3
2F DN 65	65	160	1,5	3
2F DN 80	80	280	–	3
2F DN 100	100	450	–	3
2F DN 125	125	700	–	2
2F DN 150	150	1.200	–	2
2F DN 175	175	1.800	–	2
2F DN 200	200	2.300	–	2

AFC ... FLANGES WITH NECK FOR FLANGED VALVES PN 6 (UNI 2280)

Pack with 1 flange complete with seal, bolts, nuts and washers:

	seal		bolts (2 port)		bolts (3/4 port)		nuts		washers	
	n	mm	n	mm	n	mm	n	mm	n	mm
AFC 040	1	85 x 45 x 2	0	–	4	12 M x 55	4	12 M	8	ø 12
AFC 050	1	95 x 57 x 2	2	12 M x 80	4	12 M x 55	4	12 M	8	ø 12
AFC 065	1	115 x 76 x 2	2	12 M x 80	4	12 M x 55	4	12 M	8	ø 12
AFC 080	1	132 x 89 x 2	2	16 M x 100	4	16 M x 60	4	16 M	8	ø 16
AFC 100	1	152 x 108 x 2	2	16 M x 100	4	16 M x 60	4	16 M	8	ø 16
AFC 125	1	182 x 133 x 2	4	16 M x 120	8	16 M x 60	8	16 M	16	ø 16
AFC 150	1	207 x 159 x 2	4	16 M x 120	8	16 M x 60	8	16 M	16	ø 16
AFC 175	1	230 x 185 x 3	8	16 M x 140	–	–	8	16 M	16	ø 16
AFC 200	1	255 x 210 x 3	8	16 M x 140	–	–	8	16 M	16	ø 16

KEY

(1) Kvs: flow rate coefficient in m³/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mCA = 1 bar

(2) bar: maximum differential pressure Δp max. allowed by the actuator

CRB ...

ROTARY ACTUATOR WITH ELECTRIC CABLE

Power supply 230-24 V AC, 3-point control, torque 6 Nm.

	Power supply V (VA)	Run time sec.	Nominal torque Kg/cm (Nm)	Starting torque Kg/cm (Nm)	2S XDG/ XLG/YDG valves
CRB 098	230 AC (4,5)	90	60 (6)	90 (9)	1"1/4
CRB 094	24 AC (4,5)	90	60 (6)	90 (9)	1"1/4

SPECIAL VERSION

CRB 098/S2	Complete with relay for 2-wire On-Off control (only at 230 V AC)

CVC ...

ROTARY ACTUATOR WITH ELECTRIC TERMINAL BLOCK

Power supply 230-24 V AC, 3-point control, torque 6 Nm.

					Valves (up to DN)		
	Power supply V (VA)	Run time sec.	Nominal torque Kg/cm (Nm)	Starting torque Kg/cm (Nm)	mixing VSG/VFG VSF/VFF	butterfly 2F	ball XDG/ XLG/ YLG
CVC 188	230 AC (2,5)	180	60 (6)	90 (9)	50	65	1"1/4
CVC 184	24 AC (2,5)	180	60 (6)	90 (9)	50	65	1"1/4
CVC 098	230 AC (4,5)	90	60 (6)	90 (9)	50	65	1"1/4
CVC 094	24 AC (4,5)	90	60 (6)	90 (9)	50	65	1"1/4
CVC 038	230 AC (5)	30	60 (6)	90 (9)	50	65	1"1/4
CVC 034	24 AC (5)	30	60 (6)	90 (9)	50	65	1"1/4
CVC 018	230 AC (7)	15	60 (6)	90 (9)	50	–	1"1/4
CVC 014	24 AC (7)	15	60 (6)	90 (9)	50	–	1"1/4

SPECIAL MODELS WITH ADDITIONAL COST

CVC .../T	With 6 W internal heater for fluid applications up to - 15°C (without auxiliary microswitches)

ACCESSORIES FOR CRB AND CVC

SMP 750	Manual release for VSG/VFG/VSF/VFF, 2F butterfly and XDG/XLG ball mixing valves
SMP 760	Manual release for YDG 2.. ball valves up to 1"1/4
AVA 101	Coupling for:: Honeywell-Mut 2 (Controlli, Caleffi, Sara); Zentra; Buche (Cazzaniga, Sauter, Ari-Fasoli,Chibro-Muller, Vilb fino a 2", Mastermann);Landis & Gyr (Lazzari, Tonon, Casem); Stark (Besser, Errevi, Intermes, Ari - Fasoli)
AVS 103	Coupling for: Honeywell-Mut 3 threaded old model (Controlli, Caleffi, Sara)
AVS 104	Coupling for: Landis & Gyr SN3-SN4

CVH ... ROTARY ACTUATOR WITH MANUAL CONTROL

Power supply 230-24 V AC, 3-point control, torque 15 Nm.

	Power supply V (VA)	Run time sec.	Nominal torque Kg/cm (Nm)	Staring torque Kg/cm (Nm)	Valves (up to DN) mixing VSG/VFG VSF/VFF	butterfly 2F	ball XDG/ XLG/	ball YDG 2	ball 2S
CVH 638	230 (4,5)	630	150 (15)	200 (20)	100	200	2"	2"1/2	65
CVH 634	24 (4,5)	630	150 (15)	200 (20)	100	200	2"	2"1/2	65
CVH 218	230 (4,5)	210	150 (15)	200 (20)	100	200	2"	2"1/2	65
CVH 214	24 (4,5)	210	150 (15)	200 (20)	100	200	2"	2"1/2	65
CVH 118	230 (4,5)	105	150 (15)	200 (20)	100	200	1"1/2	2"1/2	–
CVH 114	24 (4,5)	105	150 (15)	200 (20)	100	200	1"1/2	2"1/2	–
CVH 058	230 (5)	52	150 (15)	200 (20)	100	200	2"	2"1/2	–
CVH 054	24 (4,5)	52	150 (15)	200 (20)	100	200	2"	2"1/2	–

SPECIAL MODEL WITH ADDITIONAL COST

CVH .../T	Complete with 2 W internal heater for fluid applications up to -15°C

ACCESSORIES

AVA 101	Coupling for Honeywell-Mut 2 (Controlli, Caleffi, Sara); Zentra; Buche (Cazzaniga, Sauter, Ari-Fasoli,Chibro-Muller, Vilb fino a 2", Mastermann);Landis & Gyr (Lazzari, Tonon, Casem); Stark (Besser, Errevi, Intermes, Ari - Fasoli)
AVS 103	Coupling for: Honeywell-Mut 3 threaded old model (Controlli, Caleffi, Sara)
AVS 104	Coupling for: Landis & Gyr SN3-SN4

CVF ... ROTARY ACTUATOR FOR DN 100...150 VALVES

Power supply 230-24 V AC, 3-point control, torque 1 Nm.
Standardized connection for Coster valves, except for the VFF 3100 and VFF 4100 valves.
See table of accessories for these valves.

	Power supply V (VA)	Run time sec.	Nominal torque Kg/cm (Nm)	Starting torque Kg/cm (Nm)	Valves (up to DN) mixing VSF/VFF	butterfly 2S	ball YDG 2
CVF 458	230 (6)	450	1.200 (120)	1.200 (120)	100...150	80 / 100	3" / 4"
CVF 454	24 (6)	450	1.200 (120)	1.200 (120)	100...150	80 / 100	3" / 4"
CVF 158	230 (7)	150	1.000 (100)	1.000 (100)	100...150	80 / 100	3" / 4"
CVF 154	24 (7)	150	1.000 (100)	1.000 (100)	100...150	80 / 100	3" / 4"

ACCESSORIES

AVF 171	CVF connection for: Coster VFF 3100, VFF 4100 e VSF 3100
AVF 172	CVF connection for: Honeywell-Mut 2 flanged (Controlli, Caleffi, Sara); Jucker; Zentra; Landis & Gyr (Lazzari, Tonon, Casem); Stark (Besser, Errevi, Intermes, Ari-Fasoli); Buche (Cazzaniga, Sauter, Ari-Fasoli, Chibro-Muller, Vilb up to 2", Mastermann)

VYG 2..

2-PORT PN 16 BALL CONTROL VALVES INTERNAL THREAD / DN 15 - 50

Fluid temperature: –10...120 °C

	DN					Suitable actuator			
	body mm	connect. inches	Kvs [1] m³/h	n (gl)	Sv min.	CVTR 100 s [3] bar [2]	CVLR 90 s [3] bar [2]	CVNR 90 s [3] bar [2]	CVSR 90 s [3] bar [2]
VYG 215 - 0,63	15	1/2	0,63	3,2	50	3,5	3,5	3,5	3,5
VYG 215 - 1,6	15	1/2	1,6	3,2	50	3,5	3,5	3,5	3,5
VYG 215 - 2,5	15	1/2	2,5	3,2	50	3,5	3,5	3,5	3,5
VYG 215 - 4	15	1/2	4	3,2	100	3,5	3,5	3,5	3,5
VYG 215 - 6,3	15	1/2	6,3	3,2	100	3,5	3,5	3,5	3,5
VYG 220 - 4	20	3/4	4	3,2	100	–	3,5	3,5	3,5
VYG 220 - 6,3	20	3/4	6,3	3,2	100	–	3,5	3,5	3,5
VYG 220 - 8,6	20	3/4	8,6	3,2	100	–	3,5	3,5	3,5
VYG 225 - 6,3	25	1	6,3	3,2	100	–	3,5	3,5	3,5
VYG 225 - 10	25	1	10	3,2	100	–	3,5	3,5	3,5
VYG 225 - 16	25	1	16	3,2	100	–	3,5	3,5	3,5
VYG 232 - 16	32	1 1/4	16	3,2	100	–	–	3,5	3,5
VYG 240 - 16	40	1 1/2	16	3,2	100	–	–	3,5	3,5
VYG 240 - 25	40	1 1/2	25	3,2	100	–	–	3,5	3,5
VYG 250 - 25	50	2	25	3,2	100	–	–	–	3,5
VYG 250 - 40	50	2	40	3,2	100	–	–	–	3,5

KEY

(1) Kvs: flow rate coefficient in m³/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mWC= 1 bar**(2) bar:** maximum differential pressure Δp max. allowed by the actuator

VYG 3.. 3-WAY BALL VALVES PN 16 (-10...120°C)

Ball control valves, with self-cleaning action.
A-B sealed adjustment port.
Bypass B - AB approx. 1...2% of the kvs with respect to the higher value of the relative DN

	DN body mm	DN connection sec. female	Kvs[1] m³/h	Actuator connector	Suitable actuator CVTR 100 s[3] bar [2]	CVLR 90 s[3] bar [2]	CVNR 90 s[3] bar [2]	CVSR 90 s[3] bar [2]
VYG 315-0,25	15	1/2"	0,25	F 04	3,5	3,5	3,5	3,5
VYG 315-0,4	15	1/2"	0,4	F 04	3,5	3,5	3,5	3,5
VYG 315-0,63	15	1/2"	0,63	F04	3,5	3,5	3,5	3,5
VYG 315-1	15	1/2"	1,0	F04	3,5	3,5	3,5	3,5
VYG 315-1,6	15	1/2"	1,6	F04	3,5	3,5	3,5	3,5
VYG 315-2,5	15	1/2"	2,5	F04	3,5	3,5	3,5	3,5
VYG 315-4	15	1/2"	4,0	F04	3,5	3,5	3,5	3,5
VYG 320-4	20	1/2"	4,0	F04	–	3,5	3,5	3,5
VYG 320-6,3	20	3/4"	6,3	F04	–	3,5	3,5	3,5
VYG 325-6,3	25	1"	6,3	F04	–	3,5	3,5	3,5
VYG 325-10	25	1"	10	F04	–	3,5	3,5	3,5
VYG 332-16	32	1"1/4	16	F04	–	–	3,5	3,5
VYG 340-16	40	1"1/2	16	F04	–	–	3,5	3,5
VYG 340-25	40	1"1/2	25	F04	–	–	–	3,5
VYG 350-25	50	2"	25	F04	–	–	–	3,5
VYG 350-40	50	2"	40	F04	–	–	–	3,5
VYG 350-58	50	2"	58	F04	–	–	–	3,5

KEY

(1) Kvs: flow rate coefficient in m³/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mWC = 1 bar
(2) bar: maximum differential pressure Δp max. allowed by the actuator

VYG 615

6-WAY INTERNAL THREAD CONTROL VALVE PN 16 / DN 15

Fluid temperature: 6...80 °C

	DN		Suitable actuator CVLR .... 90 s[3] bar [2]	Kvs (Sequence I) m³/h	Kvs (Sequence II) m³/h
	mm	inches			
VYG 615 - 0,25 - 0,25	15	1/2	3,5	0,25	0,25
VYG 615 - 0,25 - 0,4	15	1/2	3,5	0,25	0,4
VYG 615 - 0,25 - 0,63	15	1/2	3,5	0,25	0,63
VYG 615 - 0,25 - 1	15	1/2	3,5	0,25	1
VYG 615 - 0,25 - 1,3	15	1/2	3,5	0,25	1,3
VYG 615 - 0,25 - 1,8	15	1/2	3,5	0,25	1,8
VYG 615 - 0,4 - 0,25	15	1/2	3,5	0,4	0,25
VYG 615 - 0,4 - 0,4	15	1/2	3,5	0,4	0,4
VYG 615 - 0,4 - 0,63	15	1/2	3,5	0.4	0,63
VYG 615 - 0,4 - 1	15	1/2	3,5	0,4	1
VYG 615 - 0,4 - 1,3	15	1/2	3,5	0,4	1,3
VYG 615 - 0,4 - 1,8	15	1/2	3,5	0,4	1,8
VYG 615 - 0,63 - 0,25	15	1/2	3,5	0,63	0,25
VYG 615 - 0,63 - 0,4	15	1/2	3,5	0,63	0,4
VYG 615 - 0,63 - 0,63	15	1/2	3,5	0,63	0,63
VYG 615 - 0,63 - 1	15	1/2	3,5	0,63	1
VYG 615 - 0,63 - 1,3	15	1/2	3,5	0,63	1,3
VYG 615 - 0,63 - 1,8	15	1/2	3,5	0,63	1,8
VYG 615 - 1 - 0,25	15	1/2	3,5	1	0,25
VYG 615 - 1 - 0,4	15	1/2	3,5	1	0,4
VYG 615 - 1 - 0,63	15	1/2	3,5	1	0,63
VYG 615 - 1 - 1	15	1/2	3,5	1	1
VYG 615 - 1 - 1,3	15	1/2	3,5	1	1,3
VYG 615 - 1 - 1,8	15	1/2	3,5	1	1,8
VYG 615 - 1,3 - 0,25	15	1/2	3,5	1,3	0,25
VYG 615 - 1,3 - 0,4	15	1/2	3,5	1,3	0,4
VYG 615 - 1,3 - 0,63	15	1/2	3,5	1,3	0,63
VYG 615 - 1,3 - 1	15	1/2	3,5	1,3	1
VYG 615 - 1,3 - 1,3	15	1/2	3,5	1,3	1,3
VYG 615 - 1,3 - 1,8	15	1/2	3,5	1,3	1,8
VYG 615 - 1,8 - 0,25	15	1/2	3,5	1,8	0,25
VYG 615 - 1,8 - 0,4	15	1/2	3,5	1,8	0,4
VYG 615 - 1,8 - 0,63	15	1/2	3,5	1,8	0,63
VYG 615 - 1,8 - 1	15	1/2	3,5	1,8	1
VYG 615 - 1,8 - 1,3	15	1/2	3,5	1,8	1,3
VYG 615 - 1,8 - 1,8	15	1/2	3,5	1,8	1,8

KEY

(1) Kvs: flow rate coefficient in m³/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mWC = 1 bar

Vmax low-n: Vmax for low noise operation

(2) bar: maximum differential pressure Δp max. allowed by the actuator

ACCESSORIES

ZR 2315	Fittings DN 15
ZR 2320	Fittings DN 20

VYG 620

6-WAY FEMALE THREAD CONTROL VALVE PN 16 / DN 20

Fluid temperature: 6...80 °C

	DN		Suitable actuator CVLR ... 90 s[3]	Kvs (Sequence I)	Kvs (Sequence II)
	mm	Inches	bar [2]	m³/h	m³/h
VYG 620 - 0,63 - 1,6	20	3/4	3,5	0,63	1,6
VYG 620 - 0,63 - 2,5	20	3/4	3,5	0,63	2,5
VYG 620 - 0,63 - 4	20	3/4	3,5	0,63	4
VYG 620 - 1 - 1,6	20	3/4	3,5	1	1,6
VYG 620 - 1 - 2,5	20	3/4	3,5	1	2,5
VYG 620 - 1 - 4	20	3/4	3,5	1	4
VYG 620 - 1,6 - 0,63	20	3/4	3,5	1,6	0,63
VYG 620 - 1,6 - 1	20	3/4	3,5	1,6	1
VYG 620 - 1,6 - 1,6	20	3/4	3,5	1,6	1,6
VYG 620 - 1,6 - 2,5	20	3/4	3,5	1,6	2,5
VYG 620 - 1,6 - 4	20	3/4	3,5	1,6	4
VYG 620 - 2,5 - 0,63	20	3/4	3,5	2,5	0,63
VYG 620 - 2,5 - 1	20	3/4	3,5	2,5	1
VYG 620 - 2,5 - 1,6	20	3/4	3,5	2,5	1,6
VYG 620 - 2,5 - 2,5	20	3/4	3,5	2,5	2,5
VYG 620 - 2,5 - 4	20	3/4	3,5	2,5	4
VYG 620 - 4 - 0,63	20	3/4	3,5	4	0,63
VYG 620 - 4 - 1	20	3/4	3,5	4	1
VYG 620 - 4 - 1,6	20	3/4	3,5	4	1,6
VYG 620 - 4 - 2,5	20	3/4	3,5	4	2,5
VYG 620 - 4 - 4	20	3/4	3,5	4	4

ACCESSORIES

ZR 2315	Fittings DN 15
ZR 2320	Fittings DN 20

KEY

(1) Kvs: flow rate coefficient in m³/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mWC = 1 bar

Vmax low-n: Vmax for low noise operation

(2) bar: maximum differential pressure Δp max. allowed by the actuator

CVTR ...

ROTARY ACTUATORS WITH MANUAL OVERRIDE TORQUE 2 NM

For VYG .... valves

	Power supply V (VA)	Control	Run time sec.	Torque (Nm)	End of run (accessory)	Valve connections	Valves DN VYG 3.. only DN 15 - 1/2"
CVTR 108	230 VAC(1)	3 points	105	2	No	F04	1/2"
CVTR 104	24 VAC (1)	3 points	105	2	No	F04	1/2"
CVTR 104-0	24 VAC/DC (1)	2...10 V	105	2	No	F04	1/2"

CVLR ...

ROTARY ACTUATORS WITH MANUAL OVERRIDE TORQUE 5 NM

For VYG .... valves

Modbus	Power supply V (VA)	Control	Run time sec	Torque (Nm)	End of run (accessory)	Valve connections	Valves DN VYG 2.. VYG 3.. VYG 6..
CVLR 097	100÷240 V AC (4)	3 points	90	5	1 o 2	F04	1/2"÷1"
CVLR 095	24 V AC/DC (2)	3 points	90	5	1 o 2	F04	1/2"÷1"
CVLR 095-0	24 V AC/DC (2)	0...10 V	90	5	1 o 2	F04	1/2"÷1"
CVLR 095-MOD	24 V AC/DC (2)	Modbus	90	5	1 o 2	F04	1/2"÷1"

ACCESSORIES

FCS 123	Auxiliary stop with 1 comm. terminal 3 in comm. 3 (0,5) A, 250 VAC adjustable 0÷100 %
FCS 223	Auxiliary stop with 2 comm. terminal 3 in comm. (0,5) A, 250 VAC indipendently adjustable 0÷100 %

CVNR ... ROTARY ACTUATORS WITH MANUAL OVERRIDE TORQUE 10 NM

For VYG .... valves. **Excluding VYG 340-25 DN 40**

	Power supply V (VA)	Control	Run time sec.	Torque (Nm)	End of run (accessory)	Valve connect.	Valves DN VYG 2.. VYG 3..
CVNR 148	230 V AC(3,5)	3 points	90	10	Yes	F04	1/2"÷1"1/2
CVNR 144	24 V AC/DC (1,5)	3 points	90	10	Yes	F04	1/2"÷1"1/2
CVNR 144-0	24 V AC/DC (1,5)	0...10 V	90	10	Yes	F04	1/2"÷1"1/2
CVNR 144-MOD	24 V AC/DC (1,5)	Modbus	90	10	Yes	F04	1/2"÷1"1/2

CVSR ... ROTARY ACTUATORS WITH MANUAL OVERRIDE TORQUE 20 NM

For VYG .... valves
For correct operation, they need a control that is 2-points (On-Off), 3-points (common, open and close), or progressive (0-10 V-)..

	Power supply V (VA)	Control	Run time sec.	Torque (Nm)	End of run (accessory)	Valve connect.	Valves DN VYG 2.. VYG 3..
CVSR 097	100÷240 V AC (6)	3 points	90	20	1 or 2	F04	1/2"÷2"
CVSR 095	24 V AC/DC (4)	3 points	90	20	1 or 2	F04	1/2"÷2"
CVSR 095-0	24 V AC/DC (4)	0...10 V	90	20	1 o 2	F04	1/2"÷2"
CVSR095-MOD	24 V AC/DC (4)	Modbus	90	20	1 o 2	F04	1/2"÷2

ACCESSORIES

FCS 123	Auxiliary stop with 1 comm. terminal 3 in comm. 3 (0,5) A, 250 VAC adjustable 0÷100 %
FCS 223	Auxiliary stop with 2 comm. terminal 3 in comm. (0,5) A, 250 VAC indipendently adjustable 0÷100 %

VOBG 3..

3 WAY MALE THREADED SEAT VALVES PN 16 (-10 ... 120 °C) BRONZE BODY

DN 1/2"...2", can be converted from 3 to 2-way

	DN body	DN valve joint	DN pipe joint	Kvs [1] m³/h	run mm	Suitable actuators CLNV ... 3,75 / 7,5 s./mm		CLNF U [4] 7,5 s./mm	
		male	female*			bar [2]	s. [3]	bar [2]	s. [3]
VOBG 311	15	1"1/8	1/2"	0,63	15	4	56/112	4	112
VOBG 312	15	1"1/8	1/2"	1,0	15	4	56/112	4	112
VOBG 313	15	1"1/8	1/2"	1,6	15	4	56/112	4	112
VOBG 314	15	1"1/8	1/2"	2,5	15	4	56/112	4	112
VOBG 315	15	1"1/8	1/2"	4,0	15	4	56/112	4	112
VOBG 320	20	1"1/4	3/4"	6,3	15	4	56/112	4	112
VOBG 325	25	1"1/2	1"	10	15	4	56/112	4	112
VOBG 332	32	2"	1"1/4	16	15	4	56/112	4	112
VOBG 340	40	2"1/4	1"1/2	25	15	4	56/112	4	112
VOBG 350	50	2"3/4	2"	40	15	3,5	56/112	2,8	112

ACCESSORY

ARS 454	Stem heaters for fluid temperatures down to -10°C Power supply 24 V AC (45W) for DN 15:...50 valves

KEY

(1) Kvs: flow rate coefficient in m3/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mWC = 1 bar

(2) bar: maximum differential pressure Δp max. allowed by the actuator

(3) sec: necessary time for the actuator to make the valve complete the entire stroke

(4) actuator for emergency closure

***** female connection with fittings

TVG ...

FEMALE CAPS TO CONVERT VOBG VALVES FROM 3 TO 2-WAY

Pack of 3 pieces with or without control valves

	descripion	features
TVG G16	1"1/8 female cap complete with washer	311 ... 315 (15)
TVG G20	1"1/4 female cap complete with washer	320 (20)
TVG G25	1"1/2 female cap complete with washer	325 (25)
TVG G32	2" female cap complete with washer	332 (32)
TVG G40	2"1/4 female cap complete with washer	340 (40)
TVG G50	2"3/4 female cap complete with washer	350 (50)

VORF 3.. FLANGED PN 16 3-WAY SEAT VALVES PN 6 (–10 ... 120 °C) CAST IRON BODY

	DN body	Kvs [1] m³/h	run mm	Suitable actuators CLNV... 2,75 / 7,5 s./mm bar [2]	CLNV... 2,75 / 7,5 s./mm s.[3]	CLNF U...[4] 7,5 s./mm bar [2]	CLNF U...[4] 7,5 s./mm s.[3]	CLAV... 3,75/7,5 s./mm bar [2]	CLAV... 3,75/7,5 s./mm s.[3]
VORF 315	15	4,0	15	4	56/112	4	112	–	–
VORF 320	20	6,3	15	4	56/112	4	112	–	–
VORF 325	25	10	15	4	56/112	4	112	–	–
VORF 332	32	16	15	4	56/112	4	112	–	–
VORF 340	40	25	15	4	56/112	4	112	–	–
VORF 350	50	40	15	3,5	56/112	2,8	112	–	–
VORF 364	65	58	18	2,0	67/135	1,6	135	–	–
VORF 379	80	90	18	1,35	67/135	1,0	135	–	–
VORF 3100	100	145	30	–	–	–	–	1,6	112/225

ACCESSORIES		features	valve
ARS 454	Stem heaters for fluid temperatures down to -10°C	24 V AC (45 W)	DN 15÷50
ARS 604C	Stem heaters for fluid temperatures down to -10°C.	24 V AC (60 W)	DN 65÷100

WARNING:
VORF 364 and **VORF 379** models (run 18 mm) should not be mounted on **CLNV 2...** actuators.

VONF ... 3 WAY FLANGED SEAT VALVES PN 16 (–10 ... 120 °C) CAST IRON BODY

	DN body mm	Kvs (1) m³/h	run mm	Suitable actuators: CLNV ... 3,75 / 7,5 s./mm bar (2)	CLNV ... 3,75 / 7,5 s./mm s. (3)	CLNF U (4) 7,5 s./mm bar (2)	CLNF U (4) 7,5 s./mm s. (3)	CLAV (4) 3,75 / 7,5 s./ mm bar (2)	CLAV (4) 3,75 / 7,5 s./ mm s. (3)
VONF 315	15	4,0	15	4	56 / 112	4	112	–	–
VONF 320	20	6,3	15	4	56 / 112	4	112	–	–
VONF 325	25	10	15	4	56 / 112	4	112	–	–
VONF 332	32	16	15	4	56 / 112	4	112	–	–
VONF 340	40	25	15	4	56 / 112	4	112	–	–
VONF 350	50	40	15	3,5	56 / 112	2,8	112	–	–
VONF 364	65	58	18	2.0	67 / 135	1,6	135	–	–
VONF 365	65	63	30	–	–	–	–	4,0	112/225
VONF 379	80	90	18	1,35	67 / 135	1,0	135	–	–
VONF 380	80	100	30	–	–	–	–	2,7	112/225
VONF 3100	100	145	30	–	–	–	–	1,6	112/225
VONF 3125	125	220	40	–	–	–	–	0,9	150/300
VONF 3150	150	320	40	–	–	–	–	0,6	150/300

KEY

1) Kvs: flow rate coefficient in m3/h with the valve open with pressure drops of 100 KPa. 100 kPa = 10 mCA = 1 bar

(2) bar: rmaximum differential pressure Δp max. allowed by the actuator

(3) sec: necessary time for the actuator to make the valve complete the entire stroke

(4) actuator with emergency closure

ACCESSORIES

ARS 454	Stem heaters for fluid temperatures down to -10°C. Power supply 24 V AC (45W) for DN 15:...50 valves
ARS 604C	Stem heaters for fluid temperatures down to -10°C. Power supply 24 V AC (60W) for DN 65:...100
ARS 604D	Stem heaters for fluid temperatures down to -10°C. Power supply 24 V AC (60W) for DN 125:...150

WARNING:
VONF 364 and **VONF 379** models (run 18 mm) should not be mounted on **CLNV 2...** actuators

CLNV ... LINEAR ACTUATORS FOR VOBG .., VORF .., VONF .. VALVES

	Power supply. V (VA)	Control	position signal	auxiliary microswitches*	max run mm	force N	speed sec./mm
CLNV 218	230 V AC (1)	3 points	No	Yes	15	500	150 - 15
CLNV 214	24 V AC (1)	3 points	No	Yes	15	500	150 - 15
CLNV 254-0	24 V AC (2)	0÷10 V	0÷10 V	Yes	15	500	150 - 15
CLNV 318	230 V AC (4,5	3 points	No	Yes	20	1.000	150 - 20
CLNV 318-R	230 V AC (4,5)	3 points	No	Yes	20	1.000	150 - 20
CLNV 314	24 V AC (3)	3 points	No	Yes	20	1.000	150 - 20
CLNV 314-R	24 V AC (3)	3 points	No	Yes	20	1.000	150 - 20
CLNV 354-0	24 V AC (3)	0 ÷10 V	0÷10 V	Yes	20	1.000	150 - 20
CLNV 354R-0	24 V AC (4,5)	0 ÷10 V	0÷10 V	Yes	20	1.000	150 - 20

* with accessory FCS2A used

ACCESSORY FOR AUXILIARY CONTACTS

FCS 2A	Auxiliary contacts for actuators of globe valves

CLAV ... LINEAR ACTUATORS FOR VORF .., VONF .. VALVES

	Power supply V (VA)	Control	position signal	auxiliary microswitches*	max run mm	force N	speed sec./mm	
CLAV 218	230 V AC (9,5)	3 points	No	Yes	40	2.500	150 - 40	€ 790,00
CLAV 214	24 V AC (4,5)	3 points	No	Yes	40	2.500	150 - 40	€ 750,00
CLAV 254-0	24 V AC (6)	0 ÷10 V	0 ÷10 V	Yes	40	2.500	150 - 40	€ 800,00

CLAV .../R available only on request

* with accessory FCS2A used

ACCESSORY FOR AUXILIARY CONTACTS

FCS 2A	Auxiliary contacts for actuators of globe valves	€ 100,00

CLNF ... LINEAR ACTUATORS FOR VOBG .., VORF .., VONF .. VALVES WITH EMERGENCY CLOSURE

	power supply V (VA)	Control	position signal	auxiliary microswitches*	max run mm	force N	speed sec./mm	emerg. speed sec./mm	
CLNF U254	24 V AC (6)	3 points	No	Yes	20	1000	150-20	35-20	€ 570,00
CLNF U254-0	24 V AC (6)	0÷10 V	0÷10 V	Yes	20	1000	150-20	35-20	€ 610,00
CLNF U254R-0	24 V AC (6)	0÷10 V	0÷10 V	Yes	20	1000	150-20	35-20	€ 760,00
CLNF U258-R	230 V AC (4,5)	3 points	No	Yes	20	1000	150-20	35.20	€ 750,00

* with accessory FCS2A used FCS2A

ACCESSORY FOR AUXILIARY CONTACTS

FCS 2A	Auxiliary contacts for actuators of globe valves	€ 100,00

ACTUATORS	Valves (brands and type)	DN
on request	Coster VL - VF (2000÷2010)	65 ÷ 100
CLNV3..R ÷ CLNF U..R	Coster VRG - VRB - VL - VF - VE - VS (2000÷2009)	15 ÷ 50
	Coster VRGN - VRBN - VLN - VFN (2010)	15 ÷ 50
	Coster VLN - VFN (2010)	65 ÷ 80
CLNV...R-0 ÷ CLNF U...R-0	Controlli VSB - VMB - VSB..F - VMB..F	15 ÷ 50
CLNV...R-0 ÷ CLNF U...R-0	Honeywell V5011R - V5013R	15 ÷ 50
	Honeywell V5015	25 ÷ 80
	Honeywell V5049A - V5050A	15 ÷ 65
	Honeywell V5095A	20 ÷ 80
	Honeywell V5328A - V5329A - V5329C	15 ÷ 80
on request	Honeywell V5015A	100 ÷ 150
	Honeywell V5049A - V5050A	80 ÷ 150
CLNV...R-0 ÷ CLNF U...R-0	Siemens VVF61 - VXF61	15 ÷ 25
	Siemens VPF52E/F - VVF52 - VXF41	15 ÷ 40
	Siemens VVG41 - VXG41	15 ÷ 50
	Siemens VVF21 - VVF40	15 ÷ 80
	Siemens VXF21 - VVF31 - VXF31	25 ÷ 80

ACTUATORS	Valves (brands and type)	DN
on request	Siemens VVF21 - VXF21	100
	Siemens VVF31 - VXF31 - VVF40 - VXF40	100 ÷ 150
	Siemens VVF41 - VVF45	50 ÷ 150
	Siemens VVF61	40 ÷ 150
	Siemens VXF41	65 ÷ 150
	Siemens VXF61	32 ÷ 150
CLNV...R-0 ÷ CLNF U...R-0	Johnson BM-2xx 2 - BM-2xx 8	15 ÷ 50
	Johnson VB7216	15 ÷ 50
	Johnson VG7201 - VG7401 - VG7804	15 ÷ 50
	Johnson VG7203 - VG7403 - VG7802	15 ÷ 50
	Johnson VB7816	15 ÷ 50
	Johnson VBD-4xx 4 - VBD-4xx 8 - VG82/84/88/89	15 ÷ 40
	Johnson VBF-0xx 4 - VBF-0xx 8 - VBF-2xx 4 - VBF-2xx 8	15 ÷ 50
on request	Johnson VBD-4xx 8 - VBD-4xx 8 - VG82/84/88/89	50 ÷ 150
	Johnson VBF-0xx 4 - VBF-0xx 8 - VBF-2xx 4 - VBF-2xx 8	65 ÷ 100
CLNV...R-0 ÷ CLNF U...R-0	Sauter B6F..F - B6G..F - B6R..F - B6S..F - BXD..F - BXE..F	15 ÷ 50
	Sauter V6F..F - V6G..F - V6R..F - V6S..F - VXD..F - VXE..F	15 ÷ 50
	Sauter VXN.. - BXN	15 ÷ 50
	Sauter B4F..F	20 ÷ 32
	Sauter BT43B	15 ÷ 40
	Sauter V1T	15
	Sauter V4F	15 ÷ 32
	Sauter BUE.. - BUG.. - VUE.. - VUG	15 ÷ 50
on request	Sauter B6F..F - B6S..F - BXD..F - BXE..F	65 ÷ 150
	Sauter V6F..F - V6S..F - VXD..F - VXE..F	65 ÷ 150
	Sauter BUE.. - BUG.. - VUE.. - VUG	65 ÷ 150
	Sauter V4F	40 ÷ 100
CLNV...R-0 ÷ CLNF U...R-0	Satchwell MJF - VSF	15 ÷ 25
	Satchwell VZ - MZ	15 ÷ 50
on request	Satchwell VSF	32 ÷ 50
	Satchwell MZF - VZF (filetto perno 3/8")	65 ÷ 150
	Satchwell MZF - VZF(filetto perno 1/4")	65 ÷ 150
	Satchwell MJF (filetto perno 1/4")	50
CLNV...R-0 ÷ CLNF U...R-0	V221	65 ÷ 150
	V294	15 ÷ 32
	V241 - V341 - V348	15 ÷ 50
on request	V265 - V295	40 ÷ 65
	V395-1	40 ÷ 100

CSL ... DAMPER ACTUATORS

Actuators suitable to operate dampers in air handling units.

CSN ...

CSS ...

CSG ...

	Power supply V (VA)	control	auxiliary contacts	dampers m^2	torque N/m	Run sec.
CSL 138	230V AC (4)	2 or 3 points	No	1	5	150
CSL 138/C	230V AC (4)	2 or 3 points	1	1	5	150
CSL 134	24V AC/DC (2)	2 or 3 points	No	1	5	150
CSL 134/C	24V AC/DC (2)	2 or 3 points	1	1	5	150
CSL 104	24V AC/DC (2)	2...10V-	No	1	5	150
CSN 238	230V AC (6)	2 or 3 points	No	2	10	150
CSN 238/C	230V AC (6)	2 or 3 points	1	2	10	150
CSN 234	24V AC/DC (4)	2 or 3 points	No	2	10	150
CSN 234/C	24V AC/DC (4)	2 or 3 points	1	2	10	150
CSN 204	24V AC/DC (4)	2...10V-	No	2	10	150
CSS 438	230V AC (6)	2 or 3 points	No	4	20	150
CSS 438/C	230V AC (6)	2 or 3 points	1	4	20	150
CSS 434	24V AC/DC (4)	2 or 3 points	No	4	20	150
CSS 434/C	24V AC/DC (4)	2 or 3 points	1	4	20	150
CSS 404	24V AC/DC (4)	2...10V-	No	4	20	150
CSG 838	230V AC (8)	2 or 3 points	No	8	40	150
CSG 838/C	230V AC (8)	2 or 3 points	1	8	40	150
CSG 834	24V AC/DC (7)	2 or 3 points	No	8	40	150
CSG 834/C	24V AC/DC (7)	2 or 3 points	1	8	40	150
CSG 804	24V AC/DC (7)	2...10V-	No	8	40	150

CFT ...

DAMPER ACTUATORS EMERGENCY CLOSURE

Actuators suitable to operate dampers in air handling systems.
Automatic closure of the damper in the case of a power cut.

CFL ...

CFS ...

	Power supply V (VA)	control	auxiliary contacts	dampers m^2	torque N/m	run sec.	emergency sec.
CFT 028	230V ~ (5)	2 points	No	0,4	2	75	25
CFT 028/C	230V ~ (5)	2 points	1	0,4	2	75	25
CFT 024	24V ~/- (5)	2 points	No	0,4	2	75	25
CFT 024/C	24V ~/- (5)	2 points	1	0,4	2	75	25
CFT 004	24V ~/- (5)	2...10V-	No	0,4	2	75	25
CFL 128	230V ~ (7)	2 points	No	0,8	4	75	20
CFL 128/C	230V ~ (7)	2 points	1	0,8	4	75	20
CFL 124	24V ~/- (7)	2 points	No	0,8	4	75	20
CFL 124/C	24V ~/- (7)	2 points	1	0,8	4	75	20
CFL 134	24V ~/- (5)	3 points	No	0,8	4	150	20
CFL 104	24V ~/- (5)	2...10V-	No	0,8	4	150	20
CFS 428	230V ~ (18)	2 points	No	4	20	75	20
CFS 428/C	230V ~ (18)	2 points	2	4	20	75	20
CFS 424	24V ~/- (7,5)	2 points	No	4	20	75	20
CFS 424/C	24V ~/- (7,5)	2 points	2	4	20	75	20
CFS 404	24V ~/- (7)	2...10V-	No	4	20	150	20
CFS 404/C	24V ~/- (7)	2...10V-	2	4	20	150	20

FCS 123

LIMIT SWITCH CONTACTS AND POSITIONER FOR DAMPER ACTUATOR

FCF 223	Auxiliary limit switch with 2 contacts in switch 3 (0.5)A, 250 V AC for CFS actuators.
FCS 123	Auxiliary limit switch with 1 contact in switch. 3 (0.5)A, 250 V AC for CS.. actuators.
FCS 223	Auxiliary limit switch with 2 contacts in switch. 3 (0.5)A, 250 V AC for CS ... actuators.
PCS 104	Positioning 0...100% damper servo motors 0...10V DC (max 10 actuators)

PCS 104

VARIOUS ACCESSORIES FOR ASSEMBLING DAMPER ACTUATORS

KH 8	Universal lever for damper pins (Ø10 ... 18 mm.; □ 10 ... 14 mm.)
AH-25	Lever for CSN ... actuators
AH-20	Lever for CSS ... actuators
AH-GMA	Lever for CSG ... actuators
KG 10	Ball joint for connection (use rods with max Ø 10 mm.)
AH-TF	Lever for CFT ... actuators
KH-LF	Lever for CFL ... actuators
KH-AFB	Lever for CSS ... actuators
ZG-NMA	Kit for mounting actuators on the flat CSN...
ZG-SMA	Kit for mounting actuators on the flat CSS...
ZG-GMA	Kit for mounting actuators on the flat CSG...
ZG-TF1	Kit for mounting actuators on the flat CFT...
ZG-LF1	Kit for mounting actuators on the flat CFL...
ZG-AFB	Kit for mounting actuators on the flat CFS...

ACCESSORIES REQUIRED FOR COUPLING THE ACTUATORS TO THE DAMPERS

- 1 actuator for 1 damper:
  - direct installation on damper shaft no accessories required;
  - remote mounting No. 1 AH...., No. 1 KH8, n° 2 KG 10 and No. 1 rod [1].
- 1 actuator for 2 dampers:
  - direct installation on damper shaft of a damper No. 1 AH...., No. 1 KH8, No. 2 KG 10 and No. 1 rod [1];
  - remote installation No. 1 AH...., No. 2 KH8, No. 3 KG 10 and No. 2 rods [1].
- 1 actuator for 3 dampers:
  - direct installation on damper shaft of a damper No. 1 AH...., No. 2 KH8, No. 3 KG 10 and No. 2 aste [1];
  - remote installation No. 1 AH...., No. 3 KH8, No. 4 KG 10 and No. 3 rods [1].

[1] Connecting rods for the universal joints: 8/10 mm rod (available in any hardware store)

VYQ 2..

2-WAY BALL ZONE VALVES (QCV) / FEMALE THREAD / PN 16

Cold and hot water with max 50% glycol volume. Fluid temperature 2...90°C. Brass body
CVQ 095 - 097 usable actuators
Versions with change over available

	DN body	Rp connections	Kvs (1) m³/h	PN
VYQ 215 - 1,2	15	1/2	1,2	25
VYQ 215 - 4,8	15	1/2	4,8	25
VYQ 220 - 8	20	3/4	8	25

VZC 2..

PRESSURE-INDEPENDENT CONTROL BALL VALVES (PIQCV) / FEMALE THREAD / DN 15 - 25

Cold and hot water. Brass body
CVQ 095 - 097 usable actuators

	DN body	Rp connections	Vnom	PN	Sv min.
VZC 215-PT-B	15	1/2	210	25	100
VZC 215-P-B	15	1/2	210	25	100
VZC 215-PT-D	15	1/2	420	25	100
VZC 215-P-D	15	1/2	420	25	100
VZC 220-P-F	20	3/4	980	25	100
VZC 220-PT-F	20	3/4	980	25	100
VZC 225-PT-G	25	1	2100	25	100

ACCESSORIES

ZR 2315	DN 15 fitting
ZR 2320	DN 20 fitting
ZR 2320	DN 25 fitting

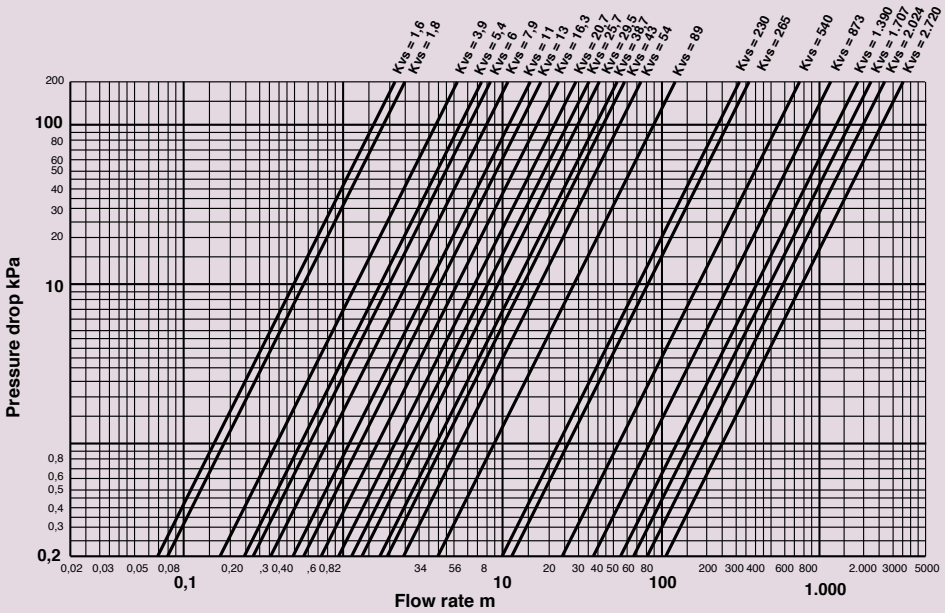
CVQ 0..

ROTARY SERVO MOTOR FOR ZONE AND PIQCV VALVES

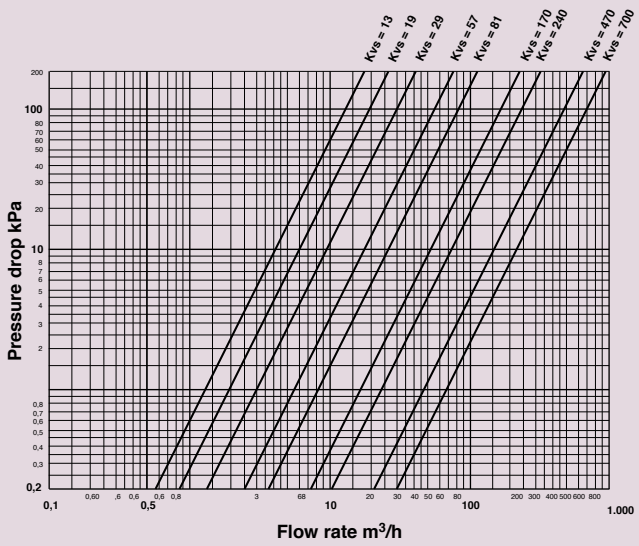
Rapid mounting actuator for VZC 2.. valves.

	Power supply. V (VA)	Control	Run time sec.	Torque (Nm)	End of run (accessory)
CVQ 095	24 VAC/DC (0,6)	3 points	75	1	No
CVQ 095-0	24 VAC/DC (0,6)	0..10V	75	1	No
CVQ 097	230 VAC (2)	3 points	75	1	No

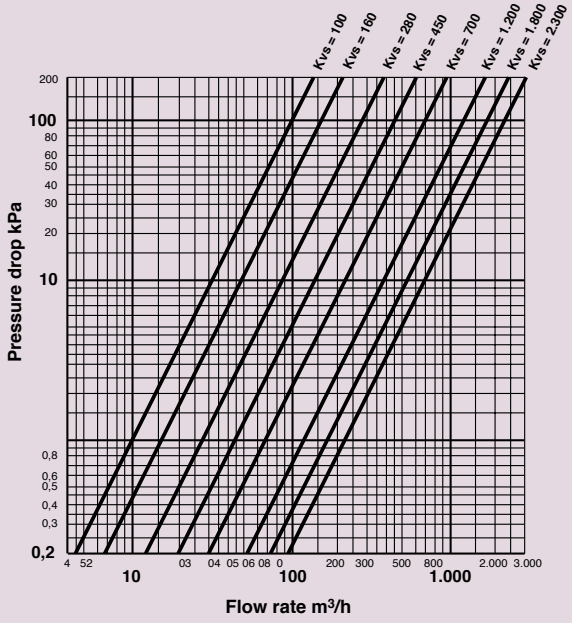
BALL VALVES



3 AND 4-WAY SLIPPER AND BUTTERFLY VALVES



2-WAY BUTTERFLY VALVES



Kvs = Flow coefficient : Flow in m³/h with valve open and pressure drop of 100 kPa.
100 kPa = 10 mCA = 1 bar

SENSORS, REMOTE CONTROLS AND ACCESSORIES

index

Wireless sensor kit for reading outside and room sensors

SWB 912 KIT TO READ WIRELESS SENSORS

The SWB 912 KIT allows you to read the 868 radio sensors through the X-Series equipment without modifying the hardware. It consists of CPX 910, CSW 868 S1, power supply unit ALM 1210 and antenna ANT 250.

SWB 912	Kit to read wireless sensors

CSW 868 WIRELESS SENSOR CONCENTRATOR

The sensor concentrator CSW 868 is a module that allows you to create a radio connection between a Master and one or more radio sensors (up to 40).

It guarantees bi-directional communication with the radio sensors.

Only for YLC control units

ANTENNA INCLUDED.

CSW 868	Radio sensor concentrator
ACCESSORIES	
APA 500	5 metre long SMA antenna extension
ANT 868	Upgraded antenna for 868 concentrators

THP 868 WIRELESS TEMPERATURE/HUMIDITY SENSOR

It acquires and transmits via radio the temperature/humidity values to the CSW 868 receiver.
Used in both control and monitoring applications.

THP 868	Wireless temperature/humidity sensor with data logger

STT-STU..H SEALED WIRELESS SENSORS

Sealed temperature sensors in a 105 x 105 x 55 mm box.

STT 868H	Sealed radio temperature sensor
STU 868H	Sealed radio temperature-humidity sensor

SAB 002 ROOM SENSOR PT 1000

Only for YLC control units

SAB 002	Room sensor PT 1000

STA 00.. AIR DUCT TEMPERATURE SENSOR

Version 1W can acquire and transmit the temperature values.
Only for YLC control units

STA 002	Air duct temperature sensor PT 1000
STA 001W	Air duct temperature sensor 1W

SAE 002 OUTSIDE TEMPERATURE SENSOR

Detects the external temperature only for YLC control units

SAE 002	Outside temperature sensor PT 1000

SIH 00.. IMMERSION SENSOR

Version 1W can acquire and transmit the temperature values.
Only for YLC control units.

SIH 002	Immersion temperature sensor PT 1000
SIH 001W	Immersion temperature sensor 1W

SQC 954 ROOM AIR QUALITY SENSOR

SQC 954	Room air quality sensor

SQS 954 ROOM AIR QUALITY SENSOR

SQS 954	Room air quality sensor

SAF 00.. CABLE TYPE TEMPERATURE SENSOR

Version 1W can acquire and transmit the temperature values.
Only for YLC control units

SAF 002	Cable type temperature sensor PT 1000
SAF 001W	Cable type temperature sensor 1W

SAE 420 OUTSIDE DIGITAL TEMPERATURE SENSOR MODULATION IN CURRENT

Only for YLC control units. (Connectable to YLC's analog input)

SAE 420	Outside digital temperature sensor

SCH 00.. SURFACE TEMPERATURE SENSOR

These are suitable for detecting the temperature of a fluid that flows inside a pipe.
Version 1W can acquire and transmit the temperature values.
Only for YLC control units.

SCH 002	Surface temperature sensor PT 1000
SCH 001W	Surface temperature sensor 1W

SAA ... INDUSTRIAL-TYPE TEMPERATURE SENSORS

Measurement of the ambient temperature in very humid areas (example: greenhouses).
Measurement of very high and humid ambient temperatures (80...90°C).

SAA 001	Industrial-type temperature sensors (– 30...+40 °C)
SAA 010	Industrial-type temperature sensors (0...+100 °C)

SAB 010

ROOM TEMPERATURE SENSOR WITH OR WITHOUT ADJUSTER

They are NTC 10 KΩ sensors to measure the ambient temperature (measuring range 0...40 °C). Some models are equipped with a local variator to change the desired ambient temperature.

SAB 010/L

SAB 010	In wall mounting case 80 x 80 x 32	NTC 10 kΩ
SAB 010/V	In wall mounting case Vimar	NTC 10 kΩ
SAB 010/G	In wall mounting case Gewiss	NTC 10 kΩ
SAB 010/L	In wall mounting case Biticino	NTC 10 kΩ
SAB 010/LI	In wall mounting case Biticino	NTC 10 kΩ
SAB 010/LG	In wall mounting case Biticino	NTC 10 kΩ
SAB 020	With double sensor in wall mounting case 80 x 80 x 32	NTC 20 kΩ
SAI 010	Room temperature sensor - irradiation, in wall mounting case 80 x 80 x 26	NTC 10 kΩ

The exact compatibility of the sensors with the equipment is indicated in the manuals of the latter, available on the website www.costergroup.eu

SPR 912

AMBIENT TEMPERATURE AND DEW POINT SENSOR

It is strongly recommended to install one or more of these sensors in apartments that use the panels, even as summer cooling.
An automatic limit is set for the cooling water temperature to prevent condensation on floors or ceilings.

SPR 912	Ambient temperature and dew point sensor

SAE 001

OUTSIDE TEMPERATURE SENSOR

Monitors outside temperature by means of a NTC sensor. Wall mounting.

SAE 001	Outside temperature sensor (–40...+40 °C)

SAI ...

MODBUS TEMPERATURE/HUMIDITY SENSORS

Modbus

Sensors for measuring temperature and humidity in domestic environments.
Modbus. 12 V built-in.

SAI 002	In electric fruit Vimar series Plana Bianca
SAI 011	In electric fruit Biticino series Light Bianca
SAI 012	In electric fruit Biticino series International Nera
SAI 015	In fruit electric Living series Light Tech

SAP ...

Modbus

SAP 002	In electric fruit Vimar series Plana Bianca. With display and recalibrator
SAP 011	In electric fruit Biticino series Light Bianca. With display and recalibrator
SAP 012	In electric fruit Biticino series International Nera. With display and recalibrator
SAP 015	In electric fruit Biticino series Light Tech. With display and recalibrator

SGE-SGG

OUTSIDE TEMPERATURE SENSORS FOR METERING DEGREE-DAYS

Specific outside temperature sensors to measure DEGREE-DAYS.

THE SENSOR HAS COMPONENTS THAT ARE NOT AFFECTED BY IRRADIATED HEAT, AS SET OUT BY THE STANDARDS FOR THE MEASUREMENT OF THE DEGREE-DAYS.

SGG 001	High-precision outside temperature sensor specific for the standard meter of the degree days XGG 618
SGE 001	Outside temperature sensor compatible with all the climate controllers, to measure degree-days included in these controllers

SIH 010

IMMERSION TEMPERATURE SENSOR (0...100 °C)

SIH 010	Immersion sensor with brass pocket (0...100 °C)
SIH 010/Inox	Immersion sensor with stainless steel pocket (0...100 °C)

ACCESSORY

APV 100	Accessory for adaptation to the old COSTER sheaths

STH 001 IMMERSION TEMPERATURE SENSOR (0...300 °C)

STH 001	Immersion sensor with stainless steel pocket (0...300 °C)

SIR 010 DIRECT IMMERSION TEMPERATURE SENSOR (0...100 °C)

The sensor is in direct contact with the water, to increase the response speed.
Indispensable, for example, for controlling the instantaneous mixture of the domestic hot water.

SIR 010	Rapid sensor with direct immersion (0...100 °C)

SCH 010 SURFACE TEMPERATURE SENSOR (0...100 °C)

SCH 010	Surface temperature sensor (0...100 °C)

STT 010 TEMPERATURE SENSORS FOR HEATING/COOLING COILS (0...40 °C)

STT 010	Temperature sensor for heating cooling coils (0...40 °C)

STA ... TEMPERATURE SENSOR FOR AIR DUCTS

STA 010	Temperature sensor for air ducts (0...100 °C)
STA 001	Temperature sensor for air ducts (–30...+40 °C)

STF 001 FLUE GASES TEMPERATURE SENSOR (0...500 °C)

STF 001	Flue gases temperature sensor (0...500 °C)

SAF ...

CABLE-TYPE TEMPERATURE SENSOR (0...100 °C)

SAF 010	Cable-type temperature sensor (0...100 °C)
SAF 110	Cable-type temperature sensor with 2 sensors and 4 wires (0...100 °C)

SAF 001

CABLE-TYPE TEMPERATURE SENSOR (–40...+40 °C)

SAF 001	Cable-type temperature sensor (–40...+40 °C)

SHF 001

CABLE-TYPE TEMPERATURE SENSOR (0...180 °C)

SHF 001	Cable-type temperature sensor (0...180 °C)

ACCESSORIES FOR CABLE-TYPE TEMPERATURE SENSORS

GIS 090	Brass pocket 1/2" x 90 mm complete with cable gland; PN10
GIS 090/Inox	Stainless steel pocket 1/2" x 90 mm complete with cable gland; PN16
GIS 160	Brass pocket 1/2" x 160 mm complete with cable gland; PN10
GIS 160/Inox	Stainless steel pocket 1/2" x 160 mm complete with cable gland; PN16
GIS 500	Brass pocket 1/2" x 500 mm complete with cable gland; PN10
GIS 500/Inox	Stainless steel pocket 1/2" x 500 mm complete with cable gland; PN16
APS 150	Sheath extension (15 cm) for fluid temperature > 130°C
ACM 103	Connection box with terminal block and adapter for old COSTER sheaths

SUR 704

RELATIVE HUMIDITY SENSOR FOR AIR DUCTS

Power supply unit 24 Volt AC, or 12 V – for COSTER equipment, if fitted with auxiliary 12 Volt – power supply unit.
Active output signal: 0...5 V– or 0...10 V–.

SUR 704	Relative humidity sensor for air ducts

SUT 734 DUCT SENSOR FOR HUMIDITY AND TEMPERATURE

Power supply: 15..24 V = (±10%) or 24 V ~ (±10%) SELV
Output voltage: 2x 0..10 V or 0..5 V, configurable via Jumper, min. load 10 kΩ
Output passive: NTC10K.

SUT 734	Duct sensor for humidity and temperature

SAU 914 ROOM RELATIVE HUMIDITY AND TEMPERATURE SENSOR (0...50 °C)

Power supply unit 24 Volt AC, or 12 V – for COSTER equipment, if fitted with auxiliary 12 Volt – power supply unit.
Humidity output signal: active 0...5 V– or 0...10 V–..

SAU 914	Room relative humidity and temperature sensor (0...50 °C)

SAU 734 ROOM SENSOR FOR RELATIVE HUMIDITY AND TEMPERATURE

Power supply unit 15..24 V = (±10%) or 24 V ~ (±10%) SELV.
Output Voltage: 2x 0..10 V | 2x 0..10 V (min. load 10 kΩ) + passive sensor

SAU 734	Room humidity and temperature sealed sensor

SAC 020 CO_2 TEMPERAURE AND HUMIDITY SENSOR MODBUS

Ambient sensor for wall installation for CO2 temperature and humidity detection in MODBUS protocol.
24 Volt AC power supply

SAC 020	CO_2 ambient sensor 0...10 V)

SPW 2.. PRESSURE TRANSMITTER FOR LIQUIDS

Power supply 24 Volt AC/DC.
Output signal: 0 - 10 V–

SPW 204	Pressure transmitter for liquids (0...4 bar)
SPW 210	Pressure transmitter for liquids (0...10 bar)
SPW 216	Pressure transmitter for liquids (0...16 bar)

SDW 2.. DIFFERENTIAL PRESSURE TRANSMITTER FOR LIQUIDS

Power supply 24 Volt AC/DC.
Output signal: 0 - 10 V–

SDW 201	Differential pressure transmitter for liquids (0...1 bar)
SDW 202	Differential pressure transmitter for liquids (0...2,5 bar)
SDW 206	Differential pressure transmitter for liquids (0...6 bar)

SDA 700 DIFFERENTIAL PRESSURE TRANSDUCER

Differential pressure transducer with 8 measurement fields that can be selected and an adjustable output signal (0...10 V or 4...20mA) or Modbus.

Power supply : 15...24 V = (± 10%); 24 Volt AC (± 10%)

SDA 700	Differential pressure transducer (0...26 mbar adjustable)

LGP ... LIQUID LEVEL PRESSURE SENSORS

Measurement of the level of a tank of water, diesel oil or other liquids, detecting the hydrostatic pressure of the liquid.
Power supply 12 Volt – from COSTER device (UML 318).
Active output signal: 0 - 5 V–

LGP 250	Liquid level pressure sensor (water 0...2,5 m)
LGP 500	Liquid level pressure sensor (water 0...5 m)

ACCESSORY

UML 318	Unit of measurement, alarm and for receiving various signals

SAL 500 ANTI-FLOODING SENSOR

UAL 358 CONTROL AND ALARM UNIT FOR UP TO THREE ANTI-FLOODING SENSORS

Alarm system to detect flooding caused by leaks in hydraulic systems.

SAL 500	Anti-flooding sensor
UAL 358	Control unit for a maximum of 3 anti-flooding sensors

CDB ... REMOTE CONTROLS

These are set point adjuster of the desired room temperature or similar, with or without sensors.

	description	**compatible controllers**
CDB 100	Temperature set point adjuster with room sensor (0...40 °C)	DRU 414/418, DTF/RTF 31, DTT 318; RTB 645, XTU 614/618, XTU 644, XTU 664, XTA 624, XTR 628
CDB 200	Temperature set point adjuster with room sensor (0...40 °C)	XTU 614, XTU 644, XTU 664
CDB 300	Change of programme in use	RTE 643, XTP 600, XTT 608, XTE 611, XTE 600/602, XSE 600/602
CDB 300/S1	Change of programme in use with room sensor (0...40 °C)	RTE 643, XTP 600, XTT 608, XTE 611, XTE 600/602, XSE 600/602
CDB 301	Change of programme in use on DIN 3 rail units	RTE 643, XTP 600, XTT 608, XTE 611, XTE 600/602, XSE 600/602
CDB 333	Change of programme in use	XCS 633, XSS 633, XTU 618
CDB 340	Temperature set point adjuster	RTE 98

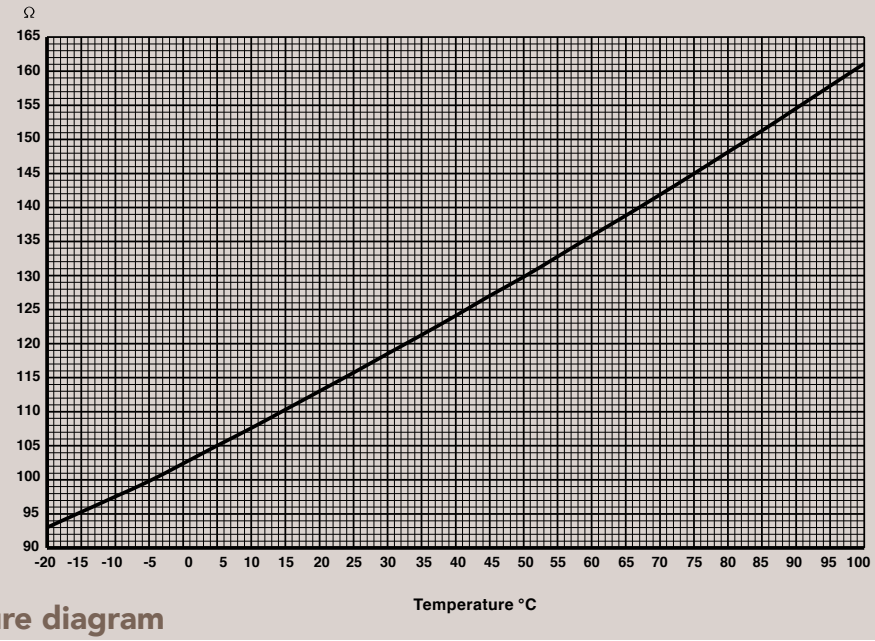
ACD 655 HOUSING FOR DIN MODULAR EQUIPMENT

Allows 6 DIN equipment to be assembled with 144 x 144 flush-mounting.

ACD 655	Accessory for 144 x 144 flush-mounting)

Resistance of sensors Ni 100 Ω

Discontinued products

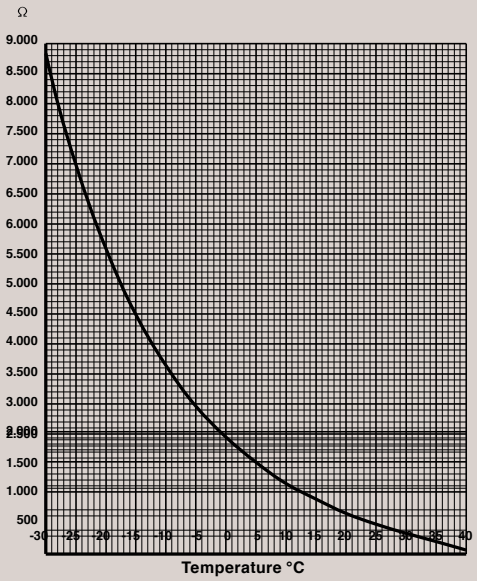


CODE:

- SAA 100
- SAB 100
- SAC 100
- SAE 100
- SAF 100
- SCH 100
- SIH 100
- STA 100

Temperature diagram

Resistance of sensors NTC 1 KΩ

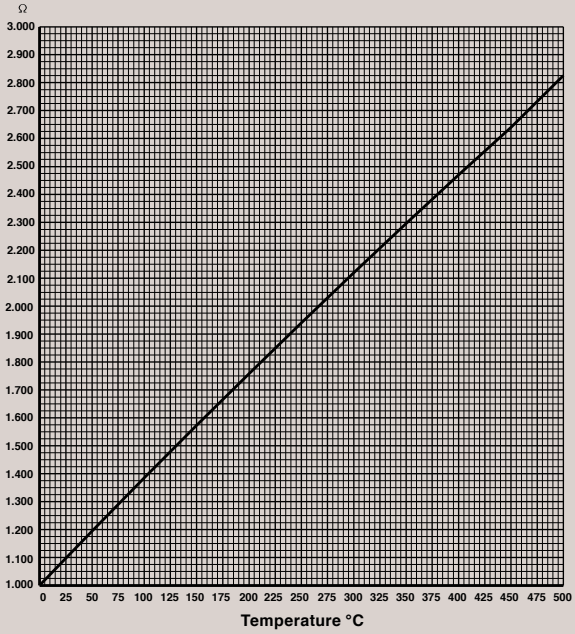


CODE:

- SAA 001
- SAE 001
- SAF 001
- SGE 001
- STA 001

Temperature diagram

Resistance sensors Pt1 kΩ

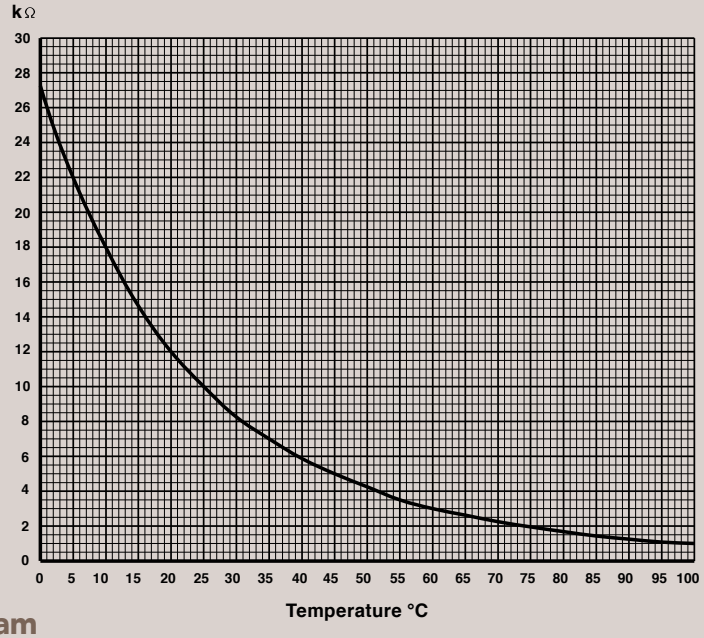


Temperature diagram

CODE:

- SGG 001
- SHF 001
- STF 001
- STH 001
- STA 002
- SAB 002
- SAE 002
- SIH 002
- SAF 002
- SCH 002

Resistance sensor NTC 10 KΩ



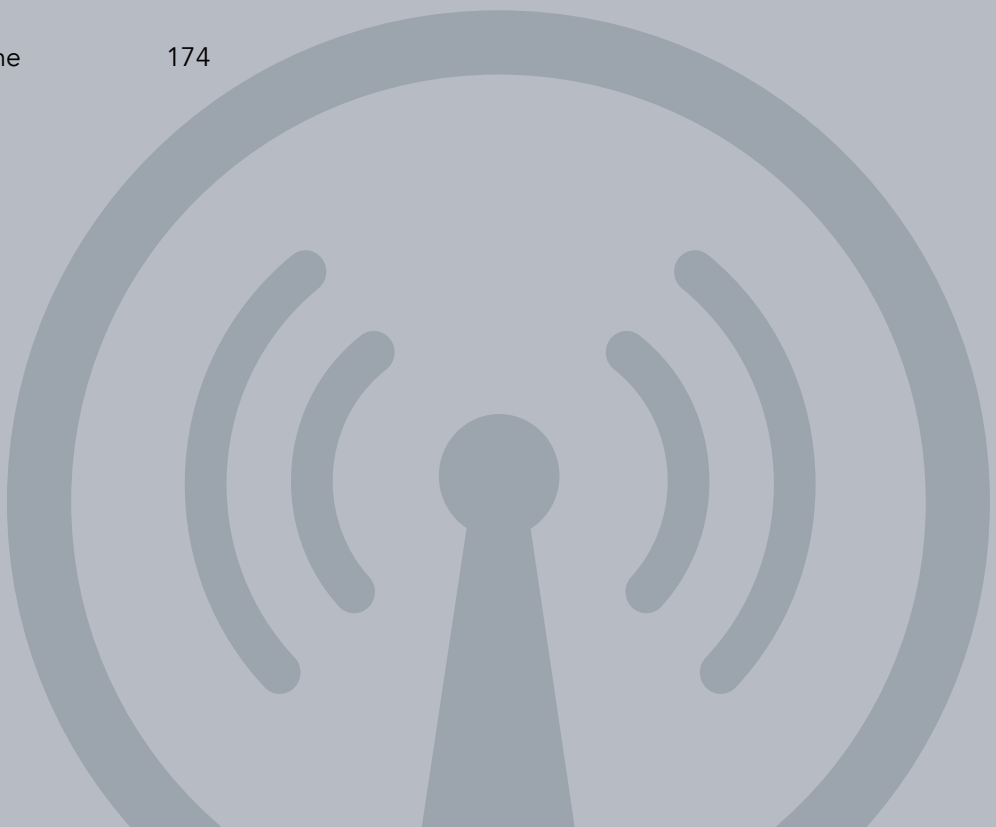
Temperature diagram

CODE:

- SAA 010
- SAB 010
- SAB 011
- SAB 210
- SAF 010
- SAF 110
- SCB 110
- SCB 210
- SCH 010
- SIH 010
- SIR 010
- STA 010
- STT 010
- STV 010

REMOTE MONITORING AND CONTROL SYSTEM TELECOSTER

index



CW. ...

WEB GARAGE LICENSES

CWS 200	Server License Version 200 controlled points (of which up to 40 points historicized)	
CWS 500	Server License Version 500 controlled points (of which up to 100 points historicized)	
CWS 01K	Server License Version 1000 controlled points (of which up to 200 points historicized)	
CWS 02K	Server License Version 2000 controlled points (of which up to 400 points historicized)	
CWS 05K	Server License Version 5000 controlled points (of which up to 1000 points historicized)	
CWS 10K	Server License Version 10000 controlled points (of which up to 2000 points historicized)	
CWS 50K	Server License Version 50000 controlled points (of which up to 10000 points historicized)	on request
CWS 1HK	Server License Version 100000 controlled points (of which up to 20000 points historicized)	on request
CWC 100	Add-On License for Server Version. Increase by 100 points the number of historicized points of the basic license (Server Version only)	
CWC 01K	Add-On License for Server Version. Increase by 1000 points the number of historicized points of the basic license (Server Version only)	
YHC CWE	YHC Embedded version with 200 points license included (of which up to 40 points are historicized)	

QPC 001

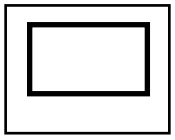
FANLESS PC FOR DIN RAIL

NEW 2021

Pc for electrical panel with S.O. Win 10 64 bit suitable for Web Garage systems up to 2000 points.

QPC 001	Fanless PC for electrical cabinet	€ 2.700,00

PPC ...



PANEL PC TOUCH SCREEN

NEW 2021

PC panel with touch screen for wall mounting or front panel mounting, supplied of S.O. Win 10 64 bit

PPC 101	Panel PC with 10" touch screen for Web Garage license up to 1000 points
PPC 102	Panel PC with 10" touch screen for Web Garage license up to 2000 points

For system solutions with a higher number of license points than those indicated, ask the sales office for a quotation

SWC 701

FREE REMOTE MONITORING AND CONTROL SOFTWARE DOWNLOADED FROM THE INTERNET

Application software to manage communications between the central computer and peripheral units (thermal control units, system). It can be downloaded from the website www.costergroup.eu after registering. MANUAL AND INFORMATION ON THE WEBSITE: www.costergroup.eu, product menu, remote monitoring and control documentation.

SWC 701	Remote monitoring and control software of equipment RS 232 and C-BUS.	free download

CosterTools

MULTI-CLIMA SYSTEM REMOTE MONITORING AND CONTROL PROGRAM

Remote monitoring and control of the equipment of the Multi-Clima System line.
– via a telephone line (fixed, GSM)
– via ETHERNET

It can be downloaded from the website www.costergroup.eu after registering

CosterTools	Multiclima system remote monitoring and control program.	free download

SWH 005 5 PORT ETHERNET SWITCH

SWH 005	5 Port Ethernet Switch

ADF 485 MODBUS TCP SLAVE/MODBUS MASTER CONVERTER

ModBus RTU to ModBus TCP level converter

.

ADF 485	ModBus TCP Slave / ModBus Master Converter

GTW 2..4..

Modbus

RS 232 - RS 485 CONVERTER

This is a device that ensures the conversion between serial RS232 and 485.
It guarantees bi-directional communication between the elements connected to it.

GTW 232485	RS 232 - RS 485 converter

KIT 668

KIT AS AN ALTERNATIVE TO GSM 668

C-BUS

RS 232

Replace GSM 668

GSM/GPRS 3G modem complete with 12 V power supply unit and C-Bus/ModBus converter.

KIT 668	MDM 232 modem, ALM 1210 power supply unit, PCB 432 converter

ACCESSORIES

APA 500	SMA antenna extension, length 5 meters
ANT 500D	Directional antenna

ARE 338

ETHERNET/C-BUS CONVERTER

C-BUS

Connection of C-Bus equipped devices to the Ethernet network.

Only for X control units

ARE 338	Ethernet /C-Bus converter

ACCESSORY

TCB 908	Tester for testing and commissioning computerised connections.

MDM 232

MODEM GSM/3G

Modbus

The MDM 232 modem guarantees bi-directional communication between the control units YLC 740, YLC 880, YHC 700 and the supervision system through a SIM CARD M2M with a connectivity up to 3G.
ANTENNA INCLUDED

MDM 232	GSM / 3G modem

ACCESSORIES

APA 500	5 metre long SMA antenna extension
ANT 500D	Directional antenna

RUT 002

COMPACT 4G ROUTER

With high-speed wireless and Ethernet connections.
The external connectors allow to connect the desired antennas and easily find the best signal strength

RUT 002	4G router with Ethernet port

MDM 001 DESKTOP MODEM

Desktop modem for multiclima range.

MDM 001	Desktop modem with USB socket and antenna

ACCESSORIES

ADA 232	RS 232 pin / USB adapter

ACB 332 LOW POWER C-BUS CONVERTER AND AMPLIFIER

C←BUS
RS 232

Amplifies the C-Bus line, with speeds from 1200 to 9600 bps.
Converts the C-Bus to RS 232 to connect with a PC or with a modem with RS 232, with no C-Bus

Only for X control units

ACB 332	Low power C-Bus converter and amplifier

PCB 332 MEDIUM POWER C-BUS CONVERTER AND AMPLIFIER

C←BUS
RS 232

Amplifies the C-Bus line, with speeds from 1200 to 9600 bps.
Converts the C-Bus to RS 232 to connect with a PC or with a modem with RS 232, with no C-Bus.

Only for X control units

PCB 332	Medium power C-Bus converter and amplifier

PCB 432 HIGH POWER C-BUS CONVERTER AND AMPLIFIER

C←BUS
RS 232

Amplifies the C-Bus line, with speeds from 1200 to 9600 bps.
Converts the C-Bus to RS 232 to connect with a PC or with a modem with RS 232, with no C-Bus.
Various options of connection with equipment, local or remote PC, and modem.

Only for X control units

PCB 432	High power C-Bus converter and amplifier

ACCESSORIES

ACX 232	Plug-in test to connect the PC to the line or equipment

GVC 348 SPEED CONVERTER C-BUS BETWEEN 1200...9600 BPS AND VICE VERSA

C←BUS

RS 232

Amplifies and realigns the C-Bus, with speeds from 1200 to 9600 bps.
It allows equipment to be connected with different C-Bus speeds to the same line.

Only for X control units

GVC 348	C-Bus speed amplifier and converter

UCO 318 ON-OFF 1-CHANNEL TIME PROGRAMMER

C←BUS

Allows an On-Off contact to be programmed with any time schedules.

Only for X control units

UCO 318	1-channel time programmer

UCO 638 ON-OFF 3-CHANNEL TIME PROGRAMMER

C←BUS

Allows 3 On-Off 3-contacts to be programmed with any time schedules.

Only for X control units

UCO 638	On-Off 3-channel time programmer

UAC 32. UNIT FOR COLLECTING ALARMS, STATES AND COUNTS, WITH 8 ON-OFF INPUTS

C←BUS

Allows 8 On-Off signals of alarm, state, count of On times and pulse count to be collected.

Only for X control units

UAC 328	Unit for collecting alarms, states and counts	230 V AC
UAC 324	Unit for collecting alarms, states and counts	24 V AC

UBF 348

UNIT FOR MEASURING, SAVING AND THE ALARM OF 4 SMOKE TEMPERATURES

C◄BUS

Allows 4 temperature measurements/alarms (0...500°C) to be collected and their trend saved by being recorded. Minimum and maximum programmable alarms.

Only for X control units

UBF 348	Unit of measurement and alarm

ACCESSORY

STF 001	Flue gases sensor (0...500 °C)

ULT 3..

UNIT FOR MEASURING, SAVING AND THE ALARM OF 4 TEMPERATURES

C◄BUS

Allows 4 temperature measurements/alarms to be collected and their trend saved by being recorded. Minimum and maximum programmable alarms.

Only for X control units

		connecteble sensorts		
		NTC 10 kΩ 0...99 °C	**NTC 10 kΩ 0...40 °C**	**NTC 1 kΩ –40...40 °C**
ULT 328	Temperature saving unit.	2	1	1
ULT 348	Temperature saving unit.	4	–	–
ULT 348/S1	Temperature saving unit for 4 ambient sensors used for the air handling units	–	4	–

ACCESSORIES

SAA 010	Industrial-type temperature sensor (0...99 °C)
SAA 001	Industrial-type temperature sensor (–40...40 °C)
SAE 001	Outside temperature sensor (–40...40 °C)
SCH 010	Surface temperature sensor (0...99 °C)
SIH 010	Immersion temperature sensor with brass socket (0...99 °C)
SIH 010 Inox	Immersion temperature sensor with stainless steel socket (0...99 °C)
SIR 010	Direct immersion rapid sensor (0...99 °C)
SAF 010	Cable-type tempere sensor (0...99 °C)
STA 010	Air duct temperature sensor (0...99 °C)
STA 001	Air duct temperature sensor (–40...40 °C)
SAB 010	Room temperature sensor (0...40 °C)
STT 010	Fan coils air temperature sensor (0...40 °C)

UML 318 UNIT FOR MEASUREMENT AND SAVING FOR ANALOGUE SIGNALS

C←BUS

Converts an analogue signal 0...5 Volt, or 0...10 Volt, or 4...20 mA to the measure of a physical variable.
It includes: measurement, alarms and recording of the value of the physical value
Suitable for processing the signal of the:
- LGP pressure level sensor
- SD air differential pressure sensor
- other sensors with any kind of analogue output

Only for X control units

UML 318	Unit of measurement and saving for analogue signals

ACCESSORIES

LGP 250	Pressure level sensor (0...0,25 bar)
LGP 500	Pressure level sensor (0...0,50 bar)
SDA 700	Air differential pressure sensor
.....	Any sensor with output 0...5 Volt DC, 0...10 Volt DC, 4...20 mA

ACX 232 PLUG IN TEST TO CONNECT THE PC TO THE LINE OR EQUIPMENT

C←BUS

Allows you to connect a local PC to a COSTER device equipped with "SLOT"
Where required, it allows the software of the equipment to be updated with the programming tool.

Only for X control units

ACX 232	Plug-in test to connect the PC to the line or equipment

ACB 4.. PLUG-IN C-BUS FOR SERIES X ... DEVICES

C←BUS

Allows telemanagement via C-Bus of "preset C-Bus" equipment.
The documentation and the front panel of each appliance indicate the required model of ACB 4.. board

Only for X control units

ACB 400	Plug-in for communication via C-Bus
ACB 460	Plug-in for communication via C-Bus
ACB 468	Plug-in for communication via C-Bus

CMC 328 NON TRANSPARENT CONVERTOR FROM M-BUS TO C-BUS "SLAVE"

C←BUS
RS 232
M BUS

Connection of a device equipped with M-Bus (e.g. heat meter) to the C-Bus line.
Only for X control units

CMC 328	M-Bus / C-Bus convertor

ACS 232 RS 232 CABLE WITH MALE DB 9. (FOR MODEM OR SIMILAR)

RS 232

It is a 0.5 metre cable to connect 3 RS 232 output terminals to a PC or a modem
Only for X control units

ACS 232	3-wire cable for RS 232 modem or PC

ACB 232 LOW-POWER RS 232 / C-BUS CONVERTOR CABLE FOR PC ONLY

C←BUS
RS 232

It is used to connect up to 5 COSTER devices equipped with C-Bus to the PC. Not to the modem since there is no power.
Only for X control units.

ACB 232	Low-power RS 232 / C-Bus convertor cable PC only

ACB 232/S1 LOW-POWER RS 232 / C-BUS CONVERTOR CABLE FOR MODEM OR PC

C←BUS
RS 232

It can be used to connect up to 5 COSTER devices equipped with C-Bus to the PC, or to a modem, since it can be powered directly by a device that has 12 V - auxiliary power supply (e.g. UCO 318 and UCO 638).
Only for X control units.

ACB 232/S1	RS 232 / C-Bus conversion cable powered by COSTER equipment with auxiliary 12 V - power supply

Notes

costergroup

PERSONAL AUTOMATION

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