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SELTRON
SMART HEATING

ZCE
Catalogue



Zone heating controllers
ZCE6 Basic | ZCE6 Advance

Zone heating controllers ZCE control zonal space heating and/or cooling.
They enable control of the heating source, mixing valve and circulation.

Zone heating controllers ZCE



Presentation

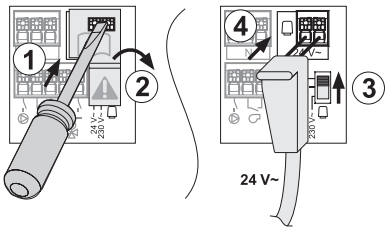
ZCE6 controllers are intended for regulation zonal heating and/or cooling. The regulation is carried out using thermal drives on the distributor valves based on the temperatures obtained from room units. There are six independent temperature zones with the possibility of regulating fourteen heating-cooling units in total. The ZCE6 Advance also allows the control of the source, mixing valve and circulation pump.

Application

- Regulating floor heating or cooling system.
- Regulating wall or ceiling heating or cooling system.
- Regulating convector heating or cooling system.

Capacities

- 3 preset hydraulic circuit diagrams.
- Regulation of 6 independent temperature zones.
- Possibility of selecting voltage for thermal actuators: for 24V ~ or 230V ~.
- By connecting an antenna, wired or wireless room units or combinations of both can be connected to the controller.
- Setting basic operation by choosing the circuit diagram.
- Inaudible control of thermal actuators with electronic relays.
- Possibility of joining temperature zones into one and unique zone.
- Option of BUS connection of multiple controllers.
- Possibility of circulation pump regulation.
- Possibility of regulation energy source.
- Possibility of regulation inflow temperature with mixing valve to a constant temperature or depending on outdoor temperature.



Controlling thermal actuators with voltage 24V ~ or 230V ~

The controller allows the connection of thermal actuators with a control voltage of 230V ~ or 24V ~. The controller is pre-configured for control with a voltage of 230V ~. In order to change the control voltage to 24V ~, the protective cover must be removed, the switch must be put into 24V ~ position, and the 24V ~ terminal must be connected to the transformer with the 24V ~ voltage.



Simple procedure for connecting the heating zones with room units

Each room unit represents one temperature zone and can affect one or more heating zones. Establishing a connection between the controller and the room units and determining the effect of the room unit on the zones is carried out by a pairing process.

The pairing process is carried out in two simple steps.

- Firstly, start the pairing function on the controller with the room units. The controller then waits for the connection with the first free zone. The zone for connection may also be chosen manually.
- In step two, press + and – key on the room unit. The room unit will automatically connect with the selected zone on the controller. After the connection has been successfully established, the controllers waits for the connection with the next free zone. Repeat the procedure until all the room units have been connected.



Possibility of selection of room units

The ZCE zone controller allows the connection of wired and wireless room units, or the combination of both. We can choose among 3 room units with various capacities.

RCD 3 room unit capacity

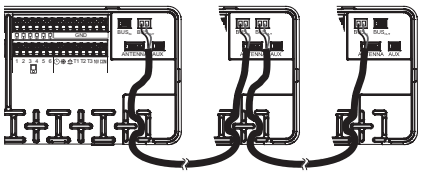
- Measurement and setting room temperature.
- Setting controller interval.
- Display of information on the controller operation.
- Measurement of air pressure, illumination of the room and humidity.
- Wired (BUS) or wireless variant.

RCD 4 room unit capacity

- All the listed capabilities of the room RC3.
- Setting the operating mode.
- PARTY, ECO and HOLIDAY user functions.

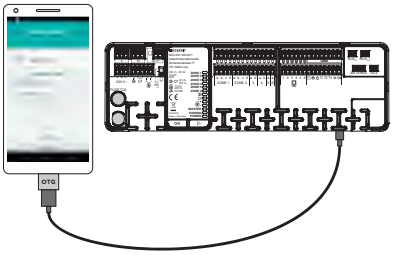
RCD 4 room unit capacity – PREMIUM

- All the listed capabilities of the RCD 3 and RCD 4 room units.
- Measurement of air quality in the room.



BUS connection of multiple controllers

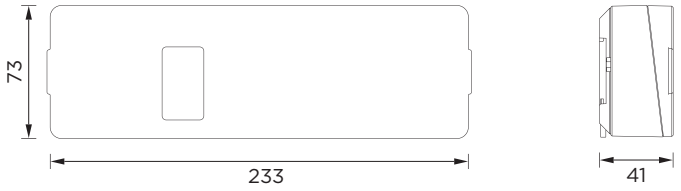
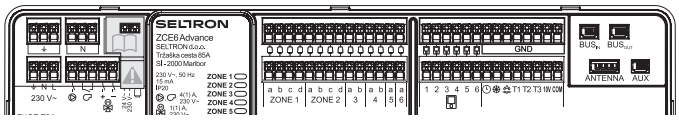
When regulating demanding heating systems, several ZCE controllers can be interconnected into a comprehensive heating system. One controller must be set as the leading or “master” controller. After the BUS connection, the master controller sends information on measured temperatures and operation mode to all the slave controllers. The master controller receives from the slave controllers information on desired zonal temperatures and requirements for switching on the source.



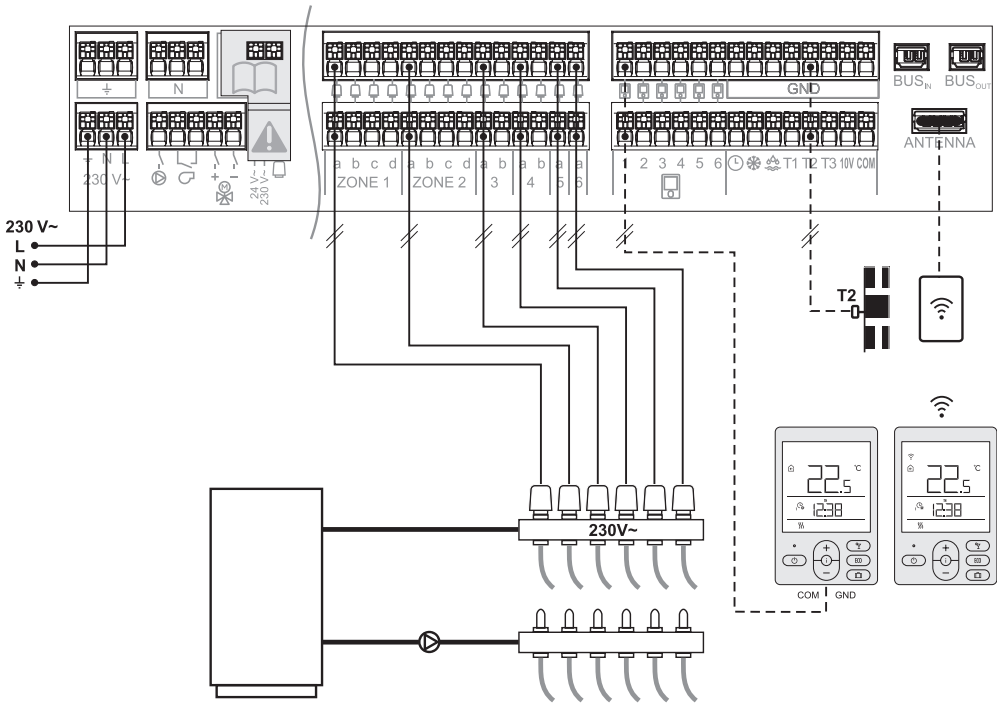
Software update

The controller and room unit software may be updated through the USB connection using a smart device.

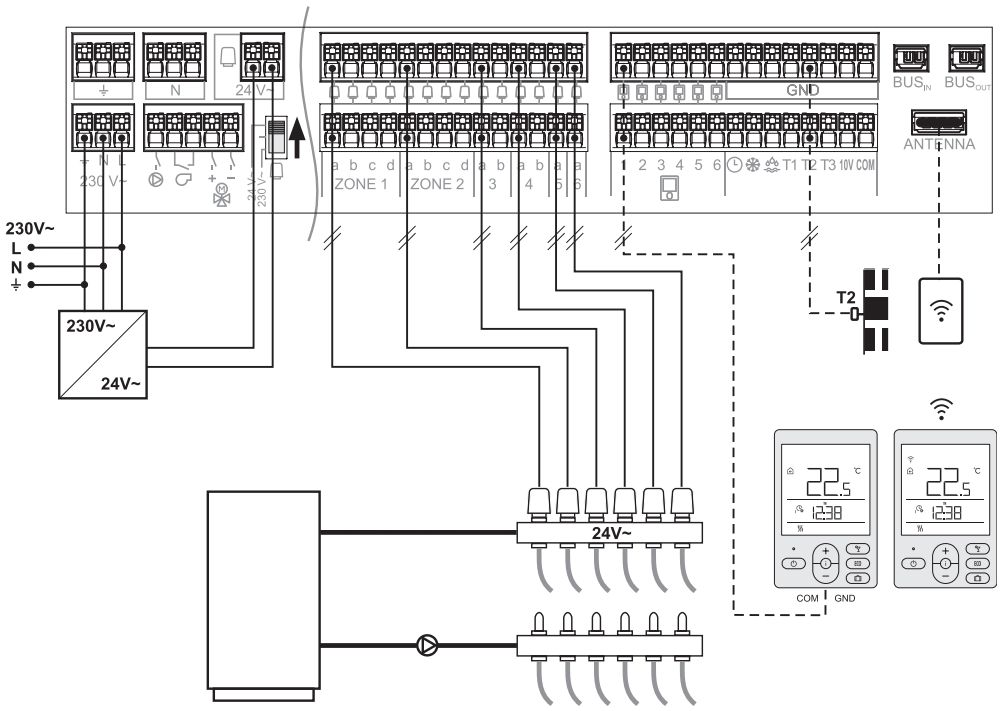
Application	ZCE6 Basic	ZCE6 Advance
Regulating floor heating or cooling system	●	●
Regulating wall or ceiling heating or cooling system	●	●
Regulating convector heating or cooling system	●	●
Technical characteristics		
Regulation of 6 independent temperature zones	●	●
Option to select the voltage for thermal actuators 24V~ or 230 V~	●	●
By connecting of antenna, wired or wireless room units or a combination of both can be connected to the controller	●	●
Silent control of thermal actuators with electronic relays	●	●
Max. no. of room units	6	6
Regulation of the circulation pump	—	●
Flow temperature control with mixing valve	—	●
The possibility of combining temperature zones into a larger and unified zone	●	●
No. of temperature sensor inputs	3	3
No. of digital inputs	3	3
No. of analogue outputs	1	1
No. of outputs (zones/other outputs)	6/0	6/4
Max. number of controllers in BUS connection	6	6
Regulation of heating systems		
Regulating floor heating or cooling system	●	●
Regulating wall or ceiling heating or cooling system	●	●
Regulating convector heating or cooling system	●	●
Regulation of heating circuits		
Regulation of the stand-pipe temperature constant	—	●
Weather-compensated flow temperature control	—	●
ED control of thermal actuators	●	●
Heat source control		
On/off source	—	●
User functions		
Space heating or cooling according to the time program	●	●
Automatic winter/summer mode switching	●	●
PARTY function – a simple prolonging of comfort heating	●	●
ECO function – activation of the economy operation mode	●	●
HOLIDAY function – activation of the operation mode during the holiday season	●	●
Emergency operation in case of communication loss with the room unit	●	●
Heating system protection		
Protection against freezing of rooms	●	●
Protection against overheating of rooms	●	●
Periodic start of thermal actuators during a period of inactivity	●	●
Periodic starting up of pump and mixing valve during the period of inactivity	—	●
Data display		
LED indication of operation of temperature zones	●	●
LED indicator of zone operation	●	●
LED indicator of circulation pump operation	—	●
LED indicator of energy source operation	—	●
LED indicator of mixing valve operation	—	●
LED indicator of BUS connection	●	●
Remote access		
Possibility of USB connection with PC	●	●
Connectivity with the SeltronHome platform allowing remote control using a smartphone or tablet	●	●
Setup and assembly		
Setting up the operation by selecting the hydraulic circuit diagram	●	●
Mounting on the mounting rail	●	●
Simple installation and connection	●	●

Technical specifications	ZCE6 Basic	ZCE6 Advance
Weekly program clock	•	•
Mains voltage	230V ~, 50Hz	
Own consumption	5VA	
Energy consumption in stand-by	Max. 0.5VA	
No. of inputs	3 temperature sensors (Pt 1000) 3 digital inputs	
No. of outputs	6 electronic relays for zone controlling	6 electronic relays for zone controlling 2 relay outputs for controlling the energy source and circulation pump 2 electronic relays for mixing valve controlling
Relay outputs	4 (1)A ~, 230V ~	
Triac output	1 (1)A ~, 230V ~	
Hour power supply	Battery R1025 (Li-Mn) 3V	
Clock accuracy	+/- 1s (24h) at 20°C	
Protection grade	IP20 according to EN 60529	
Protection class	I according to EN 60730-1	
Operation mode	1B according to EN 60730-1	
Type of temperature sensors	Pt1000	
Operation mode	PI controller	
Housing material	C+ABS – thermoplastic	
Permissible ambient temperature	5–40°C	
Storage temperature	-20°C up to +65°C	
Weight	350g	370g
No. of pieces in the packaging unit	30 pcs	
Dimensions (W×H×D): 233×73×41mm		
Electrical connection		

Hydraulic connections for ZCE6 Basic and Advance

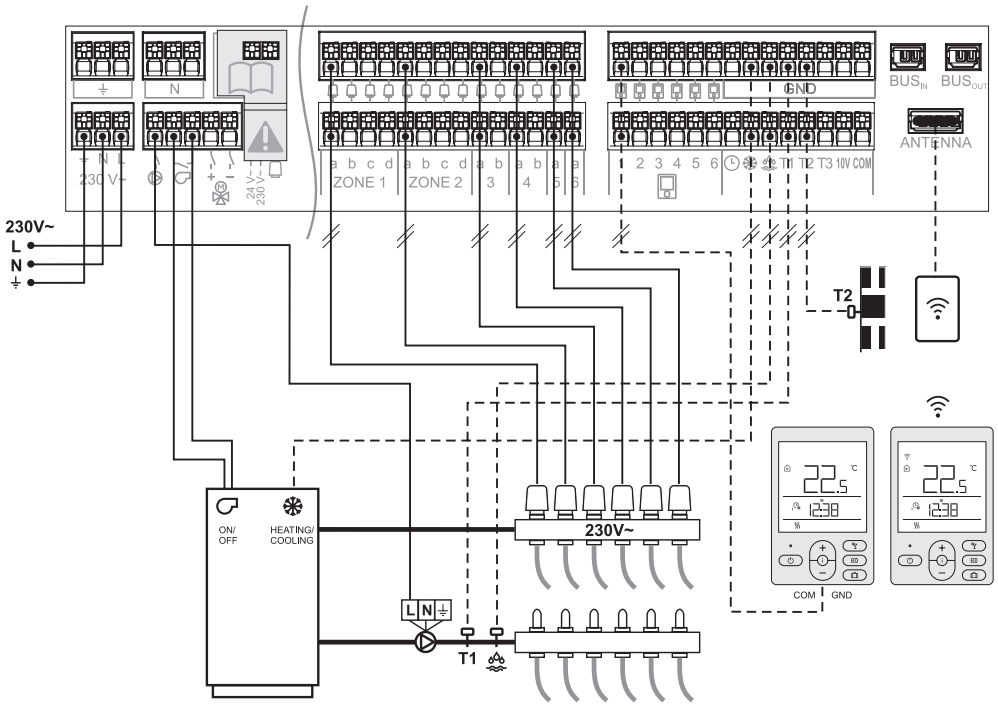


Connection of thermal actuators 230V ~.

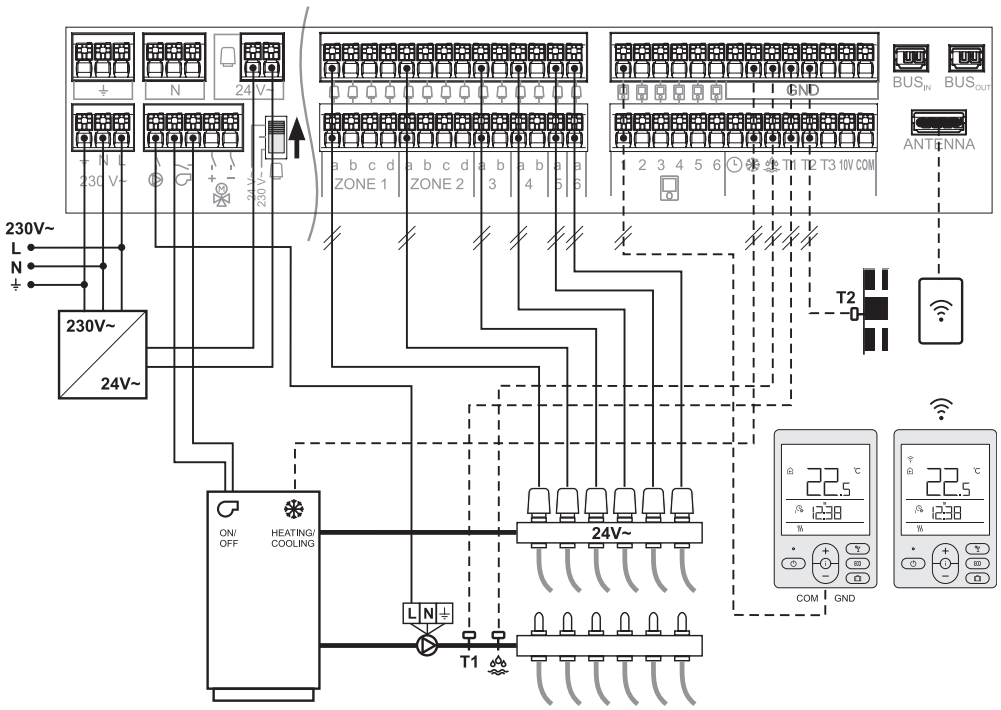


Connection of thermal actuators 24V ~.

Hydraulic connections for ZCE6 Advance

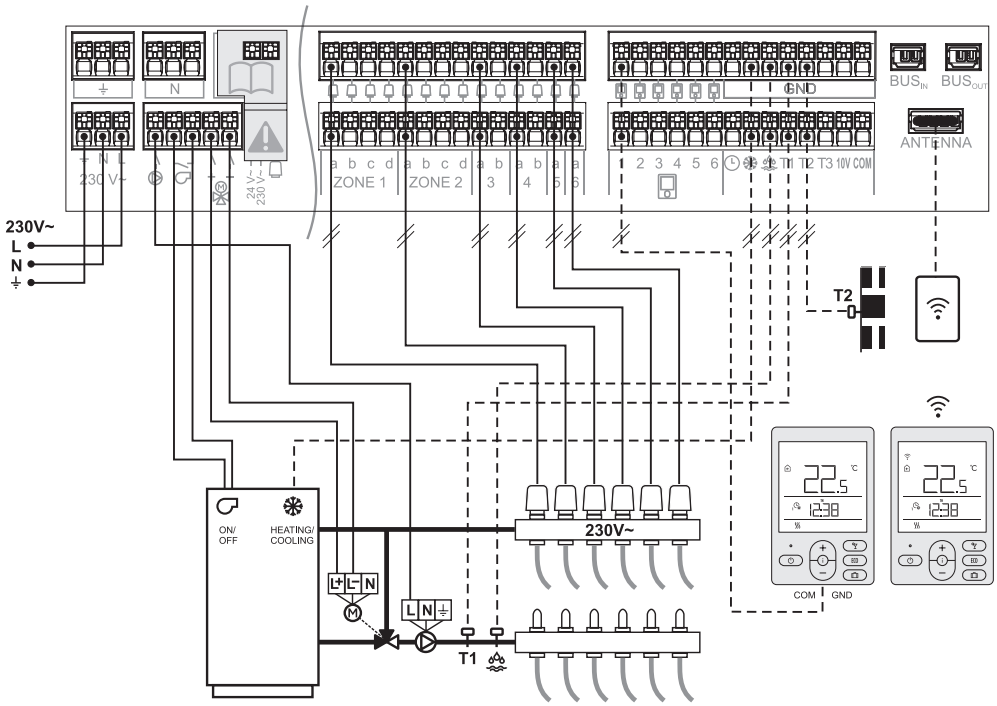


Connection of thermal actuators 230V ~ by switching on the source and circulation pump.

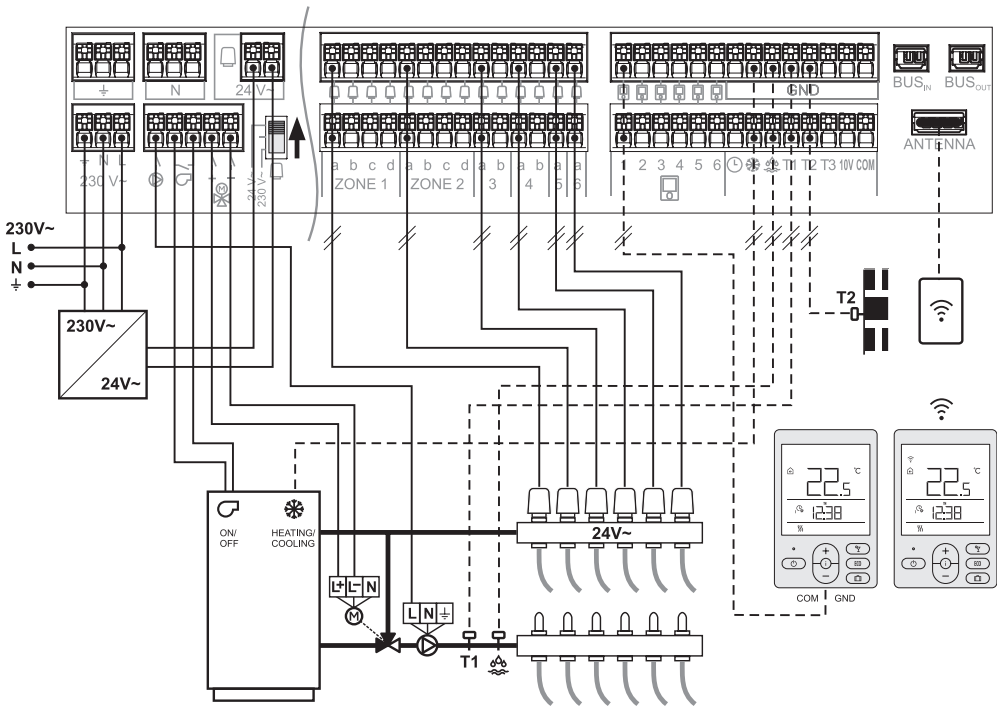


Connection of thermal actuators 224V ~ by switching on the source and circulation pump.

Hydraulic connections for ZCE6 Advance



Connection of thermal actuators 230V ~ by switching on the source and control of the heating circuit with circulation pump.



Connection of thermal actuators 24V ~ by switching on the source and control of the heating circuit with circulation pump.

Power supply for zone regulation ZCE



Presentation

Power supply for ZCE zone regulation belongs to the accessories set.

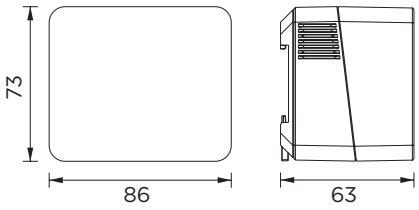
Application

- For supplying 24VAC thermal actuators with power for ZCE zone regulation.

Capacities

- Conversion of 230VAC mains voltage to 24VAC voltage.
- DIN rail mount in the junction box.

Technical characteristics	
Rated voltage	230VAC/50Hz
Output voltage	24VAC/50Hz
Energy consumption	38W
Operating temperature	0–50°C
Storage temperature	-20 ÷ 70°C
Dimensions (W×H×D): 86x73x63mm	



Module for wireless connection for zone regulation ZCE



Presentation

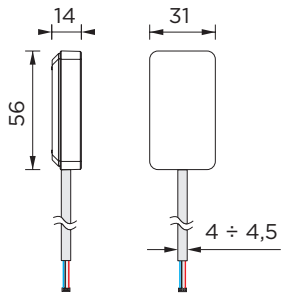
Module for wireless connection for ZCE zone regulation belongs to the accessories set.

Application

- For wireless communication of ZCE zone controller with wireless room unit.
- For installation outside the junction box.

Capacities

- Option of subsequent installation as accessories.

Technical characteristics	
Connection between the module and the controller	PVC cable
Cable colour	white
cable insulation temperature resistance level	85°C
Cable diameter	3÷4mm
AWG	26
No. of conductors	4
Colour of conductor insulation	red, white, black, blue
Conductor insulation temperature resistance level	85°C
Cable connector	Molex 51004-04000 or Scondar SCT2002
Pitch	2mm
Dimensions (WxHxD): 31x56x14mm	

Cable for BUS line ZCE



Presentation

BUS connection cable for ZCE zone regulation is a part of the range of extra equipment.

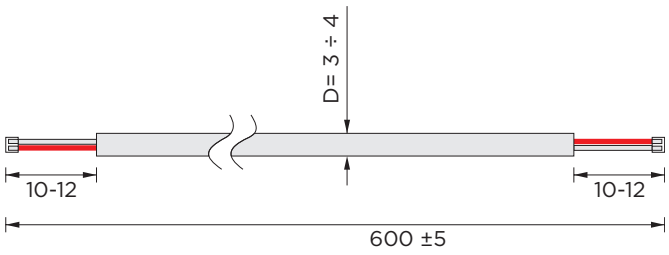
Application

- For the BUS connection of several ZCE zone heating regulators.

Capacities

- Data transfer between ZCE zone heating regulators.

Technical specifications	
Number of wires	2
AWG	26
Jacket color	white
Wire color	red and white
Wire insulation	85 °C
Jacket insulation	85 °C
Crimped connector	Molex 51004-0200 or Scondar SCTSCT2002
Dimensions (Ø x L): 3 ÷ 4 x 600 ±5 mm	



Item	Code for ordering	Description
	1ZCE6B-050	Zone controller SELTRON ZCE6A, 6 zones, basic version
	1ZCE6A-050	Zone controller SELTRON ZCE6A, 6 zones, advanced version
Accessories		
	1RCD3W-050	Room unit SELTRON RCD3, for heating zone regulation, white
	1RCD3WW-050	Wireless room unit SELTRON RCD3, for heating zone regulation, white
	1RCD4WP-050	Advanced room unit SELTRON RCD4, for heating zone regulation, white
	1RCD4WW-050	Advanced wireless room unit SELTRON RCD4, for heating zone regulation, with air quality sensor, white
	1AFPT-000	Outdoor temperature sensor SELTRON AF/Pt
	1TFPT-000	Submersible temperature sensor SELTRON TF/Pt1000, 3 m, fi 6×50 mm
	1ZCEPS-NN0	Zone regulation charger SELTRON ZCEPS, 24VAC, for thermal actuators 24 VAC
	1GWD2-040	Communication module SELTRON GWD2
	1ZCEAN-NN0	Wireless connectivity module SELTRON ZCEAN, for zone regulation
	1ZCEBC-NN0	Cable for BUS connection of the SELTRON ZBEBC, for zone regulation

Simplicity solutions

SELTRONHOME

AHC controller can be connected into the SeltronHome environment for comprehensive remote control and operation regulation. Remote access is provided by the Clausius application for the end users and the Kelvin application for installers and servicemen.

SETUP WIZARD

The controller leads you in 4 steps through the first commissioning; all other parameters are preset.

SYSTEM SIMULATION

The simulation program is a special function which allows temperature sensor simulation thereby enabling the user to test the system's operation.

INTERACTIVE HELP

HELP

Fast and easy access to short manuals, notifications, warnings, software version, etc.