

CMT-24/230V UNIVERSAL THERMOSTAT

with 11 selectable functions and multi-voltage: 24V AC/DC and 230V AC.



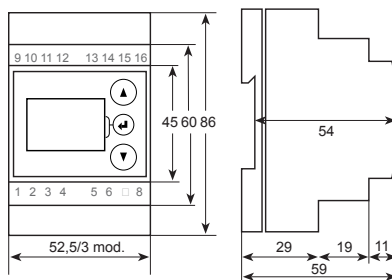
FEATURES

- Multi-voltage 24V AC/DC and 230V AC.
- 11 different selectable functions.
 - 1-stage heating thermostat
 - 1-stage cooling thermostat
 - 2-stage heating thermostat
 - 2-stage cooling thermostat
 - 2-stage heating and cooling thermostat
 - 1-stage cooling thermostat with low temperature alarm
 - 1-stage heating thermostat with overheating alarm
 - 2-stage overheating alarm
 - High and low temperature alarm
 - Gutter thermostat
- Very easy configuration
- Backwards compatible with Calectro's other thermostats
- 2 alternating potential-free relays
- Display
- Adjustable hysteresis 0-15°C
- Built-in timer function
- Fine-adjustment of the temperature measurement

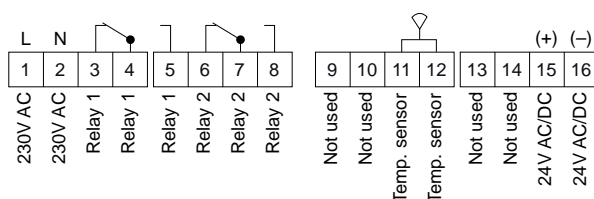
TECHNICAL DATA

Supply voltage:	24V AC $\pm 10\%$, 24V DC $\pm 5\%$ and 230V AC $\pm 10\%$ 50-60 Hz
Relay outputs:	250V ~ 5 A resistive loading, potential-free change-over contact
Power consumption:	4W
Temperature range:	-99 to +600°C
Ambient temperature:	0 to +40°C
Selectable temp.sensors:	Pt1000 (factory setting), Pt100, Ni1000, NTC (Calectro type: 22/33/44/55/99) and PTC (Calectro type: 95)
Switching differential:	0-15°C in stages of 0.2°C
Installation:	DIN rail, Norm-enclosure
Dimensions WxHxD:	52.5x86x59 mm
Weight:	240 g.
Enclosure class:	IP20

DIMENSIONS (mm)



WIRING DIAGRAM



The relay outputs are shown in alarm/
no power on condition. Max 5A, 250V

FUNCTION

CMT can be powered by 24V AC/DC via terminal 15-16 or 230V AC via terminal 1-2. CMT has two alternating potential-free relay outputs (5A, 250V) and has an adjustable hysteresis (switching differential) which is centred over the set point.

CMT carries out a self-test during start-up and following change of temperature sensor. Three bars blink at the lower part of the display. Once the self-test has finished the actual temperature will be displayed. In the case of temperature sensor interruption the code Er0 is displayed and in the case of short-circuit Er1 is displayed.

The set point for relay 1 is shown in the upper left-hand corner, and for relay 2 in the upper right-hand corner of the display. The 'less-than' symbol (<), to the left of the set point, indicates that the relay is calling for heat (or starts an alarm) when the temperature is lower than the set point. The 'greater-than' symbol (>) indicates that the relay is calling for cooling (or starts an alarm) when the temperature is higher than the set point.

CMT has an adjustable hysteresis (switching differential) which is centred over the set point. The factory setting for the heating thermostat is 0.6°C and for the cooling thermostat 1.0°C. No hysteresis is used in alarm functions.

If necessary the temperature measurement in the CMT can be adjusted. Range: -3.0°C to +3.0°C in steps of 0.1°C.

In the alarm applications (applications 6-9) it is possible to set a delayed alarm period (0-120 minutes). for example to be able to defrost without activating the alarm. In the application for the gutter thermostat (application 10) an after-running time can be set (0-120 minutes) to ensure de-icing.

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CMT has a monitor for the temperature sensor and disconnects from heating or cooling in the event of short-circuit or interruption in the sensor circuit. In the alarm applications (applications 6-9) the relays are deactivated (enters alarm condition) in the event of sensor failure. In application 10 (gutter thermostat) the relays call for heating in the event of sensor failure, to counteract the formation of icicles.

For further information and settings refer to the installation instructions accompanying the product.

USE

CMT is a universal thermostat with 11 built-in and selectable functions.

- Appl. 1 1-stage heating thermostat
- Appl. 2 1-stage cooling thermostat
- Appl. 3 2-stage heating thermostat
- Appl. 4 2-stage cooling thermostat
- Appl. 5 2-stage heating and cooling thermostat
- Appl. 6 1-stage cooling thermostat with low temperature alarm
- Appl. 7 1-stage heating thermostat with overheating alarm
- Appl. 8 2-stage high temperature alarm
- Appl. 9 High and low temperature alarm
- Appl. 10 Gutter thermostat
- Appl. 11 Gutter thermostat with whole numbers, relay 2 = fault alarm

INSTALLATION

CMT is mounted on a DIN rail and is adapted to Norm enclosures.

MAINTENANCE

CMT is maintenance-free.

ORDERING EXAMPLE

Item code	Designation
CMT-24/230V	Multi-thermostat

ACCESSORIES

Item code	Designation
CTS-BC-50-PT1000	Temperature sensor, 50mm bulb 1.5m
CTS-RW-PT1000	Temperature sensor, room installation
CTS-OW-PT1000	Temperature sensor, outdoors/industry
ETUK-1	IP55 norm enclosure, 3 modules