



CTR...X010

Electrical heating controller, single/dual phase
for external control signal

CTR...X010 is an electric heating controller for
controlling electric heating batteries, electric panels etc.
The controller operates on an external control signal
from an external controller.

CTR...X010 is an electric heating controller with triac control for single phase or two phase electric heating. Intended primarily for wall mounting, it is connected in series between a power supply and electric heater; such as an electric heating battery or electric panel. CTR...X010 is controlled by an external 0...10 V DC control signal.

The controller utilises stepless, time-proportional control. I.E.: the ratio between on-time and off-time is varied in order to fit the present heating requirement. Example: At an incoming control signal of 5 V and a pulse period of 60 s, the controller works using an on-time of 30 s and an off-time of 30 s, providing an output power of 50 %. The pulse constant is settable: 6 s, 60 s or 120 s.

Triac control is considerably more accurate than on/off control. This means increased heating comfort and lowered energy costs. The electrical output is controlled by solid-state electronics with no moving parts, making CTR...X010 completely maintenance free. Network disturbances are also eliminated, as the current is controlled on/off at a zero phase angle.

Short facts about CTR...X010

- Wall mounting
- For loads up to 3.6kW (230 V) or 6.4kW (400 V)

Models

Model	Supply voltage	Control signal
CTR230X010	230 V AC	0...10 V DC
CTR400X010	400 V AC	0...10 V DC

Technical data

Supply voltage
Load

230 V AC, alternatively 400 V AC +/- 15 %, 50-60 Hz, 1-phase or 2-phase.
Up to 16 A, min. 1 A. For CTR230X010 the max. output is 3.6 kW and the min. output 230 W. For CTR400X010 the max. output is 6.4 kW and min. 400 W

Power emission
Pulse period
Control signal
Ambient temperature, operation
Ambient humidity
Storage temperature
Form of protection

20 W at full load
6 s, 60 s or 120 s
0...10 V DC
0...30°C, non-condensing
Max 90 % RH
-40...+50°C
IP20

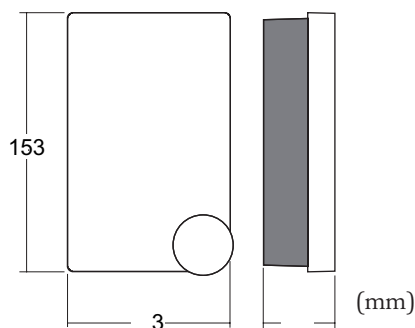


Low Voltage Directive (LVD) standards: This product conforms to the requirements of the European Low Voltage Directive (LVD) 2006/95/EC through standards EN 60669-1 and EN 60669-2-1.

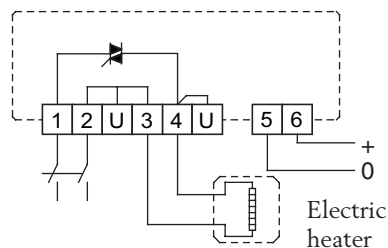
EMC emissions and immunity standards: This product conforms to the requirements of the EMC Directive 2004/108/EC through standards EN 61000-6-1 and EN 61000-6-3.

RoHS: This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council.

Dimensions and wiring diagrams



Supply voltage and load



U: Outputs for wiring of CTR-ADD

Terminal 1...2: Supply voltage (polarity-independent)

Terminal 3...4: Load

Terminal 5: Signal neutral

Terminal 6: 0...10 V DC

The control signal input is galvanically separated from the supply voltage. To minimize the influence from external disturbances, the signal cable should be kept as short as possible (<25 m).

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