

## Series PCR-100 and PCR-110

### Electronic thermostats

#### Specification Data



#### Application:

PCR-100 and PCR-110 are general-purpose thermostats, each with a relay output and large temperature control range (-55 °C to +50 °C).

The controllers have different housings:

PCR-100: Modular housing for 35 mm standard rails.

PCR-110: "Snap-in" installation housing, which fits into aperture 28.5 x 70.5 mm.

#### Technical Data:

- Mains voltage/frequency:  
230 V, ± 10 %, 50/60 Hz (110 V, 50/60 Hz on request)
- Rated wattage: 2.1 watts
- Display: 3-digit, 7-segment, LED red, 14.2 mm high
- Resolution: 1 K
- Measuring range: -55 °C to +50 °C
- Outputs:  
1 relay with changeover contact, 8 A, 230 V AC, resistive load (compressor)  
1 relay with N. O. contact, 5 A, 230 V AC, resistive load (alarm)
- **Caution:**  
**For PCR-110 the total current via the common relay connection, terminal no. 5, must not exceed 10 A.**
- Control performance: on/off
- Display accuracy: ± 0,5 K internal, ± digit, at 25 °C
- Operating conditions:  
0 °C to 50 °C, 30 to 85 % R.H. (excluding dew)
- Storage temperature: -20 °C to +80 °C
- Data back-up: Non-volatile memory (EEPROM)
- Sensor: 1 PTC sensor
  - Sensor cable length: 2.5 m
  - Range for cable:
    - 30 °C to +80 °C unmounted
    - 40 °C to +80 °C fixed
  - Accuracy of sensor: ± 2 %
- Housing:  
PCR-100: L x W x H = 85 x 70 x 61 mm  
PCR-110: L x W x H = 70 x 74 x 32 mm  
ABS plastic, self-extinguishing (UL 94 V0)
- Protective rating:  
Housing: IP 20, Front panel: IP 52, Protective class 2
- Terminals: 10 A screw-type terminal strips, with wire protection, Tightening torque: 0.6 Nm  
Max. core cross section 1.5 sq. mm
- Weight:  
PCR-100: Approx. 330 g (inc. sensor)  
PCR-110: Approx. 240 g (inc. sensor)
- **Only operate the unit in dry places.**



### Special features:

- 230 V, 50/60 Hz mains transformer installed (110 V, 50/60 Hz on request)
- Control performance: on/off, with reversible direction for heating and refrigerating
- Defrost option for plus cold stores with continuous operation of evaporator fan
- Easy to operate thanks to digital input of setpoint value and switching difference
- Data is not lost, even if there is a power failure, for at least 10 years
- Alarm output
- PTC sensor with stainless steel sensor sleeve supplied as standard
- PCR-110: Mounting frame for wall thicknesses up to 22 mm is supplied as standard.

### Installation:

- **4 DIN standard modular housings mounted on a standard rail:**

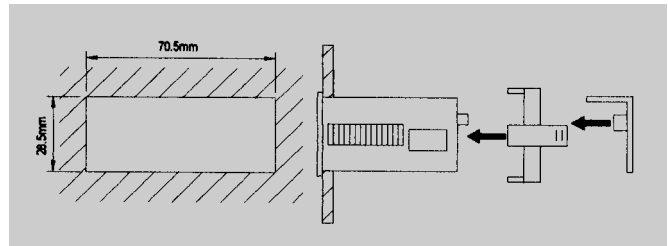
Open out the side mounting tabs. Clip the unit on to 35 mm rail and press tabs in again

- **4 DIN standard modular housings for wall mounting:**

Open out the side mounting tabs. Secure unit with screws (max. 3.5 mm dia.)

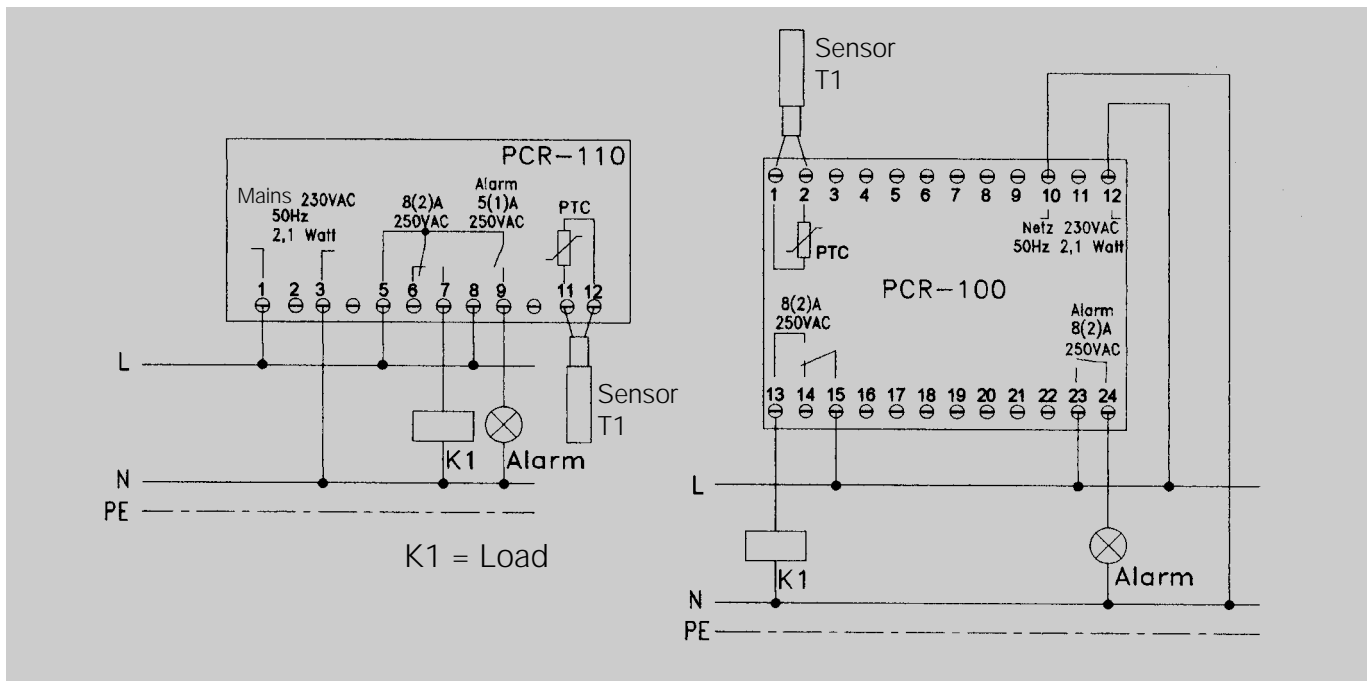
- **Snap-in installation housings:**

Fit unit in a recess 28.5 x 70.5 mm and secure with the relevant mounting frame. Fit terminal cover after the electrical wiring is complete.



- Use a cable clamp to secure sensor T1 in a suitable position.

### Circuit diagram:



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