



Operating Instructions for Heaters CP ...THERM



1 Application

CP ...THERM Heaters are manufactured according to Directive 94/9EC (ATEX 100a) and are approved for use in Ex-zone 1 and Ex-zone 2 for explosion groups G/ D and temperature classes T3 to T6. They have been designed for direct mounting to the instrument (based on heat transfer by conduction) and/or heating the air by convection.

The standard version comprises an integrated room thermostat in the connection cable for freeze protection applications or a protective thermostat for temperature maintenance.

The respective operating instructions have to be observed.

EC Type Examination Certificate
PTB 02 ATEX 1041X with Schedule and Supplements in German and English as well as IEC Scheme Certificate IECEX PTB 07.0052X please see www.intertec.info.

2 Technical Data

Rated voltage	Max. 250 V AC
Permissible operating voltage	Max. 275 V AC
Special voltages are possible, if the output power is adapted accordingly and the suitable components selected.	
Rated current (according to VDE 0298)	Max. 10 A
Ambient temperature	-60 to + 60 °C
Max. permissible operating temperature range at normal rating	-60 to +180 °C
Installation position:	fins vertical
Switching capacity of failure alarm	10 A 250/ 400 V AC

3 Installation

Take care not to bend or exert any load on the connection cable during unpacking and transport.

To ensure effective convection, the heater should be installed with the fins positioned vertically (as the according data) and with special emphasis on observing the necessary clearances to the bottom of the enclosure and the instruments installed over the heater.

Make sure to comply with the permissible operating temperature range.

Before entry in the customer-supplied junction box, the connection cable must be firmly installed observing the permissible bending radius of 5 times the outside cable diameter.

In the dust - hazardous area with the applicable requirements of the EN 60079-14 have to be observed.

4 Connection

The heater must only be connected and secured by technical expert personnel in accordance with the label specifications "rated voltage" and "rated current":

If operating voltage = rated voltage, the heater will generate the specified nominal output, with an allowance to voltage fluctuations of up to 10 %.

Circuit breakers suitable for up to 16 A can be used for short circuit and line protection.

A ground terminal is provided for the purpose of ensuring potential equalization. The terminal is marked as such.

In a TT or TN system, a residual current operated protective device (RCD) must be used whose rated response fault current does not exceed 100 mA. Residual current devices with a rated response fault current of 30 mA are to be preferred.

In an IT system, an insulation monitor must be used that switches off the power supply as soon as the insulation resistance falls to 50 ohms per volt of the rated voltage or lower (see DIN EN 60079-14:2008; section 7.4).

5 Initial Operation

The heater can be switched on as soon as it is properly installed in accordance with the installation instructions specified point 3 and point 4, ensuring free convection and the necessary clearances.

A safety fuse will permanently open the circuit if the above installation and operating instructions are not followed.

6 Maintenance

Due to the type of construction, the heater requires no maintenance.

Performance and safety tests can be conducted at intervals to be determined by the operator in compliance with current regulations.

Repair work must only be carried out by the manufacturer. In the dust - hazardous area with the applicable requirements of the EN 60079-17 and the EN 60079-19 have to be observed.

7 Safety Instructions

Installation of the heater in an exposed position involves a certain risk of injury. Especially the ends of the fins and hot surfaces can pose a risk of burns and injuries.

- Max. 160°C with T3 heaters
- Max. 100°C with T4 heaters
- Max. 70°C with T5 heaters
- Max. 50°C with T6 heaters