



CP MICROTHERM DNA.....Electric heater



1 Application

Heating of instrument enclosures in hazardous areas, designed for

- freeze protection
- condensation protection
- vertical installation

2 Features

- very slim heater body design
- vertical design allows for optimum installation adjacent to the instruments to be heated in the enclosure
- freeze-protection thermostat (TS) integrated as standard in the connection cable
- high heat output resulting from a special, black anodized aluminium profile construction

3 Description

The very versatile CP MICROTHERM line consists of electric heaters designed to heat the air in the enclosure by convection. Microtherm is the right choice of heater if the available space is not sufficient to install a larger model such as the CP MULTITHERM heater.

Wherever possible, a heater designed for temperature class T3 should be selected.

A temperature limiter is integrated in the heater that cuts off the power in case of a technical failure or excessive heating resulting from an external heat source. It should be noted that the temperature limiter must only be repaired in our factory. For reasons of operational safety the heater must only be operated under conditions that ensure that the trip temperature of the limiter will not be exceeded:

- Controllers such as TS, TAE or TC switch off the heater in case of high temperatures in the enclosure
- Ensure effective convection by observing the necessary clearances as per section 7.1.1 and 7.1.2 on the next page. Allow for good convection circulation in the enclosure and take care not to cover the fins.
- Heaters without integrated freeze-protection thermostat in the cable can be installed with an installation position turned through 180° (cable gland on top), which is thermally advantageous.

A residual-current-operated protective device with a rated value of not more than 300 mA, preferably 30 mA should be installed.

A temperature indicator shows potential problems and failures at an early stage (e.g. incorrect installation). Please check the application if more than 3 fields have irreversibly changed to black.



All INTERTEC explosion-proof heaters can also be supplied

- to American NEC standard (CSA/ NRTL/ FM/ UL).
Ordering Example: CP MICROTHERM **CNA** 75 T3 3M
- in a less expensive, **N**on-explosion-proof design
Ordering Example: CP MICROTHERM **NNA** 40
- as Bi-Standard (see datasheet HD608-xc).



4 Technical Data

EC Type Examination certificate	PTB 02 ATEX 1041 X
EC Type of protection	II 2 GD EEx dm IIC T3 or T4
IEC Scheme Certificate	IECEX PTB 07.0052X
IEC Scheme Type of Protection	Ex dm IIC T4/ T3 Ex tD mD A21 IP65 T135°/ T200°C
Ingress Protection	IP 68, NEMA 4X
Operating temperature range	-50°C bis 180°C
Nominal voltage	230V AC
Connection cable	silicone cable, notch and oil resistant 3x1,5mm ² , Ø8,5mm
Length of connection cable	1 m
Length x Width x Height	50 x 50 x 155 mm
Material	seawater-proof aluminium, black anodized

5 Types

(Further types upon request)

CP MICROTHERM DNA	25 T4	40 T4	75 T3
Nominal power [W]	25	40	75
Temperature class	T4	T4	T3

6 Options

TS	Room temp. controller for freeze protection
AM	Failure alarm opening at < 5 °C
Connection cable for AM	silicone cable, notch and oil resistant 5x1,5 mm ² Ø8,8 mm
3M	Connection cable 3 m long
120V	Nominal voltage 120 V AC

Ordering example: CP MICROTHERM DNA 75 T3 TS



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7 Installation Position and Minimum Clearances

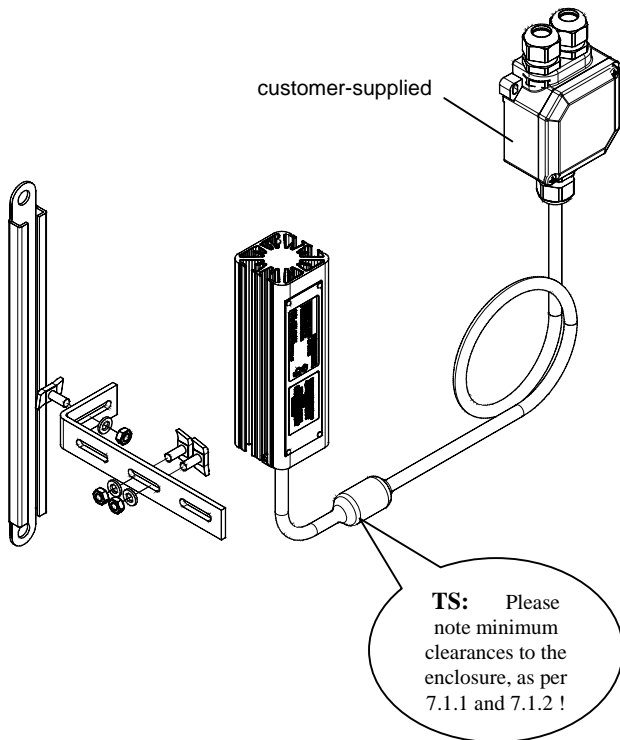
During installation, attention should be paid to the following:

- Follow the installation and operating instructions supplied with the MICROTHERM heater.
- The fins must be positioned vertically
- Please note minimum clearances to the enclosure, as per 7.1.1 and 7.1.2
- The cable must be clearly legible

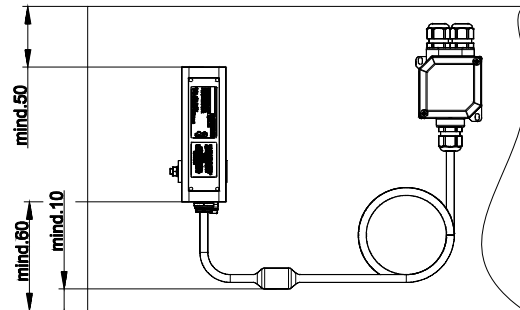
The INTERTEC universal mounting bracket supplied with the heater enables versatile use.

All crews and nuts are included with the heater.

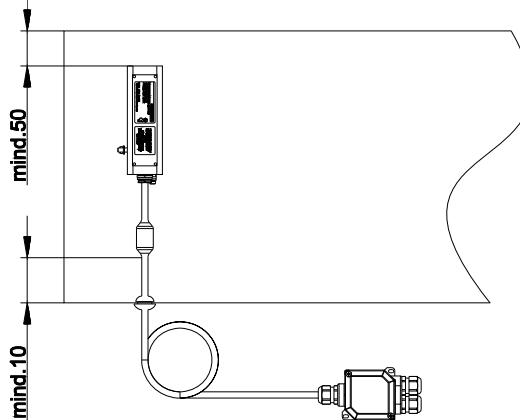
7.1 MICROTHERM TS



7.1.1 with customer-supplied internal junction box



7.1.2 with customer-supplied external junction box



8 Wiring Diagramme

