

# CP MULTITHERM D.A Electric heater



## 1 Application

Heating of instrument enclosures in hazardous areas, designed for

- freeze protection
- condensation protection
- temperature maintenance
- vertical installation

## 2 Special Features & Advantages

- availability of standard items from stock
- short delivery times
- 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 or protective thermostat (TS40) for temperature maintenance
- high heat output resulting from a special, black anodized aluminium profile construction

## 3 Description

The very versatile MULTITHERM line consists of electric heaters designed to heat the air in the enclosure by convection.

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:

- Ensure effective convection by observing the necessary clearances as per sections 7 on the next page. Allow for good convection circulation in the enclosure and take care not to cover the fins.
- The TS thermostat supplied as standard will limit the ambient temperature in the housing.
- For temperature maintenance an additional external thermostat type TAE must be connected in series with the heater. It should be mounted on top of the heater surface to ensure thermal feedback (see 7.2).
- Alternatively a TC temperature controller can be used.

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

All Intertec explosion-proof heaters can also be supplied to American NEC standard (CSA/ NRTL/ FM/ UL) and are available in a cost-saving non-explosion-proof design.



## 4 Technical data

Ignition protection class	II 2 G EEx dm IIC T3/ T4/ T6
EC Type-examination certificate	PTB 02 ATEX 1041 X
Protection degree	IP 68, NEMA 4X
Operating temp. range	-50°C to 180°C
Nominal voltage	230V AC
Connection cable	EWKF 3x1,5 mm <sup>2</sup> Ø8,5 mm
Connection cable for AM	EWKF 5x1,5 mm <sup>2</sup> Ø8,8 mm
Length of connection cable	1 m
Length, width	80 mm, 80 mm
Material	seawater-proof aluminium, black anodized

## 5 Types

(Further types upon request)

CP MULTITHERM DNA	75	100 *	150
Nominal power [W]	75	100	150
Temperature class	T4	T3	T3
Height	155 mm		

CP MULTITHERM DPA	50	100	200	250
Nominal power [W]	50	100	200	250
Temperature class	T6	T4	T3	T3
Height	225 mm			

\* With this type of heater, a protective thermostat TS40 is integrated in the connection cable for temperature maintenance up to 40°C. Room temperature control must be effected by an additional TAE thermostat or TC temperature controller.

## 6 Options

TS	Room temp. controller for freeze protection
TS40 (with*)	Protective thermostat
AM	Failure alarm opening at < 5 °C
3M	Connection cable 3 m long
120V	Nominal voltage 120 V AC
240-265V	Nominal voltage 240-265 V AC

**Ordering example:** CP MULTITHERM DPA 250 T3 TS

# CP MULTITHERM D.A Electric heater



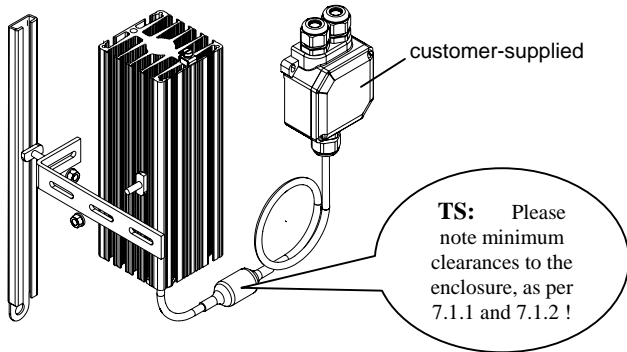
## 7 Installation, Minimum Clearances

During installation, attention should be paid to the following:

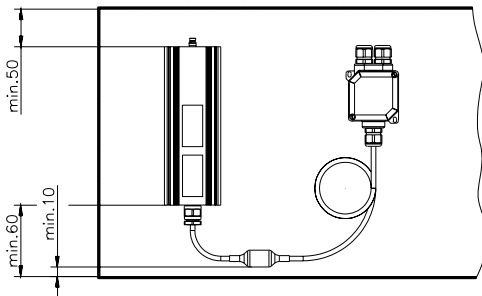
- installation and operating instructions supplied with the heater MULTITHERM
- The fins must be positioned vertically
- Please note minimum clearances to the enclosure, as per 7.1.1 and 7.1.2
- For temperature maintenance install the TAE thermostat on the heater, see 7.2
- The cable must be clearly legible

The INTERTEC universal mounting bracket supplied with the heater is very versatile and bolts and nuts are included in the mounting kit.

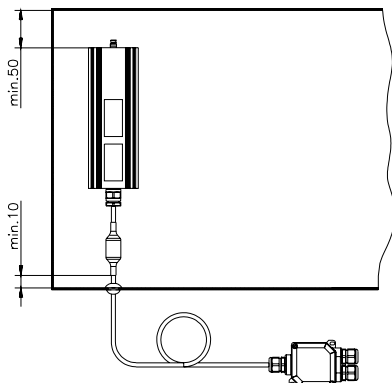
### 7.1 MULTITHERM TS



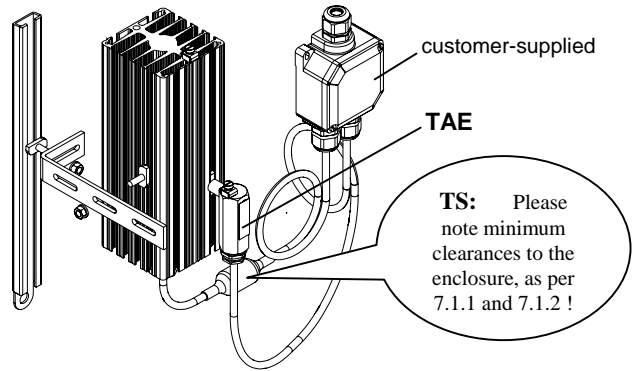
#### 7.1.1 with customer-supplied internal junction box



#### 7.1.2 with customer-supplied external junction box



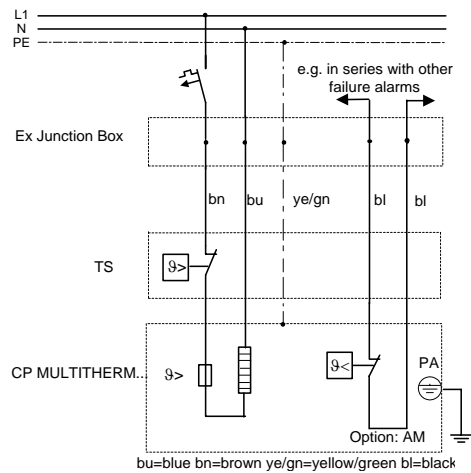
### 7.2 MULTITHERM TS40 with TAE



For the TS40, please note minimum clearances to the enclosure as per 7.1.1 and 7.1.2.

## 8 Wiring Diagramme

### 8.1 MULTITHERM TS



### 8.2 MULTITHERM TS40 with TAE

