



# CP VARITHERM CPA ... Electric heater



## 1 Application

Heating of instrument enclosures in hazardous areas, designed for

- freeze protection
- condensation protection
- preferably horizontal installation.

## 2 Special Features & Advantages

- Horizontal design allows for optimum installation of the heater underneath the instruments in the enclosure
- Vertical installation is also possible with reduced output of 25%
- Freeze-protection thermostat (option TSxx) with junction box can be provided
- High heat transfer capabilities due to large surface area of black anodized aluminium fins
- Heater fins can be removed and modified by INTERTEC, if necessary for installation purposes

## 3 Description

The very versatile VARITHERM line consists of electric heaters designed to heat the air in the enclosure by convection. The data sheet shows the heaters that are available from normal stock. Many more variations and options are possible.

A temperature fuse is integrated in the core block, cutting off the power in case of a failure or excessive heating resulting from an external heat source. It should be noted that this 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 TSxx or TC switch off the heater in case of high temperatures inside the enclosure.
- Ensure effective convection by observing the necessary clearances as per section 7 on the next page. Take care not to cover the fins.

For any specific applications requiring high temperature maintenance we will be pleased to select the suitable combination of heater and controller.

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.



Warranty null and void if Heater strip has been removed from Heater.



## 4 Explosion Proof

CSA Certificate	File # 1655545 (LR43674)
CSA Type of Protection	Cl. 1, Div. 1, Gp ABCD T3/ T4

## 5 Technical Data

Ingress Protection	IP68
Nominal voltage	120V AC
Connection cable	3 x 1,5mm <sup>2</sup> 8,1mm Ø
Conduit connection	½" NPT
Length of cable	39" / 1 m
Length, width	8.7"/ 220 mm, 8.4"/ 213 mm
Material	seawater-proof aluminium, black anodized

## 6 Types

(Other types upon request)

CP VARITHERM CPA	200 T3 60	200 T3 100	250 T3 120	300 T3 80	400 T3 100	500 T3 100	600 T3 120
Nominal power [W]	200	200	250	300	400	500	600
Temperature class	T3	T3	T3	T3	T3	T3	T3
Fin Height [in/mm]	2.4"/ 60	3.9"/ 100	4.7"/ 120	3.1"/ 80	3.9"/ 100	3.9"/ 100	4.7"/ 120

## 7 Options

TSxx JC	Thermostat kit with 3 port junction box
3M	Connection cable 10' / 3 m long
T4	Temperature Class T4 available on request

### Ordering example:

CP VARITHERM CPA 300 T3 80 120V or

CP VARITHERM CPA 400 T3 100 TS10 JC 230 MB 120V

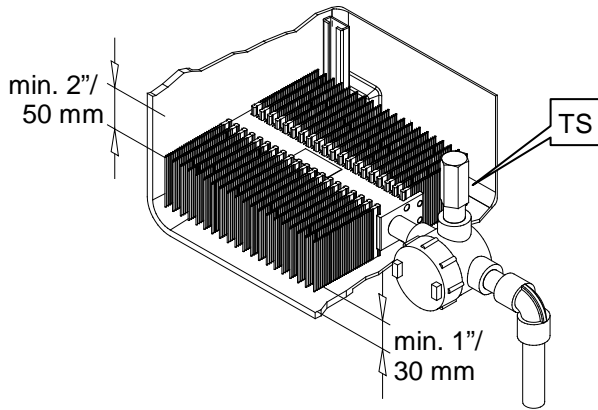


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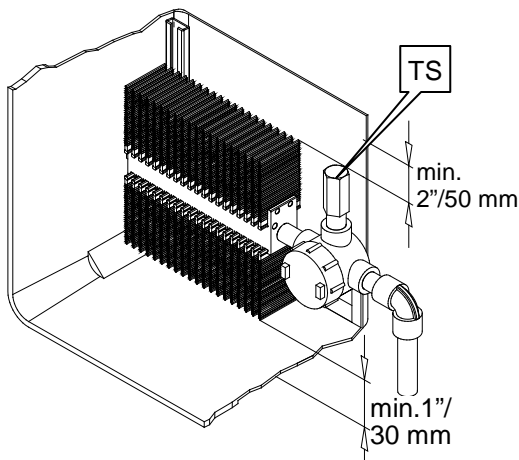


## 8 Installation

### 7.1 horizontal (recommended)

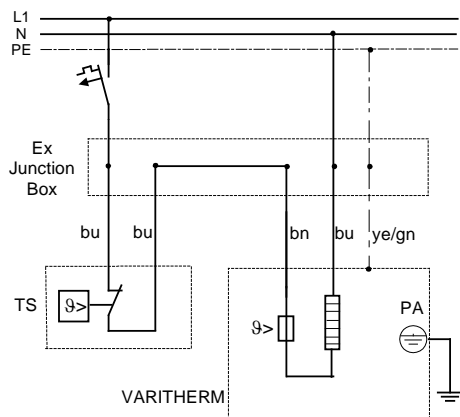


### 7.2 vertical



**Note:** The convection is about 20% less at vertical installation. Due to earlier switching of the thermostat the effective heating power may be lower.

## 9 Electric Wiring



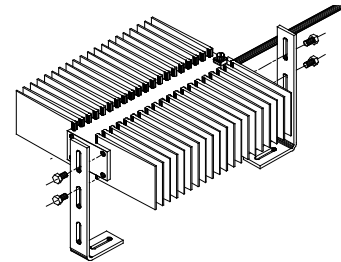
bu=blue bn=brown ye/gn=yellow/green bk=black gy=grey

## 10 Installation of the VARITHERM heater

When installing the heater, please make sure that the label remains clearly legible.

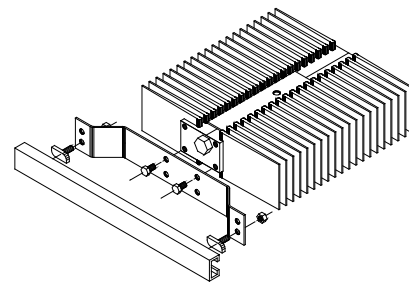
Trouble-free installation, e.g. on a mounting plate or the INTERTEC mounting system (C-rails) in the instrument enclosures or protective cabinets, is possible.

### With two mounting brackets in plated steel

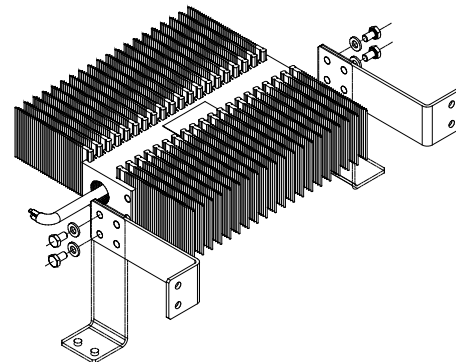


The brackets and mounting bolts illustrated above are included with the heater.

### With one stainless steel mounting bracket (MB)



### With two stainless steel mounting brackets (MW)



The MB or MW mounting brackets can be ordered as options.