



# SL FLATTHERM CPA ... Self-limiting Heater

## 1 Application

The self-limiting electric heater is designed to be attached directly to manifolds, measuring instruments, control valves and similar equipment installed in hazardous areas. This is the easiest, safest and most economical method of freeze protection or temperature maintenance.

## 2 Special Features & Advantages

- Energy saving
- Self-limiting, no fusible link or limiter
- Requires very little space
- Adjusts automatically to the voltage

## 3 Description

SL FLATTHERM is a heater block, flat on all sides. This direct heater works through conduction and should be firmly attached to the equipment at a flat metal surface. Holes can be drilled into the heater (certain areas, please see the drawing), so that the heater can be mounted in different positions.

The PTC cartridge provides the heat that is transferred through the heater-profile to the device to which it is attached.

All INTERTEC explosion-proof heaters can also be supplied

- to European standard (ATEX)  
e.g.: SL FLATTHERM DPA T3
- as Bi-Standard (see datasheet HD508)
- in a less expensive, Non-explosion-proof design  
e.g.: SL FLATTHERM NPA T4



## 4 Explosion protection

CSA Certificate	1655545 (LR 43674)
CSA Type of Protection	Cl. I, Div. 1, Grp ABCD T3/ T4 Cl.II., Grp EFG

## 5 Technical Data

Ingress Protection	IP 68
Nominal voltage	110 to 265 V
Ambient temp. range	-50 to +180°C
Connection Cable	silicone cable, notch and oil resistant, 3 x 1,5 mm <sup>2</sup> Ø8,5mm
Conduit connection	1/2" NPT
Length of connect.cable	39"/ 1 m
Height x Width x Length	1.2"/ 30mm x 8.7"/ 220mm x 7.9"/ 200 mm
Material	seawater-proof aluminium, black anodized

SL FLATTHERM...	CPA	
Temperature Class	T4	T3
Nominal Power	100 W	150 W

(Other types upon request)

## 6 Options

3M	Connection cable 118.1"/ 3m long
AM	Failure alarm opening at < 5 °C

Not all options can be combined.

**Ordering example:**

SL FLATTHERM CPA T4 AM



## SL FLATTHERM CPA ... Self-limiting Heater

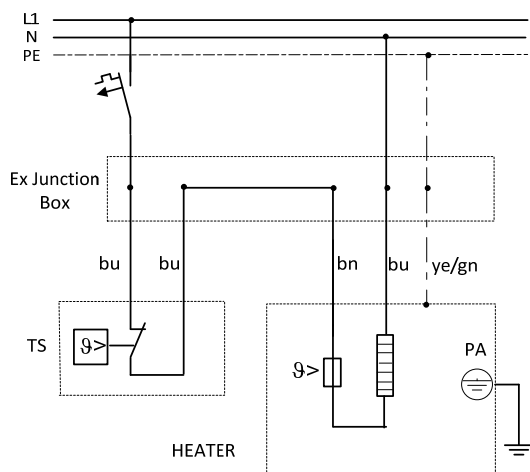
### 7 Temperature Limitation

PTC-elements (**P**ositive **T**emperature **C**oefficient) raise their electric resistance with rising temperature. High resistance means low heating power. The heating power turns low at high temperatures so that the temperature cannot exceed the maximum temperature of the respective temperature class. The heat transfer coefficient of the surrounding enclosure must not be less than  $K=0,5 \text{ W/ K}$ . All INTERTEC enclosures meet these requirements.

### 8 Supply Voltage

In addition to the above-mentioned temperature characteristics, the PTC-elements show a varistor effect. They control their resistance in accordance to the supply voltage. The nominal power supply voltage may be 110 V to 265 V with the same heater.

### 9 Electric Wiring Option TS thermostat



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

### 10 Dimensions

