



SL FLATTHERM DPA ... Self-limiting Heater

1 Application

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

2 Special Features & Advantages

- Energy saving, high output
- Self-limiting, no fusible link or limiter
- Compact, requires very little space
- Adjusts automatically to the voltage
- The additional fins support the convective heat transfer

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 provides the heat that is transferred through the heater-profile to the device to which it is attached. Explosion-proof types of heaters are equipped with a ground terminal and a different nameplate.

All INTERTEC explosion-proof heaters can also be supplied

- to Northern American standard (CSA/ NRTL)
- as Bi-Standard (see datasheet [HDS10607](#))
- in a less expensive, Non-explosion-proof design



4 Explosion protection

EG Examination Certificate	PTB 02 ATEX 1116 X
IEC Scheme Certificate	IECEx PTB 07.0055X
Marking	II 2G Ex db IIC T6, T5, T4, T3 II 2D Ex tb IIIC T85°, T100°C, T135°C, T200°C

5 Technical Data

Ingress Protection	IP68
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 ² Ø8,5mm
Length of connect. cable	1 m
Height x Width x Length	30 mm x 220 mm x 200 mm
Material	seawater-proof aluminium, black anodized

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

(Other types upon request)

6 Options

TS (Gas) (Dust)	Room temp. controller for freeze protection II 2 G Ex mb IIC T6 II 2 D Ex tb IIIC T80°C
AM	Failure alarm opens at < 5°C (only possible with version DNA and DSA)
3M	Connection cable 3 m long

Not all options can be combined.



SL FLATTHERM DPA ... Self-limiting Heater

7 Temperature Limitation

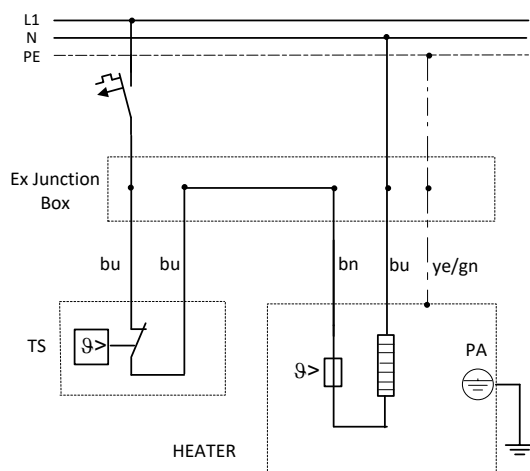
PTC-elements (Positive Temperature Coefficient) raise their electric resistance with rising temperature. High resistance means low heating power. The heating power turns low at high temperatures so that the temperature cannot exceed the maximum temperature of the respective temperature class. The heat 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

The PTC-element controls the resistance in dependency to the temperature, but it is independent of the supply voltage. The same heater can be used with a nominal power supply voltage from 110 V to 265 V.

9 Electric Wiring

Option TS Thermostat



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

10 Dimensions

