

SL MEGATHERM D.A Self-Limiting Heater



1 Application

The self-limiting electric finned heater is designed to be used in small enclosures or cabinets where measuring instruments, control valves or similar equipment in hazardous areas must be heated. Finned heaters heat the area by transferring the heat from the heater to the surrounding air, creating a convection current. This type of heater is recommended when it is not possible to mount a heating block to a flat surface.

In order to maintain a constant temperature in the housing, it is recommended to use a temperature controller TAE ... or optional TS

2 Special Features

- Self-limiting, no limiter
- The vertical design is perfectly suited for installation next to or behind the instruments in the enclosure
- Adjusts automatically to voltage

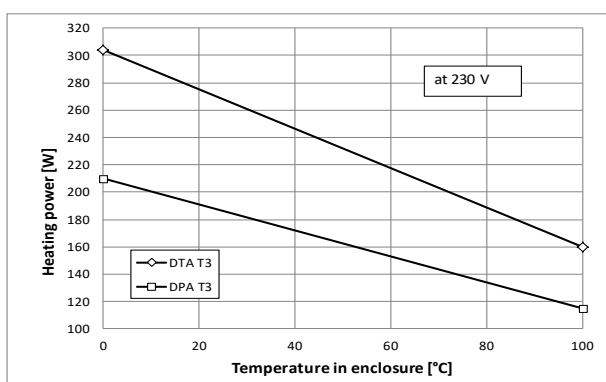
3 Description

The SL MEGATHERM is heated by a PTC cartridge. The heat is transferred from the fins to the surrounding air.

Explosion-proof types of heaters are equipped with a ground terminal and a different nameplate.

4 Performance

The output of an explosion-proof PTC heater depends on the temperature. The diagram below shows the output at different internal air temperatures.



5 Explosion protection

EC Type-examination certificate	PTB 02 ATEX 1116 X
IEC Scheme certificate	IECEx PTB 07.0055X
IEC Scheme Type of Protection	II 2G Ex db IIC T6, T5, T4, T3
	II 2D Ex tb IIIC T85°C, T100°C, T135°C, T200°C

6 Technical Data

Ingress Protection	IP68
Nominal voltage	110 bis 265 V
Ambient temp. range	-60° to +180°C
Connection Cable	silicone cable, notch and oil resistant 3 x1,5 mm ²
Length of connect. cable	1 m
Width x depth	229 mm x 60 mm
Material	seawater-proof aluminium, black anodized

SL MEGATHERM...	DPA	DTA
Temperature class	T3	
Height	225 mm	325 mm
Nominal power [W]	200 W	300 W

All INTERTEC explosion-proof heaters can also be supplied

- to Northern American standard (CSA/ NEC/ NRTL)
- as Bi-Standard (see datasheet [HD508](#))
- in a less expensive, Non-explosion-proof design

7 Optionen

TS	Room temp. controller for freeze protection
AM	Failure alarm opening at < 5 °C
3M	Connection cable 3 m long



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8 Temperature Limitation

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

9 Supply Voltage

In addition to the mentioned temperature characteristics, the PTC-elements shows 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. The heating capacity output may deviate up to 15% from the data shown in the performance diagram (4)

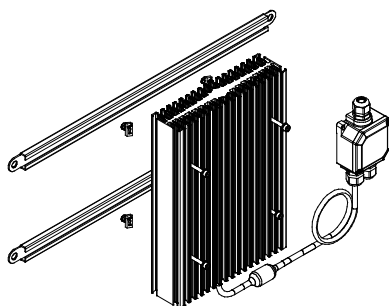
10 Installation, Minimum Clearances

During installation, attention should be paid to the following:

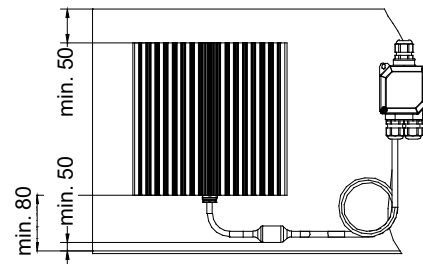
- installation and operating instructions supplied with the heater MEGATHERM
- The fins must be positioned vertically
- Please note minimum clearances to the enclosure, as per 10.1.1 and 10.1.2
- For temperature maintenance install the TAE thermostat on the heater, see 10.2
- The label must be clearly legible

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

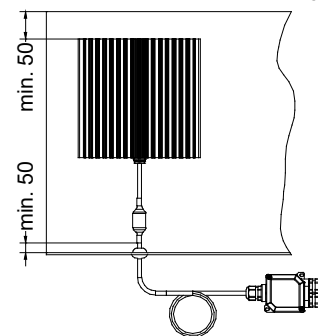
10.1 MEGATHERM with TS



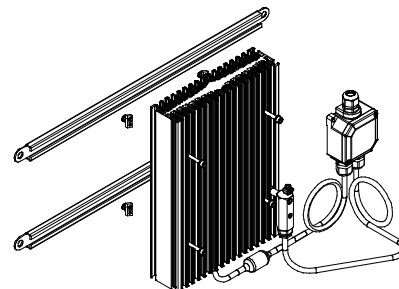
10.1.1 with customer supplied internal junction box



10.1.2 with customer supplied external junction box



10.2 MEGATHERM with TAE



11 Electric Wiring

