



# SL BLOCKTHERM DPA... T.



## 1 Application

The self-limiting electric conduction heater is designed to be attached directly to manifolds, measuring instruments, control valves and similar equipment installed in hazardous areas. It heats the device by direct conduction. 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 little space
- Hole pattern according to the SP SP76.00.02 Standard. The heater is specially designed to fit the the new NeSSI Generation II Standard <http://www.cpac.washington.edu/NeSSI/NeSSI.htm> For example Parker IntraFlow™

## 3 Description

BLOCKTHERM is a metal heating block. The PTC cartridge provides the heat that is transferred through the heater block to the device to which it is attached. Explosion-proof types of heaters are equipped with a ground terminal and a different nameplate.

## 4 Performance

A conduction heater requires considerably less power than a finned convection heater, as the heat conducting qualities of metal are much better than those of air. The air surrounding the whole installation in the enclosure serves as additional insulation.



## 5 Technical Data

Explosion-proof Models	SL BLOCKTHERM	
	DPA T3	DPA T4
Type of protection Class gas	II 2 G EEx d II C	
Temperature Class	T3	T4
Type of protection Class dust	II 2 D IP65 T200°C	II 2 D IP65 T135°C
EC Type examination cert	PTB 02 ATEX 1116 X	
Nominal voltage	110 V to 265 V	
Nominal Power	150 W	100 W
Ambient temperature range	-50 to +180°C	
Protection degree	IP 68, NEMA 4X	
Material	seawater-proof aluminium, black anodized	

All Intertec explosion-proof heaters can also be supplied to American NEC standard (CSA/NRTL/FM/UL).

Non Explosion-proof Models	SL BLOCKTHERM NPA
Nominal voltage	110 V to 265 V
Nominal Power	150 W
Ambient temperature range	-50 to +180°C
Protection degree	IP 68

## 6 Options

AM	Failure alarm opens at < 5°C
3M	Connection cable 3 m long

### Ordering example of the explosion-proof models:

SL BLOCKTHERM DPA 150 T3  
SL BLOCKTHERM DPA 100 T4 AM

### Ordering example of the non-explosion-proof models:

SL BLOCKTHERM NPA 150 3M

**Ti** Techingenium

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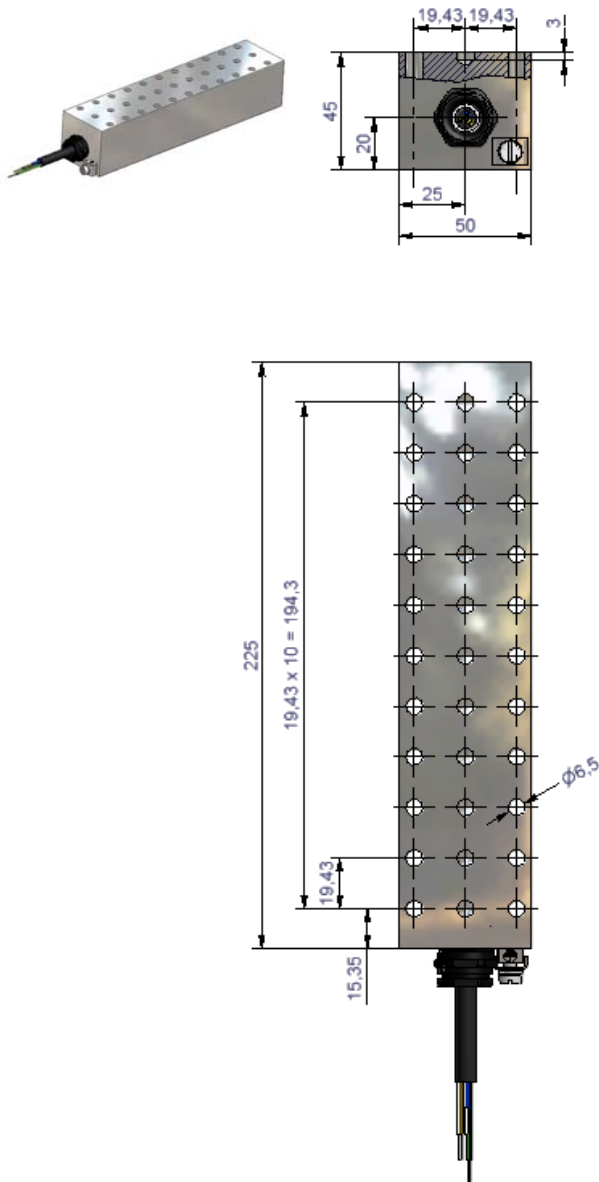
## 7 Temperature management

As the heater is self-limiting, it can operate with or without a temperature controller.

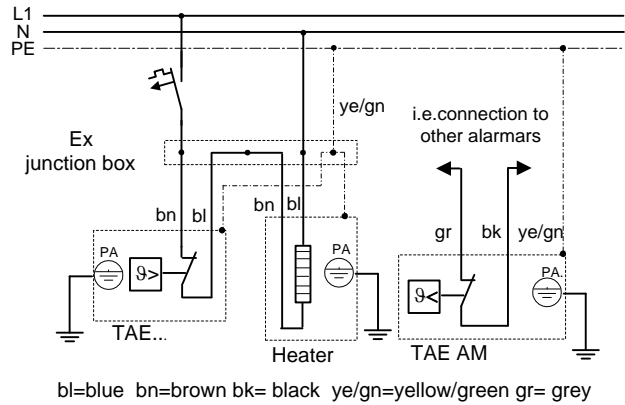
If a certain maintained temperature set point is required, the TAE thermostat (data sheet HD223) can be attached to control the temperature of the item that is being heated.

Self Limiting heaters should not be controlled by electronic controllers.

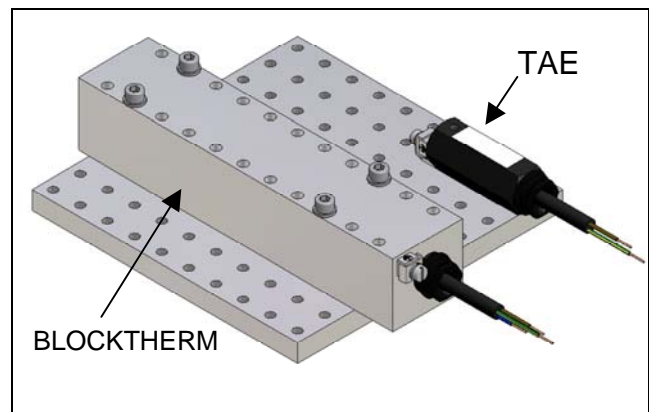
## 8 Dimensions



## 9 Electric Wiring



## 10 Mounting



The block heater dissipates the heat by conduction. It should be mounted to a flat surface of a heat conducting material (e.g. metal). 2 bolts are sufficient to mount the heater.

## 11 The heater cartridge

Inside the heater, there is a PTC heater cartridge. 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. Further, the PTC-elements exhibit a varistor effect. They control their resistance according to the supply voltage being used. The nominal power supply voltage may be 100 V to 265 V with the same heater. Finally, the in rush current may be 8 – 10 times greater as the nominal current during the first 1-2 seconds after power on.