



# SL DSEETHERM Self-limiting Block 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

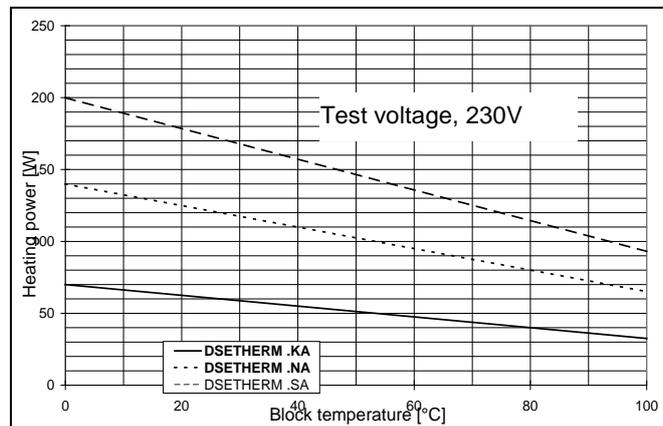
- Energy saving, high output
- Self-limiting, no fusible link or limiter
- Compact, requires very little space
- Adjusts automatically to the voltage
- The additional fins support the convective heat transfer

## 3 Description

DSEETHERM is an aluminum heating block with a ½" NPT thread to connect to a conduit. The PTC cartridge provides the heat that is transferred through the heater block to the device to which it is attached.

## 4 Performance

The diagram below shows the heating power at different block temperatures.



All INTERTEC explosion-proof heaters can also be supplied

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



## 5 Explosion Protection

|                               |  |
|-------------------------------|--|
| EC 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 to 265 V                             |        |        |
| Operating Temp. Range    | -50° to +180°C                           |        |        |
| Length of Block (Inches) | 4"                                       | 6,5"   | 11,35" |
| Length of Block (mm)     | 101,60                                   | 165,10 | 288,30 |
| Material                 | seawater-proof aluminium, black anodized |        |        |

|                      |     |     |     |
|----------------------|-----|-----|-----|
| <b>SL DSEETHERM</b>  | DKA | DNA | DSA |
| Temperature Class    | T3  |     |     |
| Nominal Power (Watt) | 70  | 140 | 200 |

## 7 Options

|                 |   |
|-----------------|---|
| TS (Gas) (Dust) | Room temp. controller for freeze protection<br>II 2 G Ex dm IIC T4 bzw. T3<br>II 2 D Ex tDmD A21 IP65 T135°C, T200° 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.

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## 8 Temperature Limitation

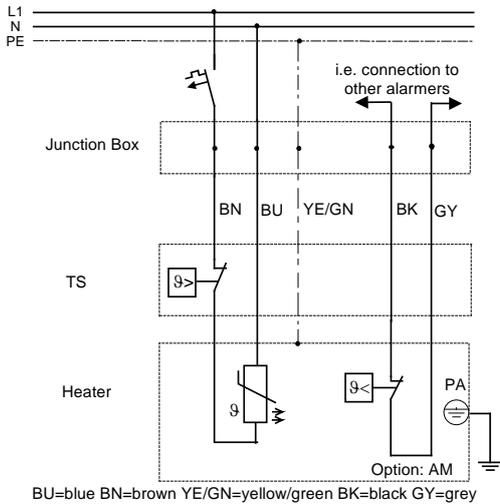
PTC-elements (Positive Temperature Coefficient) raise their electric resistance with rising temperature. High resistance means low heating power. The heating power gets very low at high temperatures so that the temperature cannot exceed the maximum temperature of the respective temperature class. The 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 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. The output may be a maximum of 15% higher than that shown in the diagram overleaf.

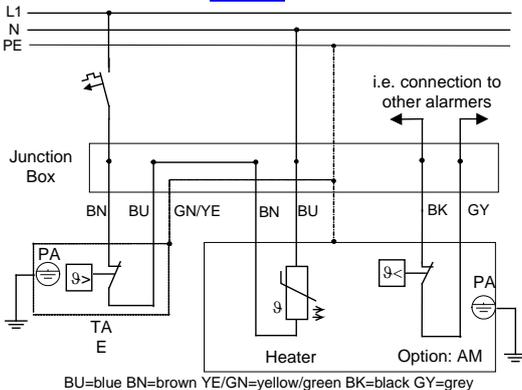
## 10 Electric Wiring

### 9.1 DSEETHERM with TS



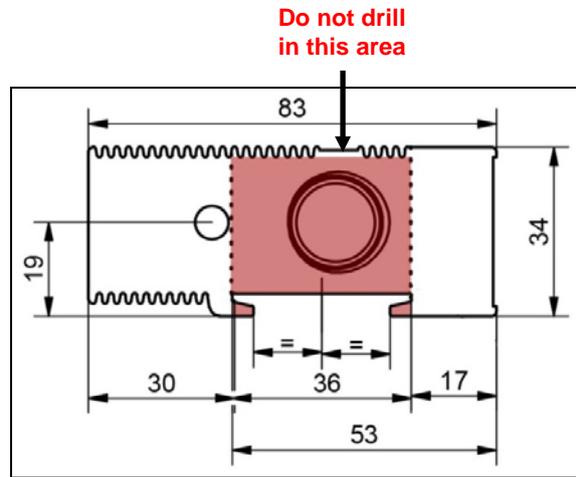
### 9.2 DSEETHERM with TAE

TAE see data sheet [HD223](#)



Connection cable Silflex-EWKF 3 x 1.5 mm<sup>2</sup>, 1m long. Other lengths available upon request (at an extra charge).

## 11 Dimensions



Dimensions in mm

## 12 Mounting

