

SL QUADRATHERM...D.A T 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 fusable link or limiter
- Requires very little space
- Adjusts automatically to the voltage

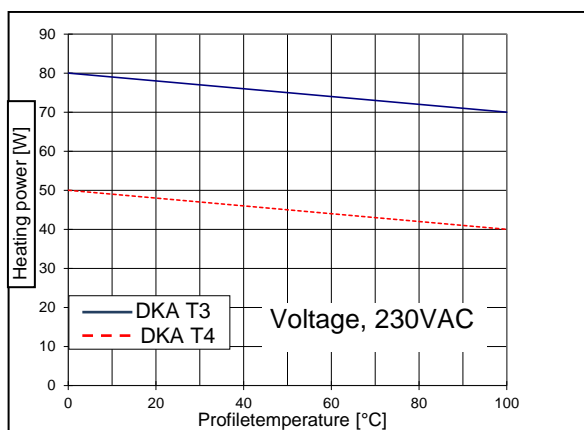
3 Description

SL QUADRATHERM is flat on one side and finned on the other. The flat side works through conduction and should be firmly attached to a flat metal surface. The finned side works through convection and heats the air inside the enclosure. The PTC cartridge provides the heat that is transferred through the heater to the device to which it is attached.

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

4 Performance

The diagram below shows the heating power at different Profiletemperatures.



5 Explosion protection

EC Examination Certificate	PTB 02 ATEX 1116 X
IEC Scheme Certificate	IECEx PTB 07.0055X
Marking	II 2 G Ex d IIC T4 bzw. T3
	II 2 D Ex tD A21 IP65 T135°C, T200°C

6 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 ²
Length of connect.cable	1 m
Width x Height	95 mm x 30 mm
Material	seawater-proof aluminium, black anodized

SL QUADRATHERM...	DKA	DLA	DKA	DLA
Length (mm)	90	105	90	105
Temperature Class	T4		T3	
Nominal Power	50 W		80 W	

(Other types upon request)

All INTERTEC explosion-proof heaters can also be supplied

- to Northern American standard (cCSA_{US}/ NRTL)
e.g.: SL QUADRATHERM CKA T3
- as Bi-Standard (see datasheet [HD508](#))
- in a less expensive, Non-explosion-proof design
e.g.: SL QUADRATHERM NKA T4

7 Options

TS	Room temp. controller for freeze protection
AM	Failure alarm opening at < 5 °C; only available for DLA

Not all options can be combined.

Ordering example:

SL QUADRATHERM DKA T4 TS



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8 Temperature Limitation

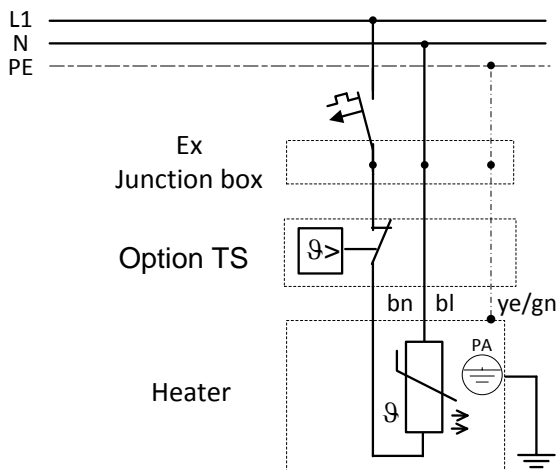
PTC-elements (Positive Temperature Coefficient) raise their electric resistance with rising temperature. High resistance means low heating power. The heating power turns low at high temperatures so that the temperature cannot exceed the maximum temperature of the respective temperature class. The PTB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

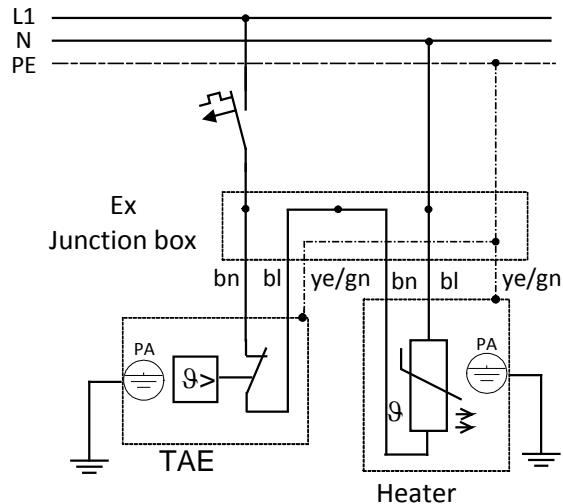
10 Electric Wiring

10.1 Option TS thermostat



bl=blue bn=brown ye/gn=yellow/green

10.2 With additional TAE thermostat



bl=blue bn=brown bk=black ye/gn=yellow/green

11 Dimensions

