



# SL MINITHERM C Self-limiting Heater

## 1 Application

Heating of instrument enclosures in hazardous areas, designed for

- freeze protection
- condensation protection
- for compact spaces

## 2 Special Features & Advantages

- Self-limiting, no limiter, no fusible link
- Vertical or horizontal installation, with almost no difference in heat output
- Adjusts automatically to voltage

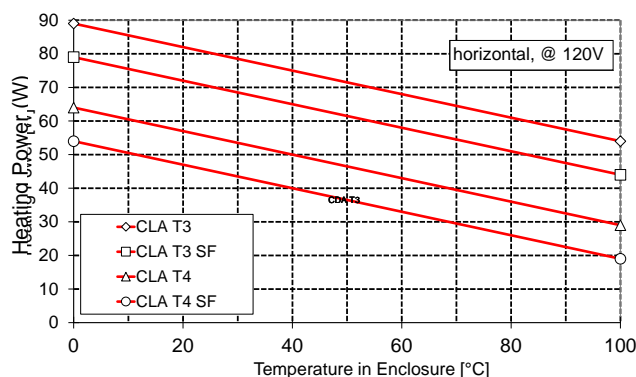
## 3 Description

The MINITHERM CLA xx SF or CLA heater consists of a block with fins and a connection cable, which is heated by a PTC cartridge. The heat is transferred from the fins to the surrounding air.

Ensure effective convection by observing the recommended clearances above and below the heater. Take care not to cover the fins.

## 4 Performance at 120 V

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



## 5 Technical Data

CSA Certificate	1655545 (LR43674)
CSA Type of Protection	Cl. 1, Div. 1, Grp, ABCD
Ingress Protection	IP68
Nominal voltage	110 to 277 V
Ambient Temperature	-58 F to 320 F / -50° C to +160° C
Connection cable	Silicone cable, notch and oil resistant, 3 x 1.5 mm <sup>2</sup> , Ø 8,5mm
Conduit connection	½" NPT
Length of Cable	39" / 1 m
Dimensions	see drawings page 2
Material	seawater-proof aluminium, black anodized

All INTERTEC explosion-proof heaters can also be provided in IEC, ATEX and GOST Standard.

## 6 Types

SL MINITHERM	CLA T3 SF	CLA T3	CLA T4 SF	CLA T4
Temperature Class	T3		T4	
Nominal power	75W	90W	50W	70W
Width	5" / 127mm	8.3" / 211mm	5" / 127mm	8.3" / 211mm

## 7 Options

TSxx	Thermostat kit with junction box
AM	Failure alarm opening at < 41 F / 5° C
3M	Connection cable 3 m long



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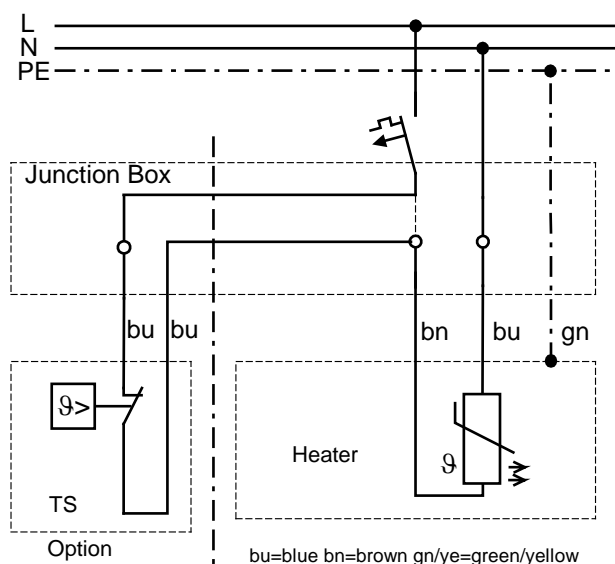
## 8 Temperature Limitation

PTC-elements (**P**ositive **T**emperature **C**oefficient) 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.

## 9 Supply Voltage

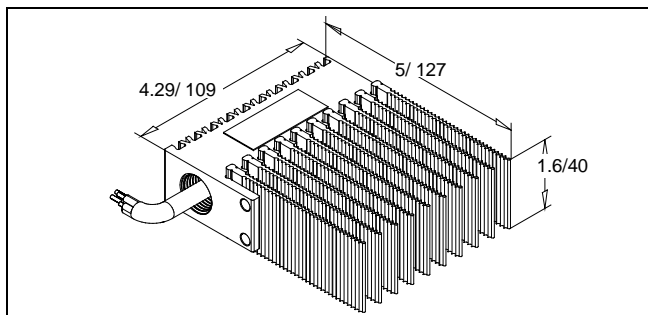
In addition to the above-mentioned temperature characteristics, the PTC-elements show a varistor effect. They control their resistance in accordance to the supply voltage. The nominal power supply voltage may be 110 to 277 V with the same heater. The heating capacity output may deviate up to 15 % higher from the data shown in the performance diagram on page 1.

## 10 Electric Wiring

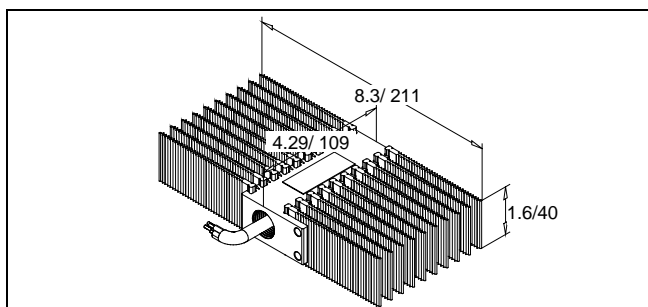


Dimensions in inches/ mm

## 11 Dimensions

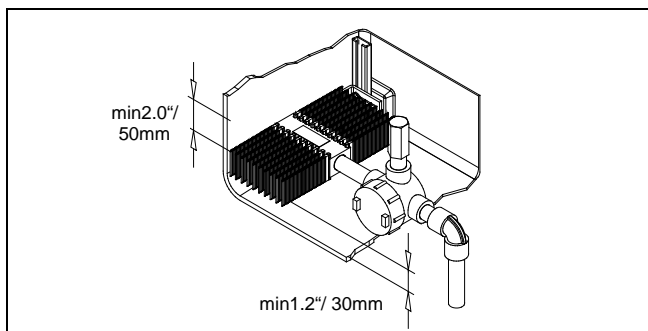


SL MINITHERM CLA xx SF

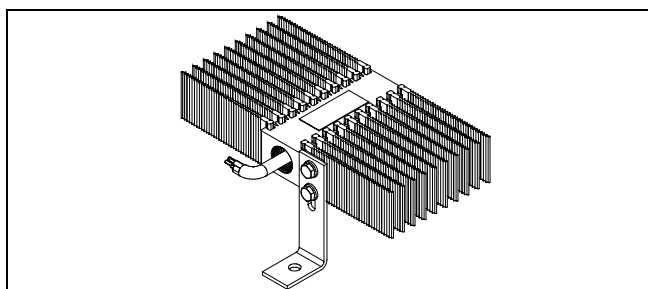


SL MINITHERM CLA

## 12 Inside Clearances



## 13 Installation



The mounting bracket can be installed on either end of the block.