



PRODUCT DATASHEET

CX Flange Heater

Increased Safety Engineered Solution

OVERVIEW

The Increased Safety Immersion Heater is an enhancement to Thermon's existing immersion heater line-up. With "Increased Safety" certifications of IECEx and ATEX, the Increased Safety Immersion Heater can be custom designed to offer highly engineered solutions while meeting our customers' specific needs.

INCREASED SAFETY & PROTECTION

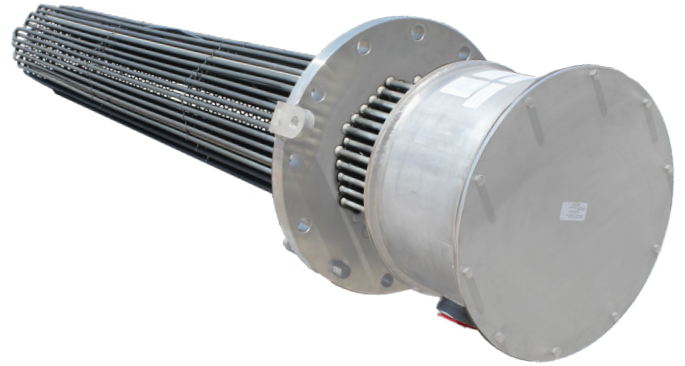
The "Increased Safety" protection method is a certified design used for equipment placed in explosive atmospheres under IECEx and ATEX design standards. It uses the principle whereby arcs and sparks do not occur in normal service or under fault conditions, and surface temperatures are controlled to limit maximum surface temperatures below incandive values.

CERTIFICATION & COMPLIANCE


- Certified to both IECEx & ATEX standards
- Suitable for all gas groups (IIC)
- Suitable for use in ambient temperatures from -60°C to +80°C
- Power ratings up to 4MW, 690V, 3Ø, 50 or 60Hz

ADAPTABILITY & FLEXIBILITY

- Customization to allow flexibility for heater and enclosure designs to suit new and MRO applications
- Square/rectangular box has flexibility to be rotated to allow for easy installation and wiring



FEATURES & BENEFITS OF INCREASED SAFETY

- Increased Safety Protection Method
- Marking: IECEx Ex eb IIC Gb T1-T6
- Marking: ATEX  II 2 G Ex eb IIC Gb T1-T6
- Ambient Temperature Range: -60°C to +80°C
- Electrical Ratings: up to 4MW, 690Vac, 3Ø, 50 or 60Hz
- Flange sizes from 6" NPS to 50" NPS
- Round or Square/Rectangular Terminal Box
- Stilted or Non-Stilted Terminal Box Designs Available
- Customized designs for consideration of wiring connections
- Factory installed temperature sensors for connection to temperature controllers



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For the Thermon office nearest you visit us at . . . www.thermon.com



PRODUCT SPECIFICATIONS

CX Flanged Heaters

Increased Safety Engineered Solution

The Increased Safety Immersion Heaters are designed for large power ratings up to 4MW. There are two different enclosure designs - round or square/rectangular (panel box type) with factory installed temperature sensors. These temperature sensors are designed to work in conjunction with remote certified temperature controllers to limit surface temperatures on flange and terminal box enclosure units.

IMMERSION HEATERS - IECEX OR ATEX

Service	Liquid, Mixed Phase
Voltage	Up to 690 VAC Maximum
Frequency	50 and 60 Hz
Power	Up to 4000 kW
Design Pressure	Up to 3000 psig (200 atm)
Design Temperature	Up to 1200 °F (650 °C)
Heat Flux Density	Up to 120 w/in ² (18.6 w/cm ²)
Mechanical Design Code	ASME Code Section VIII, Division 1 or PED
Electrical Design Code	IECEX or ATEX
Heater Diameter	Up to 50 inches (1400 mm) Diameter
Heater Type	Tubular
Heater Connection Type	Flanged
Element Materials	CS, 304 SS, 316 SS, 321 SS, Incoloy 800, Others
Electrical Area Classification	Hazardous Ex eb IIC T1...T6 Gb

CERTIFICATIONS/APPROVALS



Electrical Ratings:

Voltages up to 690 Vac, 1 or 3 PH., Wattages Up To 4,000KW, 50 or 60Hz

Ambient Temperature Rating:

-60 °C to +80 °C

Markings:

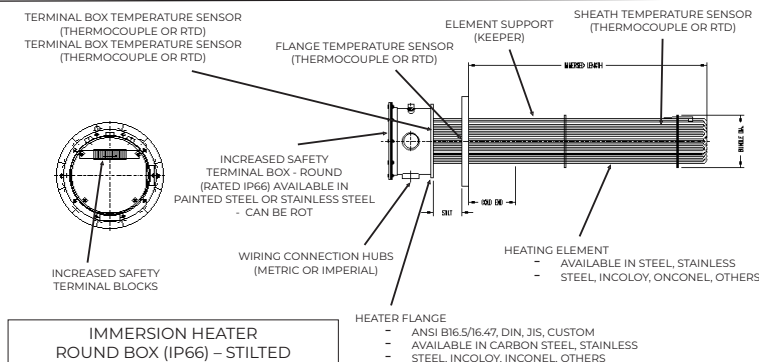
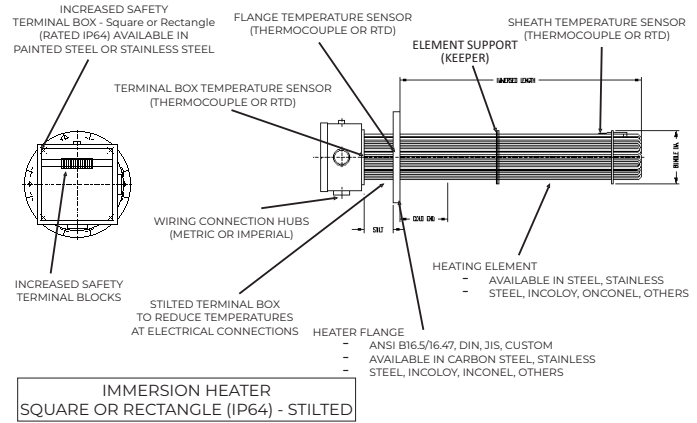
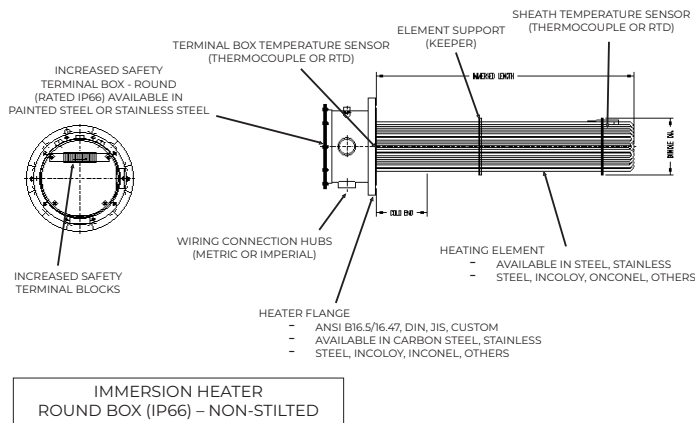
IECEX Ex eb IIC Gb, T1 to T6

ATEX II 2 G Ex eb IIC T1 TO T6 Gb

Mounting Orientation:

Horizontal or Vertical

PRODUCT DIMENSIONS



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