Thorne & Derrick
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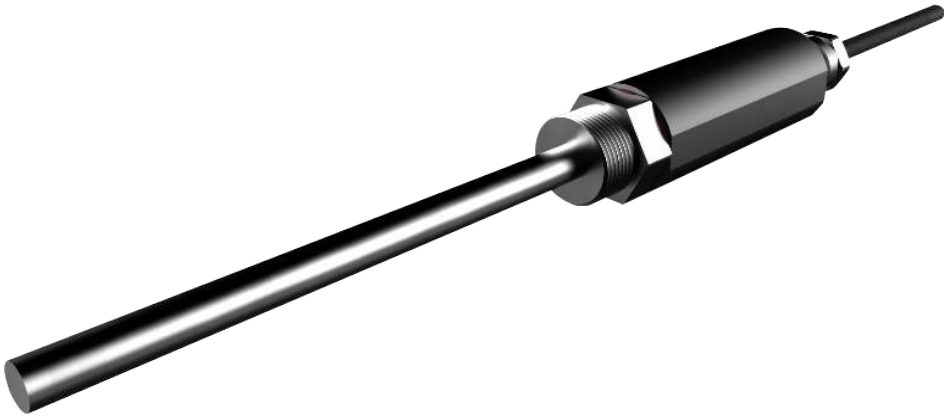
MTH Flameproof Mini Tank Immersion Heaters

The Miniature Tank Heater (MTH) is a smaller range 'plug and play' immersion heater that provides a complete solution for the heating of liquids in a hazardous area. Each is designed with specific fittings for direct immersion and is fully certified for use in hazardous areas where the atmosphere is classified as a Zone 1 or 2 (IIA, IIB, IIC) gas group, or a Zone 21 or 22 (IIIA, IIIB, IIIC) dust group.

Incorporating both process set-point control and over-temperature trip electronic circuitry, it requires no additional control or safety components to operate. The inclusion of bespoke electronic PCB allows for greater accuracy and lower hysteresis when controlling the process temperature, when compared with traditionally used mechanical temperature switches.

A compact, sleek Ex d anodised aluminium enclosure houses the electronics, this provides an ideal solution when space is at a premium. Designed for long term stability as well as the option for yearly calibration to ensure maximum accuracy.

With a full range held in stock or to have a custom design there are options for all requirements.



FEATURES

- 'Plug and play' style heater, screws directly to tank or boss as required
- Fully integrated PCB to control the over temperature, thermometer chip as well as the thermocouple for process control
- Suitable for ambient temperatures as low as ≤40°C to ≤60°C
- Long term stability
- Variable length elements and duties
- ½" BSP or NPT fixing as standard – Suitable to work with most adaptors
- Fully 321 stainless steel elements and fixing. Optional materials including NACE requirements available on request
- Suitable for working pressures up to 18.3 bar g

TYPICAL APPLICATIONS

- Boiler equipment
- Cleaning and rinsing tanks
- Crank casings
- Frost protection
- Gear boxes
- Hot water storage tanks
- Motor enclosures
- Pump casings
- Sumps
- Tank bases

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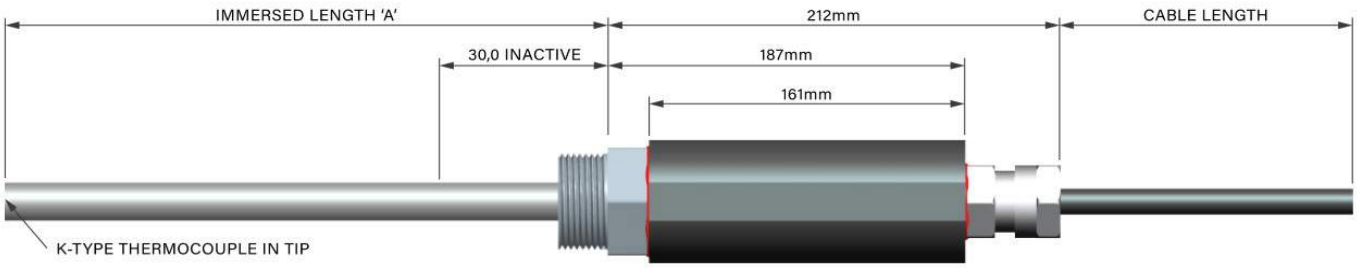

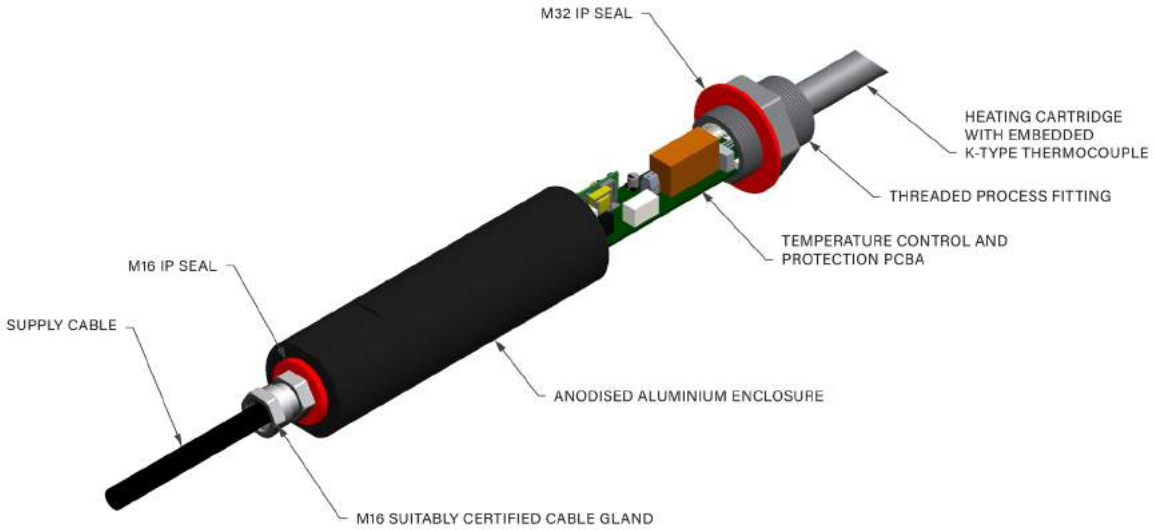

Accuracy	+/- 2°C
Ambient operating temperature	≤40°C to ≤60°C
Set point control	-40°C to 75°C
Calibration temperature	20°C to 25°C
Certification	**ATEX/IECEx/UKEX** (subject to changes) Ⓔx II 2 G D Ex d IIC T6…T1 Gb Ex tb IIIC T85°C….T450°C Db (IP66/68) **SIL** Hardware assessed for use in SIL applications
Cable	3m standard – longer available on request
Elements	15mm elements 321 Stainless Steel as standard
Installation	Horizontal installation
IP rated	IP66
Mains input	230VAC (+/-10%) nominal voltage as standard, suitable to work between 220V-254V. 110-120V available on request.
Mounting	Threaded 321 stainless steel boss suited to client requirements.
Process fluid	Suitable for most oil grades and water applications

Suitable for Oil & Water Applications

Model	Rating (W)				Immersed length (mm)	Inactive length (mm) *	Surface load (W/cm²)				Fixing	Element
	220V	230V	240V	254V			220V	230V	240V	254V		
MTH-0.1-6-RNS	91	100	109	122	160	30	1.61	1.77	1.93	2.16	1/2" NPT/BSP	15mm
MTH-0.2-11-RNS	183	200	218	244	270	30	1.69	1.85	2.01	2.25	1/2" NPT/BSP	15mm
MTH-0.3-15-RNS	274	300	326	366	380	30	1.71	1.87	2.03	2.28	1/2" NPT/BSP	15mm
MTH-0.4-20-RNS	366	400	435	489	500	30	1.69	1.85	2.01	2.26	1/2" NPT/BSP	15mm
MTH-0.5-24-RNS	457	500	544	610	620	30	1.67	1.83	1.99	2.23	1/2" NPT/BSP	15mm

* 30mm inactive from fixing 10mm inactive at tip where thermocouple is placed

Please contact our Sales Team to discuss the full range of options available.