

FP Flameproof Rod-Type Immersion Heaters

The FP range of flameproof rod-type immersion heaters is a highly adaptable solution that can be customised to suit the process requirements of our clients, and are suitable for heating all types of process mediums which are non-corrosive to the materials of construction, and carry multiple approvals for global supply.

The FP rod-type immersion heater range is 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.



FEATURES

Certified to meet the ATEX Equipment Directive and IECEx

Mild steel or 316 stainless steel terminal enclosure with weatherproof protection to IP66 or NEMA 4

Choice of built in process temperature sensors

Suitable for ambient temperatures from -60°C to +60°C (subject to cert parameters)

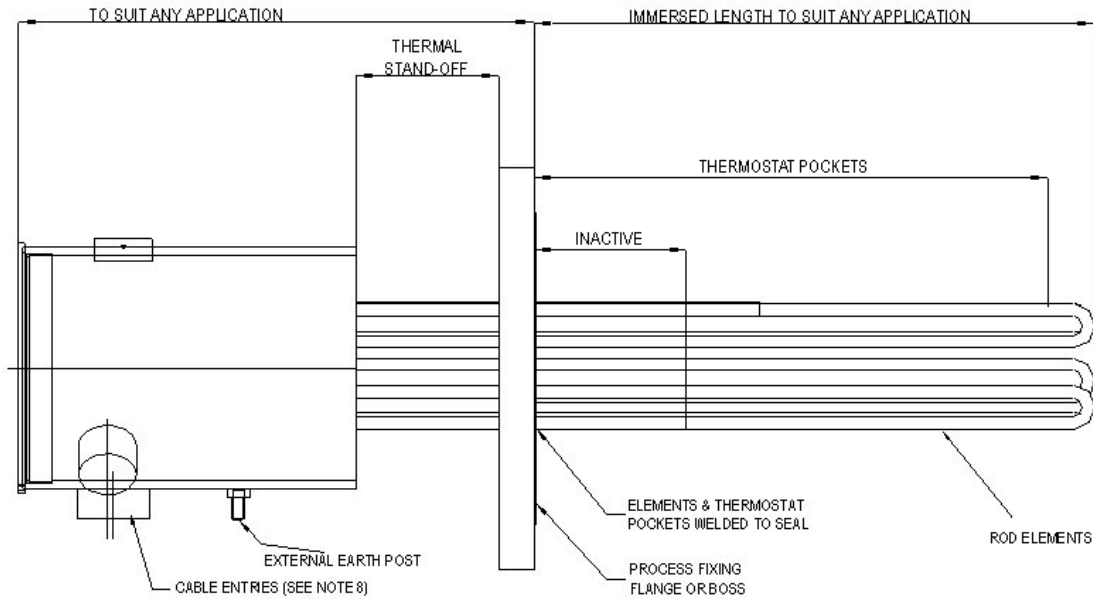
Mounting of the heater can be by a threaded boss or an industry standard flange

Designed for horizontal installation (vertical mounting version available on request)

Can be supplied with the terminal box mounted away from the fixing boss / flange for high process temperatures


TYPICAL APPLICATIONS

Pre-heating oil / water	Boiler equipment
Processing equipment	Frost protection
Heating medium	Heat transfer systems
Safety showers	Tank heating
Compressors	Turbines
Anti-condensation	Water / glycol cooling
Oil separators	Refrigeration packages
Cleaning and rinsing tanks	



Terminal Box Type	Min Flange Size		kW LOAD with a maximum immersed Length of 2800mm	
	Ins	mm	Max Cable Entries	Max No of Elements Without Stand Off
FP 4	3	75	1 off M25 & 1 off M20	6
FP 6	6	150	1 off M32 & 2 off M25	15
FP 8	8	200	2 off M25 & 1 off M40	21
FP 10	10	250	2 off M32 & 1 off M25	39
FP 12	12	300	3 off M32 & 1 off M20	54

Certifications

ATEX / IECEx  II 2 G/D
 Ex d IIC T1 to T6 Gb Zone 1 and 2
 Ex tb IIIC T450 to 85°C Db Zone 21 and 22
 EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
 CSA Class I, Division 1, Groups A, B, C, D; Temperature coded T1 to T6; Enclosure type 4
 CAN Zones: CSA Ex d IIC; T1 to T6 Gb, IP66
 USA Zones: CSA Class I, Zone 1, AEx d IIC; T1 to T6 Gb, IP66
 CU TR (formerly GOST); Inmetro; KGS; CNEEx; CCOE

Enclosure

Mild steel or 316 stainless steel, external and internal earths, screwed terminal cover, finished in epoxy paint (if required)

Elements

A choice of rod-type elements comprising of 80/20 nickel chrome resistance wire, compacted in high purity magnesium oxide insulating powder and encased in either Incoloy or stainless steel sheath, secured by compression fittings, brazing or welding, depending upon the process application

Controls

Heater over-temperature protection is fitted as standard (optional process temperature sensing devices can be incorporated in the form of thermostats, RTD's or thermocouples)

Mounting

Any threaded NPT or BSP boss, or flange in any material, can be specified within the limits of the design parameters; heater terminal box can be either 'direct-on' or 'stand-off', depending on process temperature

Rating

To suit process requirements within the design and certification parameters

Voltage

Any electrical supply up to 690V (600V CSA)