



EXHEAT Standard Products

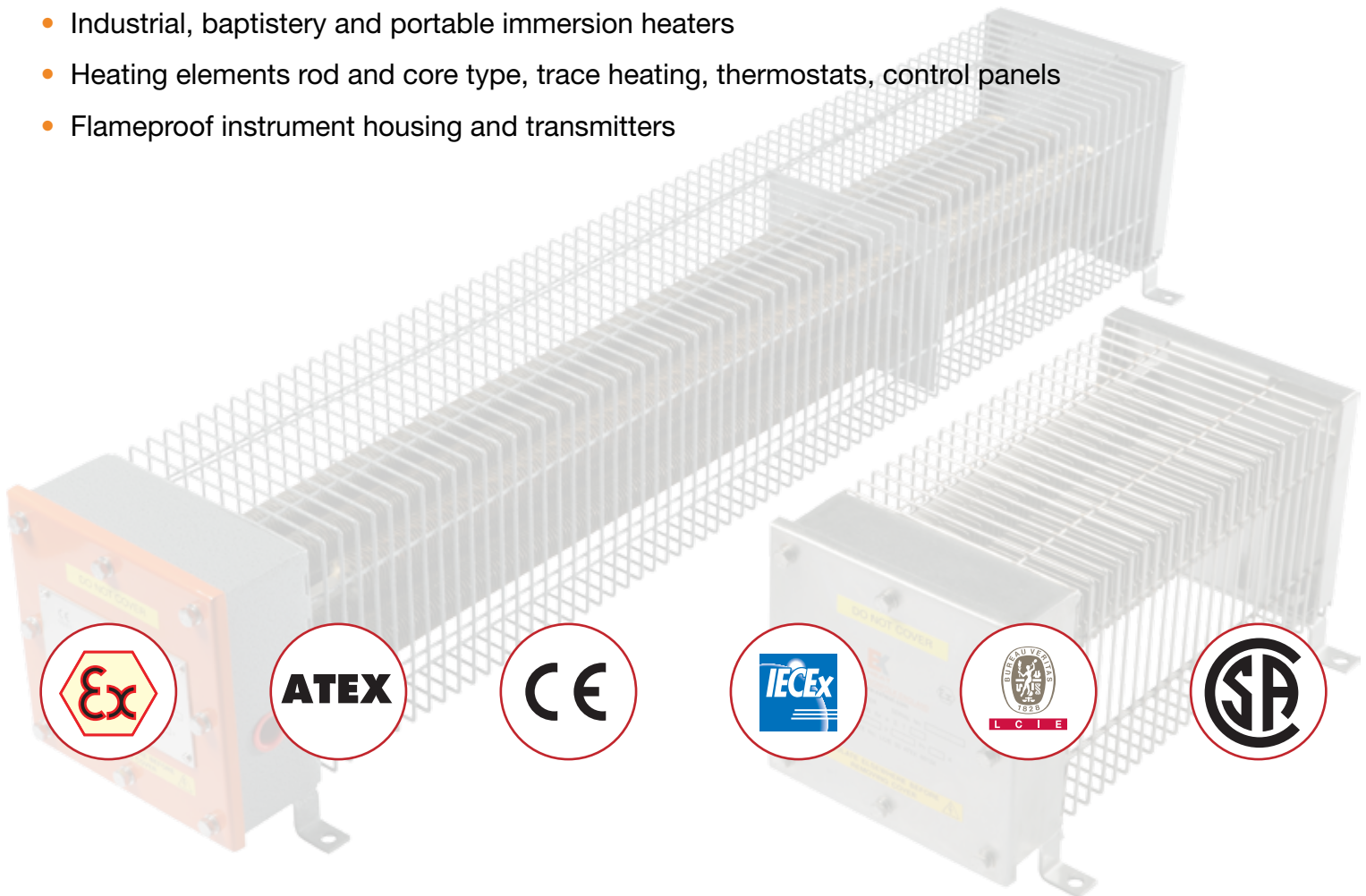
EXHEAT Industrial Division offers fast track solutions to industry's wide and varied requirements for electrical heating systems. All heaters manufactured by EXHEAT for use in Hazardous Areas are supplied fully certified to meet the latest requirements of the IECEx Scheme, CSA, or the European ATEX Directive as appropriate.

When the standard range of products does not exactly meet our customer's requirements, EXHEAT sales engineers and designers will design a custom built Hazardous or Safe Area electric heater. Close consultation with the customer and years of experience will ensure that our clients procure a heater that is optimal for their applications.

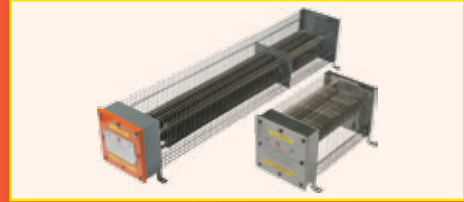
All EXHEAT heaters are manufactured and stocked in the UK, a selection of stock is also kept at our regional office in Singapore to facilitate faster delivery time.

EXHEAT Industrial Product Range

- Hazardous Area air warmers, enclosure heaters and industrial convector heaters
- Flameproof radiators, fan heaters, water boilers, immersion heaters and thermostats
- Vented and unvented storage water heaters and vat heaters
- Industrial, baptistery and portable immersion heaters
- Heating elements rod and core type, trace heating, thermostats, control panels
- Flameproof instrument housing and transmitters



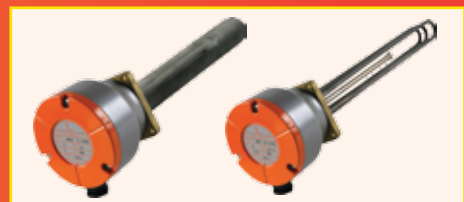
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THERMOSTATS/TRANSMITTER ENCLOSURES - pages 22 & 23



FWD Flameproof Air Warmers



The FWD range of air warmers is designed for use in small work or storage areas which are located in Zone 1 and 2 or Zone 21 and 22 Hazardous Areas where the flammable atmosphere is a IIA, IIB or IIC Gas Group.

FEATURES

Certified to meet the ATEX Directive 94/9/EC and IECEx

Fabricated steel enclosure weatherproof to IP66/67

Suitable for 110V or 230/254V supplies

Temperature classes T2, T3 and T4 available

Suitable for floor or wall mounting

2 x 20mm (plugged) cable entries provided as standard

Corrosion resistant powder coated finish

Suitable for ambient temperatures from -60°C to +60°C (subject to conditions to be discussed with sales engineer)

Individually replaceable heating elements

TYPICAL APPLICATIONS

Aircraft hanger service bays

Fuel servicing areas

Chemical plants

Offshore installations

Battery stores

Gas installations

Containers

Crane cabs

Paint/solvent stores

Rating	500W to 2kW
Certification	ATEX certified Ex II 2 G/D IECEx & ATEX certified Ex'd' IIC T2 to T4 Ex tD A21 IP66 T300°C to T135°C EN/IEC60079-0, EN/IEC60079-1, EN/IEC61241-0 & EN/IEC61241-1
Enclosure	Mild steel powder coated orange/grey, stainless steel option available to special order
Controls	If required the heaters can be controlled from the EXHEAT range of remote mounted thermostats available for use in Safe or Hazardous Areas (see last page of brochure)
Mounting	Pre-drilled support feet supplied as standard
Voltage	1 phase 230/254V or 110V

FWD-T Adjustable Air Warmers

EXHEAT also offer the FWD-T range with an easy to adjust external thermostat which is designed for heating small work or storage areas and similar applications, located in Zone 1 and 2 or Zone 21 and 22 Hazardous Areas where the flammable atmosphere is a IIA, IIB or IIC Gas Group.



FEATURES

Certified to meet the ATEX Directive 94/9/EC and IECEx

Weatherproof to IP66/67

Suitable for 110V or 230/254V supplies

Temperature classes T2, T3 and T4 available

Corrosion resistant powder coated finish

Suitable for floor or wall mounting

2 x 25mm (plugged) cable entries provided as standard

Rotatable terminal box

Externally adjustable 0-40°C room temperature controlled thermostat

Suitable for ambient temperatures from -60°C to +60°C (subject to conditions to be discussed with sales engineer)

Individually replaceable heating elements

TYPICAL APPLICATIONS

Aircraft hanger service bays

Fuel servicing areas

Chemical plants

Offshore installations


Battery stores

Gas installations

Containers

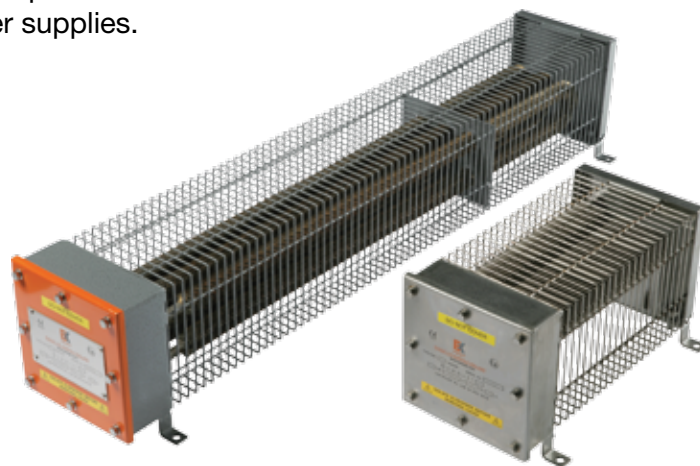
Crane cabs

Paint/solvent stores

Rating	500W to 2kW
Certification	ATEX certified  II 2 G/D IECEx & ATEX certified Ex'd' IIC T2 to T4 Ex tD A21 IP66 T300°C to T135°C EN/IEC60079-0, EN/IEC60079-1, EN/IEC61241-0 & EN/IEC61241-1
Enclosure	Aluminium powder coated orange/grey
Controls	Externally adjustable 0-40°C room temperature controlled thermostat
Mounting	Pre-drilled support feet supplied as standard
Voltage	1 phase 230/254V or 110V

FAW Hazardous Area Air Warmers

The FAW range offers a versatile lightweight air warming solution for small work and storage areas located in Zone 1 and Zone 2 Hazardous Areas. The range is suitable for use with 1 phase or 3 phase power supplies up to 440 volts. The range can also be configured for use with DC power supplies.



FEATURES

Certified to meet the requirements of the ATEX Directive 94/9/EC and IECEx

Lightweight enclosure certified weatherproof to IP66

Suitable for 1 phase or 3 phase (3 or 4 wire) or DC power supplies

Temperature classes T2, T3, and T4 available

Suitable for floor or wall mounting

A 20mm cable entry is provided as standard, additional entries can be provided as required

Powder coated finish

Optional range of Flameproof room thermostats can also be provided

Suitable for ambient temperatures from -60°C to +60°C (subject to conditions to be discussed with sales engineer)

Individually replaceable heating elements

TYPICAL APPLICATIONS

Aircraft hangers

Fuel servicing areas

Chemical plants

Offshore installations

Battery stores

Gas installations

Paint/solvent stores

Rating	250W to 3kW
Certification	ATEX certified Ex II 2 G IECEX & ATEX certified Ex'e' II T2 to T4 IEC/EN60079-0 & IEC/EN60079-7
Enclosure	Lightweight stainless steel or coated mild steel
Controls	If required the heaters can be controlled from the EXHEAT range of remote mounted thermostats available for use in Safe or Hazardous Areas (see last page of brochure)
Mounting	Support feet are pre-drilled and suitable for floor mounting supplied as standard (wall mounting brackets available on request)
Voltage	1 phase: 230 to 254V or 110V 3 phase: 400 to 440V

STW Industrial Convector Heaters

The heavy duty natural convector type STW air warmer range is most suitable for medium sized spaces. The units can be supplied with an optional integral externally adjustable limit thermostat, a remote thermostat or frost protection as required.



FEATURES

- Heavy duty robust construction
- Suitable for floor or wall mounting
- Powder coated sheet steel construction
- Supplied with plugged cable entries
- Weatherproof protected to IP66 against water and dust
- Optional adjustable 0-40°C room temperature controlled thermostat

TYPICAL APPLICATIONS

- Workshops
- Crane cabs
- Dairies
- Ships
- Storage units
- Greenhouses
- Pump stations
- Equipment rooms
- Frost protection

Rating	1kW, 2kW and 3kW ratings available
Construction	Powder coated sheet metal construction
Terminal Box	Powder coated die cast aluminium, weatherproof to IP66
Element	Finned plated mild steel
Supply	Standard heaters are to suit 110V or 230V
Mounting	Support feet are pre-drilled and suitable for floor mounting or wall mounting Heaters should not be covered and always mounted horizontally

FLR Flameproof Liquid Filled Radiators

The EXHEAT FLR range of liquid filled electrically heated radiators has been specifically designed to provide heating in Zones 1 and 2 or Zone 21 and 22 Hazardous Areas where airborne dust particles are of particular concern. Our FLR-A range comes complete with an externally adjustable control thermostat.



TYPICAL APPLICATIONS

- Ammunition depots
- Explosive stores
- Chemical plant warehouses
- Firework factories
- Sugar refineries
- Laboratories

FEATURES

- Certified to meet the ATEX Directive 94/9/EC
- Surface temperature limited to meet EN 563 safety requirements
- Integral preset surface temperature control thermostat
- Temperature classes T2, T3, and T4 available
- Floor mounting
- Long life Incoloy 825 sheathed rod-type element
- Radiator filled with water/glycol mix
- Suitable for ambient temperatures from -20°C to +40°C
- Robust construction
- Certified weatherproof to IP66
- Decorative, white powder coat finish
- Manual reset over-temperature cut-out fitted to ensure radiator surface temperature never exceeds 80°C
- Optional externally adjustable control thermostat

Certification	ATEX certified Ex II 2 G/D Ex'd' IIC T6 Ex tD A21 IP6X T85°C EN60079-0, EN60079-1, EN61241-0 & EN61241-1
Enclosure	Cast aluminium finished in orange/grey
Radiator	Pressed steel with white powder coated finish
Element	Rod-type, comprising high quality 80/20 nickel chrome resistance wire, compacted in magnesium oxide insulating powder and encased in corrosion resistant Incoloy 825 metal sheath
Controls	Preset radiator surface temperature control thermostat and manual reset safety temperature limiter (optional externally adjustable control thermostat)
Mounting	Floor standing with welded-on feet and wall retention brackets
Rating	Standard heater ratings 1kW, 2kW and 3kW
Voltage	230V single phase

FCR Hazardous Area Convactor Heaters

The heavy duty folded steel construction and the finned stainless steel elements give the FCR range an exceptional long life. The FCR range is certified for use in Hazardous Areas where the flammable atmosphere is a IIA, IIB or IIC Gas Group.




FEATURES

- Certified to meet the ATEX Directive 94/9/EC and IECEx
- Small footprint, occupying less floor space
- Sloped top, preventing objects being placed on the grill
- Floor or wall mounting
- Integral terminal enclosure
- Suitable for ambient temperatures from -60°C to +60°C
- Stainless steel finned elements for long life
- Grey gloss, powder coated, sheet steel construction
- Optional built on room temperature control thermostat

TYPICAL APPLICATIONS

- Aircraft hangers
- Fuel servicing areas
- Chemical plants
- Offshore installations
- Battery stores
- Gas installations

Certification	ATEX certified  II 2 G IECEX & ATEX certified Ex'e' IIC T2 to T4 IEC/EN60079-0 & IEC/EN60079-7
Enclosure	Heavy duty folded steel
Elements	Individually replaceable, finned heating elements, comprising high quality 80/20 nickel chrome resistance wire, compacted in magnesium oxide insulating powder and encased in an Incoloy sheath
Controls	If required, the heaters can be controlled via an optional built in control thermostat or via one of the EXHEAT range of remote mounted thermostats available for use in Safe or Hazardous Areas (see last page of brochure)
Mounting	Wall or floor mounting via brackets/feet supplied
Voltage	1 phase: 110V or 230V 3 phase: 415V
Rating	Up to 3kW

FUH Flameproof Fan Heaters

The FUH range offers a compact high capacity air heating solution that is suitable for large premises. The flexible design allows for the FUH to be supplied according to the capacity requirements and power supply of the client.



FEATURES

- Certified to meet the ATEX Directive 94/9/EC
- Efficient liquid to air heat exchanger
- Over-temperature protection
- Adjustable angle outlet louvres
- Optional, integral room temperature control thermostat (to be used in conjunction with a suitable rated contactor)
- Suitable for ambient temperatures -40°C to +40°C

TYPICAL APPLICATIONS

- Oil refineries
- Petrochemical plant
- Coal mines
- Offshore platforms
- Ammunition stores
- Sewage plants
- Paint stores

Certification	ATEX certified Ex II 2 G Ex'd' IIC T3 EN60079-0 & EN60079-1
Casing	Grey powder coated steel
Element	Rod-type heating elements comprising 80/20 nickel chrome resistance wire, compacted high purity magnesium oxide insulating powder and encased in Incoloy 825 metal sheath
Controls	If required the heaters can be controlled from the EXHEAT range of remote mounted thermostats available for use in Safe or Hazardous Areas (see last page of brochure)
Rating	9kW to 30kW
Voltage	Heater and motor: 3 phase (4 wire STAR), 20kW model 3 phase (3 wire DELTA) Controls: up to 230V 1 phase.

FUH-C Flameproof Fan Heaters

The FUH-C Flameproof electric fan heater is an ideal solution for large spaces that have a temporary heating requirement. Like the FUH range, the FUH-C range is designed for use in Zone 1 and Zone 2 areas where the flammable atmosphere is a IIA, IIB or IIC Gas Group.

FEATURES

Designed to meet the requirements of the ATEX Directive 94/9/EC and IECEx

Wall or floor mounting

Over-temperature protection

Adjustable mounting for vertical flow direction

Optional wall bracket which allows lateral flow direction

TYPICAL APPLICATIONS

Oil refineries

Petrochemical plant

Coal mines


Offshore platforms

Ammunition stores

Sewage plants

Paint stores



Certification	ATEX certified  II 2 G IECEX & ATEX certified Ex'de' IIC T3
Casing	Immersion heater – powder coated mild steel
Element	Finned type heating elements comprising 80/20 nickel chrome resistance wire, compacted high purity magnesium oxide insulating powder and encased in Incoloy 800 metal sheath
Controls	3 phase controller providing isolation, safety contactor, control contactor & integral room thermostat can be supplied by EXHEAT
Rating	3kW 1 phase unit connects directly to suitable power supply 6kW 3 phase units require separate controls EXHEAT can supply optional control with an integral room thermostat
IP rating	Heater: IP65 Controller: IP65/66/67

HEF Hazardous Areas Enclosure Heaters

The self-regulating properties of the HEF enclosure heaters eliminate the requirement for a thermostat. Coupled with the compact design, this makes the HEF ideal for anti condensation, frost protection and temperature control where the enclosure is located within Zone 1 and Zone 2 Hazardous Areas.



FEATURES

Certified to meet the requirements of the ATEX Directive 94/9/EC and IECEx

Compact, low profile, stainless steel case, requires minimal space

Self-regulating - can be used without a thermostat

Suitable for ambient temperatures from -60°C to +80°C

Mounting of the heater can be in any orientation

Design allows installation close to internal components and cables without fear of damage by overheating

TYPICAL APPLICATIONS

Control / monitoring panels

Instrumentation cabinets

Condensation prevention

Temperature fluctuations

Frost protection

Certification	ATEX certified Ex II 2 G IECEx & ATEX certified Ex'e' T4 EN/IEC60079-0 & EN/IEC60079-7
Casing	Perforated stainless steel
Element	Self-regulating
Controls	The HEF is self-regulating, automatically reducing its output as the ambient temperature rises If overall enclosure temperature control is required it is recommended that the HEF heater is used in conjunction with one of the EXHEAT range of Ex'd' thermostats (see last page of brochure)
Mounting	The heater may be mounted in any orientation, using appropriate securing bolts through the mounting feet
Rating	The HEF range is available in a nominal 30, 50, 100, 200 & 500W outputs, models available for 110V or 230V 1 phase supplies

FP-MLH Flameproof Mini Line Heaters

The EXHEAT range of Flameproof mini line heaters consist of a screw plug or flanged type immersion heater mounted in a thermally insulated heating vessel. They are designed to efficiently transfer heat to a flowing medium (liquid, air or gas). All EXHEAT Flameproof heaters are fully ATEX certified and designed for use in Zone 1 and 2 Hazardous Areas, Gas Group IIA, IIB and IIC.




FEATURES

- Certified to meet the ATEX Directive 94/9/EC
- Weatherproof lightweight cast aluminium terminal enclosure – IP67
- Choice of built in process temperature sensors and externally adjustable option
- Mild steel or stainless steel vessel
- Suitable for ambient temperatures -40°C to +40°C
- Standard range of high quality Incoloy rod-type elements, designed for water or withdrawable ceramic core elements, designed for oil
- Maximum allowable working pressure 5bar.g (73psi.g)
- Designed for horizontal installation (vertical mounting version available on request)

TYPICAL APPLICATIONS

- Water heating - wash rooms, industrial washing equipment, hot water storage tanks
- Frost protection - pre-start systems for water cooled engines, fire extinguishing equipment, oil sump heating
- Heat transfer oils - moulds, dies & platens, closed loop systems for bitumen
- Fuel oil heating - pre-heating to pumping viscosity

Certification	ATEX certified  II 2 G Ex'd' IIC T4-T6 EN60079-0 & EN60079-1
Enclosure	Cast aluminium alloy with a maximum of two cable entries, external and internal earths and screwed terminal cover
Element	High quality nickel chrome resistance wire compacted in magnesium oxide insulating powder and sheathed in corrosion resistant Incoloy, withdrawable ceramic core elements in mild steel or 316L stainless steel
Pressure	Maximum allowable working pressure 5bar.g (73psi.g)
Design Code	Sound Engineering Practice (SEP)
Insulation	Mineral wool
Cladding	Coated mild steel or stainless steel
Rating	Up to 12kW

HEWL/HEOL Line Heaters

The EXHEAT HEWL and HEOL range of line heaters is suitable for heating all process fluids which are non-corrosive to the materials of construction. They provide a clean and efficient heating method for bulk liquid flow applications.

FEATURES

- Thermal insulation and cladding
- Weatherproof terminal enclosure with protection to IP55
- Internal control thermostats and over-temperature thermostat
- Also available in Flameproof construction for Hazardous Areas
- Alternative materials of construction available
- Designed for horizontal installation (vertical mounting version available on request)

TYPICAL APPLICATIONS

- Industrial washing and rinsing processes
- Indirect heating of liquids
- Engine jacket pre-heating
- Temperature maintenance of storage tanks
- Under floor heating schemes
- Lube oil pre-heating
- Fuel oil
- Heat transfer oils
- Tempering of low grade residual oils for burners and engines




Construction	Weatherproof protection to IP55 Flameproof protection to IP65	Vessel	Mild steel or stainless steel sheath
Element	Incoloy 825 sheathed rod-type or removable ceramic core type housed in mild steel or stainless steel	Insulation	Mineral wool
Working Pressure	Up to 5bar.g (73psi.g)	Cladding	Stucco aluminium
Design Code	Sound Engineering Practice (SEP)	Voltage	Standard supplies up to 690V
		Rating	Up to 120kW (subject to application)

FP Cast Line Heaters

The EXHEAT range of cast aluminium line heaters provide an effective heating solution for constant flow liquids or gases, eliminating the requirement for a costly pressure vessel. Particularly in high pressure applications or when exotic process materials are required the FP Cast range can provide significant commercial advantage. The design incorporates electric heating elements and an indirect process heating coil imbedded within marine grade cast aluminium. This provides excellent heat transfer properties combined with low surface temperatures. It should be noted that this design is not suitable for constantly varying flow applications where precise outlet temperature control is required.

FEATURES

- Certified to meet the requirements of the ATEX Directive 94/9/EC and IECEx
- Thermally insulated aluminium or stainless steel cladding
- Flameproof IP65 rated terminal enclosure
- Maximum working pressure and temperature rating of 300bar.g at 100°C
- Internal control thermostats and over-temperature thermostats (PT 100 or thermocouple type K available)
- Wall or floor, vertical or horizontal mounting
- Multiple heating elements allow for step control or alternatively thyristor control can be employed
- Standard stainless steel process coil (other materials upon request)
- Various process connections including industry standard flange or compression joints

Certification	ATEX certified  II 2 G/D IECEx & ATEX certified Ex'd' IIC T3 to T6 Ex tD A21 IP66 T200°C to T85°C IEC/EN60079-0, IEC/EN60079-1, IEC/EN61241-0 & IEC/EN61241-1
Enclosure	Painted mild steel or natural finished stainless steel
Element	Stainless steel sheathed with 80/20 nickel chrome resistance wire imbedded in high purity magnesium oxide
Casting	Marine grade aluminium, insulated and aluminium clad (stainless steel cladding available on request)
Process Coil	Supplied as standard with stainless steel 321 (other materials available on request)
Design Code	ASME VIII or PD5500 with PED certification for installation within the European Union
CE Marked	In accordance with relevant EC Directives
Voltage	Up to 690 VAC



FP 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. They are suitable for heating all types of process liquids and gases which are non-corrosive to the materials of construction.



FEATURES

Certified to meet the requirements of the ATEX Directive 94/9/EC and IECEx

Mild steel or 316 stainless steel terminal enclosure with weatherproof protection to IP65

Choice of built in process temperature sensors

Suitable for ambient temperatures up to +60°C

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

Processing equipment

Cleaning and rinsing tanks


Heating medium

Boiler equipment

Frost protection

Heat transfer systems

Tank heating

Certification	ATEX certified  II 2 G/D IECEx & ATEX certified Ex'd' IIC T1 to T6 Ex tD A21 IP66 T450 to 85°C CSA certified Class I, Div 1, Gas Groups A, B, C & D EN/IEC 60079-0, EN/IEC 60079-1, EN/IEC 61241-0 & EN/IEC 61241-1
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, stainless steel and titanium sheath, secured by either 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 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
Voltage	Any electrical supply up to 690V

FP-C Removable Core Immersion Heaters

The EXHEAT FP-C range of Flameproof removable single and multi core heaters offers a Hazardous Area heating solution for oil and similar applications where low heat density is required. The element can be withdrawn for inspection without system drain down. The standard heater consists of a single element or multi core fitted into a mounting flange. A robust Ex'd' terminal enclosure protects the electrical connections. The watts density of the element core fitted depends upon the media to be heated and the kilowatt rating required.



FEATURES

Certified to meet the requirements of the ATEX Directive 94/9/EC and IECEx

Mild steel or 316 stainless steel terminal enclosure with weatherproof protection to IP65

Choice of built in process temperature sensors

Suitable for ambient temperatures to -50°C to +60°C

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


Processing equipment

Cleaning and rinsing tanks

Heat transfer systems

Boiler equipment

Frost protection

Certification	ATEX certified  II 2 G/D IECEx & ATEX certified Ex'd' IIC T1 to T6 Ex tD A21 IP66 T450 to 85°C EN/IEC60079-0, EN/IEC60079-1, EN/IEC61241-0 & EN/IEC61241-1
Enclosure	Mild steel or 316 stainless steel, external and internal earths, screwed terminal cover, finished in epoxy paint (if required)
Elements	Removable core, comprising high quality 80/20 nickel chrome resistance wire, contained within ceramic formers housed in plain or extended surface tubes
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 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 requirement within the design parameters and ATEX approval
Voltage	Any electrical supply up to 690V

RFA Rod-Type Immersion Heaters

The EXHEAT RFA range of Flameproof rod-type immersion heaters is suitable for installation in process tanks, safety showers, engine sumps, pressure vessels and similar plants located in Zone 1 and Zone 2 Hazardous Areas, where the flammable atmosphere is a IIA, IIB or IIC Gas Group. They are suitable for heating all process liquids or gases which are non-corrosive to the materials of construction.



FEATURES

Certified to meet the ATEX Directive 94/9/EC

Lightweight cast aluminium alloy terminal enclosure with weatherproof protection to IP67

Choice of built in process temperature sensors

Suitable for ambient temperatures -40°C to $+40^{\circ}\text{C}$

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

Designed for horizontal installation, vertical mounting available on request

TYPICAL APPLICATIONS

Pre-heating oil/water

Processing equipment

Cleaning and rinsing tanks

Heat transfer systems

Boiler equipment

Frost protection

Certification	ATEX certified Ex II 2 G Ex'd' IIC T3 to T6 EN60079-0 & EN60079-1
Enclosure	Cast aluminium alloy with a maximum of two cable entries, external and internal earths and screwed terminal cover Certified Ex'd' IIC T4-T6 with the option of T3-T6 where the terminal enclosure is stood away from the processing equipment
Elements	A maximum of three rod-type elements comprising 80/20 nickel chrome resistance wire, compacted in high purity magnesium oxide insulating powder and encased in either Incoloy, stainless steel or titanium sheath, secured by either brazing or welding depending upon the process application
Mounting	Any threaded boss or flange in any material can be specified within the limits of the design parameters Heaters can be either 'direct-on' or 'standoff' as required by the 'T' classification
Controls	Heater over-temperature protection is fitted as standard
Rating	Up to 18kW
Voltage	Any electrical supply up to 690V

PIH Portable Immersion Heaters

The EXHEAT PIH range of portable immersion heaters are primarily designed for baptismal pools and are also suitable for heating large or small quantities of liquid, stored in open topped vessels and baths, where permanently installed immersion heaters are not practical or desirable.

FEATURES

- Robust stainless steel construction
- IP66 terminal enclosure
- Long life Incoloy 825 sheathed rod-type elements
- Wide, stable, self-supporting base
- Optional control thermostat
- Long unheated length for use with low liquid levels

TYPICAL APPLICATIONS

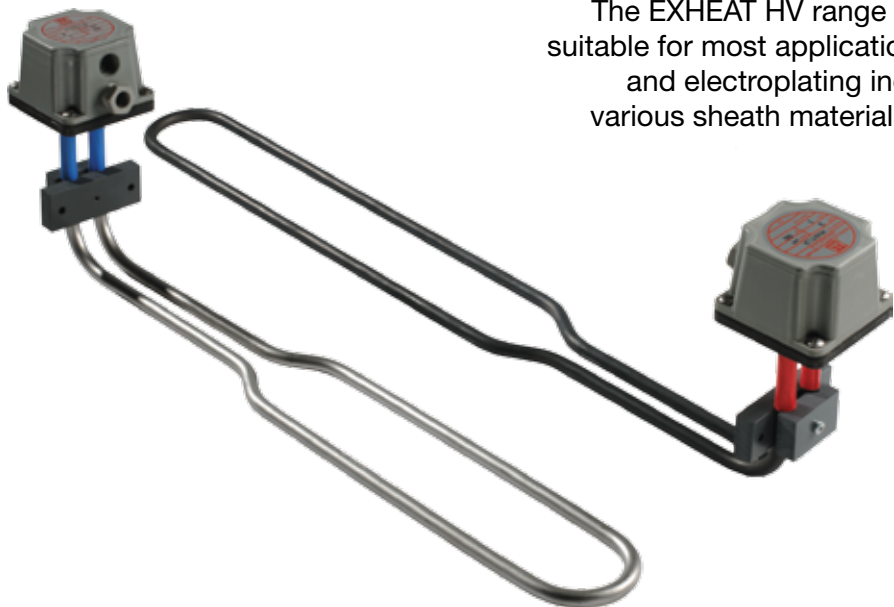
- Baptismal pools
- Sterilizing
- Drum heating
- Vat heating

Enclosure	Self colour aluminium protected to IP66
Element	Rod-type with Incoloy 825 sheaths
Immersed parts	Stainless steel
Controls	Standard construction: none Automatic construction: capillary type thermostat (optional)
Rating	Standard heater rating 3kW
Voltage	230V 1 phase
Installation	This equipment must be protected by an RCD and be fully earthed The element must be fully submerged before being energised



HV Vat Heaters

The EXHEAT HV range of vat or over the side immersion heaters is suitable for most applications in the surface treatment, metal cleaning and electroplating industries. The elements are manufactured in various sheath materials, making them corrosion resistant to many plating, anodising and cleaning solutions.



FEATURES

- Optional integral thermostatic control
- Water resistant terminal enclosure to IP55
- Long cold 'dead' length
- Custom built models available to suit clients tank dimensions
- Steel, titanium, stainless steel, lead or PTFE coated sheath
- Single phase and 3 phase electric supplies accommodated

TYPICAL APPLICATIONS

- Electro plating
- Surface treatment
- Hot swills
- Anodising
- Cleaning
- Finishing

Enclosure	Moulded ABS, water and dust resistant to IP55
Elements	High quality nickel chrome resistance wire, compacted in magnesium oxide insulating powder and enclosed in a metal sheath
Controls	Optional integral or separate mounting control thermostats and temperature controllers available
Rating	Unlimited within the design parameters
Voltage	Standard heaters are designed for 230V/1PH or 400V/3PH (other voltages available on request)

HB Industrial Immersion Heaters

The HB range of screwed or flanged immersion heaters is an inexpensive solution for all commercial and industrial hot water cylinders, process tank heating, cooling tower frost protection and other applications which are non-corrosive to the materials of construction. The HB range of heaters can be supplied with an adjustable control thermostat scaled to suit the specific application.



ROD-TYPE

Heat is transferred to the liquid by means of Incoloy 825 sheathed heating elements with automatic control being achieved using an integral adjustable thermostat.

Rating up to 18kW.



REMOVABLE CORE TYPE

This range is recommended for applications where the equipment cannot be easily drained.

Heat is transferred to the liquid by means of removable ceramic heating elements within a carrier tube to allow replacement without draining.

Automatic control can be achieved by fitting a thermostat into the integral pocket.

Sheath material available in stainless steel or mild steel.

Rating up to 6kW.

FEATURES

- Robust lightweight aluminium enclosure
- Fitted with control and limit thermostats
- Certified weatherproof to IP66
- Suitable for working pressures of up to 8bar.g (higher working pressures are available on request)
- All models fitted with Incoloy 825 elements and 2-off stainless steel thermostat pockets
- Terminal box can be rotated through 360 degrees to allow final cable entry position to be chosen
- Heavy duty brass fixing boss screwed 2", 2¼" or 2½" BSPP, alternatively supplied with square mounting flange
- Up to two cable entries (standard 1 off)
- Standard immersion heaters are designed for horizontal installation (heaters for vertical installation are available to order)

TYPICAL APPLICATIONS

- Hot water storage tanks
- Pre-heating oil and water
- Food processing equipment
- Cleaning and rinsing equipment
- Heat transfer, process and boiler equipment
- Frost protection

ATEX Certified Flameproof Thermostats

All EXHEAT Flameproof thermostats are ATEX certified Ex'd' IIC T6, suitable for installation in Zone 1 or 2 Hazardous Areas. The AFT has external adjustment enabling quick and accurate variable control for liquid, gas and air applications. The RFT is suitable for use in process tanks and vessels containing liquids or gases. The HFT is designed for the temperature control of work or storage areas, in conjunction with a Hazardous Area air heater.



AFT Air/Process Sensing Thermostat

ATEX certified Ex II 2 G/D
IECEX & ATEX certified Ex'd' IIC T6
Ex tD A21 IP6X T85°C
for Zone 1 or 2 (Gas) and Zone 21 or 22 (Dust)

Externally adjustable option

Wall mounted/threaded boss or industry standard flange

Suitable for ambient temperatures from -60°C to +60°C



HFT Air Sensing Thermostat

ATEX certified Ex II 2 G
IECEX & ATEX certified Ex'd' IIC T6
for Zone 1 or 2 (Gas)

Wall mounted

Stainless steel enclosure

Suitable for ambient temperatures from -60°C to +60°C



RFT Process Sensing Thermostat

ATEX certified Ex II 2 G/D
Ex'd' IIC T1-T6 Ex tD A21 IP6X T450°C – T85°C
for Zone 1 or 2 (Gas) and Zone 21 or 22 (Dust)

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

Lightweight cast aluminium enclosure certified weatherproof to IP67

HIH Flameproof Transmitter Enclosures

The HIH range of instrument enclosures are designed to accommodate most makes of head mounted process transmitter or termination block. EXHEAT promotes the use of its preferred range of WIKA® temperature transmitters, however empty enclosures can be supplied or, on special request, other makes of transmitter such as Siemens®, Rosemount® or Yokogawa® can be installed.



FEATURES

- Stainless steel enclosure
- Optional viewing window for transmitter LCD displays
- Ingress protection IP66
- ATEX certified Ⓜ II 2 G D
- ATEX & IECEx certified Ex'd' IIC T6 / Ex tD A21 IP66 T85°C
- Compliant with EN/IEC60079-0, EN/IEC60079-1, EN/IEC61241-0 & EN/IEC61241-1
- M20 cable entries (2 standard, 4 maximum)

TYPICAL APPLICATIONS

- Temperature measurement and display for all applications
- Accommodates all major brands of head mounted process transmitter
- Hazardous Area process temperature measurement
- Thermowell assemblies available
- Machinery and plant construction, power engineering, heating, ventilation, and refrigeration

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Siemens is a registered trademark of Siemens AG
Rosemount is a registered trademark of Rosemount Inc
Yokogawa is a registered trademark of Yokogawa Electric Corp*



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