

## ISE Range of Ex e Certified Electric Duct Air Heaters

The ISE type electric heaters comprise a range of certified Ex e air duct heaters, custom built to meet client specifications, and suitable for use in ATEX / IECEx Zone 1 hazardous areas.



### FEATURES

Certified to ATEX or IECEx standards

A range of Ex e Gas Group IIC, increased safety certified duct air heaters

Temperature classifications T2 to T6

Elements are certified Ex e for use in Zone 1 hazardous areas

Elements are individually replaceable on site without the need for special tools

Terminal box is certified weatherproof to IP66 and IP67

Anti-condensation heater fitted if required

Various types of over-temperature cut-outs available, e.g. thermostats, RTD's or thermocouples

### TYPICAL APPLICATIONS

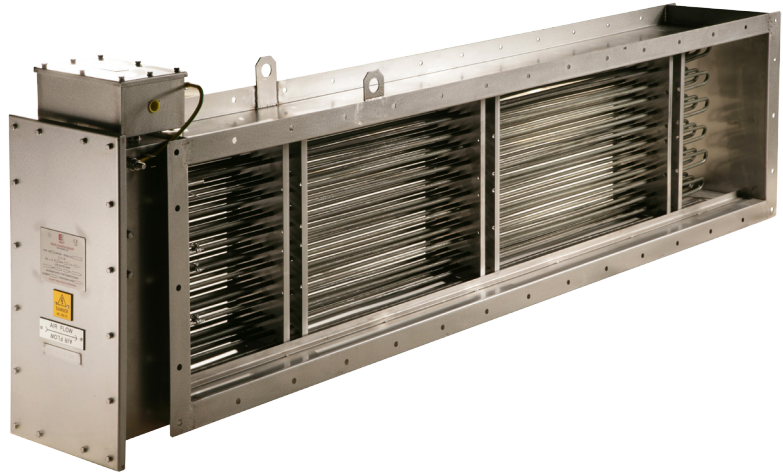
Air handling units


HVAC duct heating

Furnace heating

Space heating

Drying ovens



<b>Certification</b>	ATEX / IECEx  II 2 G Ex e IIC T1 to T6 Gb IP67 CU TR (formerly GOST), CCOE, CNEEx, Inmetro						
<b>Terminal Box</b>	Lightweight construction, manufactured from either carbon steel (corrosion protected) or 316L stainless steel throughout						
<b>Elements</b>	Manufactured from 80/20 NiCr resistance wire with high purity compacted magnesium oxide powder sheathed with corrosion/erosion resistant tube, eg:  <table border="0" style="width: 100%;"> <tr> <td>Incoloy 800/825</td> <td>Inconel 600/625</td> <td>Titanium</td> </tr> <tr> <td>316/316L stainless steel</td> <td>321 stainless steel</td> <td></td> </tr> </table>	Incoloy 800/825	Inconel 600/625	Titanium	316/316L stainless steel	321 stainless steel	
Incoloy 800/825	Inconel 600/625	Titanium					
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<b>Special Features</b>	Where a hazardous gas is present within the duct, the elements are supplied certified Ex e for use in an ATEX / IECEx Zone 1 Area.						
<b>Thermal Protection</b>	Generally over temperature protective devices are installed as follows:  Where elements are NOT in a Hazardous Area: <ul style="list-style-type: none"> <li>• 1 thermal cut-out per heating stage, sensing element surface temperature</li> <li>• 1 thermal cut-out, sensing air temperature</li> </ul> Where elements ARE in a Hazardous Area: <ul style="list-style-type: none"> <li>• 3 thermal cut-outs (1 per phase), per heating stage sensing element surface temperature</li> <li>• 1 thermal cut-out sensing air temperature</li> </ul> Note: The air temperature sensor is not required if the terminal box is thermally spaced from the duct						
<b>Supports</b>	Elements are supported in a baffle assembly to prevent flow-induced vibration						
<b>Element Fittings</b>	Elements are sealed into the mounting flange by either brass or stainless steel bushings to facilitate individual replacement of elements						
<b>Voltage</b>	Suitable for voltages up to 690V						
<b>Duct Construction</b>	Manufactured from either stainless steel or pre-galvanised sheet steel to suit the specific working environment; the element-mounted flange is designed to enable removal of the heater bundle without disturbing the remaining ductwork						