Product Data

ZITON

PS1584.1

The ZP720Ex-1 intrinsically safe, analogue, heat detector, is a thermistor controlled device responding to changes in ambient temperature, within areas made hazardous by the presence of explosive gasses.

Intrinsic safety is a technique for ensuring that items of electrical equipment and their associated wiring are incapable of releasing sufficient electrical and thermal energy to cause ignition, when installed within areas where hazardous concentrations of explosive gasses may permanently, or from time to time, be present.

Wiring to an intrinsically safe area is completed by teeing off from the standard ZP loop, via a zener barrier unit and line voltage conditioner.

Up to a maximum of eight ZP intrinsically safe devices can be connected to each zener barrier. Each line voltage conditioner contains switch settings, in order to provide a block of eight addresses, enabling the control panel to identify each IS component separately.

Devices must be connected using either MICC (with a continuous insulated outer sheath) or appropriate soft skinned screened cable. Maximum line length out from the zener barrier is 300 metres. It is recommended that line isolators be installed on either side of each IS tee off from the ZP loop.

Featuring an advanced thermistor circuit design, the ZP720Ex-1 fully meets the sensitivity requirements of European Standard EN 54 Pt5.

Temperature levels are continuously sensed by the unit and transmitted via the ZP wiring loop as electronic signals, which are assessed and verified by the control panel prior to any alarm decision being taken.

Detector sensitivity, calibration and self test are carried out automatically by the ZP3 system. Removal or replacement of an incorrect sensing device, will be identified by the system and shown as a fault.

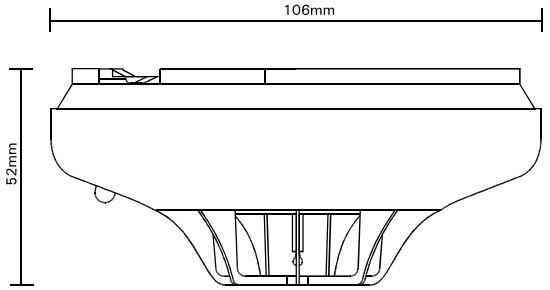
For ease of removal detectors plug into a range of base units by a simple twist and lock action. A site selectable option is provided to lock the detector into its base. Once applied the unit can only be removed by means of a special tool.

ZP720Ex-1

Intrinsically Safe Analogue Heat Detector

- **Complies with EN 50014, EN 50020, EN50284**
- **Analogue sensing - reduces false and unwanted alarms**
- **Addressable - system knows the status and location of every detector**
- **Alarm verification, self test, auto sensitivity adjustment**
- **EEx ia IIC T4 Sira 03ATEX2383X**
  CE 0518 Ex II1G Ta = -20°C +60°C

Dimensions



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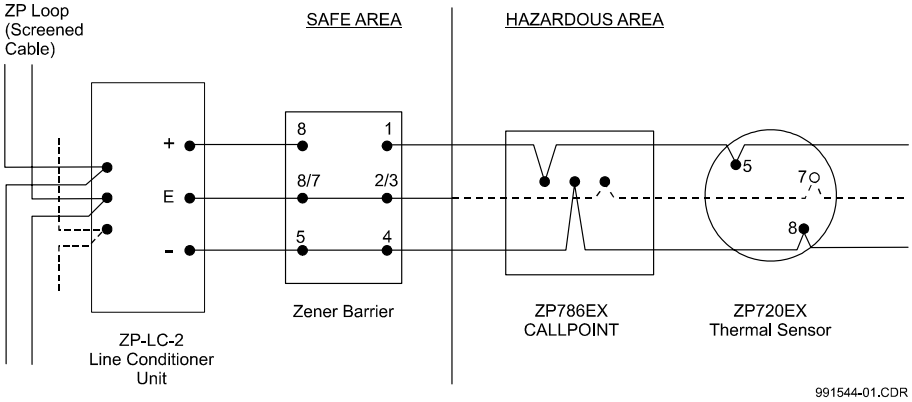
Wiring Schematic



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Note: Typical Zener Banner connections. Terminals shown for - Pepperl & Fuchs type Z967 dual A.C. Star connected shunt Zener diode barrier.

Specifications

CE

Model No.	Part No.	Specification	Description
ZP720Ex-1	25901	EN 50014, EN50020, EN50284, EN 54 PT 5	Intrinsically safe analogue heat detector

Sensitivity settings	Level 1: 58°C fixed temperature Level 2: 58°C rate compensated Level 3: 75°C rate of rise Level 4: 75°C fixed temperature
Operating temperature	58°C to 75°C (software selectable)
Compatibility	All ZP analogue addressable systems
Wiring	MICC or suitable screened cable-spurred from ZP loop via zener barrier and line voltage conditioner
Intrinsically safe	
For use in	Potentially explosive atmospheres
Area classification	Zone 0 (NEC505) and Division 1 (NEC500)
Gas group	IIC Non-mining, hydrogen and acetylene
Temperature class	T4
Compliance	If the equipment is likely to come into contact with aggressive substance, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that type of protection is not compromised.
Aggressive substances	e.g. acidic liquids or gases that may attack metals, or solvents that may affect polymeric materials.
Suitable substances	e.g. regular checks as part of routine inspections or establishing from the material's data sheet that it is resistant to specific chemicals.
Special conditions	Parts of the enclosure are non-conducting and may generate an ignition-capable level of electrostatic charge under certain extreme conditions. The user should ensure that the equipment is not installed or used in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charge on non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.
Monitoring:	Open and short circuit wiring faults, detector removal and device type
Indication	Alarm LED (red) on detector moulding
Operating voltage	12 to 18 volts DC
Current (quiescent)	600 uA
Current (alarm)	700 uA
Address method	7 way DIP switches in head
Detection principle	Thermistor
Environmental:	
Application	Indoor installation
EN60529 rating	IP32
Temp range	-10°C to +75°C
Humidity range	20% to 95% RH (non condensing)
EMC	CE marked (EEC89/336)
Construction:	
Material	Moulded ABS
Dimensions	106mm(Dia) x 52mm(H) (excl base)
Height	From ceiling with base: ZP7-SB1 surface base – 60mm ZP7-RB1 recessed base – 38mm
Colour	White
Weight	85g (without base)

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