



## PS1543.2

Designed to provide an interface, onto the fire alarm system for associated equipment, the ZP740Ex-1 can be configured to accept a variety of input types, within areas made hazardous by the presence of explosive gasses.

Intrinsic safety is a technique for ensuring that items of electrical equipment 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 line. 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, with cabling to the interfaced equipment limited to 1 metre.

The ZP740Ex-1 interface can be configured on site to accept signals from -

Manual call point

Sprinkler system

General purpose fire device

General purpose non fire device

Control switch

Security point

On operation a message particular to that device type is automatically displayed by the panel.



The unit can be set to accept inputs from equipment providing either normally open or normally closed outputs and can also be configured to monitor input circuit wiring for both open and short circuit faults.



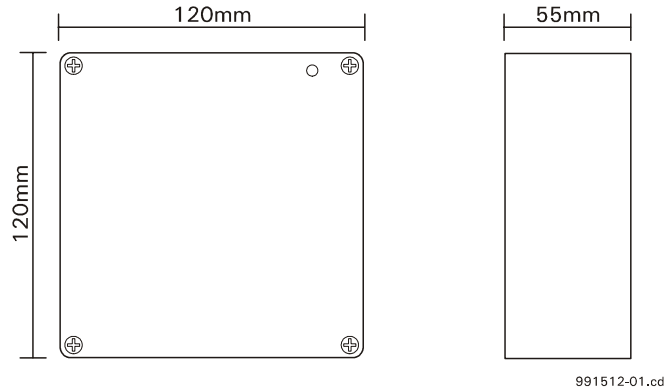
# ZP740Ex-1

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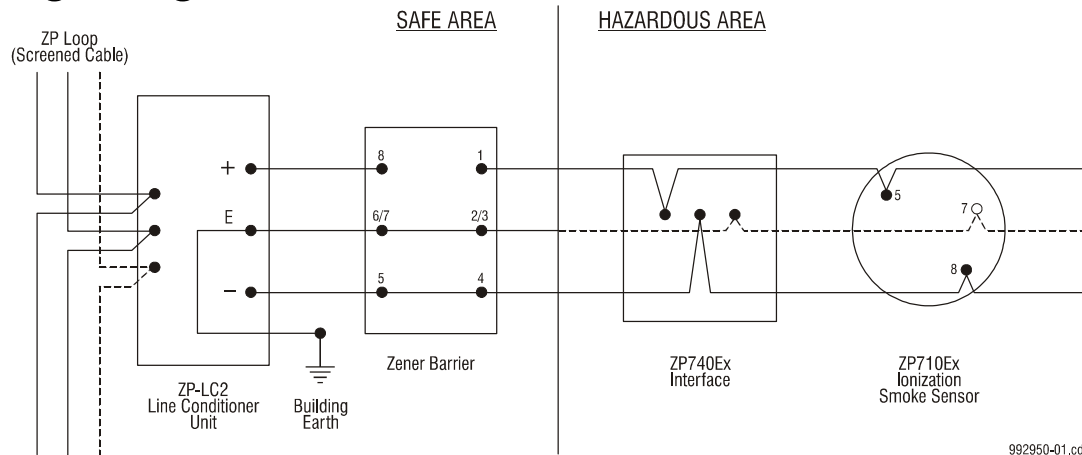
## Intrinsically Safe Addressable Line Interface Unit

- Complies with EN 50014, EN 50020, EN50284
- Automatic message type displayed at panel
- Accepts normally open or normally closed outputs
- Monitors input wiring for open and short circuit faults
- Sira 04ATEX2380X  0518  III G EEx ia IIC T6 (Ta = -20°C +60°C)

# Dimensions



# Wiring Diagram



Note: Typical Zener Barrier connections. Terminals shown for - Pepperl & Fuchs type Z967 dual A.C. Star connected shunt Zener diode barrier. Installation and repair of this equipment should be carried out in accordance with the applicable code of practice by suitably trained personnel. There are no special checking or maintenance conditions other than a periodic check.

# Specification



Model No. ZP740Ex-1  
 Description Intrinsically safe analogue heat detector  
 Specification EN 50014, EN50020, EN50284  
 Compatibility All ZP analogue addressable systems  
 Wiring MICCC 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 IIA, IIB and IIC Non-mining  
 Temperature class T1, T2, T3, T4, T5 and T6  
 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 precautions 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 "X" The unit must be powered from a resistively limited supply whose total combined parallel internal series resistance (Rext) is at least 35Ω (i.e. at least 70 ohm per channel for a two-channel supply).  
 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:

Indication Alarm LED (red)  
 Operating voltage 12 to 18 volts DC  
 Current (quiescent) 600 uA  
 Current (alarm) 700 uA  
 Address method 7 way DIP switches in head

### Environmental:

Application Indoor installation  
 EN60529 rating IP42  
 Ambient Temp range -20°C to +60°C  
 Humidity range 20% to 95% RH (non condensing)  
 EMC CE marked (EEC89/336)

### Construction:

Material Moulded ABS  
 Dimensions 120mm (H) x 120mm (W) x 55mm (D) overall  
 Colour Red  
 Weight 380g

Ziton  
 8 Newmarket Court Chippenham Drive Kingston Milton Keynes MK 10 0AQ United Kingdom  
 Telephone +44 (0) 1908 281981 Fax +44 (0) 1908 282554 email zitonuk@ziton.spx.com

Ziton (Pty) Ltd  
 Ziton House 555 Voortrekker Road Maitland 7405 PO Box 181 Maitland 7404 South Africa  
 Telephone +27 (0)21 506 6000 Fax +27 (0)21 506 6100 email zitonza@ziton.spx.com

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