

The ZP-LC2 Line Voltage Conditioner permits intrinsically safe analogue addressable sensors to be connected to a ZP wiring loop. Each line conditioner reduces ZP line voltages to a level suitable for supply to an intrinsically safe wiring tee off, via a compatible EEx zenner barrier.

Intrinsically safe devices can be installed in hazardous areas, where the presence of explosive gasses in the atmosphere, could be ignited by electrical or thermal energy derived from the fire detection equipment itself.

The line conditioner unit utilises the ZP analogue addressable communication system and is powered directly from the ZP loop.

Incoming voltages from the polling system are reduced by the line conditioner and supplied at a lower level, through a zenner barrier. ZP intrinsically safe sensing devices are connected by a wiring spur from the zenner barrier out into the hazardous area. Conversely signal voltages generated by the sensors, are boosted by the Line Conditioner to levels compatible with the ZP control panel.

A maximum of eight intrinsically safe analogue devices can be connected to each Line Conditioner. Each analogue device communicates individually with the control panel and notifies its current status and condition. The line conditioner is addressed to communicate with its eight devices, each one being polled by the control panel every two seconds.

In systems where a greater number of IS devices are required, additional line conditioners and zenner barriers may be added to the ZP loop. It is recommended that line isolators be installed on either side of each IS tee off from the ZP loop.

Housed in a robust plastic housing, the unit is designed for either DIN rail or surface mounting and is provided with external terminal connectors for ease of wiring on site.

A LED indicator located on the front of the unit, illuminates when the incoming line voltage drops below an acceptable level.

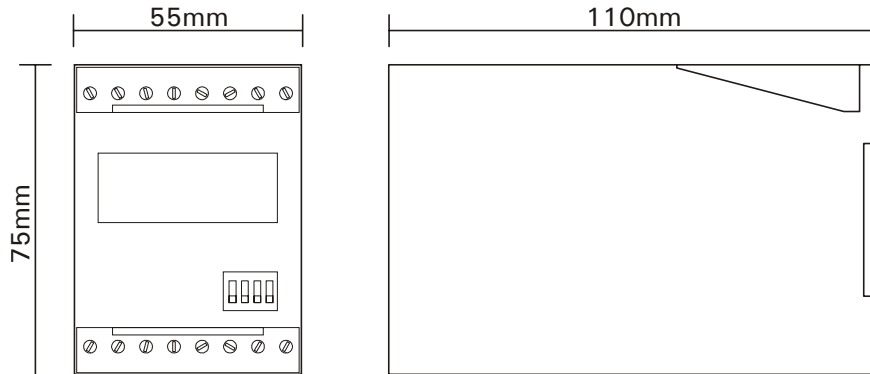


ZP-LC2

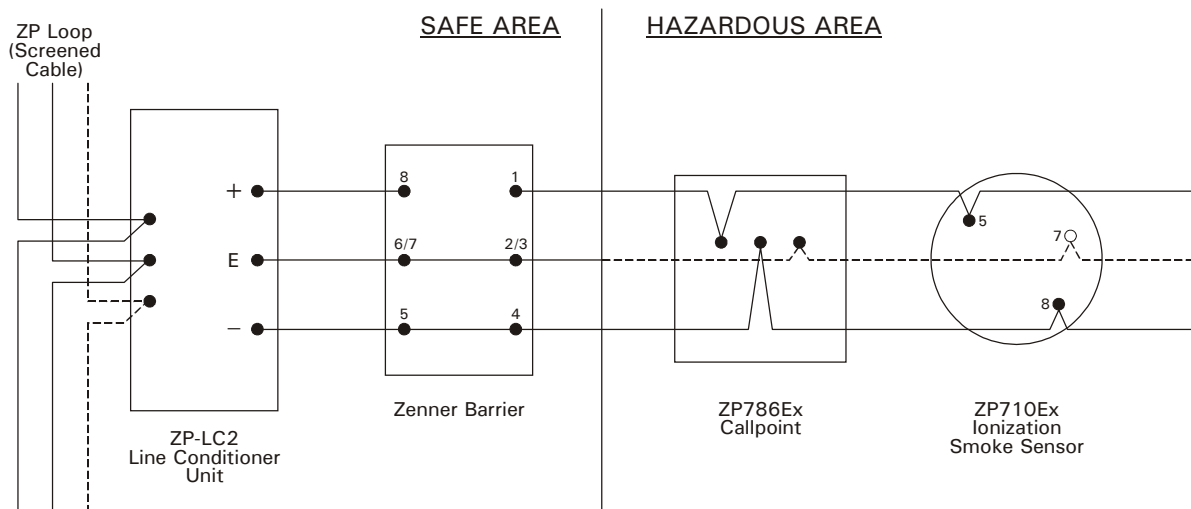
Intrinsically Safe Line Voltage Conditioner

- **Connected directly onto ZP loop**
- **Provides addresses for up to eight IS devices**
- **Low voltage indication**
- **Surface or DIN rail mounted**

Dimensions



Wiring Schematic



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

Specifications



Model No.	Part No.	Description
ZP-LC2	35001	Line voltage conditioner for IS circuits
Compatibility	All ZP analogue addressable systems	Environmental: Application Indoor installation EN60529 rating IP 40 Temp range -10°C to +75°C Humidity range 20% to 95% RH (non condensing) EMC CE marked (EEC89/336)
Mounting	35mm DIN rail or surface (two screw holes)	
Wiring	MICC or suitable screened cable-spurred from ZP loop. Wiring spur into hazardous area via zenner barrier	Construction: Enclosure Moulded plastic Dimensions 55mm (W) x 75mm (H) x 110mm (D) Colour Grey/black Weight 188g
Monitoring:	Low voltage on IS wiring spur	
Indication	LED (flashing on low voltage)	
Operating voltage	ZP line input 17 to 22 volts DC Spur output 14.5 to 15 volts DC	
Current	(internal at 20 volts DC) 18 mA	

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