

The ZP710Ex-1 intrinsically safe, analogue, ionization, smoke sensor is designed to provide reliable sensing of both visible and invisible products of combustion from fast burning fires, 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 zenner barrier unit and line voltage conditioner.

Up to a maximum of eight ZP intrinsically safe devices can be connected to each zenner 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 zenner 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 dual chamber single source design, the ZP710Ex-1 fully meets the sensitivity requirements of European Standard EN 54 Pt7.

Sensor 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. Sophisticated auto contamination adjustment compensates for any drift in performance due to dirt in the sensing chamber.

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

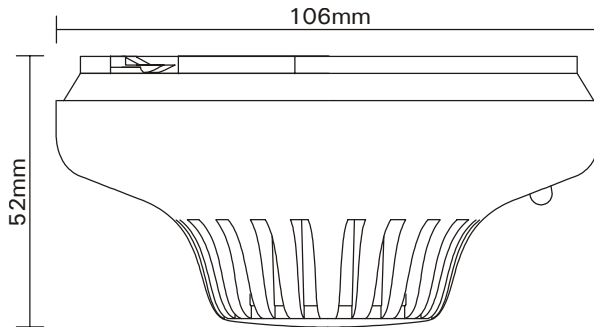


## ZP710Ex-1

### Intrinsically Safe Analogue Ionization Smoke Sensor

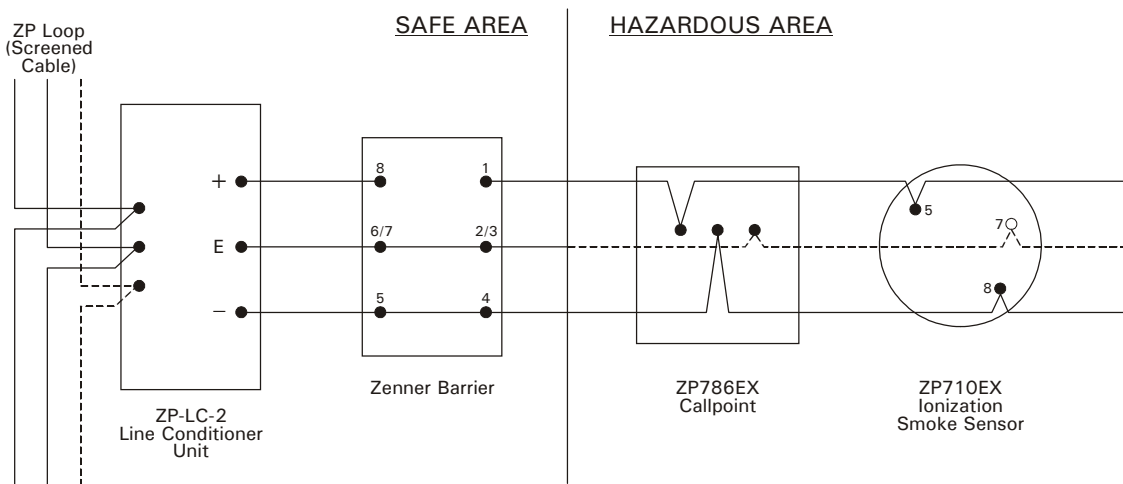
- **Complies with EN 50020**
- **Analogue sensing - reduces false and unwanted alarms**
- **Addressable - system knows the status and location of every sensor**
- **Alarm verification, self test, auto contamination adjustment**

# Dimensions



Note: Dimensions shown without base.

# 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.	Specification	Description
ZP710EX-1	19510.2XX	EN 50020 and EN 54 PT 7	Intrinsically safe analogue ionization smoke sensor
Sensitivity	0.8Y (at sensitivity level 2)		Current (alarm) 700uA
Compatibility	All ZP analogue addressable systems		Addressing method 7 way DIP switches in head
Wiring	MICC or suitable screened cable - spurred from ZP loop via zenner barrier and line voltage conditioner		Detection principle Dual chamber, source < 1uC Am 241
<b>Intrinsically safe details (with zenner barrier)</b>			<b>Environmental:</b>
Specification	EN 50020		Application Indoor installation
Classification	Eex ia (constant hazard)		EN60529 rating IP32
Gas Group	A C (hydrogen)		Temp range -10°C to +75°C
Temp. Rating	T6 (85°C)		Humidity range 20% to 95% RH (non condensing)
<b>Monitoring:</b>	Open and short circuit wiring faults, sensor removal and device type		EMC CE marked (IEC89/336)
Indication	Alarm LED (red) on sensor moulding		<b>Construction:</b>
Operating voltage	12 to 18 volts DC		Material Moulded ABS
Current (quiescent)	600uA		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 105g (without base)

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