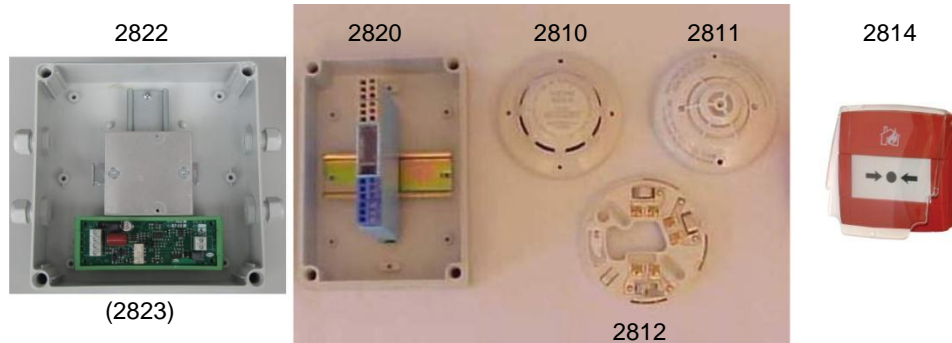


Fire alarm systems Units for Hazardous (Ex) areas



- Approved Intrinsicly Safe (IS) interface, isolator & detectors and manual call point

General

In hazardous (Ex) areas, Intrinsicly Safe (IS) and approved products are required.

The IS detectors and manual call points are connected to a Galvanic isolator 2820, which has to be mounted outside the hazardous (Ex) area.

The Galvanic isolator 2820 is connected to an Isolated zone interface 2822 **or** to an 8 zones expansion board 4580 (option in the c.i.e.) Ex zone line input.

The Isolated zone interface 2822 is connected to a COM loop via an Addressable multipurpose I/O unit 3361 that can be mounted inside the Isolated zone interface box.

IS smoke detector 2810

A conventional IS Photoelectric (optical) smoke detector is plugged in an IS mounting base 2812. The detector has two built-in LEDs to indicate that the detector has generated fire alarm.

IS heat detector 2811

A conventional IS fixed temperature (60°C class A1) and rate of rise heat detector is plugged in an IS mounting base 2812. The detector has two built-in LEDs to indicate that the detector has generated fire alarm.

IS mounting base 2812

In the base is a conventional IS smoke or heat detector plugged. The base has terminals for the zone line (in/out) and for an ext. indicator (LED).

IS manual call point 2814

A conventional manual call point with a 470Ω alarm resistor. It has terminals for the zone line (in/out). To operate the call point, a glass element is pressed until it is broken.

Routine testing is done with a test key (supplied), without breaking the glass element.

The glass element can be protected by a Hinged cover 2814HC, which has to be lifted for access to the glass element. The call point is surface mounted with a Back-box 2814BB.

Galvanic isolator 2820

The galvanic isolator MTL5061 is mounted in a waterproof box (IP66/67). Up to five IS detectors and manual call points can be connected to the galvanic isolator. An end-of-line resistor has to be connected in the last unit. The isolator has two inputs and outputs (Channel 1 & 2). 2820 is supplied with four compression glands for the cable entries.

Systems EBL128 / 512 G3: 2820 can be connected to an 8 zones expansion board 4580 in the c.i.e. Two 10K e-o-l resistors are supplied. Systems EBL128 / 512 / 512 G3: 2820 can be connected to an Isolated zone interface 2822 and via an Addressable multipurpose I/O unit 3361 to the c.i.e.

Isolated zone interface 2822

An Isolated zone interface board (2823) is mounted on a DIN rail in a waterproof box (IP66/67) that is supplied with four compression glands for the cable entries, a DIN rail interface intended for the I/O unit 3361 and one 8K2 e-o-l resistor. Ext. power supply 24 V DC (30 mA) is required. (3361 has to be ordered separately.)



Product applications

The units are used in the systems EBL128 / 512 / 512 G3 for hazardous (Ex) areas. Connections, etc. according to connection diagram for the system respectively.

Type numbers

2810	Intrinsically safe photoelectric smoke detector SLR-E-IS.
2811	Intrinsically safe heat detector DCD-1E-IS.
2812	Intrinsically safe mounting base YBN-R / 4 IS.
2814	Intrinsically safe manual call point MCP1A-R470SGIS.
2814HC	Hinged protection cover (transparent) PS200 for 2814.
2814BB	Back-box SR for 2814.
2820	Galvanic isolator MTL5061 (incl. waterproof box & four compr. glands). ¹
2822	Isolated zone interface (waterproof box, four compr. glands, DIN rail and interface for an I/O unit 3361). ² NOTE! The I/O unit 3361 has to be ordered separately.
2823	Isolated zone interface board (spare part).

Technical data

	Isolated zone interface	Galvanic isolator	Base	Smoke detector	Heat detector	Manual call point
Voltage (V DC) allowed nominal	12-30 24	6-35 24	15-30 24	15-30 24	15-30 24	≤ 30 24
Current consumpt. at nom. volt. quiescent active	3 6 from the COM loop	<400µA 1-40mA	n/a	50 µA max. 50 mA	35 µA max. 50 mA	- max. 500 mA
Current consumpt. at nom. volt. from ext. power supply (mA)	≤ 30	n/a	n/a	n/a	n/a	n/a
Ambient temperature (°C) operating storage	-20 to +40 -40 to +70	-20 to +60	-10 to +55 -30 to +70	-10 to +55 -30 to +70	-10 to +55 -30 to +70	-30 to +70 -30 to +70
Ambient humidity (% RH) non cond.	max. 90	max. 95	max. 95 at 40°C	max. 95 at 40°C	max. 95 at 40°C	
Ingress Protection rating	IP66/67 (the box)	IP66/67 (the box)	IP22 ³	IP22 ³	IP22 ³	IP24D
Size h (mm)	175x175x 75	175x125x 150	Ø=100x 15	Ø=100x 46 (incl. base)	Ø=100x 46 (incl. base)	90x90x61 (incl. back- box & cover)
Weight (g)	~710	~650	50	115	95	170
Construction / Colour	Polycarbonate / grey (RAL 7035)	Polycarbonate / grey (RAL 7035)	ABS / Ivory white	ABS / Ivory white	Polycarbonate / Ivory white	- / Red (RAL 3001)
Approvals, BASEEFA / ATEX  	n/a	EEx ia IIC T _{amb} = 60°C	n/a	EEx ia IIC T5, T _{amb} = 50°C	II 1 G EEx ia IIC T5, T _a = -20 to +55°C	II 1 G EEx ia IIC T4, T _a = -30 to +70°C ⁴
EN54-part				7	5	11:2001 + A1:2005
Category			n/a	1, 2 or 3	1, 2 or 3	-

NOTE! Regarding current consumption for active detectors: All EBL equipment have a current limitation.

¹ Two resistors (10K) with a body surface area > 230 mm² are included. When an 8 zones expansion board 4580 is used (in systems EBL128 / 512 G3), a 10K end-of-line resistor has to be connected in the last IS unit.

² One resistor (8K2) with a body surface area > 230 mm² is included. When an I/O unit 3361 is used, an 8K2 end-of-line resistor has to be connected in the last IS unit.

³ IP rating not tested. Producer's estimation: IP43.

⁴ 08 EC Certificate no. 0832-CPD-0642. Sira 04ATEX2350X.

All technical features and data are subject to changes without notice, resulting from continuous development and improvement.

Product Leaflet	Date of issue	Revision / Date of revision
MEW01569	2012-09-10	1 / 2013-02-12