

Fire alarm systems EBL512 & EBL512 G3 Units for Hazardous (Ex) areas



- Approved Intrinsic Safe interface, isolator & detectors

General

In hazardous (Ex) areas, Intrinsic Safe (IS) and approved products are required. To the COM loop is connected an Addressable IS zone line interface to which, via a Galvanic isolator, the intrinsically safe detectors and/or manual call points are connected.

Addressable IS zone interface 2821

The interface is connected to a COM loop. It has one zone line input. A DIL-switch is used for the COM loop address setting. Ext. power supply 24 V DC (30 mA) is required. The interface is mounted in a waterproof box (IP66/67). Supplied with four compression glands for the cable entries.

Galvanic isolator MTL5061

The isolator is used to connect the IS detectors and manual call points to the IS zone interface zone line input. Up to 20 units can be used on the zone line and an end-of-line resistor is to be connected in the last unit. The isolator has two in and outputs (Channel 1 & 2) and is mounted in a waterproof box (IP66/67). Supplied with four compression glands for the cable entries and two 10K e-o-l resistors for systems EBL512 and EBL512 G3.

IS mounting base YBN-R/4 IS

In the base could be plugged a conventional

IS smoke or heat detector.

The base has terminals for the zone line (in/out) and for an external indicator (LED).

IS smoke detector SLR-E-IS

A conventional IS photoelectric (optical) smoke detector, to be plugged in the IS mounting base. The detector has two built-in LEDs to indicate that the detector has generated fire alarm.

IS heat detector DCD-1E-IS

A conventional IS Rate of Rise heat detector, fixed temperature 60°C (class A1), to be plugged in the IS mounting base. The detector has two built-in LEDs to indicate that the detector has generated fire alarm.

IS manual call point MCP1A-R470SGIS

A conventional manual call point (alarm resistor 470R). 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 call point is to be surface mounted with the supplied back-box.

Product applications

The units are used in the systems EBL512 and EBL512 G3. Connections, etc. according to connection diagram for the system respectively (e.g. dwg 512-55).

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Type numbers	
2821	Addressable IS zone interface (incl. waterproof box & four compr. glands)
MTL5061	Galvanic isolator (incl. waterproof box & four compression glands) ¹ (2820)
YBN-R / 4 IS	Intrinsically safe mounting base (2812)
SLR-E-IS	Intrinsically safe photoelectric smoke detector (2810)
DCD-1E-IS	Intrinsically safe heat detector (2811)
MCP1A-R470SGIS	Intrinsically safe manual call point (incl. back-box & a transparent protection flap) (2814)

Technical data						
	IS 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)	max. 90 non cond.	max. 95 non cond.	max. 95 non cond. at 40°C	max. 95 non cond. at 40°C	max. 95 non cond. at 40°C	
Ingress Protection rating	IP66/67 (the box)	IP66/67 (the box)	IP22 ²	IP22 ²	IP22 ²	IP24D
Size h (mm)	175x125x 75	175x125x 150	Ø=100x 15	Ø=100x 46 (incl. base)	Ø=100x 46 (incl. base)	90x90x61 (incl. back- box & flap)
Weight (g)	~133	~650	50	115	95	170
Construction / Colour	Polycar- bonate / grey	Polycar- bonate / grey (RAL 7035)	ABS / Ivory white	ABS / Ivory white	Polycar- bonate / 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
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 end-of-line resistors (12K) are included for the system EBL500. Two end-of-line resistors (10K) are included for the systems EBL128 and EBL512 G3 (i.e. for 8 zones expansion board 4580). The resistors have a body surface area > 230 mm² and has to be connected in the last unit on the zone line.

² IP rating not tested. Producer's estimation: IP43.

³ 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
MEW00198	2001-10-26	7 / 2011-03-14