

SecuriFire
B3-IM8
 Surveyed input board

The B3-IM8 is designed for connecting a total of 8 detection zones or surveyed inputs.

Domain: SCP3000



Fig. 1 B3-IM8

Function/Application

The B3-IM8 is suitable for combining any surveyed inputs as well as for connecting the SecuriStar detector series 521 / 523 / 563, HX130, MMD130Ex-i / HX130Ex-i, Hochiki Ex-i detectors and the sabotage line technology.

The system connection to the B5-BUS is on the rear side using a 64-pin male connector. The detection zones and inputs are connected on the front side of the board with a 16-pin plug-in terminal.

The outputs are selectively monitored for short-circuits and wire breakage (according to EN54-13).

Interfaces

- X1** Connection to the B5-BUS
- X3 to X10** Jumpers for setting the mode of operation
- X13** Connector plug for detection zones and inputs

Connector plug for surveyed inputs (X13)

Input no.	Designation	Function	Jumper no.
8	C8	GND	X10
	L8	+24 V	
7	C7	GND	X9
	L7	+24 V	
6	C6	GND	X8
	L6	+24 V	
5	C5	GND	X7
	L5	+24 V	
4	C4	GND	X6
	L4	+24 V	
3	C3	GND	X5
	L3	+24 V	
2	C2	GND	X4
	L2	+24 V	
1	C1	GND	X3
	L1	+24 V	

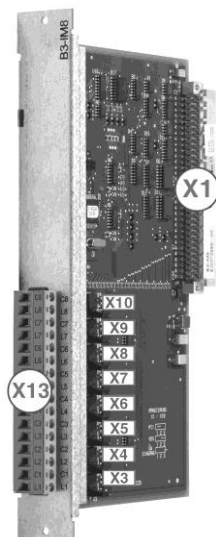


Fig. 2 B3-IM8 interfaces

Technical data X13

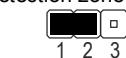
Output voltage	24V DC (22 ...28V DC)
Short-circuit current	170 ... 288 mA
Line resistance	max. 50 Ω
Line length	
with 0,6 mm ² cable cross-section	max. 400 m
with 0,8 mm ² cable cross-section	max. 720 m
with 1,0 mm ² cable cross-section	max. 1100 m
Mechanical	plug-in screw terminal, max. 2.5mm ²

Data sheet

Jumpers X3 to X10

Jumper	X3	X4	X5	X6	X7	X8	X9	X10
Eingang	1	2	3	4	5	6	7	8

“Detection zone” mode of operation



Jumper 1-2 connected

- Detection zones
- SecuriStar 521 / 523 / 563, LKM583
- Collective MCP
- HX 130, HX 130 Ex-i, MMD130Ex-i

“VdS” mode of operation



Jumper 2-3 connected

- Surveyed input 3K
- VdS extinguishing input
- Valve monitoring
- Hochiki Ex-i detector: SLR-E-IS, DCD-1E-IS

“Surveyed input” mode of operation



Jumper open

- Surveyed input 26K7

Planning

The country-specific directives apply when planning and installing automatic fire detector systems.

The B3-IM8 is built to be redundant to ensure system availability. All logical functional blocks are doubled.

If there is a fault, a switch is made automatically to the second system, and the operability remains fully in tact in this case.

The B3-IM8 can be fitted in the unit rack of each SecuriFire 3000 at slots 2 to 9 of the unit rack.

The operating mode of the inputs can be set using jumpers X3 to X10. At the same time the corresponding operating mode has to be planned with software (SecuriFire Studio).

The B3-IM8 is supported beginning with SecuriFire Studio R 1.0.

“Detection zone” mode of operation

The following information about the number of detectors per zone is based on the technical system limits and may be restricted by directives and regulations.

Detector	Number per zone	Base	Termination resistance
MMD 130 Ex-i	max. 10	USB 501-7 Ex-i	2,7 kΩ ¹⁾ 4,7 kΩ ²⁾
MSD 523	max. 32	USB 501-x	3 kΩ
SCD 563			
UTD 523			
TCD 563			
MCP 525	max. 10		
MCP 521			

¹⁾ via safety barrier Z787 / Z787F (VdS compliant!)

²⁾ via direct voltage isolating transformer GTW (NOT VdS compliant!)

When modernising existing Securiton fire alarm systems with SecuriFire 3000, the following detectors can be taken and operated on the B3-IM8.

Detector	Number per zone	Base	Termination resistance	
ORM 130 Ex-i	max. 10	USB 501-7 Ex-i	2,7 kΩ ¹⁾ 4,7 kΩ ²⁾	
WDM 215 Ex-i				
WMM 216 Ex-i			YBN R/4	4,7 kΩ ¹⁾
SLR-E-IS				
DCD-1E-IS				
SSD 521	max. 32	USB 501-x	3 kΩ	
UTD 521				
ORM 130 A/Y	max. 30	143, 143 K	3 kΩ	
ORM 130 A/K				
ORM 130 A Ex				
WDM 215 A				
WDM 215 A Ex				
WMM 216 A				
WMM 216 A Ex				
UFM 840	max. 4			
UFM 810 A Ex				
DFM 435 Wx	max. 10			
DFM 435 Kx Ex				

¹⁾ via safety barrier Z787 / Z787F (VdS compliant!)

²⁾ via direct voltage isolating transformer GTW (NOT VdS compliant!)

“VdS” mode of operation

	Termination resistance	Alarm resistance
VdS extinguishing interface	3,3 kΩ ±5 %; 0,5 W	680 Ω ±5 %; 1 W
Surveyed input 3K	3 kΩ ±5 %; 0,5 W	1,5 kΩ ±5 %
Valve monitoring		1,5 kΩ ±5 %; 0,5 W
Input DFG-60 BLK3		(1,5 kΩ pre-alarm)

“Surveyed input” mode of operation

	Termination resistance	Alarm resistance
Surveyed input 26K7	26,7 kΩ ±5 %; 0,5 W	18,2 kΩ ±5 %; 0,5 W

Connection examples

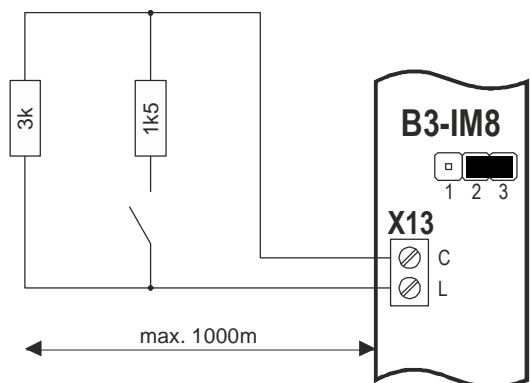


Fig. 3 Detection zone

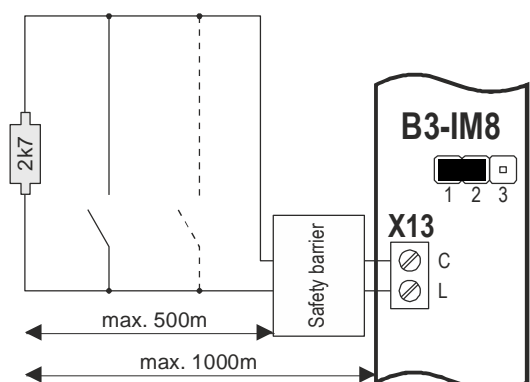


Fig. 4 Detection zone Ex-i

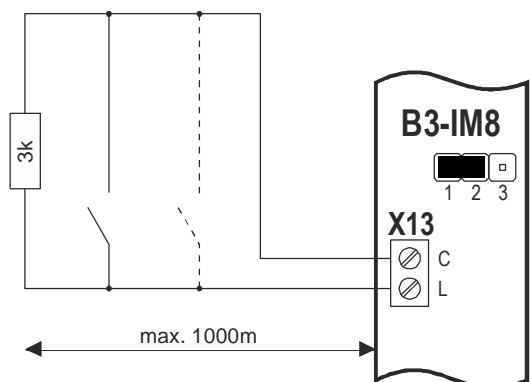


Fig. 5 Surveyed input 3K

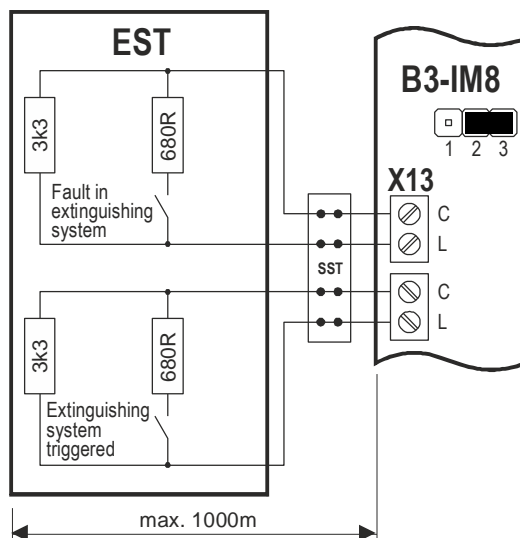


Fig. 6 Standard interface «Extinguishing» (VdS compliant)

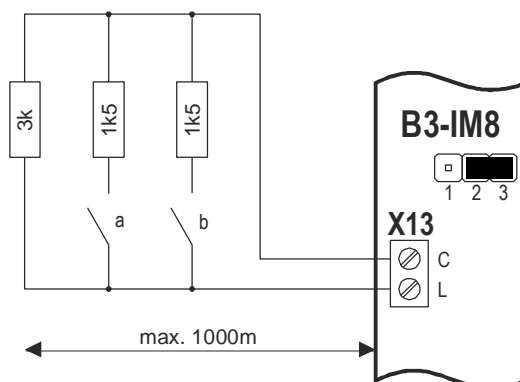


Fig. 7 Valve monitoring

Article numbers / spare parts

Short designation	Art. number CH	Art. number
B3-IM8 Surveied input board	115.242 381	EG072855
ST-MT18 Replacement plug X13		FG74087

Technical data

Power supply	provided by the B5-PSU power supply unit via the B5-BUS
Quiescent current consumption	9 mA
Protection type	according to control panel
Ambient temperature, Relative humidity, Air pressure	according to control panel
Weight (gross/net)	330/220 g