BOSCH
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FLM-I 420-S Short Circuit Isolator

▸ **Rotary switch for automatic and manual address setting**

▸ **Preservation of LSN loop functions in the event of a short-circuit by two integrated isolators**

▸ **Power supply via LSN**

▸ **Three free screw terminals**

The Short Circuit Isolator isolates alarm zones in which a short circuit has occurred. This means the functionality of the remainder of the network remains preserved.

System Overview

Description	Connector
b1+ / a- / b2+	LSN
N/A (3 x)	free terminals, e.g. for looping through ext. auxiliary voltage and for shielding

Functions

Features of improved LSN

The interface modules in the 420 series offer all the features of improved LSN technology:

* Flexible network structures including T-tapping without additional elements
* Up to 254 LSN-improved elements per loop or stub line
* Unshielded cable can be used

Address switch (rotary switch)

The address of the Short Circuit Isolator is set using the rotary switches.
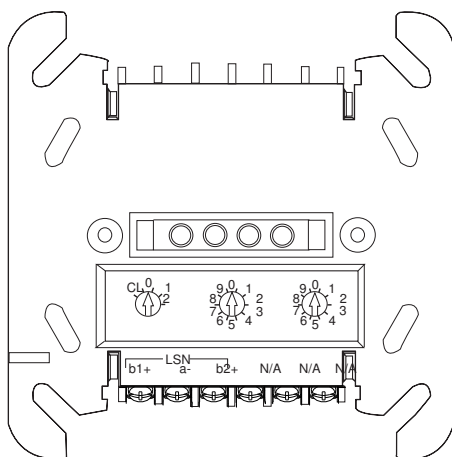
The following settings are possible:

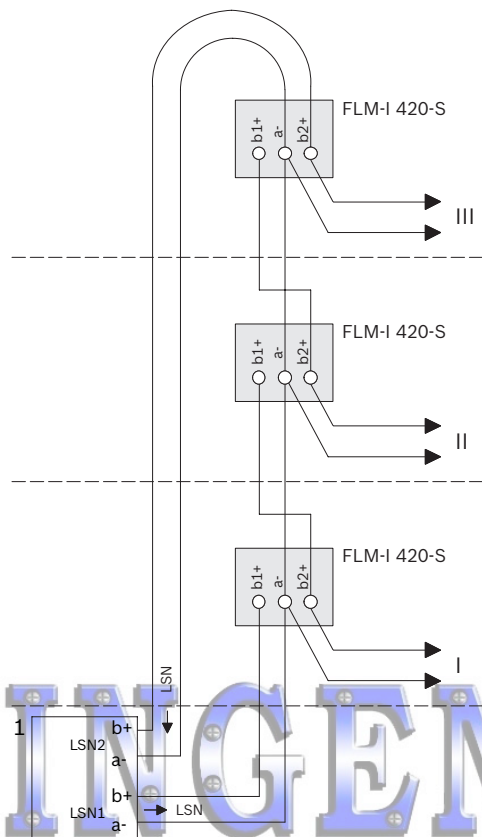|	
0 0 0	Loop/stub in LSN mode improved version with automatic addressing (T-tap system not possible)
0 0 1 - 254	Loop/stub/T-tap system in LSN mode improved version with manual addressing
CL 0 0	Loop/stub in classic LSN mode

Configuration

The Short Circuit Isolator isolates alarm zones in which a short circuit has occurred. The following illustrations show typical configurations of the isolator module.

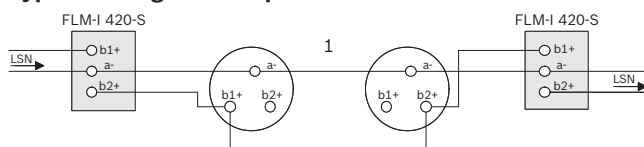**Wiring example: Isolation of separate floors**

Pos.	Description
1	Fire panel
I, II, III	Floors

Typical wiring in a T-Tap

Pos.	Description
1	Alarm zone / device group with LSN elements

Certifications and Approvals

Complies with EN54-17:2005

Region	Certification	
Germany	VdS	G 207045 FLM-I 420-S; FLM-I 420-D

Installation/Configuration Notes

- National standards and guidelines must be taken into account during the planning stage.

- The surface-mounted housing has two cable ducts on opposite sides:
  - 2 x 2 pre-punched for diameter up to 21 mm/to 34 mm (for conduits)
  - 2 x 4 rubber bushes for inserting cables with diameters of up to 8 mm.
- In addition, there are cable ducts on the base of the surface-mounted housing:
  - 1 x pre-punched cable ducts for diameter up to 21 mm (for conduits)
  - 2 x 4 rubber bushes for inserting cables with diameters of up to 8 mm.
- Connectable to the fire panels FPA-5000 Modular and FPA-1200 with LSN technology improved version.

Parts Included

Qty.	Components
1	Short Circuit Isolator with surface-mounted housing.
1	DIN rail adapter

Note	Alternatively to the use of the surface-mounted housing, the Isolator can be mounted on a DIN rail with the included adapter.

Technical Specifications

Electrical

Input voltage	15 V DC to 33 V DC
Max. current consumption	
• During initialization	< 0.4 mA
• Following the initialization	< 0.25 mA

Mechanics

LSN/Address setting	3 rotary switches for
	• Mode LSN classic or LSN improved version
	• Automatic or manual addressing
Connections	6 threaded clamps
Housing material	
• Isolator module	PPO (Noryl)
• Surface-mount housing	ABS/PC-Blend
Housing color	
• Isolator module	Off-white, similar to RAL 9002
• Surface-mount housing	Signal white, RAL 9003
Dimensions	Approx. 126 x 126 x 71 mm (4.96 x 4.96 x 2.8 in.)
Weight	Approx. 150 g (5.3 ounces)

Environmental conditions

Permitted operating temperature	-20 ℃ to 50 ℃ (-4 ℉ to 122 ℉)
Permitted storage temperature	-25 ℃ to 85 ℃ (-13 ℉ to. 176 ℉)
Permitted relative humidity	< 96%
Classes of equipment as per IEC 60950	Class III equipment
Protection class as per IEC 60529	IP 54

Ordering Information

FLM-I 420-S Short Circuit Isolator for the isolation of alarm zones in which a short circuit has occurred.	**FLM-I 420-S**

Accessories

FLM-IFB126-S Surface-mounted Housing as retainer for the interface modules series 420 type DIN rail (-D) or spare housing for type surface-mount (-S)	**FLM-IFB126-S**

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