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:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 0 0</td>
<td>Loop/stub in LSN mode improved version with automatic addressing (T-tap system not possible)</td>
</tr>
<tr>
<td>0 0 1 - 254</td>
<td>Loop/stub/T-tap system in LSN mode improved version with manual addressing</td>
</tr>
<tr>
<td>CL 0 0</td>
<td>Loop/stub in classic LSN mode</td>
</tr>
</tbody>
</table>

**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

- 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.

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fire panel</td>
</tr>
<tr>
<td>I, II, III</td>
<td>Floors</td>
</tr>
</tbody>
</table>

Typical wiring in a T-Tap

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

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alarm zone / device group with LSN elements</td>
</tr>
</tbody>
</table>

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.

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

<table>
<thead>
<tr>
<th>Permitted operating temperature</th>
<th>-20 °C to 50 °C (-4 °F to 122 °F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permitted storage temperature</td>
<td>-25 °C to 85 °C (-13 °F to 176 °F)</td>
</tr>
<tr>
<td>Permitted relative humidity</td>
<td>&lt; 96%</td>
</tr>
<tr>
<td>Classes of equipment as per IEC 60950</td>
<td>Class III equipment</td>
</tr>
<tr>
<td>Protection class as per IEC 60529</td>
<td>IP 54</td>
</tr>
</tbody>
</table>

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**