

# EM 55 LSN 2 Zone Expander Modules



- ▶ 2 primary lines for connecting contact detectors, magnetic contacts or bolt contacts
- ▶ The point type can be programmed in the control panel
- ▶ Onboard internal EOL 12.1 kΩ resistors
- ▶ The circuit board is equipped with a tamper contact
- ▶ Wall tamper

This expansion module integrates conventional sensor technology, for example conventional magnet contacts, into the local security network (LSN). Available as recessed or surface mounting.

## Functions

### LSN connection

The zone expander module supports LSN classic mode and LSN improved mode.

The LSN connection is 2-wire. Tamper, hold-up, bolt or intrusion messages and alarms are transmitted and analyzed. The power for the device is supplied via the two wires.

A second pair of LSN wires can be looped through to provide a separate power source for any subsequent LSN element.

In case of wire interruptions or short-circuits, all LSN elements continue to be monitored. The system automatically creates two stub lines that continue to monitor from both sides up to the location of the fault.

The LSN element has a lid tamper contact, and can be extended with optional wall tamper contact(s) for VdS-C and EN-Grade-3 compliance. If any tamper contact is triggered, it sends a signal that is transmitted and evaluated as a unique message.

## Regulatory information

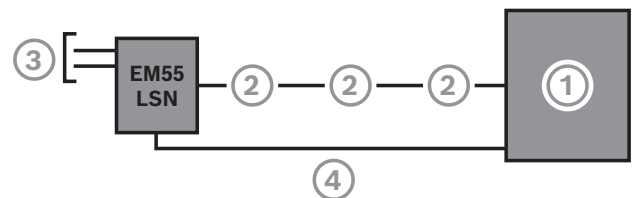
Region	Regulatory compliance/quality marks	
Europe	CE	[ISP-EM55SM-120, ISP-EM55FM-120]

Region	Regulatory compliance/quality marks	
Germany	VdS	G112091

## Installation/configuration notes

### Connecting conventional detectors

Conventional detectors can be connected at the two primary lines. The reports are transmitted from the conventional detector to the LSN coupler in analog mode. This means existing equipment can be extended with ease.



Element	Description
1	Control panel
2	LSN element
3	Primary lines (up to two)
4	LSN loop

## Primary cable length

### **i** Notice Cable length

Exceeding the permitted cable length is not covered by CE declarations and leads to malfunction of the system.

- Do not exceed the total cable length of 500 m for the primary cables, the control cables, and the contact cables of EM 55.

### Permitted cable length of the primary cables (PL)

- Maximum length of one unshielded cable: 3 m
  - Maximum length of all shielded cables: 500 m
- The specified length relates to interference-free LSN data transmission. In practice, interference factors that can lead to alarm or tampering in the primary line need to be taken into account. Depending on the environmental influences, experience values must be applied when determining length.

### Installation

The circuit board can be installed in a 55 recessed-mounted junction box and 55 surface-mounted junction box (recessed-mounted junction box in accordance with DIN 49073).

## Technical specifications

### Electrical

Minimum operating voltage in VDC	10
Maximum operating voltage in VDC	33
Maximum current consumption in mA	0.6
Number of primary lines	2
Terminal resistance in KΩ	12.1

### Mechanical

Dimension in cm (Ø x D) (recessed mounting)	7.6 x 2.5
Dimension in cm (Ø x D) (surface mounting)	7.6 x 3.8
Housing material	ABS
Color	RAL 9002
Weight in g (recessed mounting)	54
Weight in g (surface mounting)	83

## Environmental

Minimum operating temperature in °C	0
Maximum operating temperature in °C	50
Relative humidity in % (non-condensing)	< 93
Protection class	IP40
Security level	IK04
Environmental class	II

## Ordering information

### ISP-EM55FM-120 LSN Exp. module, EM55, flush mount

For monitored connection of conventional detectors (2 primary lines) on the local security network LSN, recessed-mounted

Order number **ISP-EM55FM-120 | F.01U.173.753 F.01U.411.659**

### ISP-EM55SM-120 LSN Exp. module, EM55, surface mount

For monitored connection of conventional detectors (2 primary lines) on the local security network LSN, surface-mounted

Order number **ISP-EM55SM-120 | F.01U.173.752 F.01U.411.660**

### ISP-EM55-WTC LSN EM55 Wall tamper contact, 2pcs

Wall tamper contact for the EM55 expansion modules, mandatory for installations according to VdS-C or EN Grade 3 compliance.

Order number **ISP-EM55-WTC | F.01U.411.661**

#### Represented by:

**Europe, Middle East, Africa:**  
Bosch Security Systems B.V.  
P.O. Box 80002  
5600 JB Eindhoven, The Netherlands  
[www.boschsecurity.com/xc/en/contact/](http://www.boschsecurity.com/xc/en/contact/)  
[www.boschsecurity.com](http://www.boschsecurity.com)

**Germany:**  
Bosch Sicherheitssysteme GmbH  
Robert-Bosch-Platz 1  
D-70839 Gerlingen  
[www.boschsecurity.com](http://www.boschsecurity.com)

**North America:**  
Bosch Security Systems, LLC  
130 Perinton Parkway  
Fairport, New York, 14450, USA  
[www.boschsecurity.com](http://www.boschsecurity.com)

**Asia-Pacific:**  
Robert Bosch (SEA) Pte Ltd, Security Systems  
11 Bishan Street 21  
Singapore 573943  
[www.boschsecurity.com/xc/en/contact/](http://www.boschsecurity.com/xc/en/contact/)  
[www.boschsecurity.com](http://www.boschsecurity.com)