



Safety controllers  
Flexi Loop safe sensor cascade, EMSS 8-pin

FLN-EMSS1100108



**Model Name** > [FLN-EMSS1100108](#)  
**Part No.** > [1061712](#)



#### At a glance

- Ability to cascade 32 sensors with up to 30 m per segment in compliance with performance level e
- Compatible with sensors from all manufacturers
- Detailed diagnostic information
- Integrated standard inputs and outputs
- Power supply for sensors is included
- Unscreened standard cable with M12 connectivity
- IP 65 and IP 67 enclosure rating
- Intelligent accessories for field diagnostics and commissioning

#### Your benefits

- Cascading of safety switches and safety sensors with OSSD outputs minimizes the wiring effort and the number of inputs of the safety controller, which saves costs
- Easy retrofitting of existing machines
- Simple calculation of the performance level saves time since the Flexi Loop node monitors each sensor individually
- User-friendly due to quick and easy configuration
- Ability to be used over long distances increases application flexibility
- Detailed diagnostic information minimizes system downtime
- Seamless system integration and communication with other SICK safety controllers
- Detailed status information on Flexi Loop components, diagnostics accessories, and safety controller enable quick and easy field diagnostics



#### Safety-related parameters

Safety integrity level:	SIL3 (IEC 61508) SILCL3 (EN 62061)
Category:	Category 4 (EN ISO 13849-1)
Performance level:	PL e (EN ISO 13849-1)
PFHd:	0.76 * 1E-09 (EN ISO 13849)
TM (mission time):	20 a (EN ISO 13849)
Safe state in the event of a fault:	The sensor cascade has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit.

#### Functions

Cross-circuit:	Monitoring via Flexi Loop node
Short-circuit:	Monitoring via Flexi Loop node
Discrepancy errors:	Monitoring via Flexi Loop node
Sequence errors:	Monitoring via Flexi Loop node

### Mechanical data

Dimensions (W x H x D):	68.15 mm x 45 mm x 18 mm
Weight:	28 g ( $\pm 5\%$ )

### Electrical data

Protection class:	III (EN 61140)
Type of supply voltage:	SELV
Supply voltage $V_s$ :	24 V DC (16.8 V DC ... 30 V DC)
Power consumption:	55 mA

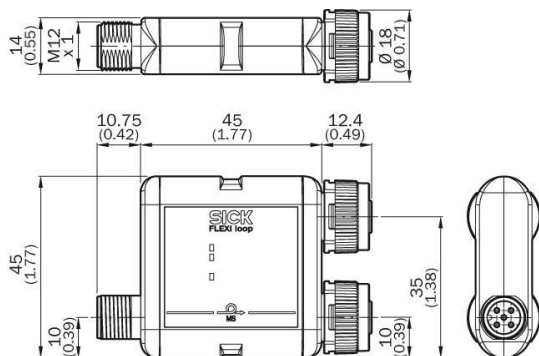
### Interfaces

Safety device connection:	Dual-channel equivalent electro-mechanical safety switch (EMSS)
Flexi Loop input:	To connect a Flexi Loop predecessor module, or to connect a Flexi Loop string with the safety controller Flexi Soft.
Flexi Loop output:	To connect a Flexi Loop successor module, or to terminate a Flexi Loop string with the Flexi Loop termination element.
Connection type safety device:	Female connector M12, 8-pin
Connection type Flexi Loop input:	Male connector M12, 5-pin
Connection type Flexi Loop output:	Female connector M12, 5-pin
Number of non-safe inputs:	1
Number of non-safe outputs:	1
Power supply output for external devices:	✓
IO-Link:	-

### Ambient data

Enclosure rating:	IP 65, IP 67 (EN 60529)
Ambient operating temperature:	-25 °C ... +55 °C
Storage temperature:	-25 °C ... +70 °C
Electromagnetic compatibility (EMC):	Class A (EN 61000-6-2, EN 55011)
Shock resistance (continuous shock):	10 g, 16 ms (EN 60068-2-64)
Shock resistance (single shock):	30 g, 11 ms (EN 60068-2-27)

### Dimensional drawing



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