

Safety Non-contact Door Switch



SFN Series CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

Features

- Vertical/Horizontal installation supported
- Available to install at back-forth, up-down, right-left moving door
- Connectible maximum 30 units to one controller
- Easy notification of operation status with an operation indicator (ON: green, OFF: red)

Ordering Information

This is only for reference.

For selecting the specified model, follow the Autonics website.

SFN - M - ①

① Cable

020: cable type (2 m)

050: cable type (5 m)

W: cable connector type

Product Components

- Product
- Instruction manual

Specifications

Model		SFN-M-□
Operating distance ⁰¹⁾	OFF→ON	≥ 5 mm
	ON→OFF	≤ 15 mm
Approval	CE (TUV NORD) cUL ^{US LISTED} S	
Unit weight (packaged)	Cable type (2 m): ≈ 100.5 g (≈ 113.8 g)	
	Cable type (5 m): ≈ 199.5 g (≈ 214.8 g)	
	Cable connector type: ≈ 58.1 g (≈ 71.6 g)	
01) It is rated at 23°C of ambient temperature, and it may be differed up to ± 20 % by ambient temperature.		
Power supply	24 VDC± (± 10 %)	
Operating frequency	100 Hz	
Power consumption ⁰¹⁾	≤ 400 mA	
Auxiliary output	PNP open collector output - 24 VDC±, 10 mA	
Operation indicator	ON: green, OFF: red	
Life expectancy	≥ 20,000,000 times (with low load)	
Insulation resistance	≥ 50 MΩ (500 VDC± megger)	
Protection circuit	Surge protection circuit, output short over current protection circuit, reverse polarity protection circuit	
Dielectric strength	1,500 VAC~ 50/60Hz for 1 minute	
Vibration	1.0 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 2 hours	
Vibration (malfunction)	1.0 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 10 min	
Shock	300 m/s ² (≈ 30 G) in each X, Y, Z direction for 3 times	
Shock (malfunction)	300m/s ² (≈ 30G) in each X, Y, Z direction in output ON/OFF status for 3 times	
Ambient temperature	-10 to 55 °C, storage: -20 to 60 °C (no freezing or condensation)	
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)	
Protection structure	IP67 (IEC standard)	
Connection	Cable type / cable connector type model	
Cable	Ø 5 mm, 5-wire, cable type: 2 m / 5 m, cable connector type: 0.3 m	
Wire	AWG26 (0.08 mm), 28-core, core diameter: Ø 0.74 mm	
Connector spec.	M12 plug connector	
Material	Body/CAP: PC	
01) Power to the load is not included.		
Characteristic level / Safety category (with SFC-N322)	IEC 61508 SIL 3 IEC 62061 SIL CL 3 ISO 13849-1 PL e Cat.4 - HFT = 1 - Diagnostic Coverage : 99 % (high) - MTTFd = 100 year (high) - Mission time = 20 year - PFH = 3.88E-09	

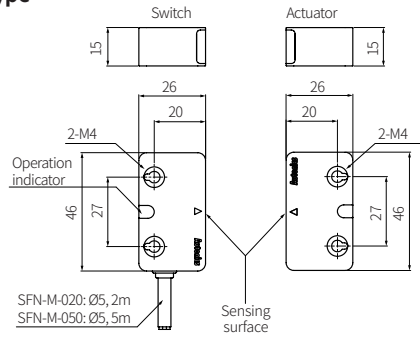
01) Power to the load is not included.

Safety status in case of error: the switch does not have an internal error recognition function, so it cannot maintain a safety status in the event of error.
Error recognition is processed in the connected controller (SFC-N322).

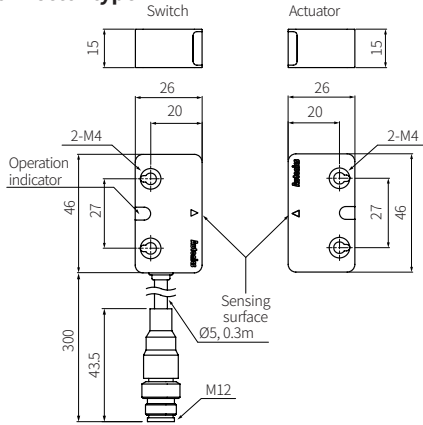
Dimensions

• Unit: mm, For the detailed drawings, follow the Autonics website.

■ Cable type



■ Cable connector type



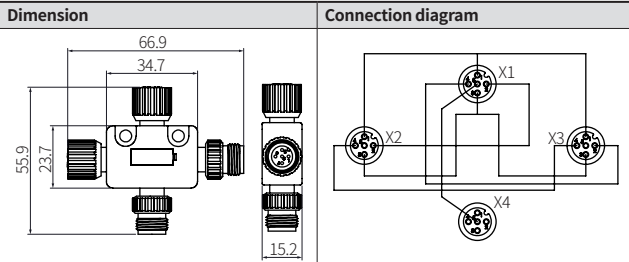
Sold Separately

- Connector cable: C1D5-□, CID5-□, CID5-□P
- Branch connector: CCD5-SFN, CYD5-SFN
- Loop connector: CND5-SFN
- Safety controller non-contact door switch unit: SFC-N322

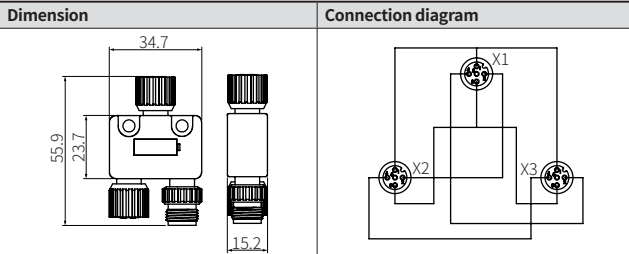
Sold Separately: Branch Connector

• Unit: mm, For the detailed drawings, follow the Autonics website.

■ CCD5-SFN



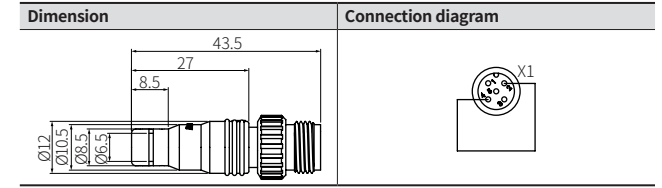
■ CYD5-SFN



Sold Separately: Loop Connector

- Unit: mm, For the detailed drawings, follow the Autonics website.
- When using the branch connector, use the loop connector together.

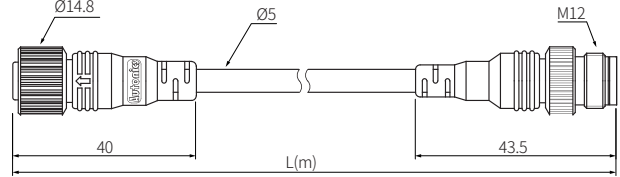
■ CND5-SFN



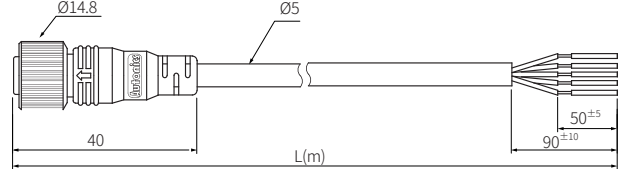
Sold Separately: Connector Cable

- Unit: mm, For the detailed drawings, follow the Autonics website.
- □ in model stands for the cable length.

■ C1D5-□



■ CID5-□



■ CID5-□P

