

Safety

Non-Contact Door Switches

SFN Series



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)

Specifications

Model	SFN-M-□	
Operating distance ⁰¹⁾	OFF→ON	≥ 5 mm
	ON→OFF	≤ 15 mm
Approval	CE (TUV NORD) ·	
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
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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).



View product detail