

Make Life Easy



Ensuring Your Protection in Potentially Dangerous Areas



The Key to Your Safety

Safety Door Switches SFD Series

The SFD series safety door switches can detect opening and closing of doors in machines. The head can be rotated to change the insert direction of the operation key from 5 directions, with 6 available operation key types. Also, the door switches are available in terminal type and connector type models, making it easier for installation in diverse application settings.



Change Head Direction



Various Operation Keys



Protection Rating (Body)

www.autonics.com

Autonics

Ordering Information

SFD - ① - ② - ③ ④

① Head materials

No mark: Plastic
M: Metallic

② Contact composition

AB: 1 N.O., 1 N.C.
2B: 2 N.C.
A2B: 1 N.O., 2 N.C.
3B: 3 N.C.

③ Connection outlet

No mark: 1
2: 2

④ Connection outlet specification

M20: M20 thread
G1/2: G1/2 thread
C: M12 connector

Contact Composition and Operation

Contact composition represents the locked status with the operation key inserted.

■: ON, □: OFF

Model	Contact	Contact composition	Contact operation
SFD-□AB-□□	1 N.C., 1 N.O.		
SFD-□2B-□□	2 N.C.		
SFD-□A2B-□□	2 N.C., 1 N.O.		
SFD-□3B-□□	N.C. 3		

Specifications

Model	SFD-□□-□M20	SFD-□□-□G1/2	SFD-□□-□C
Rated voltage/current for load	Resistive load: 6 A/250 VAC~, 0.6 A/250 VDC~ Inductive load (IEC): AC-15 3 A/240 VAC~, DC-13 0.27 A/250 VDC~ Inductive load (UL): A300, Q300		
Directing opening force	≥ 80 N		
Directing opening distance	≥ 10 mm		
Operating speed	0.05 to 1 m/s		
Operating frequency	≤ 20/min		
Insulation resistance	≥ 100 MΩ (500 VDC~ megger)		
Contact resistance	≤ 50 mΩ (initial value)		
Impulse dielectric strength	Between the terminals: 2 kV (IEC 60947-5-1) Between each terminal and non-live part: 5 kV (IEC 60947-5-1)		
Conditional short circuit current	100 A		
Life cycle	Electrical: ≥ 100,000 operations (240 VAC~ 6 A) Mechanical: ≥ 1,000,000 operations		
Vibration (malfunction)	0.75 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 10 min		
Shock	1,000 m/s ² (≈ 100 G) in each X, Y, Z direction for 3 times		
Shock (malfunction)	300 m/s ² (≈ 30 G) in each X, Y, Z direction for 3 times		
Ambient temperature	-30 to 70°C, storage: -40 to 70 °C ⁰¹⁾ (a non freezing or condensation environment)		
Ambient humidity	35 to 90 %RH, storage: 35 to 90 %RH (a non freezing or condensation environment)		
Protection structure	IP67 ⁰²⁾ (IEC standard, except for head)		
Material	Plastic head - polyamide 6, metallic head - zinc case: polyamide 6, operation key: stainless steel 304		
Approval			
Connection type	M20 connector cable	G1/2 connector cable	M12 connector
Unit weight (packaged)	• 1 connection outlet plastic: ≈ 80 g (≈ 120 g) metallic: ≈ 110 g (≈ 150 g) • 2 connection outlet plastic: ≈ 110 g (≈ 140 g) metallic: ≈ 130 g (≈ 170 g)		plastic: ≈ 85 g (≈ 130 g) metallic: ≈ 115 g (≈ 160 g)

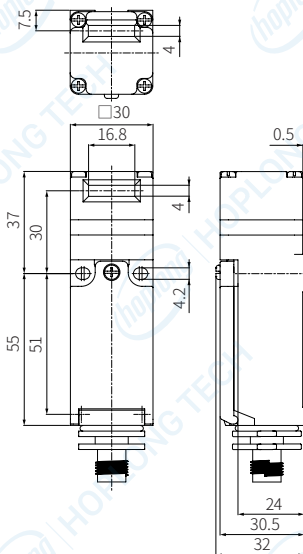
01) UL approved ambient temperature: 65°C

02) Rated protection structure is for the switch body. Be cautious about preventing the head part from entering the foreign materials such as dust and water.

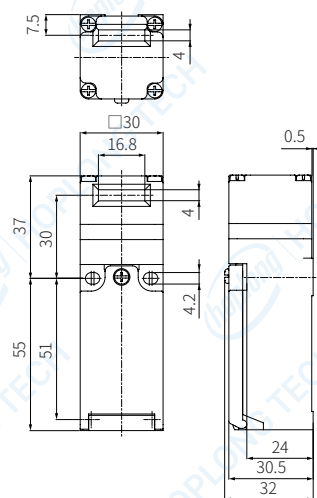
Dimensions

• Unit: mm, For the detailed dimensions of the product, follow the Autonics web site.

■ Connector type



■ 1 connection outlet terminal type



■ 2 connection outlet terminal type

