Make Life Easy

Ensuring Your Protection in Potentially Dangerous Areas

The Key to Your Safety

Safety Door Switches SFDL Series

The SFDL series safety door lock switches can detect opening and closing of doors in machines, and also keep the door locked during potentially dangerous operation. 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 and the release keys are available in cross type and special types, making it easier for installation in diverse application settings.

Change Head Direction | Various Operation Keys | Protection Rating (Body)

www.autonics.com

Autonics

Safety Door Lock Switches

Ordering Information_SFDL

SFDL - ❶ ❷ ❸ - ❹ ❺ ❻

❶ Lock/Release method
M: Mechanical Lock/Solenoid Release
S: Solenoid Lock/Mechanical Release

❷ Contact
No-mark: 4-contct (connected)
C: 4-contact (not connected)
5: 5-contact
6: 6-contact

❹ Connection type
No-mark: Terminal type
C: Connector type

❺ Connection outlet specification
M20: M20 thread
G1/2: G1/2 thread

❻ Release key type
No-mark: Cross type
K: Special type

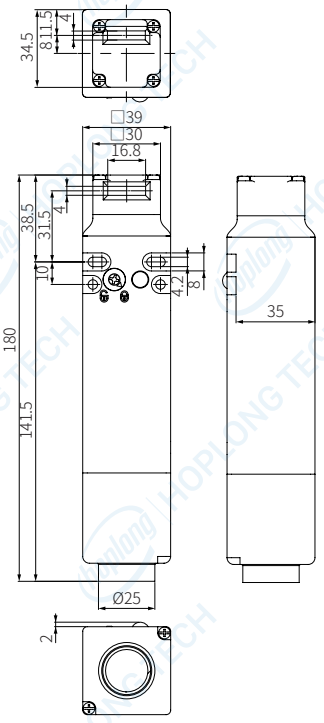
❸ Contact composition

	4-contact	5-contact	6-contact
A	Lock 1 N.C. / 1 N.O. + Door 1 N.C. / 1 N.O.	Lock 1 N.C. / 1 N.O. + Door N.C. 2 / N.O. 1	Lock 2 N.C. /1 N.O. + Door 2 N.C. /1 N.O.
B	Lock N.C. 2 + Door N.C. 1 / N.O. 1	Lock N.C. 2 + Door N.C. 2 / N.O. 1	Lock N.C. 3 + Door N.C. 2/N.O. 1
C	Lock N.C. 1 / N.O. 1 + Door N.C. 2	Lock N.C. 1 / N.O. 1 + Door N.C. 3	Lock N.C. 2/N.O. 1 + Door N.C. 3
D	Lock N.C. 2 + Door N.C. 2	Lock N.C. 2 + Door N.C. 3	Lock N.C. 3 + Door N.C. 3

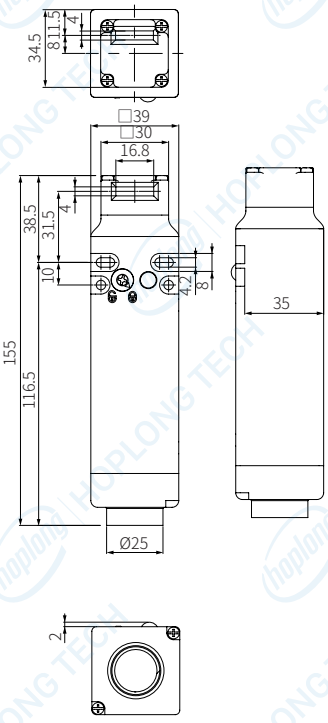
Dimensions_SFDL

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

■ Terminal type



■ Connector type



Specifications_SFDL-SDK

Model	SFDL-SDK
Ambient temperature	-10 to 55°C, storage: -20 to 75°C (non-freezing or non-condensation)
Ambient humidity	≤ 95%RH, storage: 35 to 85%RH (non-freezing or non-condensation)
Mechanical durability	≥ 20,000 times
Material	Polyamide 66
Unit weight (Packaged)	≈ 720 g (≈ 900g)

Specifications_SFDL

Model	SFDL-□□□-□□	SFDL-□□□-C□□
Directing opening force	≥ 80 N	
Directing opening distance	≥ 10 mm	
Locking pullout strength	≥ 1,300 N	
Operating speed	0.05 to 1 m/s	
Operating frequency	≤ 20/min	
Machanical life cycle	≥ 1,000,000 operations (20/min)	
Vibration (malfunction)	0.35mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 10 min	
Shock	1,000 m/s² (≈ 100 G) in each X, Y, Z direction for 3 times	
Shock (malfunction)	80 m/s² (≈ 8 G) in each X, Y, Z direction for 3 times	
Ambient temperature	-10 to 55°C 01) storage: -25 to 65 °C (a non freezing or condensation environment)	
Ambient humidity	35 to 85 %RH , storage: 35 to 85 %RH (a non freezing or condensation environment)	
Protection structure	IP67 02) (IEC standard, except for head)	
Material	Head: zinc, case: polyamide 66, operation key: stainless steel 304	
Approval	CE cULus EAC KC	
Accessory	SFDL-□□□-□□K (Special type release keyse key) : rotating key	
Applicable cable	AWG22	–
Connection type	Terminal type	Connector type
Unit weight (packaged)	≈ 375 g (≈ 440 g)	≈ 325 g (≈ 395 g)

01) UL approved ambient temperature: 50°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.

Contact block	
Rated voltage/current for load	Resistive load: 1 A/120 VAC~, 0.22 A/125 VDC⎓ Inductive load (IEC): AC-15 1 A/120 VAC~, DC-13 0.22 A/125 VDC⎓ Inductive load (UL): C150, R150
Impulse dielectric strength	Between the terminals of same polarity: 1.5 kV Between the terminals of different polarity: 1.5 kV Between each terminal and non-live part: 2.5kV
Insulation resistance	≥ 100 MΩ (500 VDC⎓ megger)
Contact resistance	≤ 200 mΩ
Electrical life cycle	≥ 100,000 operations (125 VAC~/1 A)
Conditional short-circuit current	100 A
Solenoid	
Rated voltage	24 VDC⎓, class 2
Current consumption	Supplying power: 0.26A Normal: max. 0.2A (approx. 3 seconds after supplying power)
Insulation class	Class E

Unit Description_SFDL-SDK