

# Safety Door Switch



## Ordering Information

This is only for reference, the actual product does not support all combinations. For selecting the specified model, follow the Autonics website.

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

## Specifications

Model	SFD-□□-□M20	SFD-□□-□G1/2	SFD-□□-C
<b>Rated voltage/current for load</b>	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		
<b>Directing opening force</b>	≥ 80 N		
<b>Directing opening distance</b>	≥ 10 mm		
<b>Operating speed</b>	0.05 to 1 m/s		
<b>Operating frequency</b>	≤ 20/min		
<b>Insulation resistance</b>	≥ 100 MΩ (500 VDC== megger)		
<b>Contact resistance</b>	≤ 50 mΩ (initial value)		
<b>Impulse dielectric strength</b>	Between the terminals: 2 kV (IEC 60947-5-1) Between each terminal and non-live part: 5 kV (IEC 60947-5-1)		
<b>Conditional short circuit current</b>	100 A		
<b>Life cycle</b>	Electrical: ≥ 100,000 operations (240 VAC~ 6 A) Mechanical: ≥ 1,000,000 operations		
<b>Vibration (malfunction)</b>	0.75 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 10 min		
<b>Shock</b>	1,000 m/s <sup>2</sup> (≈ 100 G) in each X, Y, Z direction for 3 times		
<b>Shock (malfunction)</b>	300 m/s <sup>2</sup> (≈ 30 G) in each X, Y, Z direction for 3 times		
<b>Ambient temperature</b>	-30 to 70°C, storage: -40 to 70°C <sup>01)</sup> (no freezing or condensation)		
<b>Ambient humidity</b>	35 to 90 %RH, storage: 35 to 90 %RH (no freezing or condensation)		
<b>Protection structure</b>	IP67 <sup>02)</sup> (IEC standard, except for head)		
<b>Material</b>	Plastic head - polyamide 6, metallic head - zinc case: polyamide 6, operation key: stainless steel 304		
<b>Approval</b>	CE (TUV NORD)    		
<b>Connection type</b>	M20 connector cable	G1/2 connector cable	M12 plug connector
<b>Unit weight (packaged)</b>	<ul style="list-style-type: none"> <li>1 connection outlet plastic: ≈ 80 g (≈ 120 g)</li> <li>metallic: ≈ 110 g (≈ 150 g)</li> <li>2 connection outlet plastic: ≈ 110 g (≈ 140 g)</li> <li>metallic: ≈ 130 g (≈ 170 g)</li> </ul>		<ul style="list-style-type: none"> <li>Plastic: ≈ 85 g (≈ 130 g)</li> <li>Metallic: ≈ 115 g (≈ 160 g)</li> </ul>

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.

## SFD 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.

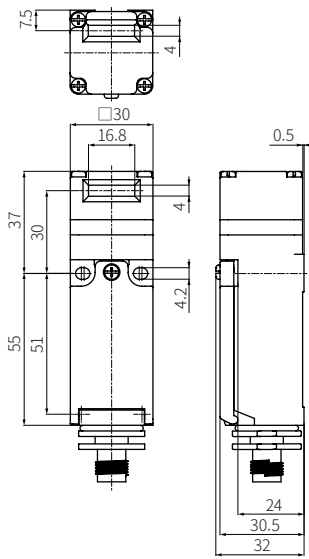
### Main Features

- Available to change the direction of inserting the operation key by rotating head : Inserting the operation key from 5 directions in the top and side
- Various kinds of contact composition : 1 N.O.+1 N.C., 2 N.C., 1 N.O.+2 N.C., 3 N.C.
- Selectable between connector type which reduces working process and terminal type which is useful for maintenance
- Selectable head material between metal and plastic

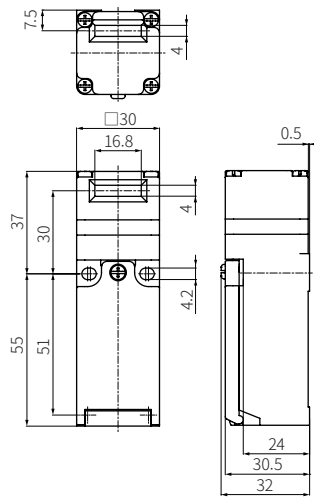
## Dimensions

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

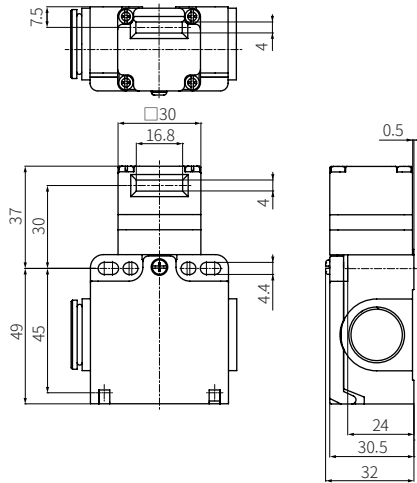
### ■ Connector type



### ■ 1 connection outlet terminal type

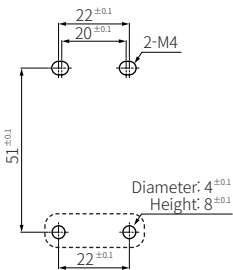


### ■ 2 connection outlet terminal type

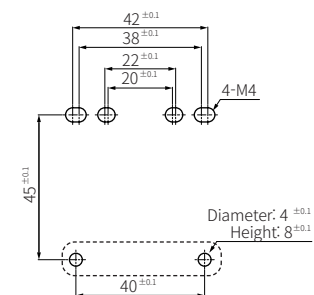


### ■ Mounting hole cut-out

• 1 connection outlet



• 2 connection outlet



⊞ is installing spot of protrusion for fixing the switch firmly.

## Sold Separately

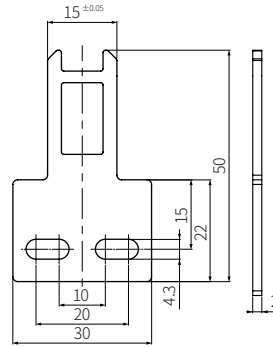
• Operation key: SFD-K□

• M12 Connector cable: CID / CLD Series

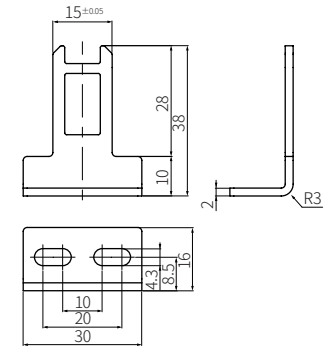
## Sold Separately: Operation Key

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

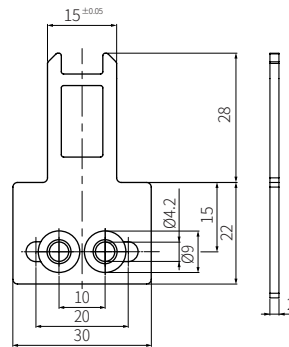
### ■ SFD-KH



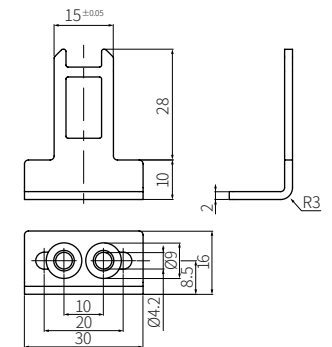
### ■ SFD-KL



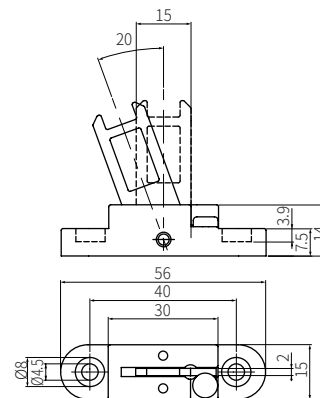
### ■ SFD-KHR



### ■ SFD-KLR



### ■ SFD-KLF, SFD-KLF2



Model	Material
SFD-KLF	Operation key: stainless steel 304, base: polyamide
SFD-KLF2	Operation key: stainless steel 304, base: zinc