

Ø22/25 mm Round Mount Emergency Stop Switches



SF2ER 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

- Easy mounting and removing of Contact Units using a lever
- Adoptable maximum three contact units in series to improve wiring efficiency
- Available to install using either round or forked crimp terminals
- Oil resistant to IP65 protection structure
- Circuit interruption function with a direct opening mechanism for the occurrence of error such as contact weld
- Supplying a various kind of accessories for improving usability
 - Ø22/25mm guard ring for emergency stop switches
 - Ø22/25mm name plate for emergency stop switches
 - Ø22/25mm contact block for emergency stop switches

Ordering Information

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

SF2ER - E ① R ② - ③

① Button

- 1: D30 (short head, non-illuminated)
- 2: D40 (short head, non-illuminated)

③ Mark

- No-mark: No-mark
- A: EMO
- S: EMS

② Contact block

- B: B contact: 1
- AB: A contact: 1, B contact: 1
- 2B: B contact: 2
- A2B: A contact: 1, B contact: 2
- 3B: B contact: 3

Specifications

Model	SF2ER-□□□□-□
Rated voltage/current	IEC: AC-15 (220 VAC~, 3 A), DC-13 (220 VDC~, 0.2 A) UL: A300, Q300
Contact operating power	3.0 to 8.0 N/ 1 contact
Operation distance	5.0 mm (0/-0.5)
Rotation angle	CW (clock wise) 52 °
Allowable operation frequency⁰¹⁾	Mechanical: 20 times/minute, electrical: 20 times/minute
Life cycle	Mechanical: ≥ 250,000 times, electrical: ≥ 100,000 times
Applicable wire	AWG 18 (0.823 mm ²)
Insulation resistance	≥ 100 MΩ (500 VDC≐ megger)
Dielectric strength	2,500 VAC~ 50/60 Hz for 1 minute
Vibration	1.5 mm double amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 2 hours
Vibration (malfunction)	1.5 mm double amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 10 minutes
Shock	1,000 m/s ² (≈ 100 g) in each X, Y, Z direction for 3 times
Shock (malfunction)	250 m/s ² (≈ 25 g) in each X, Y, Z direction for 3 times
Ambient temperature	-20 to 65°C ⁰²⁾ , storage: -40 to 70 °C (at no freezing or condensation)
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (at no freezing or condensation)
Protection structure	IP65 ⁰³⁾ (oil resistant, IEC standards)
Material	Button: PC, body: PA6, lever in fixing unit: PA6
Approval	CE, UL LISTED, TÜV NORD, S, CCC
Weight⁰⁴⁾	≈ 66g

01) Setting and resetting once is counted as one operation.

02) UL approved ambient temperature: 55 °C

03) It is only for part from front of the panel. Protection structure is guaranteed only when the switch is installed on flat and smooth surface with mounting holes Ø22mm.

04) It is switch with three contact blocks.

■ Contact capacity

• IEC (EN60947-5-1)

Rated current	10 A				
Rated voltage	24 V	110 V	220 V	380 V	
AC	Resistive load (AC-12)	10 A	10 A	6 A	3 A
	Inductive load (AC-15)	10 A	5 A	3 A	2 A
DC	Resistive load (DC-12)	10 A	2 A	0.6 A	0.2 A
	Inductive load (DC-13)	1.5 A	0.5 A	0.2 A	0.1 A

• UL / CSA (UL508, CSA C22.2 No. 14)

A300

Rated voltage	Through current	Current (A)		Volt ampere (VA)	
		Making	Breaking	Making	Breaking
AC120V	10 A	60	6	7,200	720
AC240V		30	3		

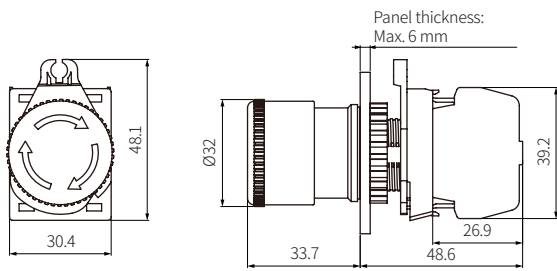
Q300

Rated voltage	Through current	Current (A)		Volt ampere (VA)	
		Making	Breaking	Making	Breaking
DC125 V	2.5 A	0.55	0.55	69	69
DC250 V		0.27	0.27		

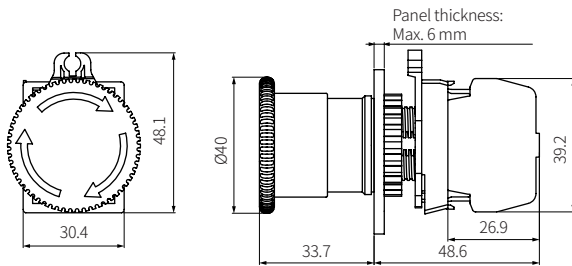
Dimensions

- Unit: mm, For the detailed drawings, follow the Autonics website.
- Drawings show the no-mark model.

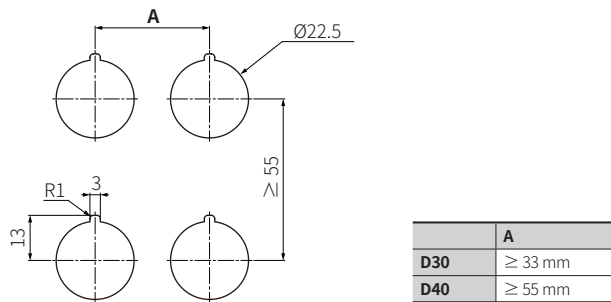
■ D30 (short head, non-illuminated)



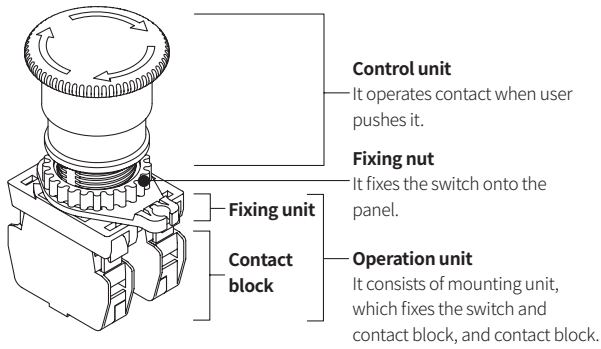
■ D40 (short head, non-illuminated)



■ Panel cut-out



Parts Descriptions



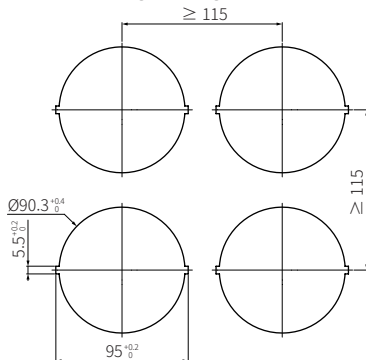
Sold Separately

Guard ring

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

Item	Appearance	Model
Standard type	<p>Color: ● ○</p> <p>●: GUARD-SF2ER ○: GUARD-SF2ER-W</p>	
Circle type	<p>Color: ● ○</p> <p>●: GUARD2-SF2ER ○: GUARD2-SF2ER-W</p>	
Lock type	<p>Color: ●</p> <p>This guard ring is sold only as protection guard ring + name plate set. (single metal latch sold separately; GUARD3-SF2ER-L)</p>	
Metal type	<p>Color: ●</p> <p>GUARD2-SF2ER-M</p>	
Embedded type (no spacer)	<p>Color: ●</p> <p>Panel thickness: 1.3 to 22.5</p> <p>GUARD4-SF2ER</p>	
Embedded type (spacer × 1)	<p>Color: ●</p> <p>Panel thickness: 1.3 to 12.5</p> <p>GUARD41-SF2ER</p>	
Embedded type (spacer × 2)	<p>Color: ●</p> <p>Panel thickness: 1.3 to 2.5</p> <p>GUARD42-SF2ER</p>	

Embedded type guard ring panel cut-out



Name plate

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

Item	Appearance	Model
Ø 90, STOP	<p>Size: D90 × d25 Thickness: 1</p>	SF2ER-B
Ø 90, OFF	<p>Size: D90 × d25 Thickness: 1</p>	SF2ER-B2
Ø 60, STOP	<p>Size: D60 × d25 Thickness: 1</p>	SF2ER-B3
Ø 60, OFF	<p>Size: D60 × d25 Thickness: 1</p>	SF2ER-B4

Guard ring + name plate set

• The thickness of the name plate included in the guard ring + name plate set is 0.5 mm.

Guard ring	Name plate	Model
Standard type	Ø 60, STOP	GUARD-SF2ER-S
	Ø 60, OFF	GUARD-SF2ER-A
Standard type white	Ø 60, STOP	GUARD-SF2ER-S-W
	Ø 60, OFF	GUARD-SF2ER-S-W
Circle type	Ø 60, STOP	GUARD2-SF2ER-S
	Ø 60, OFF	GUARD2-SF2ER-A
Circle type white	Ø 60, STOP	GUARD2-SF2ER-S-W
	Ø 60, OFF	GUARD2-SF2ER-S-W
Lock type	Ø 60, STOP	GUARD3-SF2ER-S
	Ø 60, OFF	GUARD3-SF2ER-A
Metal type	Ø 60, STOP	GUARD2-SF2ER-S-M
	Ø 60, OFF	GUARD2-SF2ER-A-M

Radial support

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

Item	Appearance	Model
Rubber packing	<p>Size: Ø25</p>	BK-SF2ER-RP
Radial support	<p>Size: Ø22</p>	BK-SF2ER-P

Contact block

Item	Appearance	Model
A contact (Normally Open)		SFEA-CA
B contact (Normally Closed)		SFEA-CB