

Ø 16 mm Emergency Switches



S16ER 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.

Features

- Compact, space-saving 16 mm installation diameter
- Short rear-length size of only 29.5 mm
- Independent detachable contacts

Specifications

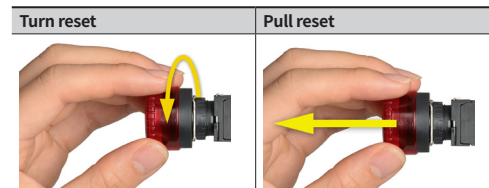
Series	S16ER Series
Actuation distance	2 to 4 mm
Actuation angle	35° ± 7°
Actuation force	1.7 to 4.7 kgf (17 to 47 N)
Installation	Extended
Shock	500 m/s ² (≈ 30 G) in each X, Y, Z direction for 3 times
Shock (malfunction)	100 m/s ² (≈ 10 G) in each X, Y, Z direction for 3 times
Vibration	1.5 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 2 hours
Vibration (malfunction)	1.5 mm amplitude at frequency of 10 to 55Hz (for 1 min) in each X, Y, Z direction for 10 minutes
Mechanical life cycle (control unit life cycle)	≥ 100,000 operations (20 operations/min)
Ambient temperature	-15 to 55 °C, storage: -25 to 65 °C (no freezing or condensation)
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)
Protection structure	Control unit: IP65 (IEC standard)
Approval	CE ⁽⁰¹⁾
Control unit weight	≈ 11.5 g
Housing weight	≈ 1.4 g

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Contact blocks	
Power supply / current	250 VAC~ / 3 A
Dielectric strength	2,000 VAC~ 50/60 Hz for 1 minute (between other polarities), 1,000 VAC~ 50/60 Hz for 1 minute (between same polarities)
Insulation resistance	≥ 100 MΩ (500 VDC= megger)
Contact resistance	≤ 50 mΩ (initial)
Electrical life cycle	≥ 100,000 operations (20 operations/min)
Contact material	AgNi10
Terminal tensile force	≤ 30 N
Terminal soldering time	At the end of tips within 3 sec with 350 °C (30 W-soldering machine)
Approval	CE
Weight	≈ 1.6 g
LED blocks	
Rated voltage	5 / 12 / 24 VDC= model
Current consumption	Refer to the below Current consumption table.
Approval	CE
Weight	≈ 1.9 g

Current consumption	Red	Blue	Green	Yellow	White
SA16-L5□ (5 VDC=)	6 to 9 mA	10 to 14 mA	5 to 7 mA	12 to 16 mA	10 to 14 mA
SA16-L12□ (12 VDC=)	9 to 14 mA	10 to 15 mA	5 to 9 mA	10 to 16 mA	9 to 14 mA
SA16-L24□ (24 VDC=)	15 to 20 mA	20 to 26 mA	16 to 22 mA	27 to 35 mA	23 to 30 mA

Reset



Sold Separately

- Contact blocks (SA□-C□□)
- LED blocks (SA□-L□□□)
- Locking handle (SA□-LH)

Ordering Information

This is only for reference. For selecting the specified model, follow the Autonics website.

Model is based on control unit+block combination. Control units or blocks are sold separately. In case of block, refer to control switch accessories.

■ Non-illuminated

S16ER	-	E	1	R	①
Control unit					Block

① Contact block

B: 1 B contact
2B: 2 B contacts

■ Illuminated

S16ER	-	E	3	R	① ②
Control unit					Block

① Contact block

B: 1 B contact
2B: 2 B contacts

② LED block

5: 5 VDC=
12: 12 VDC=
24: 24 VDC=

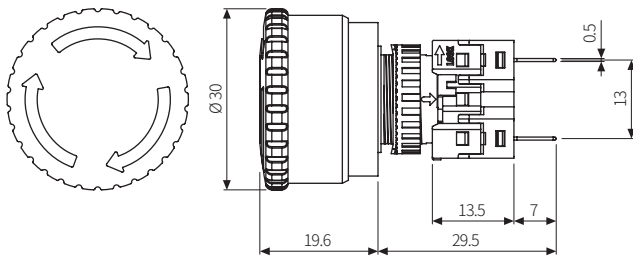
Model	Contact block	LED block
	B contact	DC voltage
S16ER-E1RB	1	-
S16ER-E1R2B	2	-

Model	Contact block	LED block
	B contact	DC voltage
S16ER-E3RB5	1	1 (5 VDC=)
S16ER-E3RB12		1 (12 VDC=)
S16ER-E3RB24		1 (24 VDC=)
S16ER-E3R2B5	2	1 (5 VDC=)
S16ER-E3R2B12		1 (12 VDC=)
S16ER-E3R2B24		1 (24 VDC=)

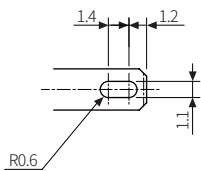
Dimensions

- Unit: mm, For the detailed drawings, follow the Autonics website.
- Panel thickness: ≤ 3.5 mm

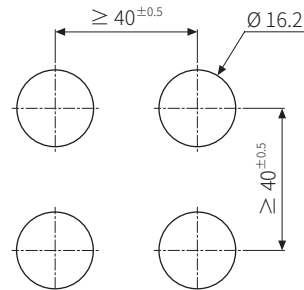
■ S16ER-□



■ Terminal pin















■ Panel cut-out



Ø 16 mm Control Switches Accessories

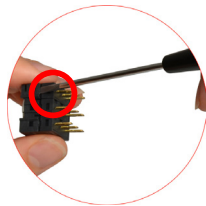
Contact Blocks (SA16-C□□)

Model	Contact	Applied switches	Appearance
SA16-CC	C contact (normally open, normally closed)	Ø 16 mm control switches (except Ø 16 mm emergency switches)	
SA16-CB	B contact (normally closed)	Ø 16 mm emergency switches	


Power supply/current	250 VAC~ / 3 A
Dielectric strength	2,000 VAC~ 50/60 Hz for 1 minute (between other polarities), 1,000 VAC~ 50/60 Hz for 1 minute (between same polarities)
Insulation resistance	≥ 100 MΩ (500 VDC~ megger)
Contact resistance	≤ 50 mΩ (initial)
Electrical life cycle	≥ 100,000 operations (20 operations/min)
Contact material	AgNi10
Terminal tensile force	≤ 30 N
Terminal soldering time	At the end of tips within 3 sec with 350 °C (30 W-soldering machine)
Approval	CE          
Weight	≈ 1.6 g

■ Removal











Separate the unit using a flat-head (-) screwdriver.



LED Blocks (SA16-L□□)

Model	Power supply	Applied switches	Appearance
SA16-L5□	5 VDC~	Ø 16 mm control switches for illuminated type, pilot lights	
SA16-L12□	12 VDC~		
SA16-L24□	24 VDC~		

□ : Color (R: Red / B: Blue / G: Green / Y: Yellow / W: White)

Rated voltage	5 / 12 / 24 VDC~ model
Current consumption	Refer to the below Current consumption table.
Approval	CE          
Weight	≈ 1.9 g

■ Current consumption

Rated voltage	LED color				
	Red	Blue	Green	Yellow	White
5 VDC~	6 to 9 mA	10 to 14 mA	5 to 7 mA	12 to 16 mA	10 to 14 mA
12 VDC~	9 to 14 mA	10 to 15 mA	5 to 9 mA	10 to 16 mA	9 to 14 mA
24 VDC~	15 to 20 mA	20 to 26 mA	16 to 22 mA	27 to 35 mA	23 to 30 mA

■ Removal

Separate the unit using a flat-head (-) screwdriver. Same as contact removal method.

Locking Handle (SA□ -LH)

• For locking switch nuts behind the panels.

Model	Applied switches	Appearance
SA16-LH	Ø 16 mm Control switches, Pilot lights	