

Ø 16 mm Push Button Switches



S16PR 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 | S16PR Series |
|---|--|
| Actuation distance | 3 mm |
| Actuation force | 0.2 to 0.35 kgf (2 to 3.5 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) | Returned: ≥ 1 million operations (20 operations/min) Maintained: ≥ 200,000 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 | Round: ≈ 3.8 g, Square: ≈ 4.4 g, Rectangular: ≈ 5.1 g |
| Housing weight | ≈ 1.4 g |

01) IEC-60947-5-1

| 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 consumptions | 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 |

Sold Separately

- Contact blocks (SA□-C□□)
- LED blocks (SA□-L□□□)
- Locking handle (SA□-LH)
- Lens remover (SA16-RM)

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

| | | | | | | |
|--------------|----------|--------------|----------|----------|----------|----------|
| S16PR | 1 | - | 2 | 3 | 4 | 5 |
| | | Control unit | | | | Block |

1 Appearance

No mark: Round
S: Square
T: Rectangular

4 Button color

R: Red
B: Blue
G: Green
Y: Yellow
W: White

2 Guard type

E: None (extended, round)
H: Half guard (square / rectangular)

5 Contact block

C: 1 C contact
2C: 2 C contacts
3C: 3 C contacts

3 Operation

1: Returned
2: Maintained

| Model | Contact block | LED block |
|--------------|---------------|------------|
| | C contact | DC voltage |
| S16PR-E1□C | 1 | |
| S16PR-E1□2C | 2 | - |
| S16PR-E1□3C | 3 | |
| S16PR-E2□C | 1 | |
| S16PR-E2□2C | 2 | - |
| S16PR-E2□3C | 3 | |
| S16PRS-H1□C | 1 | |
| S16PRS-H1□2C | 2 | - |
| S16PRS-H1□3C | 3 | |
| S16PRS-H2□C | 1 | |
| S16PRS-H2□2C | 2 | - |
| S16PRS-H2□3C | 3 | |
| S16PRT-H1□C | 1 | |
| S16PRT-H1□2C | 2 | - |
| S16PRT-H1□3C | 3 | |
| S16PRT-H2□C | 1 | |
| S16PRT-H2□2C | 2 | - |
| S16PRT-H2□3C | 3 | |

■ Illuminated

| | | | | | | | |
|--------------|----------|--------------|----------|----------|----------|----------|----------|
| S16PR | 1 | - | 2 | 3 | 4 | 5 | 6 |
| | | Control unit | | | | Block | |

1 Appearance

No mark: Round
S: Square
T: Rectangular

4 Button color

R: Red
B: Blue
G: Green
Y: Yellow
W: White

2 Guard type

E: None (extended, round)
H: Half guard (square / rectangular)

5 Contact block

C: 1 C contact
2C: 2 C contacts

3 Operation

3: Returned
4: Maintained

6 LED block

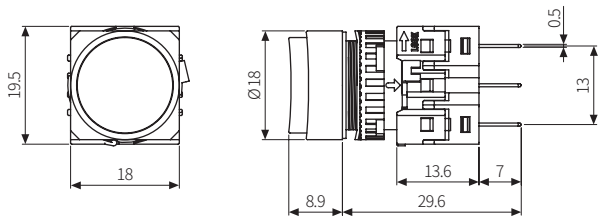
5: 5 VDC=
12: 12 VDC=
24: 24 VDC=

| Model | Contact block | LED block |
|----------------|---------------|-------------|
| | C contact | DC voltage |
| S16PR-E3□C5 | | 1 (5 VDC=) |
| S16PR-E3□C12 | 1 | 1 (12 VDC=) |
| S16PR-E3□C24 | | 1 (24 VDC=) |
| S16PR-E3□2C5 | | 1 (5 VDC=) |
| S16PR-E3□2C12 | 2 | 1 (12 VDC=) |
| S16PR-E3□2C24 | | 1 (24 VDC=) |
| S16PR-E4□C5 | | 1 (5 VDC=) |
| S16PR-E4□C12 | 1 | 1 (12 VDC=) |
| S16PR-E4□C24 | | 1 (24 VDC=) |
| S16PR-E4□2C5 | | 1 (5 VDC=) |
| S16PR-E4□2C12 | 2 | 1 (12 VDC=) |
| S16PR-E4□2C24 | | 1 (24 VDC=) |
| S16PRS-H3□C5 | | 1 (5 VDC=) |
| S16PRS-H3□C12 | 1 | 1 (12 VDC=) |
| S16PRS-H3□C24 | | 1 (24 VDC=) |
| S16PRS-H3□2C5 | | 1 (5 VDC=) |
| S16PRS-H3□2C12 | 2 | 1 (12 VDC=) |
| S16PRS-H3□2C24 | | 1 (24 VDC=) |
| S16PRS-H4□C5 | | 1 (5 VDC=) |
| S16PRS-H4□C12 | 1 | 1 (12 VDC=) |
| S16PRS-H4□C24 | | 1 (24 VDC=) |
| S16PRS-H4□2C5 | | 1 (5 VDC=) |
| S16PRS-H4□2C12 | 2 | 1 (12 VDC=) |
| S16PRS-H4□2C24 | | 1 (24 VDC=) |
| S16PRT-H3□C5 | | 1 (5 VDC=) |
| S16PRT-H3□C12 | 1 | 1 (12 VDC=) |
| S16PRT-H3□C24 | | 1 (24 VDC=) |
| S16PRT-H3□2C5 | | 1 (5 VDC=) |
| S16PRT-H3□2C12 | 2 | 1 (12 VDC=) |
| S16PRT-H3□2C24 | | 1 (24 VDC=) |
| S16PRT-H4□C5 | | 1 (5 VDC=) |
| S16PRT-H4□C12 | 1 | 1 (12 VDC=) |
| S16PRT-H4□C24 | | 1 (24 VDC=) |
| S16PRT-H4□2C5 | | 1 (5 VDC=) |
| S16PRT-H4□2C12 | 2 | 1 (12 VDC=) |
| S16PRT-H4□2C24 | | 1 (24 VDC=) |

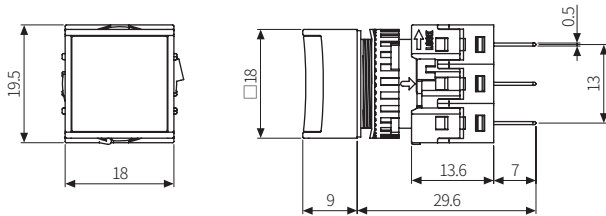
Dimensions

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

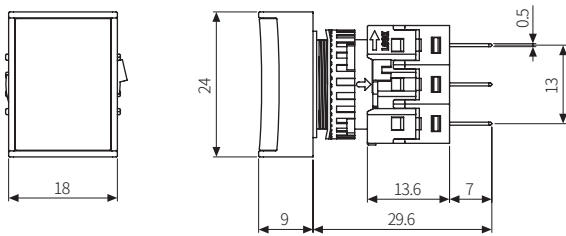
■ S16PR-E (extended, round)



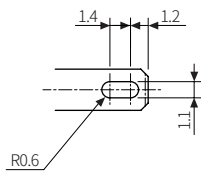
■ S16PRS-H (square, half guard)



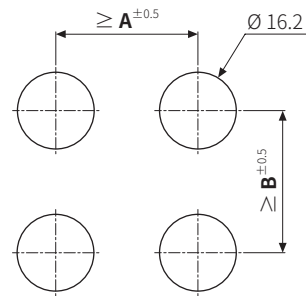
■ S16PRT-H (rectangular, half guard)



■ Terminal pin



■ Panel cut-out



| | A | B |
|-------------|----|----|
| Round | 20 | 21 |
| Square | 20 | 21 |
| Rectangular | 25 | 21 |