

Ø 16 mm Push Button Switches

S16PR Series



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 55 Hz (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 TÜV ERIC				
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 TÜV ERIC				
Weight	≈ 1.6 g				
LED blocks					
Rated voltage	5 / 12 / 24 VDC== model				
Current consumption	Refer to the below Current consumption table.				
Approval	CE TÜV ERIC				
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



View product detail

Ø 16 mm

Selector Switches

S16SR Series



Features

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

Specifications

Series	S16SR Series
Actuation angle	2-position: 90°±5°, 3-position: 45°±5°
Actuation force	20 to 120 N·mm
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 55 Hz (for 1 min) in each X, Y, Z direction for 10 minutes
Mechanical life cycle (control unit life cycle)	≥ 250,000 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: ≈ 6.6 g, Square: ≈ 6.8 g, Rectangular: ≈ 7.7 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



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Ø 16 mm Key Selector Switches

S16KR Series



Features

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

Specifications

Series	S16KR Series
Actuation angle	2-position: 90°±5°, 3-position: 45°±5°
Actuation force	20 to 120 N·mm
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 55 Hz (for 1 min) in each X, Y, Z direction for 10 minutes
Mechanical life cycle (control unit life cycle)	≥ 250,000 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, c, UL, ENEC, ERI, CCC
Control unit weight	Round: ≈ 16 g, Square: ≈ 16.2 g, Rectangular: ≈ 17.1 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, UL, ENEC, ERI
Weight	≈ 1.6 g

LED blocks	
Rated voltage	5 / 12 / 24 VDC== model
Current consumption	Refer to the below Current consumption table.
Approval	CE, UL, ENEC, ERI
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



View product detail

Ø 16 mm

Mushroom-Head

Push Button

Switches

S16BR Series



Features

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

Specifications

Series	S16BR 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 55 Hz (for 1 min) in each X, Y, Z direction for 10 minutes
Mechanical life cycle (control unit life cycle)	≥ 1 million 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	≈ 4.1 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



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Ø 16 mm Emergency Switches

S16ER Series



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 TÜV ENEC
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 TÜV ENEC				
Weight	≈ 1.6 g				
LED blocks					
Rated voltage	5 / 12 / 24 VDC== model				
Current consumption	Refer to the below Current consumption table.				
Approval	CE TÜV ENEC				
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



View product detail

Ø 16 mm Pilot Lights

L16RR Series



Features

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

Specifications

Series	L16RR Series
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 55 Hz (for 1 min) in each X, Y, Z direction for 10 minutes
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	Light unit: IP65 (IEC standard)
Approval	CE ⁰¹⁾
Light unit weight	≈ 11.5 g
Housing weight	≈ 1.4 g

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LED blocks					
Rated voltage	5 / 12 / 24 VDC⇒ model				
Current consumption	Refer to the below Current consumption table.				
Approval	CE ⁰¹⁾				
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



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