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Ø 30 mm

Push Button Switches

S3PR / S3PF Series



Features

- $\bullet \, {\sf Smooth \, operation}$
- · High electrical conductivity
- · Long-lasting durability

Specifications

Series	S3PR Series	S3PF Series
Actuation distance	5.0 to 5.5 mm	
Actuation force	0.5 kgf (4.9 N) (per 1 contact)	
Installation	Extended	Flush
Shock	300 m/s 2 (\approx 30 G) in each X, Y, Z direction for	or 3 times
Shock (malfunction)	100 m/s² (≈ 10 G) in each X, Y, Z direction for 3 times	
Vibration	1.5 mm amplitude at frequency of 10 to 55 H hours	z (for 1 min) in each X, Y, Z direction for 2
Vibration (malfunction)	1.5 mm amplitude at frequency of 10 to 55Hz minutes	z (for 1 min) in each X, Y, Z direction for 10
Mechanical life cycle (control unit life cycle)	Returned: ≥ 1 million operations (20 operations)	ons/min)
Ambient temperature	-15 to 55 °C, storage : -25 to 65 °C (no free	zing or condensation)
Ambient humidity	35 to 85 %RH, storage : 35 to 85 %RH (no fi	reezing or condensation)
Protection structure	Control unit: IP52 (IEC standard)	
Approval	(£) III (#) III (#) (£)	
Control unit weight	21.5 g	
Housing weight	≈ 7 g	
Contact blocks		
Power supply / current	110 VAC \sim / 10 A, 250 VAC \sim / 6 A	
Dielectric strength	2,500 VAC \sim 50/60 Hz for 1 minute	
Insulation resistance	≥ 1,000 MΩ (500 VDC== megger)	
Contact resistance	≤ 20 mΩ (initial)	
Electrical life cycle	≥ 100,000 operations (20 operations/min)	
Contact material	AgNi10	
Approval	CE & can us EHI PS	
Weight	Modular type: \approx 10 g, Singular type: \approx 11 g	
LED blocks		
Rated voltage	AC/DC voltage type: 12-24 VAC \sim 50/60 Hz AC voltage type: 110-220 VAC \sim 50/60 Hz	, 12-24 VDC==
Current consumption	≤ 20 mA	
Approval	C € c SN us ERI	
Weight	AC/DC voltage type: ≈ 11 g, AC voltage type	:≈12 g





S3PR Series

S3PF Series

Ø 30 mm

Selector Switches

S3SF Series



Features

- $\bullet \, {\sf Smooth \, operation}$
- · High electrical conductivity
- · Long-lasting durability

Specifications

Series	S3SF Series
Actuation angle	2-position: [Spring return] 60° $\pm 5^\circ$, 90° $\pm 5^\circ$ [Maintained] 90° $\pm 5^\circ$ 3-position: [Spring return] 60° $\pm 5^\circ$, 45° $\pm 5^\circ$ [Maintained] 90° $\pm 5^\circ$, 45° $\pm 5^\circ$
Actuation force	0.5 kgf (4.9 N) (per 1 contact)
Installation	Flush
Shock	300 m/s 2 (\approx 30 G) in each X, Y, Z direction for 3 times
Shock (malfunction)	100 m/s 2 (\approx 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: IP52 (IEC standard)
Approval	⟨ŝ⟩ ②]H] ₃₁ (P. ③ ∋)
Control unit weight	Standard head type: $\approx 23.5~g$ Shark-head type: $\approx 21~g$
Housing weight	≈7g
Contact blocks	
Power supply / current	110 VAC~ / 10 A, 250 VAC~ / 6 A
Dielectric strength	2,500 VAC \sim 50/60 Hz for 1 minute
Insulation resistance	≥ 1,000 MΩ (500 VDC== megger)
Contact resistance	≤ 20 mΩ (initial)
Electrical life cycle	≥ 100,000 operations (20 operations/min)
Contact material	AgNi10
Approval	(€ ¾ 31 31 31 31 42 31 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Weight	Modular type: ≈ 10 g, Singular type: ≈ 11 g
LED blocks	
Rated voltage	AC/DC voltage type: 12-24 VAC \sim 50/60 Hz, 12-24 VDC== AC voltage type: 110-220 VAC \sim 50/60 Hz
Current consumption	≤ 20 mA
Approval	C€ c SL us EH[
Weight	AC/DC voltage type: ≈ 11 g, AC voltage type: ≈ 12 g



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Ø 30 mm

Key Selector Switches

S3KF Series



Features

- Smooth operation
- · High electrical conductivity
- · Long-lasting durability

Specifications

Series	S3KF Series	
Actuation angle	2-position: [Spring return] $60^{\circ}\pm5^{\circ}$ [Maintained] $90^{\circ}\pm5^{\circ}$ 3-position: [Spring return] $60^{\circ}\pm5^{\circ}$ [Maintained] $90^{\circ}\pm5^{\circ}$	
Actuation force	0.5 kgf (4.9 N) (per 1 contact)	
Installation	Flush	
Shock	300 m/s² (≈ 30 G) in each X, Y, Z direction for 3 times	
Shock (malfunction)	100 m/s² (≈ 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: IP52 (IEC standard)	
Approval	(§ © HI w. K . № 3)	
Control unit weight	≈ 41 g	
Housing weight	≈7g	
Contact blocks		
Power supply / current	110 VAC~ / 10 A, 250 VAC~ / 6 A	
Dielectric strength	2,500 VAC~ 50/60 Hz for 1 minute	
Insulation resistance	≥ 1,000 MΩ (500 VDC== megger)	
Contact resistance	\leq 20 m Ω (initial)	
Electrical life cycle	≥ 100,000 operations (20 operations/min)	
Contact material	AgNi10	
Approval	₹]]] 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
Weight	Modular type: ≈ 10 g, Singular type: ≈ 11 g	



Ø 30 mm

Pilot Lights

L3RF Series



Features

- · High luminance LED
- Available in various colors
- · Long-lasting durability

Specifications

Series	L3RF Series
Installation	Flush
Shock	300 m/s 2 (\approx 30 G) in each X, Y, Z direction for 3 times
Shock (malfunction)	100 m/s 2 (\approx 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
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: IP52 (IEC standard)
Approval	C € c NU s EHL @C
Light unit weight	≈ 22 g
Housing weight	≈7g
LED blocks	
Rated voltage	AC/DC voltage type: 12-24 VAC \sim 50/60 Hz, 12-24 VDC== AC voltage type: 110-220 VAC \sim 50/60 Hz
Current consumption	≤ 20 mA
Approval	(€ c %2) ₁₀ EFI
Weight	AC/DC voltage type: ≈ 11 g, AC voltage type: ≈ 12 g



☐ 30 mm

Push Button Switches

SQ3PF Series



Features

- Smooth operation
- · High electrical conductivity
- · Long-lasting durability

Specifications

Actuation distance Actuation force Installation Flust Shock 300 m/s² (≈ 30 G) in each X, Y, Z direction for 3 times Shock (malfunction) 100 m/s² (≈ 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) I.5 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 2 hours Mechanical life cycle (control unit life cycle) Returned: ≈ 1 million operations (20 operations/min) Ambient temperature -15 to 55 °C, storage: -25 to 65 °C (no freezing or condensation) Ambient thumidity 35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation) Protection structure Approval C	Series	SQ3PF Series	
Installation Flush 300 m/s² (≈ 30 G) in each X, Y, Z direction for 3 times	Actuation distance	5.0 to 5.5 mm	
Shock 300 m/s² (≈ 30 G) in each X, Y, Z direction for 3 times Shock (malfunction) 100 m/s² (≈ 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 Webration (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) Ambient themperature -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: IP52 (IEC standard) Approval C€	Actuation force	0.5 kgf (4.9 N) (per 1 contact)	
Shock (malfunction) 100 m/s² (≈ 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 Wibration (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) 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: IP52 (IEC standard) Approval C€	Installation	Flush	
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) 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: IP52 (IEC standard) Cet : Image: 35 to 85 %RH (no freezing or condensation) Control unit weight = 22 g Fower supply / current 110 VAC ~ / 10 A, 250 VAC ~ / 6 A Dielectric strength 2,500 VAC ~ 50/60 Hz for 1 minute Insulation resistance ≥ 1,000 MΩ (500 VDC = megger) Contact resistance ≤ 20 mΩ (initial) Electrical life cycle ≥ 100,000 operations (20 operations/min) Approval Ce : Image: HI : Image: No ima	Shock	300 m/s ² (\approx 30 G) in each X, Y, Z direction for 3 times	
hours	Shock (malfunction)	100 m/s 2 (\approx 10 G) in each X, Y, Z direction for 3 times	
minutes Returned: ≥ 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: IP52 (IEC standard) Approval Ce - N - IEC - IEC - N - IEC	Vibration		
Control unit life cycle	Vibration (malfunction)		
Ambient humidity Protection structure Control unit: IP52 (IEC standard) Control unit weight ≈ 22 g Housing weight ≈ 7 g Contact blocks Power supply / current Dielectric strength 110 VAC ~ / 10 A, 250 VAC ~ / 6 A Dielectric strength Dielectric strength Dielectric strength 1,000 MΩ (500 VDC = megger) Contact material AgNi10 Approval Ce s An single Si		Returned: ≥ 1 million operations (20 operations/min)	
Protection structure Approval C	Ambient temperature	-15 to 55 °C, storage : -25 to 65 °C (no freezing or condensation)	
Approval $C \in \mathbb{R} \cdot \mathbb{N} = \mathbb{H} \subseteq \mathbb{R}$ Control unit weight $\approx 22 \text{ g}$ Housing weight $\approx 7 \text{ g}$ Contact blocks Power supply / current $110 \text{ VAC} \sim / 10 \text{ A}, 250 \text{ VAC} \sim / 6 \text{ A}$ Dielectric strength $2,500 \text{ VAC} \sim 50/60 \text{ Hz}$ for 1 minute Insulation resistance $\approx 1,000 \text{ M}\Omega$ ($500 \text{ VDC} = \text{megger}$) Contact resistance $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Electrical life cycle $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ Approval}$ Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Weight $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) LED blocks Rated voltage $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) AC/DC voltage type: $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Current consumption $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Current consumption $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text{ operations}$ ($\approx 100,000 \text{ operations}$) Contact material $\approx 100,000 \text$	Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)	
Control unit weight ≈ 22 g Housing weight ≈ 7 g Contact blocks 110 VAC ~ / 10 A, 250 VAC ~ / 6 A Power supply / current 110 VAC ~ 50/60 Hz for 1 minute Dielectric strength 2,500 VAC ~ 50/60 Hz for 1 minute Insulation resistance ≥ 1,000 MΩ (500 VDC = megger) Contact resistance ≤ 20 mΩ (initial) Electrical life cycle ≥ 100,000 operations (20 operations/min) Contact material AgNi10 Approval C € R → N = FIL	Protection structure	Control unit: IP52 (IEC standard)	
Housing weight ≈ 7 g Contact blocks Power supply / current 110 VAC ~ / 10 A, 250 VAC ~ / 6 A Dielectric strength 2,500 VAC ~ 50/60 Hz for 1 minute Insulation resistance ≥ 1,000 MΩ (500 VDC == megger) Contact resistance ≤ 20 mΩ (initial) Electrical life cycle ≥ 100,000 operations (20 operations/min) Contact material AgNi10 Approval C∈ IS - N = HI	Approval	(£ 3) #13 w (R ; 3)	
Contact blocks Power supply / current Dielectric strength Diele	Control unit weight	≈ 22 g	
Power supply / current Dielectric strength 2,500 VAC ~ 50/60 Hz for 1 minute Insulation resistance ≥ 1,000 MΩ (500 VDC= megger) Contact resistance ≤ 20 mΩ (initial) Electrical life cycle ≥ 100,000 operations (20 operations/min) Contact material AgNi10 Approval C∈ S → S → S → S → S → S → S → S → S → S	Housing weight	≈7g	
Dielectric strength 2,500 VAC \sim 50/60 Hz for 1 minute Insulation resistance \geq 1,000 M Ω (500 VDC= megger) Contact resistance \leq 20 m Ω (initial) Electrical life cycle \geq 100,000 operations (20 operations/min) AgNi10 Approval \subset \in S SN \subset FIL \subset Weight Modular type: \approx 10 g, Singular type: \approx 11 g LED blocks Rated voltage AC/DC voltage type: 12-24 VAC \sim 50/60 Hz, 12-24 VDC= AC voltage type: 110-220 VAC \sim 50/60 Hz \subset Current consumption \subset 20 mA Approval \subset SN \subset FIL	Contact blocks		
Insulation resistance ≥ 1,000 M Ω (500 VDC= megger) Contact resistance ≤ 20 m Ω (initial) Electrical life cycle ≥ 100,000 operations (20 operations/min) Contact material AgNi10 Approval $C \in \mathbb{R}$ $A \in$	Power supply / current	110 VAC~ / 10 A, 250 VAC~ / 6 A	
Contact resistance ≤ 20 mΩ (initial) Electrical life cycle ≥ 100,000 operations (20 operations/min) Contact material AgNi10 Approval C∈ S SN ERIC Weight Modular type: ≈ 10 g, Singular type: ≈ 11 g LED blocks Rated voltage AC/DC voltage type: 12-24 VAC~ 50/60 Hz, 12-24 VDC= AC voltage type: 110-220 VAC~ 50/60 Hz Current consumption ≤ 20 mA Approval C∈ SN ERIC	Dielectric strength	2,500 VAC \sim 50/60 Hz for 1 minute	
Electrical life cycle ≥ 100,000 operations (20 operations/min) Contact material AgNi10 Approval C∈ S → SN = FIL → Weight Modular type: ≈ 10 g, Singular type: ≈ 11 g LED blocks Rated voltage AC/DC voltage type: 12-24 VAC~ 50/60 Hz, 12-24 VDC = AC voltage type: 110-220 VAC~ 50/60 Hz Current consumption ≤ 20 mA Approval C∈ SN = FIL	Insulation resistance	≥ 1,000 MΩ (500 VDC== megger)	
Contact material AgNI10 Approval C∈ S SN ERIC Weight Modular type: ≈ 10 g, Singular type: ≈ 11 g LED blocks Rated voltage AC/DC voltage type: 12-24 VAC~ 50/60 Hz, 12-24 VDC= AC voltage type: 110-220 VAC~ 50/60 Hz Current consumption ≤ 20 mA Approval C∈ SN ERIC	Contact resistance	≤ 20 mΩ (initial)	
Approval C∈ S - SN. ENC Weight Modular type: ≈ 10 g, Singular type: ≈ 11 g LED blocks Rated voltage AC/DC voltage type: 12-24 VAC~ 50/60 Hz, 12-24 VDC = AC voltage type: 110-220 VAC~ 50/60 Hz Current consumption ≤ 20 mA Approval C∈ SN. ENC	Electrical life cycle	≥ 100,000 operations (20 operations/min)	
Weight Modular type: ≈ 10 g, Singular type: ≈ 11 g LED blocks Rated voltage Rated voltage AC/DC voltage type: 12-24 VAC~ 50/60 Hz, 12-24 VDC:= AC voltage type: 110-220 VAC~ 50/60 Hz Current consumption ≤ 20 mA Approval C€ • \$\mathrm{N}_{\text{in}} \text{EHI}	Contact material	AgNi10	
LED blocks Rated voltage AC/DC voltage type: 12-24 VAC~ 50/60 Hz, 12-24 VDC = AC voltage type: 110-220 VAC~ 50/60 Hz Current consumption ≤ 20 mA Approval C€ Mm Eff[Approval	(\$\frac{\chi_0}{\chi_0}\] [H] [au (\mathbb{R}_0) [3] 3)	
Rated voltage AC/DC voltage type: 12-24 VAC ~ 50/60 Hz, 12-24 VDC = AC voltage type: 110-220 VAC ~ 50/60 Hz Current consumption ≤ 20 mA Approval C€ → N = FII	Weight	Modular type: ≈ 10 g, Singular type: ≈ 11 g	
AC voltage type: 110-220 VAC ~ 50/60 Hz Current consumption ≤ 20 mA Approval C€ •¶1 = IFI	LED blocks		
Approval C€ ₽ % us ERIC	Rated voltage		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Current consumption	≤ 20 mA	
Weight AC/DC voltage type: \approx 11 g, AC voltage type: \approx 12 g	Approval	C€ c P 3 us EFI	
	Weight	AC/DC voltage type: \approx 11 g, AC voltage type: \approx 12 g	



☐ 30mm

Pilot Lights

LQ3RF Series



Features

- · High luminance LED
- Available in various colors
- · Long-lasting durability

Specifications

Series	LQ3RF Series
Installation	Flush
Shock	300 m/s² (≈ 30 G) in each X, Y, Z direction for 3 times
Shock (malfunction)	100 m/s² (≈ 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
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: IP52 (IEC standard)
Approval	C € c RN is EHI @C
Light unit weight	≈ 22 g
Housing weight	≈7g
LED blocks	
Rated voltage	AC/DC voltage type: 12-24 VAC \sim 50/60 Hz, 12-24 VDC== AC voltage type: 110-220 VAC \sim 50/60 Hz
Current consumption	≤ 20 mA
Approval	C€ c P 3 us EFIC
Weight	AC/DC voltage type: ≈ 11 g, AC voltage type: ≈ 12 g

