

SGCK Series Limit switches

1.Characteristics

Description	Reference
Double Break Mechanism	INO+INC Force Break snap action
Rated Voltage / Current	10(4)A, 125, 250VAC / 6(2)A, 380VAC For inductance Load, Cosφ=0.4
Contact resistance	25mΩ max. (initial value)
Insulation resistance	100mΩ min. (at 500VDC)
Dielectric strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	1500VAC, 50/60 Hz for 1 minute between current-carrying and non-current-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between each terminal and ground
Electrical Life	500,000 at 10A 250VAC Resistive
Mechanical Life	10, 000, 000 operations min. (under rated conditions)
Operating Speed	5mm/s to 0.5m/s
Degree of Protection	Ip66
Ambient Temperature Rised	Max 30°C over ambient temperature at rated voltage/current
Conformed Standards	Cenelec EN 50041, EN 50047, IEC 337-1, VDE 0660
Operating Temperature	-5°C~+65°C (with no icing)
Storage Temperature	-5°C~+65°C (with no icing)
Ambient Operating Humdity	95% RH Max.
Shock Resistance	Mechanical durable: 1000m/s ² min.
	Malfunction: 300m/s ² min.
Vibration Frequency	Malfunction: 10 to 55Hz, 1.5mm double amplitude
Terminal Screw Torsional Force	6-8 kgf-cm
Other Screw Torsional Force	Cover 12-14 kgf-cm/Head 8-9 kgf-cm/Mounting 50-60 kgf/cm
Bare Wire Diameter	φ 2 Max
Cable Diameter	φ 12 Max(IP 65 if use cable φ8-9)

Note: Product with spring, its usable range of operating part is within one third of the whole spring length from the front end of spring

2.Features

- Strong metal outer shell, swing arm max.±95°
- Stainless steel idler wheel, punch and spring
- Selective M18x1.5 cable gland

SGCK Series Limit switches


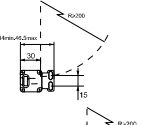
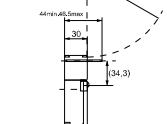

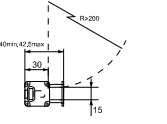
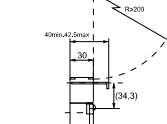

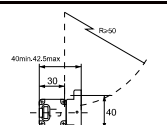
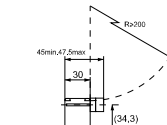

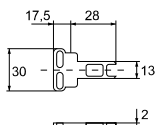

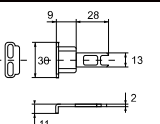

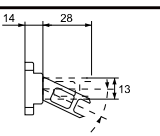
SGCK Limit switch	Contour	Power of starting(g)	Power of release(g)	Switching position	General movement	Rated current	Reference
		147g	29.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93BPG01
		147g	29.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93CPG01
		147g	29.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93BPG02
		147g	29.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93CPG02
		147g	29.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93BPG03
		147g	26.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93CPG03

Image	Contour	Key Actuating	Reference
		Horizontal	SGCK-CZ93-K1
		Vertical	SGCK-CZ93-K2
		Adjustable	SGCK-CZ93-K3

SGCK Series Limit switches

1.Characteristics

Description	Reference
Operation speed	1mm-2m/s
Operating frequency	Mechanical: 120 operations/minute Electical: 30 operations/minute
Contact resistance	15mΩ max. (initial value)
Insulation resistance	100mΩ min. (below 500VDC)
Dielectric strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	1500VAC, 50/60 Hz for 1 minute between current-carrying and noncurrent-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between each terminal and ground
Vibration	10-55Hz, 1.5mm double amplitude
Shock	Mechanical durable: 1, 000m/Sec ² (about 100G'S)
	Malfunction: 300m/Sec ² (about 30G'S)
Ambient temperature	-5~+65°C (With no icing)
Humidity	<95% RH
Weight	About 275g
Life	Mechanical: 10,000,000 operations above
	Electrical: 500,000 operations above
Degree of protection	IEC specification: Ip66

2.Ratings

Rated voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NO	NC
125VAC	10		3	1.5	10		5	2
250VAC	5		2	1	5		3	1
480VAC	3		1.5	0.8	3		1.5	0.8
14VAC	1		1	0.5	1.5		1	0.5
8VDC	10		6	3	10		6	
14VDC	10		6	3	10		6	
30VDC	6		4	2	6		4	
125VDC	0.8		0.2	0.2	0.8		0.2	
250VDC	0.4		0.1	0.1	0.4		0.1	

NOTES:

1. Inductive load has a power factor of 0.4 min.(AC) and a time constant of 7 msec.max.(DC)
2. Lamp load has an inrush current of 10 times the steady-state current, while motor load has an inrush current of 6 times the steady-state current.
3. Product with spring, its usable range of operating part is within one third of the whole spring length from the front end of spring.

SGCK Series Limit switches

1.Characteristics

Description	Reference
Rating	3A 240VAC (A300)
Operation speed	0.1mm-0.5m/s
Operating frequency	30 operations/minute
Contact resistance	25mΩ max. (initial)
Insulation resistance	100mΩ min. (500VDC)
Rated insulation voltage(UI)	400V
Dielectric strength	AC2500V/Umip 4KV
Shock	Mechanical durable: 1,000m/Sec ² (about 100G'S)
	Malfunction: 300m/Sec ² (about 30G'S)
Ambient temperature	-10~+70°C (With no icing)
Humidity	<95% RH
Weight	Approx. 76g
Life	Mechanical: 10,000,000 operations/min.
	Electrical: 150,000 operations/min.
Degree of protection	IP65(EN60947-5-1)
Short-circuit protective device	10A fuse

2.Ratings

Rated voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NO	NC
125VAC	10		3	1.5	10		5	2.5
250VAC	10		2	1	10		3	1.5
400VAC	10		1.5	0.8	3		1.5	0.8
8VDC	10		6	3	10		6	
14VDC	10		6	3	10		6	
30VDC	6		4	2	6		4	
125VDC	0.8		0.2	0.2	0.8		0.2	
250VDC	0.4		0.1	0.1	0.4		0.1	

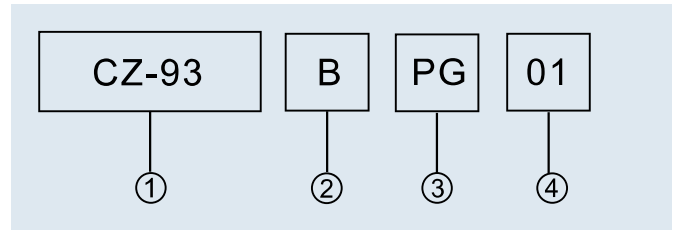
3.Operating Characteristics

Key plug in force Max	147.N(1,500gf)
key pull out force Max	29.42N(3,000gf)
Pretravel	6 ±3mm
Total travel	28mm
Force required to have positive Min	58.84N(6,000gf)
Positive opening travel Min	10mm

SGCK Series Limit switches

1. Model Designations

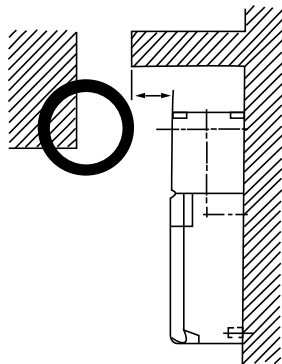
Description	Signal	Description
Type	CZ-93	Safety switch
Type of contact blocks fitted	B	2B(2NC)
	C	1A1B(NO-NC)
Conduit entries	PG	PG 13.5XP1.5
	PM	M20X1.5
Actuating keys	None	None
	1	Horizontal
	2	Vertical
	3	Adjustable



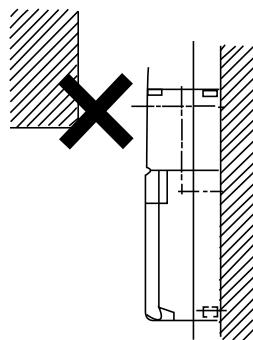
M20x1.5 cable gland that can be equipped

2. Use Attention Affair

- To prevent the wear and the space should be within 1mm between the key and middle of the insert hole.
- When in use, there should put a plate on the top to prevent the key overinsert. To prevent nonmovement, the space between the plate and the switch should be under 3 mm.



Normal used state



Unsuitable used state

3. Required to Have Positive Machine

- When the contact block get fire, press on the middle of the key structure, the NC strict leaving structure can push the contact block a way cut off the movement.

