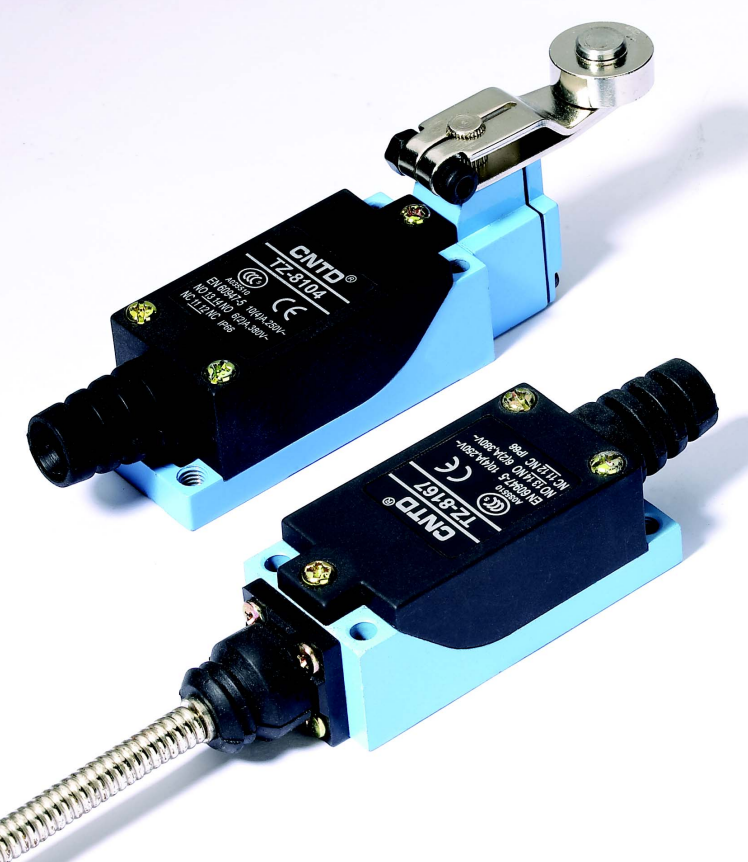


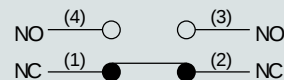


TZ-8 Limit Switch

Features

- Double circuit type of limit switch
- Highly rigid construction, consists of intensive plastic and aluminum cast (Head and cover snugly fit in box)
- Small volume, water-proof and oil-proof construction
- Built-in basic switch with double spring mechanism, longer mechanical life
- Smooth operation with greater OT
- Easy-to-wire circuit opening design
- Wide variety of actuators, easily use

Contact Form



Ratings

Rated voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NC	NO
125VAC	5	5	1.5	0.7	3	3	2	1
250VAC	5	5	1	0.5	3	3	1.5	0.8
500VAC								
8VDC	5	5	3	3	5	4	3	3
14VDC	5	5	3	3	4	4	3	3
30VDC	5	5	3	3	4	4	3	3
125VDC	0.4	0.4						
250VDC	0.2	0.2						
Inrush Current	N.C: below 24A, N.O: below 12A							

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.

Operating characteristics

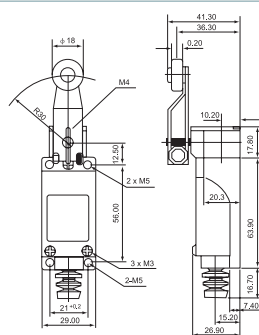
Models	TZ-8104	TZ-8108	TZ-8107	TZ-8111	TZ-8112/8122	TZ-8166/8167/8168/8169
OF Max.	750g	750g	750g	900g	900g	150g
RF Min.	100g	100g	100g	150g	150g	-
PT Max.	20°	20°	20°	1.5mm	1.5mm	30mm
OT Min.	50°	50°	50°	4mm	4mm	-
MD Max.	12°	12°	12°	1mm	1mm	-
OP	-	-	-	26 ± 0.8mm	37 ± 0.8mm	-

Characteristics

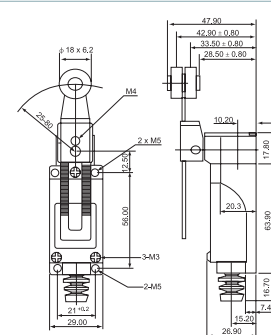
Operation speed	0.5mm-50cm/sec
Operating frequency	Mechanical: 120 operations/minute Electrical: 30 operations/minute
Contact resistance	25m Ω max. (initial value)
Insulation resistance	100m Ω min. (at 500VDC)
Dielectric strength	1000VAC, 50/60 HZ for 1 minute between terminals of the same polarity
	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
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℃ to +65℃
Humidity	<95% RH
Life	Mechanical: 10,000,000 operations above Electrical: 500,000 operations above
Weight	About 130 to 190g
Degree of protection	IP65

Appearance and dimension

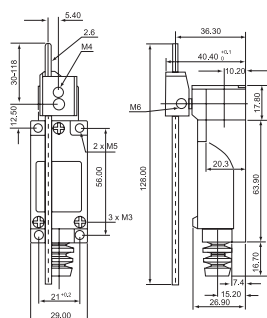
TZ-8104



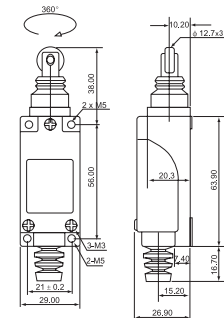
TZ-8108



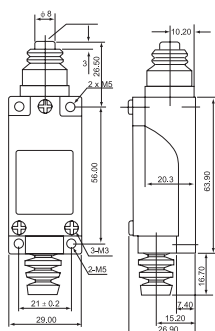
TZ-8107



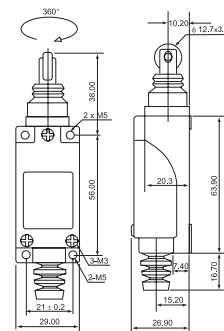
TZ-8112



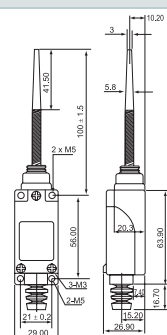
TZ-8111



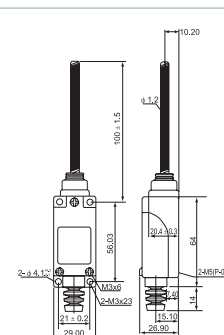
TZ-8122



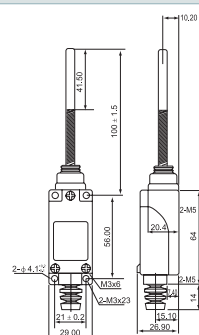
TZ-8166



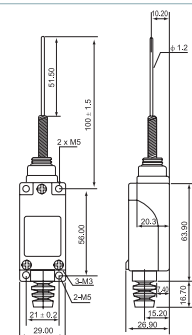
TZ-8167



TZ-8168



TZ-8169





CSA Limit Switch

Features

- Strong metal outer shell, swing arm max. $\pm 95^\circ$
- Long life (20, 000, 000 mechanical operations)
- Stainless steel idler wheel, punch and spring
- Selective PG11 cable gland

Specifications

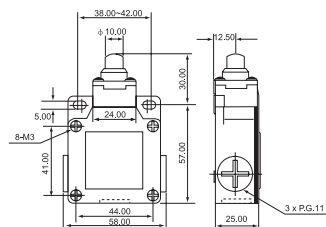
Model	CSA	CSA-001	CSA-003	CSA-012	CSA-021	CSA-031	CSA-061	CSA-071	CSA-081
Operating force	OF Max.	800g	800g	800g	400g-cm	400g-cm	150g	150g	150g
Release force	RF Min.	400g	400g	400g	100g-cm	100g-cm	50g	50g	50g
Pre-travel	PT Max.	1.8mm	1.8mm	1.8mm	20°	20°	30mm	30mm	30mm
Tripping position	TP $\pm 10\%$	2.0mm	2.0mm	2.0mm	22.5°	22.5°	22.5°	22.5°	22.5°
Movement differential	MD Max.	1.2mm	1.2mm	1.2mm	10°	10°	14°	14°	14°
Over travel	OT Min.	4.0mm	4.0mm	4.0mm	75°	75°	20mm	20mm	20mm
Total travel	TT Min.	5.8mm	5.8mm	5.8mm	95°	95°	50mm	50mm	50mm
Rotary indexing					22.5°	22.5°			

Characteristics

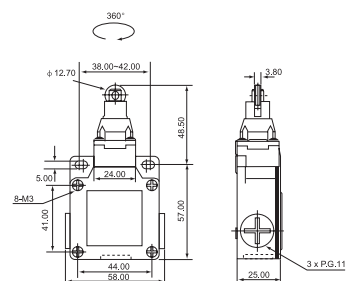
Double Break Mechanism	INO+INC Force Break snap action
Rated Voltage / Current	10(4)A, 125, 250VAC / 6(2)A, 380VAC For inductance Load, $\cos \phi = 0.4$
Contact Resistance	25m Ω max. (initial value)
Insulation Resistance	100m Ω min. (at 500VDC)
Dielectric Strength	1000VAC, 50/60 HZ for 1 minute between 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	IP65
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 Humidity	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 ϕ 8-9)

Appearance and dimension

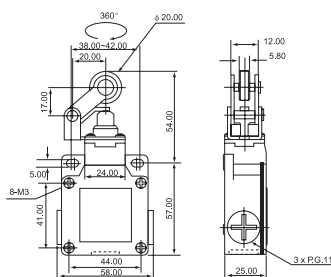
CSA-001



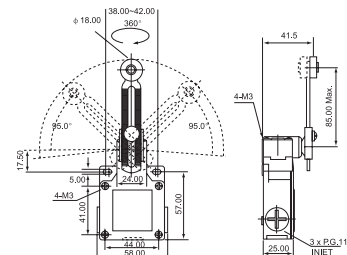
CSA-003



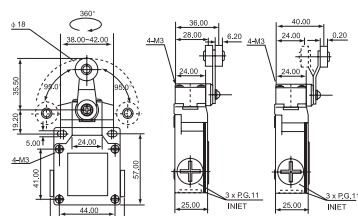
CSA-012



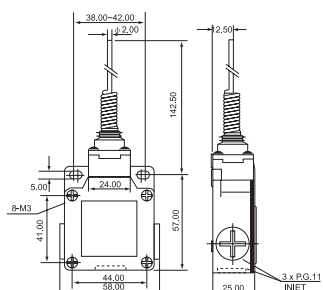
CSA-031



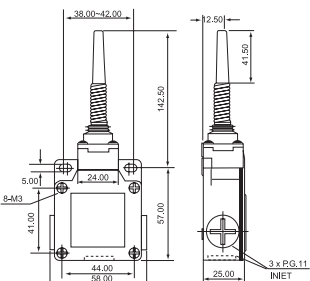
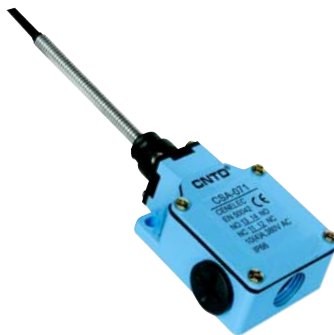
CSA-021



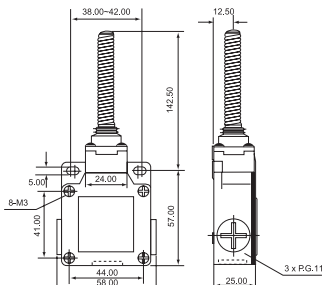
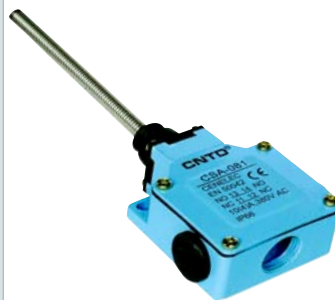
CSA-061



CSA-071



CSA-081



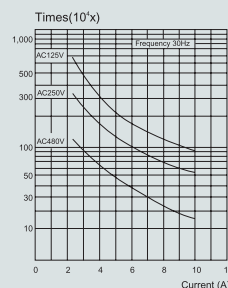


CLS Limit Switch

Features

- Economical & plastic type
- Stainless steel roller, punch and spring
- Swing amplitude, extra large $\pm 95^\circ$
- PG13.5 cable gland that can be equipped.

Electrical life



Specification

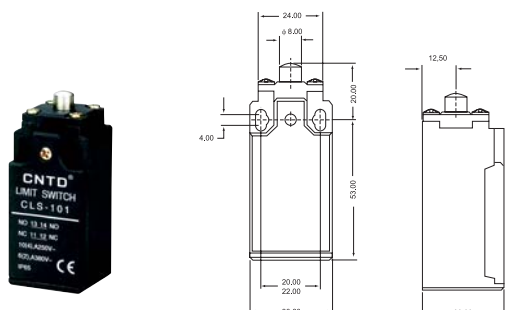
Model	CLS	101 301	103 303	111 311	121 321	127 327	131 331	161 361	171 371	181 381	191 391
Operating force	OF Max.	700g	700g	700g	500g	700g	500g-cm	100g	100g	100g	500g-cm
Release force	RF Min.	200g	200g	200g	100g-cm	200g	100g-cm	40g	40g	40g	100g-cm
Pre-travel	PT Max.	1.8mm	1.8mm	1.8mm	20°	1.8mm	20°	30mm	30mm	30mm	20°
Tripping position	TP $\pm 10\%$	2.0mm	2.0mm	2.0mm	22.5°	2.0mm	22.5°	22.5°	22.5°	22.5°	22.5°
Movement differential	MD Max.	1.2mm	1.2mm	1.2mm	10°	1.2mm	10°	14°	14°	14°	10°
Over travel	OT Min.	4.0mm	4.0mm	4.0mm	75°	4.0mm	75°	20mm	20mm	20mm	75°
Total travel	TT Min.	5.8mm	5.8mm	5.8mm	95°	5.8mm	95°	50mm	50mm	50mm	95°
Rotary indexing					22.5°		22.5°				22.5°

Characteristics

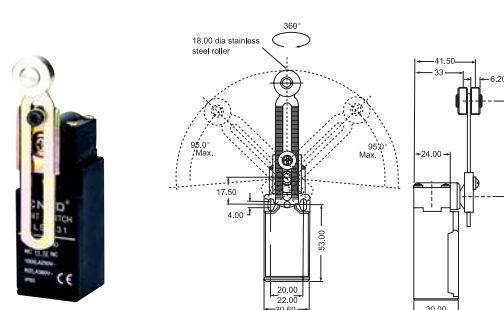
Double Break Mechanism	INO+INC Force Break snap action
Rated Voltage / Current	10(4)A, 125, 250VAC / 6(2)A, 380VAC For inductance Load, $\cos \phi = 0.4$
Contact Resistance	25m Ω max. (initial value)
Insulation Resistance	100m Ω min. (at 500VDC)
Dielectric Strength	1000VAC, 50/60 HZ for 1 minute between 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	IP65
Ambient Temperature Rised	Max 30℃ over ambient temperature at rated voltage/current
Conformed Standards	Cenelec EN 50041, EN 50047, IEC 337-1, VDE 0660
Operating Temperature	-5℃~+65℃ (with no icing)
Storage Temperature	-5℃~+65℃ (with no icing)
Ambient Operating Humidity	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.

Appearance and dimension

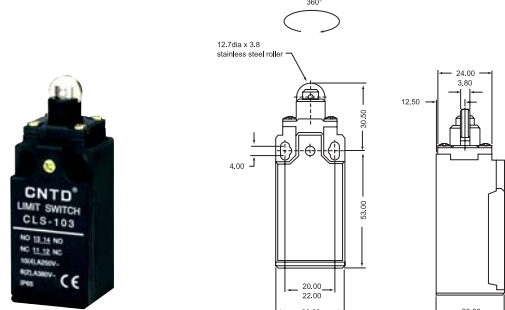
CLS-101



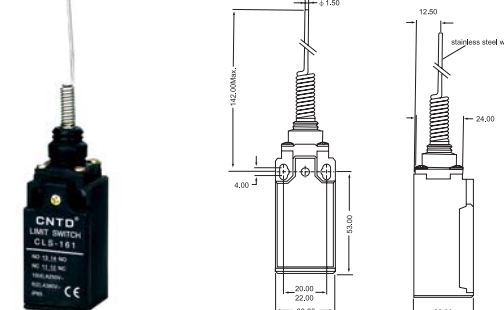
CLS-131



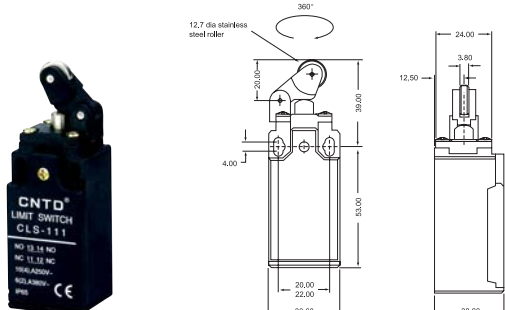
CLS-103



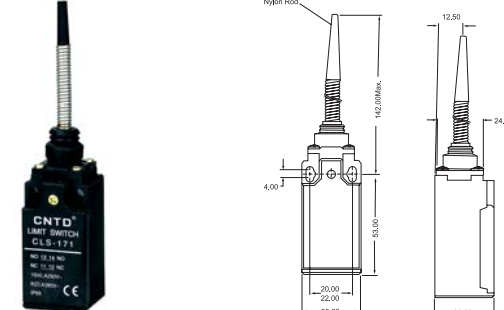
CLS-161



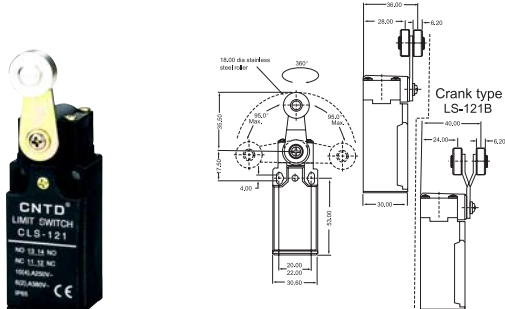
CLS-111



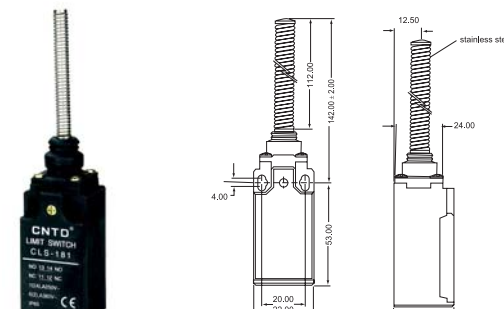
CLS-171



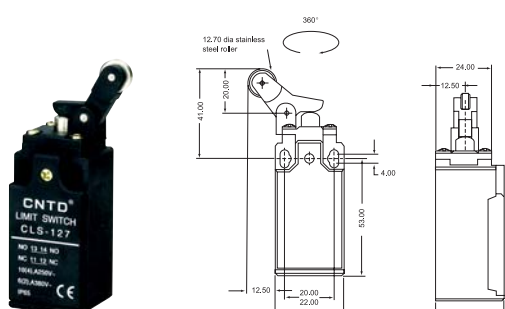
CLS-121



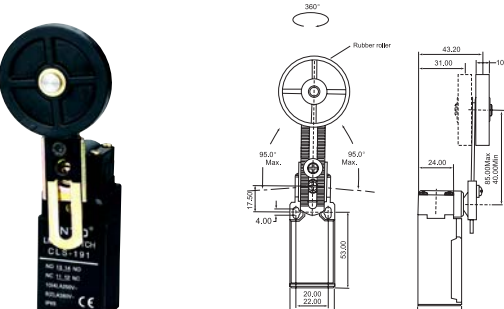
CLS-181



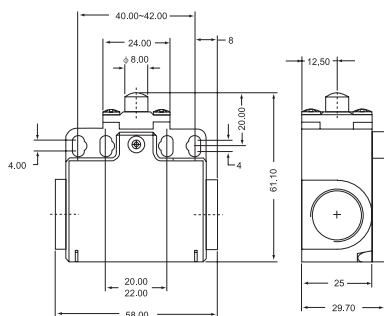
CLS-127



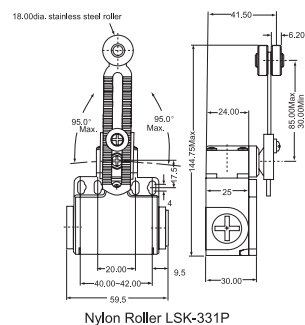
CLS-191



CLS-301

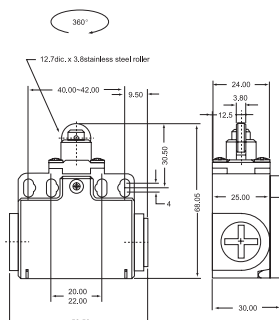


CLS-331

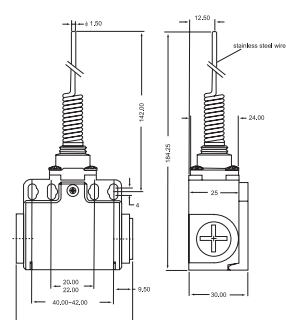


Nylon Roller LSK-331P

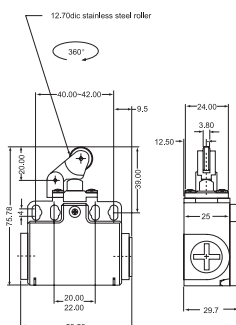
CLS-303



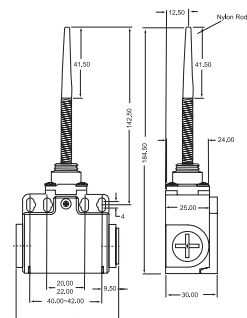
CLS-361



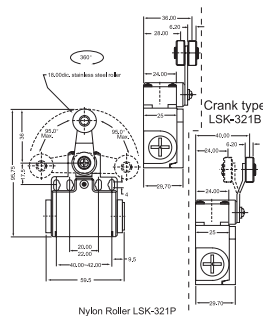
CLS-311



CLS-371

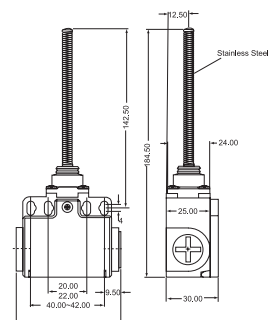


CLS-321

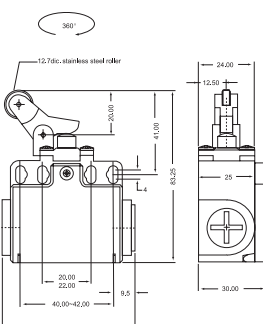


Nylon Roller LSK-321P

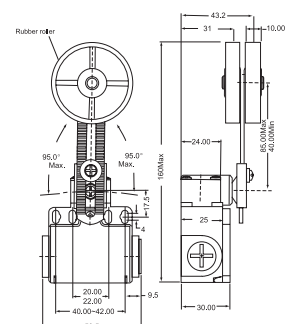
CLS-381



CLS-327



CLS-391



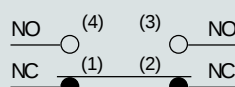


CWL Limit Switch

Features

- Double-circuit type of limit switch, is widely used
- With strong aluminum cast outer shell
- High mechanical strength
- Water-proof, oil-proof construction
- Structure preventing oil, water and pressure
- Indicating plate with setting position is installed in it, so it is easy to maintain
- Various of actuators is taken convenience for using
- Built-in contact stand has double-spring, so it has long mechanical life

Contact Form



Ratings

Rated voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NC	NO
125VAC	10	3	1.5	10	5	2.0		
250VAC	5	2	1	5	3	1.0		
480VAC	3	1.5	0.8	3	1.5	0.8		
600VAC	1	1	0.5	1.5	1	0.5		
8VDC	10	6	3	10	6			
14VDC	10	6	3	10	6			
30VDC	6	4	3	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.

Characteristics

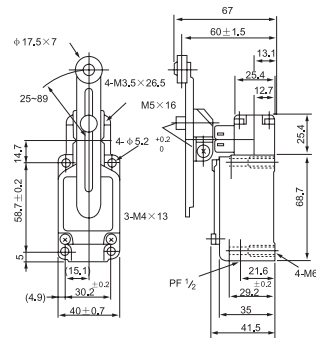
Operation speed	1mm-2m/s
Operating frequency	Mechanical: 120 operations/minute Electrical: 30 operations/minute
Contact resistance	15m Ω max. (initial value)
Insulation resistance	100m Ω above (at 500VDC)
Dielectric strength	1000VAC, 50/60 HZ for 1 minute between terminals of the same polarity
	1500VAC, 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
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	-10°C to +80°C
Humidity	<95% RH
Life	Mechanical: 15,000,000 operations above (under rated OT) Electrical: 500,000 operations above
Weight	About 275g
Degree of protection	IP67

Operating characteristics

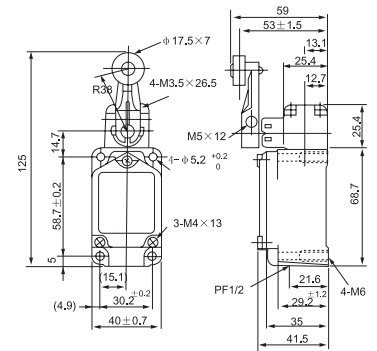
Models	CWLCA2-2	CWLD2	CWLNJ	CWLNJ-S2	CWLCA12-2-Q	CWLCL	CWLCA32-41	CWLD	CWLNJ-2	CWLNJ-30	CWLD1	CWLD3
OF Max.	1360g	2720g	150g	29g	1360g	142g	1200g	2720g	120g	80g	2720g	2720g
RF Min.	227g	910g	-	-	227g	28g	-	910g	-	-	910g	910g
PT Max.	20°	1.7mm	28mm	28mm	20°	20°	55°	1.7mm	28mm	28mm	1.7mm	1.7mm
OT Min.	30°	5.6mm	-	-	30°	30°	35°	6.4mm	-	-	5.6mm	5.6mm
MD Max.	12°	1mm	-	-	12°	12°	-	1mm	-	-	1mm	1mm
TF Max.	2720g	-	-	-	2720g	200g	-	-	-	-	2720g	2720g
TT Min.	50°	6.5 ± 0.8mm	-	-	50°	50°	OP:90 ± 10°	OP:34 ± 2.8mm	-	-	6.5 ± 0.8mm	9 ± 0.8mm

Appearance and dimension

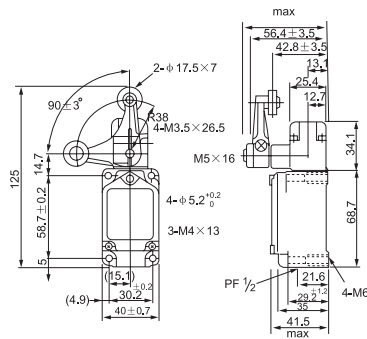
CWLCA2-2



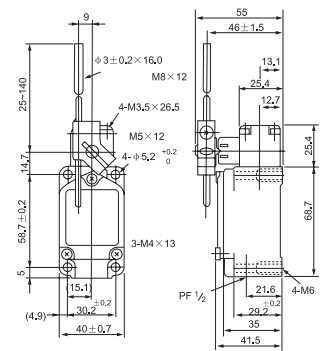
CWLCA12-2-Q



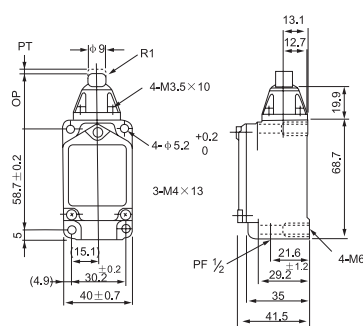
CWLCA32-41



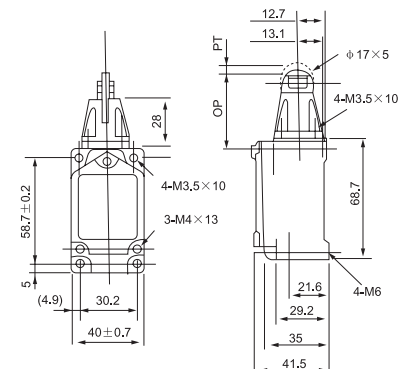
CWLCL



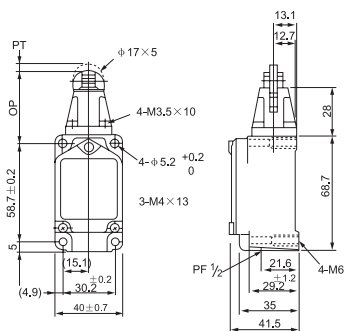
CWLD



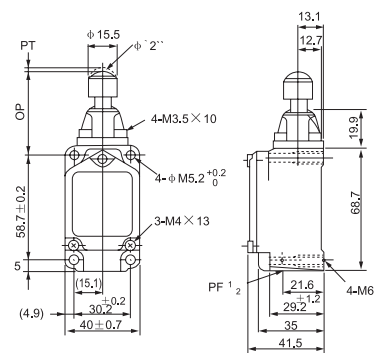
CWLD1



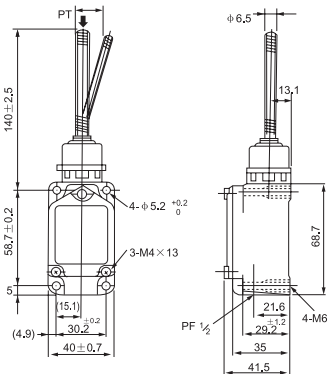
CWLD2



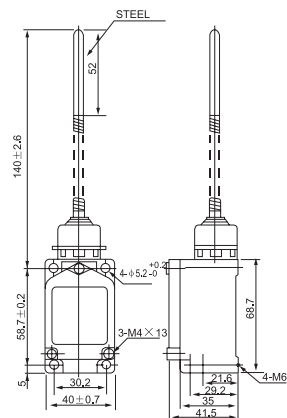
CWLD3



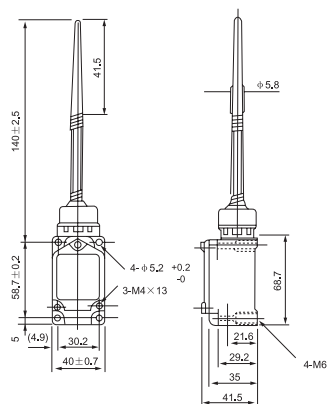
CWLNJ



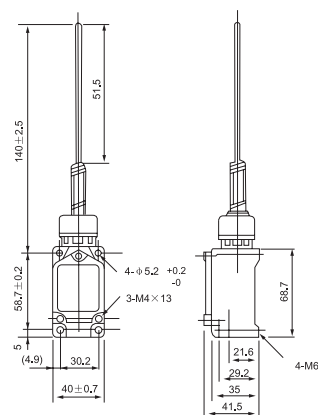
CWLNJ-30

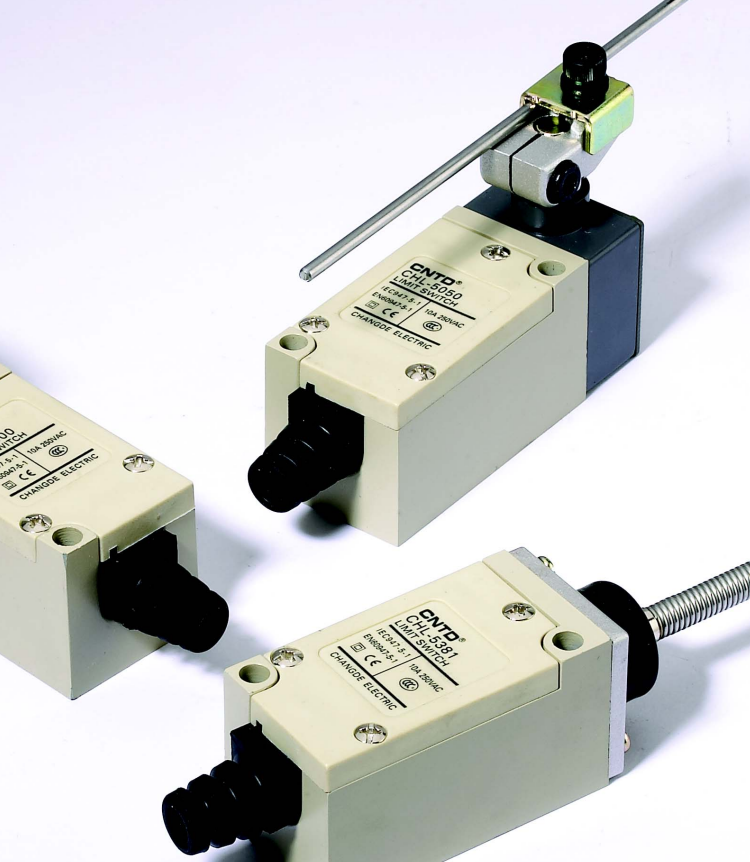


CWLNJ-2



CWLNJ-S2



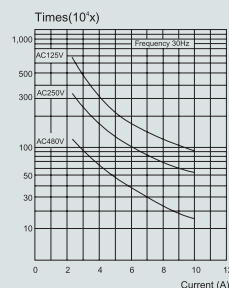


CHL Limit Switch

Features

- Metallic bottom shell
- Stainless steel roller, punch and spring
- Strong electric property 10A, 250V, for 500,000 times

Electrical life



Specification

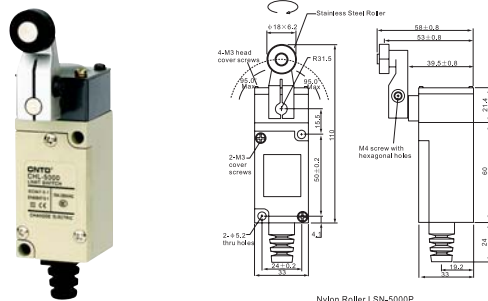
Models	CHL	5000	5030	5050	5100	5200	5220	5300	5330	5381	5391
Operating force	OF Max.	750g-cm	750g-cm	750g-cm	750g-cm	900g-cm	900g-cm	150g	150g	150g	550g-cm
Release force	RF Min.	100g-cm	100g-cm	100g-cm	200g	200g	200g	30g	30g	30g	100g-cm
Pre-travel	PT Max.	20°	20°	20°	1.8mm	1.8mm	1.8mm	30mm	30mm	30mm	20°
Tripping position	TP ± 10%	22.5°	22.5°	22.5°	2.0mm	2.0mm	2.0mm	22.5°	22.5°	22.5°	22.5°
Movement differential	MD Max.	10°	10°	10°	1.2mm	1.2mm	1.2mm	14°	14°	14°	14°
Over travel	OT Min.	75°	75°	75°	4.0mm	4.0mm	4.0mm	20mm	20mm	20mm	75°
Total travel	TT Min.	95°	95°	95°	5.8mm	5.8mm	5.8mm	50mm	50mm	50mm	95°

Characteristics

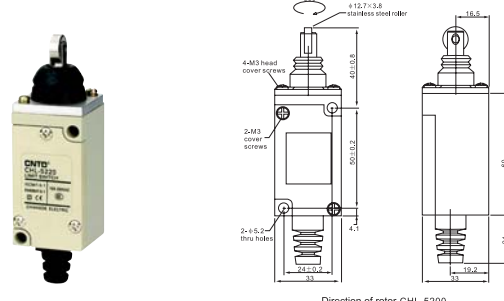
Double Break Mechanism	INO+INC Force Break snap action
Rated Voltage / Current	10(4)A, 125, 250VAC / 6(2)A, 380VAC For inductance Load, Cos ϕ =0.4
Contact Resistance	25m Ω max. (initial value)
Insulation Resistance	100m Ω min. (at 500VDC)
Dielectric Strength	1000VAC, 50/60 HZ for 1 minute between terminals 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	IP65
Ambient Temperature Rised	Max 30℃ over ambient temperature at rated voltage/current
Conformed Standards	Cenelec EN 50041, EN 50047, IEC 337-1, VDE 0660
Operating Temperature	-5℃~+65℃ (with no icing)
Storage Temperature	-5℃~+65℃ (with no icing)
Ambient Operating Humidity	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 9 Max(IP 65 if use cable ϕ 8-9)

Appearance and dimension

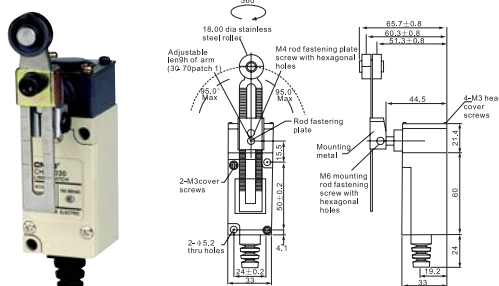
CHL-5000



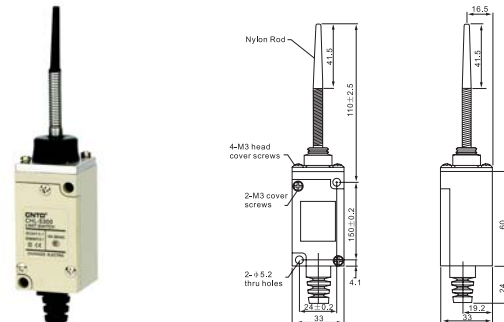
CHL-5220



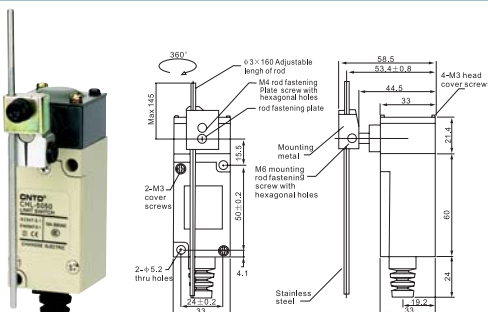
CHL-5030



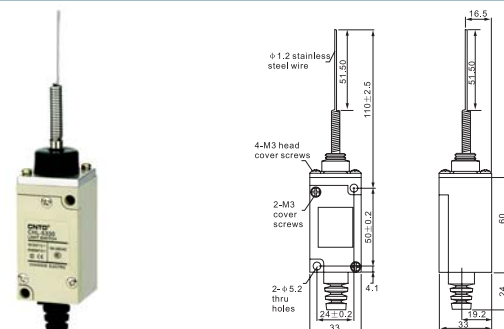
CHL-5300



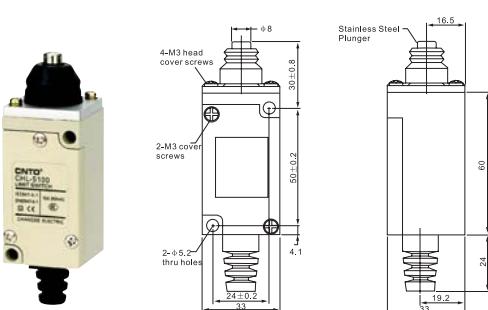
CHL-5050



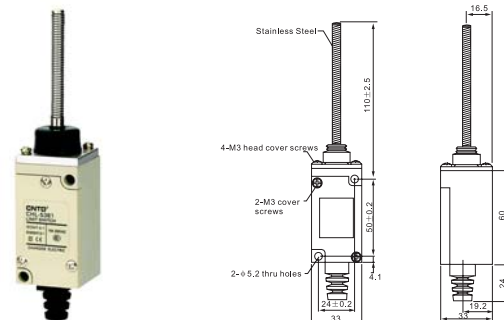
CHL-5330



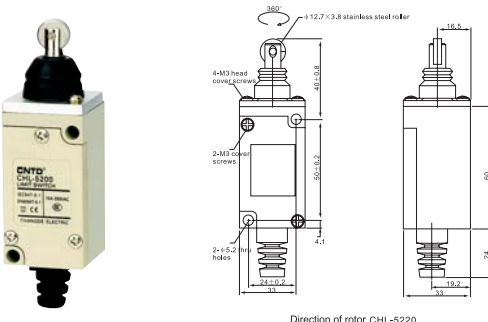
CHL-5100



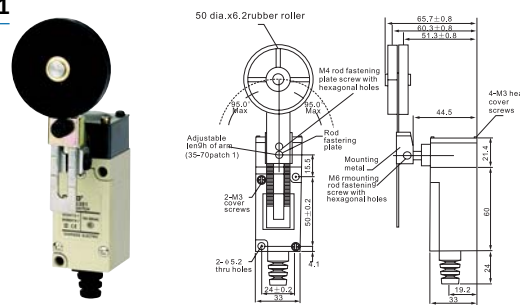
CHL-5381



CHL-5200



CHL-5391



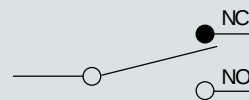


TZ-6 Sealed Limit Switch

Features

- Built-in CM miniature limit switch, strong aluminum cast shell, design for water-proof and oil-proof
- It is the same as CM micro switch in the rated value and characteristics
- Various of actuators that are taken convenience for using
- Each switch is equipped with cable fixator, including rubber boot, metallic washer, plastic screw nut

Contact Form



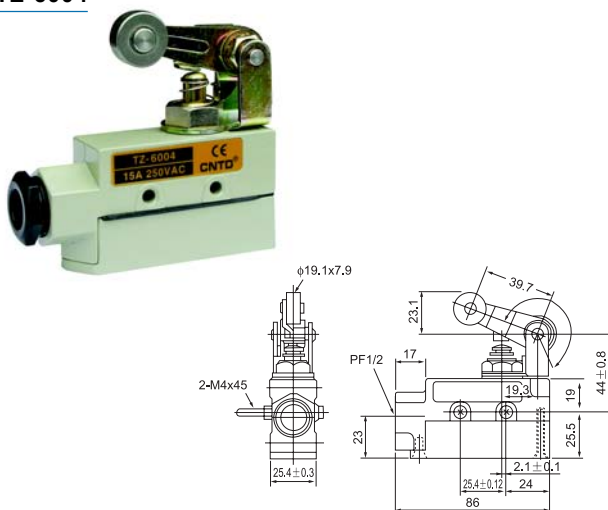
Operating characteristics

Models	TZ-6001	TZ-6002	TZ-6003	TZ-6004	TZ-6043
OF Max.	250~350g	250~350g		570g	570g
RF Min.	114g	114g		170g	170g
PT Max.	0.4mm	0.5mm		4mm	4mm
OT Min.	5.5mm	3.6mm		6mm	6mm
MD Max.	0.05mm	0.05mm		0.4mm	0.4mm
OP	38.2 ± 0.8mm	49.7 ± 1mm			

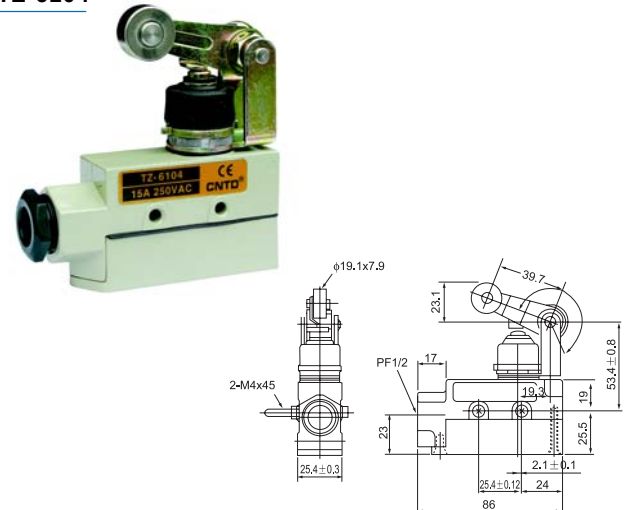
Models	TZ-6101	TZ-6102	TZ-6103	TZ-6104	TZ-6143
OF Max.	800g	500g		640g	640g
RF Min.	240g	100g		230g	230g
PT Max.	2mm	1mm		5mm	5mm
OT Min.	5mm	3.5mm		6mm	6mm
MD Max.	0.1mm	0.12mm		0.4mm	0.4mm
OP	45.8 ± 0.8mm	49.7 ± 0.8mm			-

Appearance and dimension

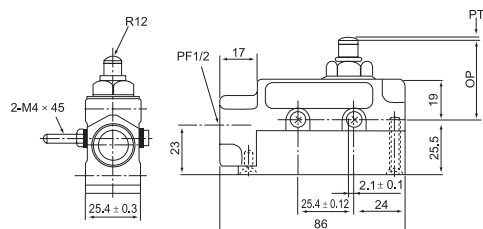
TZ-6004



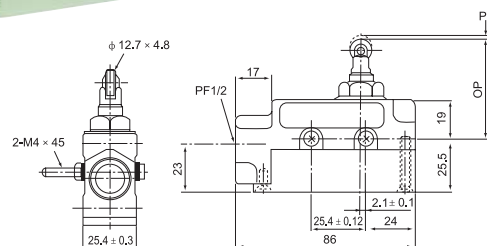
TZ-6104



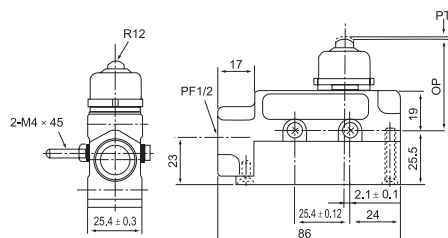
TZ-6001



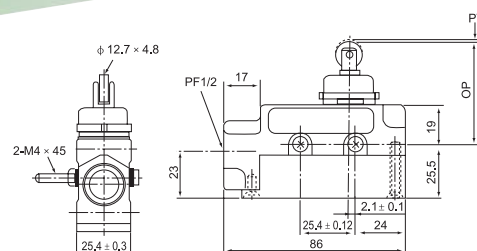
TZ-6002



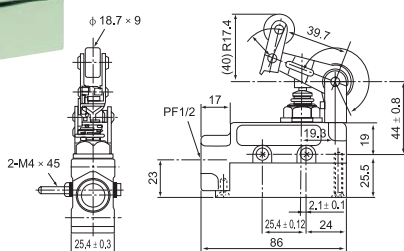
TZ-6101



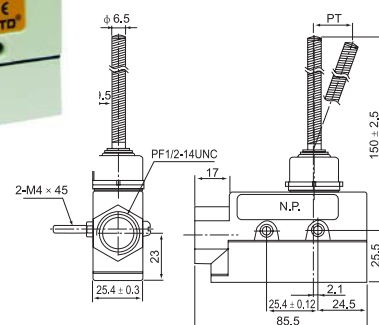
TZ-6102



TZ-6143



TZ-6106





CZ-3 Compact Prewired Limit Switch

Specifications

- DPDS limit switch for multiple applications.
- Rugged aluminum alloy diecast housing
- High mechanical strength.
- Oil resistance, waterproof and dustproof structure.

Ratings

Rated voltage	Noninductive load (A)				Inductive load (A)			
	Resistance load		Lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
125 VAC	5 (0.1)		1.5	0.7	3		2.5	1.3
250 VAC	3		1	0.5	2		1.5	0.8
8 VDC	5 (0.1)		2		5	4	3	
14 VDC	5 (0.1)		2		4	4	3	
30 VDC	4 (0.1)		2		3	3	3	
125 VDC	0.4		0.05		0.4	0.4	0.05	
250 VDC	0.2		0.03		0.2	0.2	0.03	

Characteristics

Rating	5A 125V, 3A 250VAC
Operating speed	1mm~1m/s
Operating frequency	Mechanical: 120 operations/min. Electrical: 30 operations/min.
Contact resistance	15m Ω max.(initial)
Insulation resistance	100m Ω 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
Vibration Frequency	10 to 55HZ, 1.5mm double amplitude
Shock	Mechanical: Approx. 1000m/s ² (Approx. 100G'S) Electrical: Approx. 500m/s ² (Approx. 50G'S)
Ambient temperature	-10℃~+70℃
Humidity	Below 95%RH
Life	Mechanical: 10,000,000 operations/min. Electrical: 200,000 operations/min.
Degree of protection	IEC: IP67
Weight	Approx. 360g (cable length 3m)
	Approx. 540g (cable length 5m)

Operating characteristics

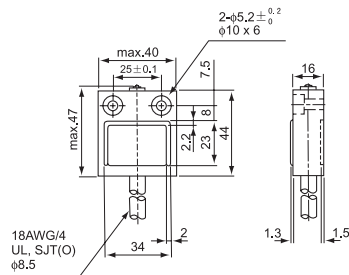
Models	CZ-3101	CZ-3102	CZ-3103	CZ-3104	CZ-3110	CZ-3111	CZ-3112	CZ-3113	CZ-3169
OF Max.	1200gf(11.77N)	1200gf(11.77N)	1200gf(11.77N)	580gf(5.69N)	1200gf(11.77N)	1800gf(17.65N)	1800gf(17.65N)	1800gf(17.65N)	150gf(1.47N)
RF Min.	450gf(4.41N)	450gf(4.41N)	450gf(4.41N)	150gf(1.47N)	450gf(4.41N)	450gf(4.41N)	450gf(4.41N)	450gf(4.41N)	-
PT Max.	1.8mm	1.8mm	1.8mm	25	1.8mm	1.8mm	1.8mm	1.8mm	15°
OT Min.	3mm	3mm	3mm	40	3mm	3mm	3mm	3mm	-
MD Max.	0.2mm	0.2mm	0.2mm	3	0.2mm	0.2mm	0.2mm	0.2mm	-
OP	15.7 ± 1mm	28.5 ± 1mm	28.5 ± 1mm	-	28.5 ± 1mm	24.9 ± 1mm	34.3 ± 1mm	34.3 ± 1mm	-

CZ-3 Compact Prewired Limit Switch

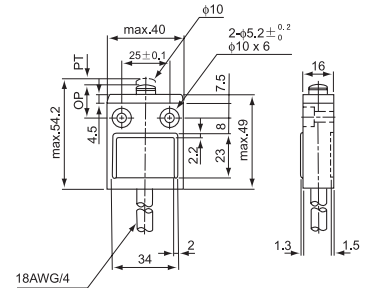
CNTD®

Appearance and dimension

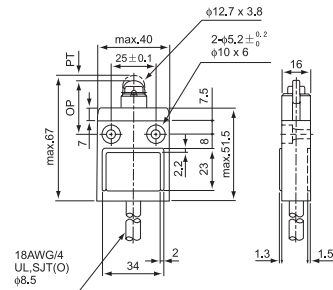
CZ-3-B



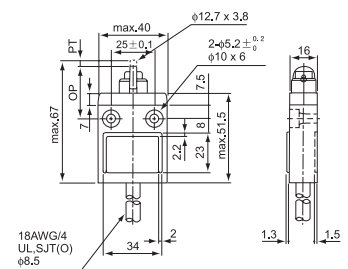
CZ-3101



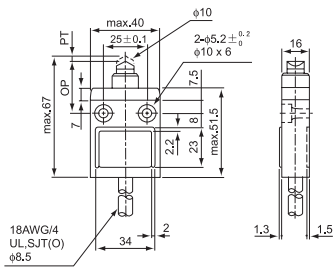
CZ-3102



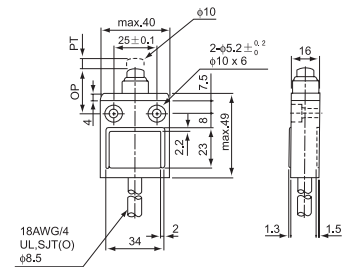
CZ-3103



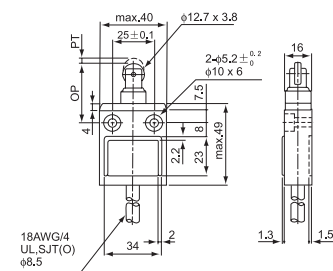
CZ-3110



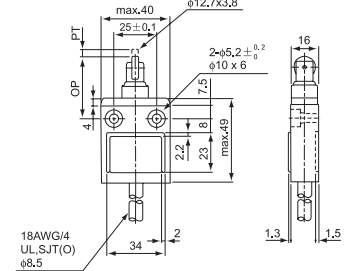
CZ-3111



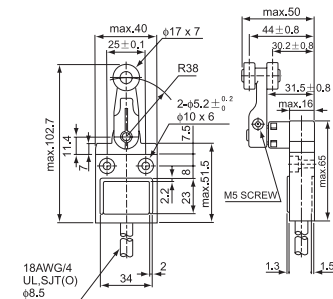
CZ-3112



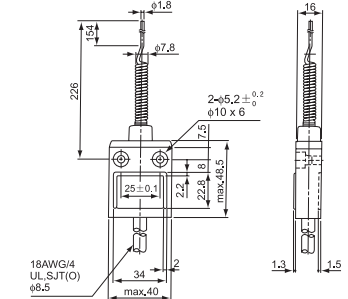
CZ-3113



CZ-3104



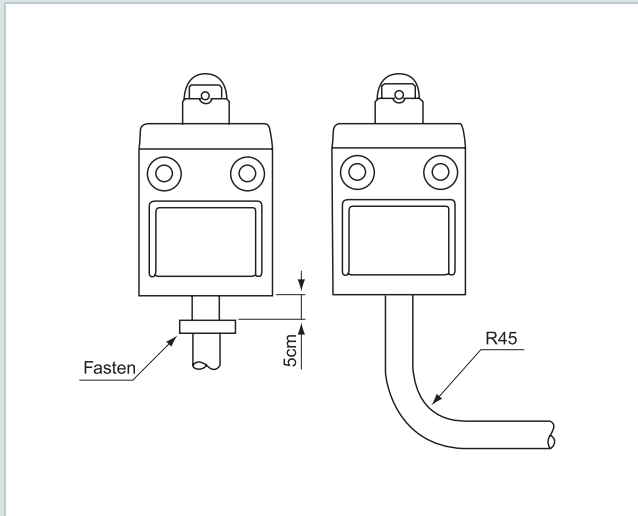
CZ-3169



CZ-3 Compact Prewired Limit Switch

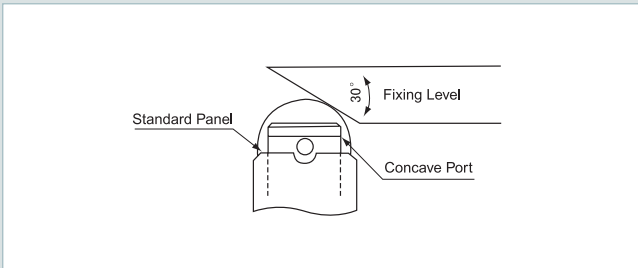
Fastening of the switch cable

The switch bodies are filled with resin for sealing purposes. To avoid stressing the cable and switch body, fasten the switch at 5 cm or farther away from the switch body, should the wire be bent, the bending radius shall be at least 45mm.

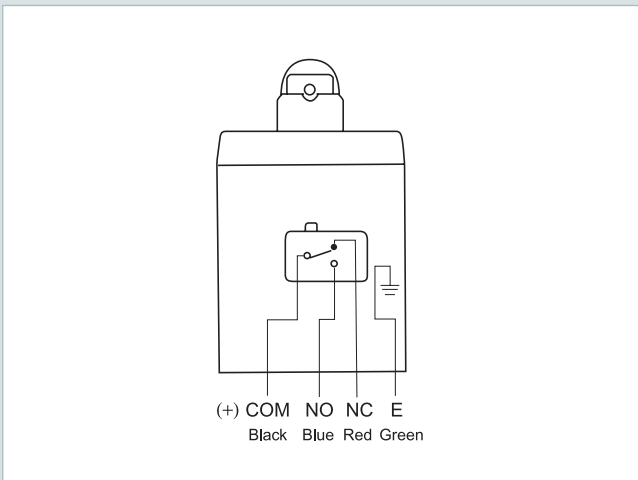


Installation

The service life and accuracy of switches will be effected by the shape of actuator operation frequency & over travel. So the angular of the fixing level should be about 30° , the surface finish of the fixing level should be over, the hardness is from HV400~500. When installing, the position of the concave part should be above the standard panel

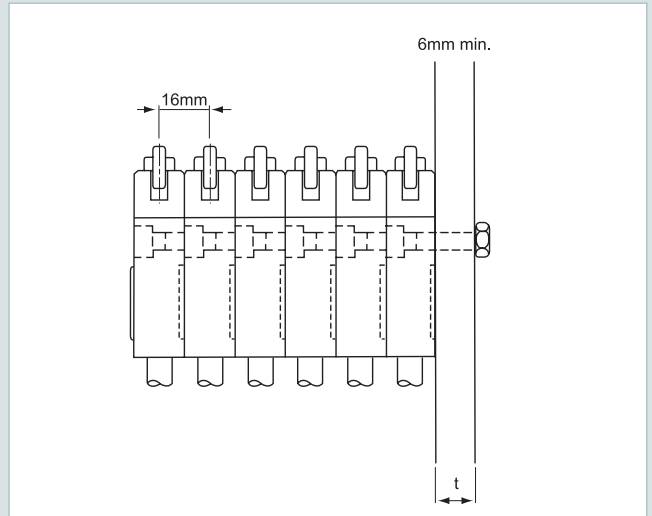


Contact types



Switch bank mounting

A maximum of six switches may be mounted together as a switch bank. During the installation, the convex part of the switch back. The mounting panel shall be 6mm or thicker.



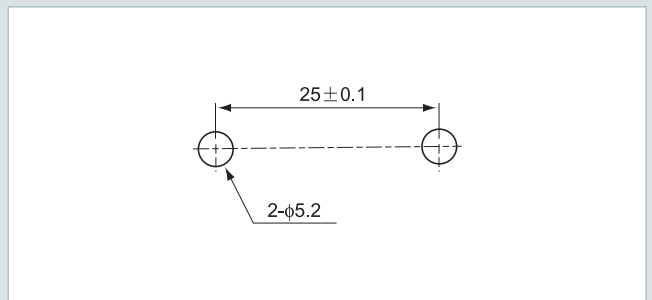
Mounting

Recommended tightening torque according to the following form.

Model	Screw type	Torque
1	M5 fastening screws	43.4~52lb.in (50~60kgf.cm)
2	M3.5 installing screws	6.9~7.9lb.in (8~9kgf.cm)

Mounting holes

Mount the switch body to a rigid mounting panel using two M5 screws.





CZ-93 Safety Key Interlock Switch

Model designations

CZ-93	B	PG	01
①	②	③	④

Designation	Signal	Description
1.Type	CZ-93	Safety switch
2.Type of contact blocks fitted	B	2B(2NC)
	C	1A1B(NO-NC)
3.Conduit entries	PG	PG 13.5XP1.5
	PT	PT1/2X14UNC
4.Actuating keys	None	None
	01	Horizontal
	02	Vertical
	03	Adjustable

Ratings

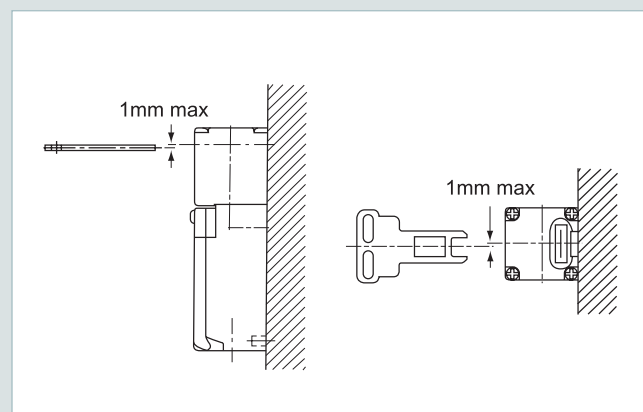
Rated voltage	Noninductive load (A)				Inductive load (A)			
	Resistance load		Lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
125 VAC	10	3	1.5	10	5	2.5		
250 VAC	10	2	1	10	3	1.5		
400 VAC	10	1.5	0.8	3	1.5	0.8		
8 VDC	10	6	3	10	6	6		
14 VDC	10	6	3	10	6	6		
30 VDC	6	4	3	6	4	4		
125 VDC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

Characteristics

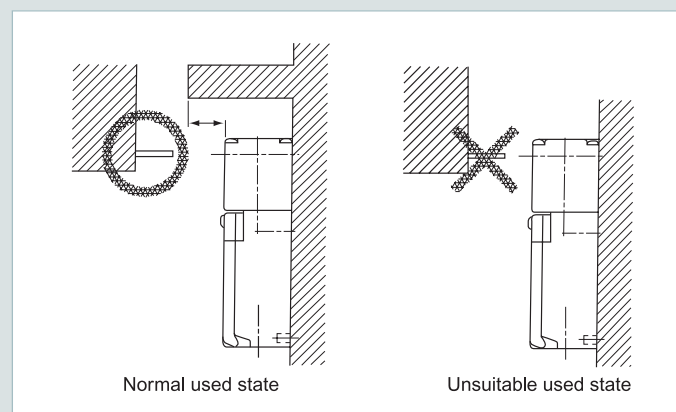
Rating	3A 240VAC (A300)
Operating speed	0.1m ~0.5m/s
Operating frequency	30 operations/minute
Contact resistance	25m Ω max. (initial).
Insulation resistance	100m Ω min. (at 500VDC)
Rated insulation voltage(Ui)	400V
Dielectric strength	AC2500V/Uimp 4KV
Vibration	10 to 55Hz, 0.65mm double amplitude
Shock	Mechanical: Approx. 1000m/s ² (Approx. 100G'S)
	Electrical: Approx. 300m/s ² (Approx. 30G'S)
Ambient temperature	-30℃ ~+70℃
Ambient Humidity	Blow 95RH
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
Weight	Approx. 76g

Use attention affair

To prevent the wear and the space should be within 1mm between the key and middle of the insert hole.

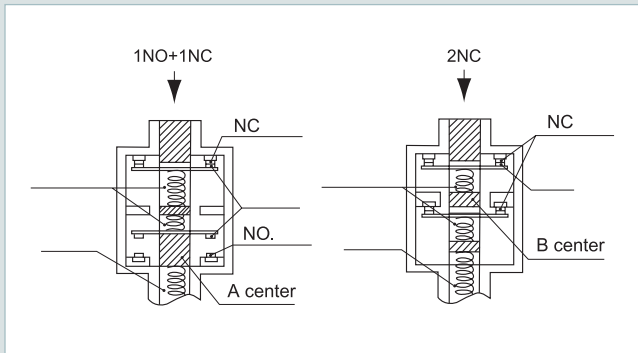


When in use, there should put a plate on the top to prevent the key overinsert. To prevent nonmovement, the space between the plate and the switch should be under 3 mm.



CZ-93 Safety Key Interlock Switch

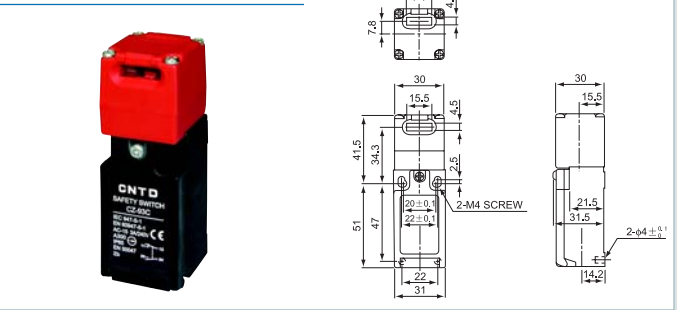
Required to have positive machine



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.

Appearance and dimension

CZ-93BPG BPT CPG CPT

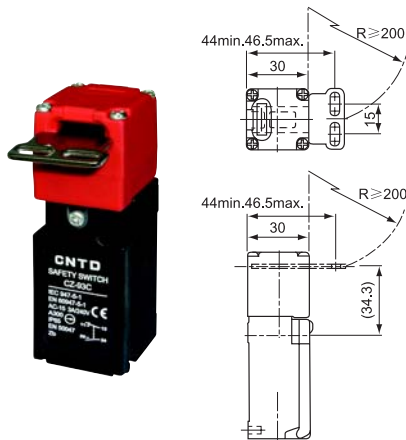


Operating characteristics

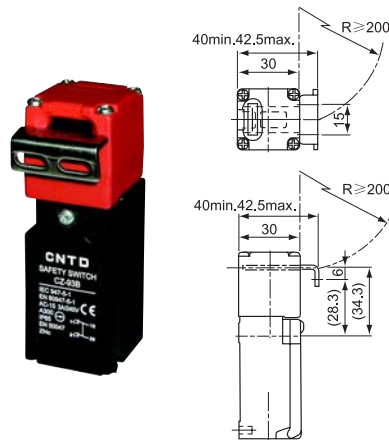
Key plug in force	max.	147.N(1,500gf)
key pull out force	max.	29.42N(3,000gf)
Pretravel		6 ± 3mm
Total travel		(28mm)
Force required to have positive	min.	58.84N(6,000gf)
Positive opening travel	min.	10mm

Appearance and dimension

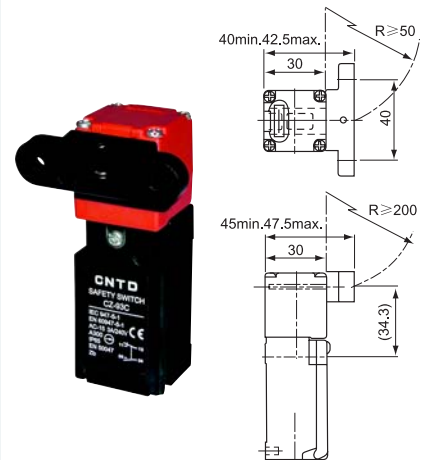
CZ-93BPG01 BPT01 CPG01 CPT01



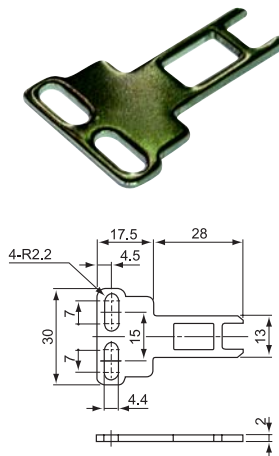
CZ-93BPG02 BPT02 CPG02 CPT02



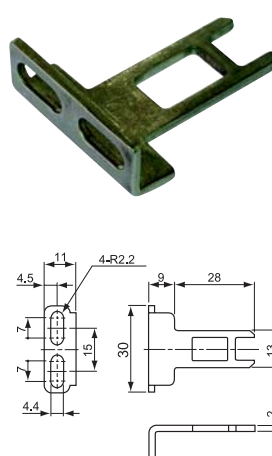
CZ-93BPG03 BPT03 CPG03 CPT03



CZ93-K1



CZ93-K2



CZ93-K3

