

TZ-8 Limit Switch

- 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

Model	TZ-8104	TZ-8108	TZ-8107	TZ-8111	TZ-8112/8122	TZ-8166/8167 /8168/8169
Triggering	30° convex trigger	30° convex trigger	Any moving part	At the end	30° convex trigger	Any moving part
Contact operation						
Max triggering speed	1.3m/s			0.25m/s		1.3m/s
Min restoring force	750g	750g	750g	900g	900g	150g
Min restoring force	100g	100g	100g	150g	150g	
Weight (kg)	0.190	0.210	0.200	0.155	0.160	0.150
Wiring	Flexible rubber cable sleeve is suitable for cables of $\Phi 6...9\text{mm}$, each terminal can hold conductors of 2mm^2 at most					

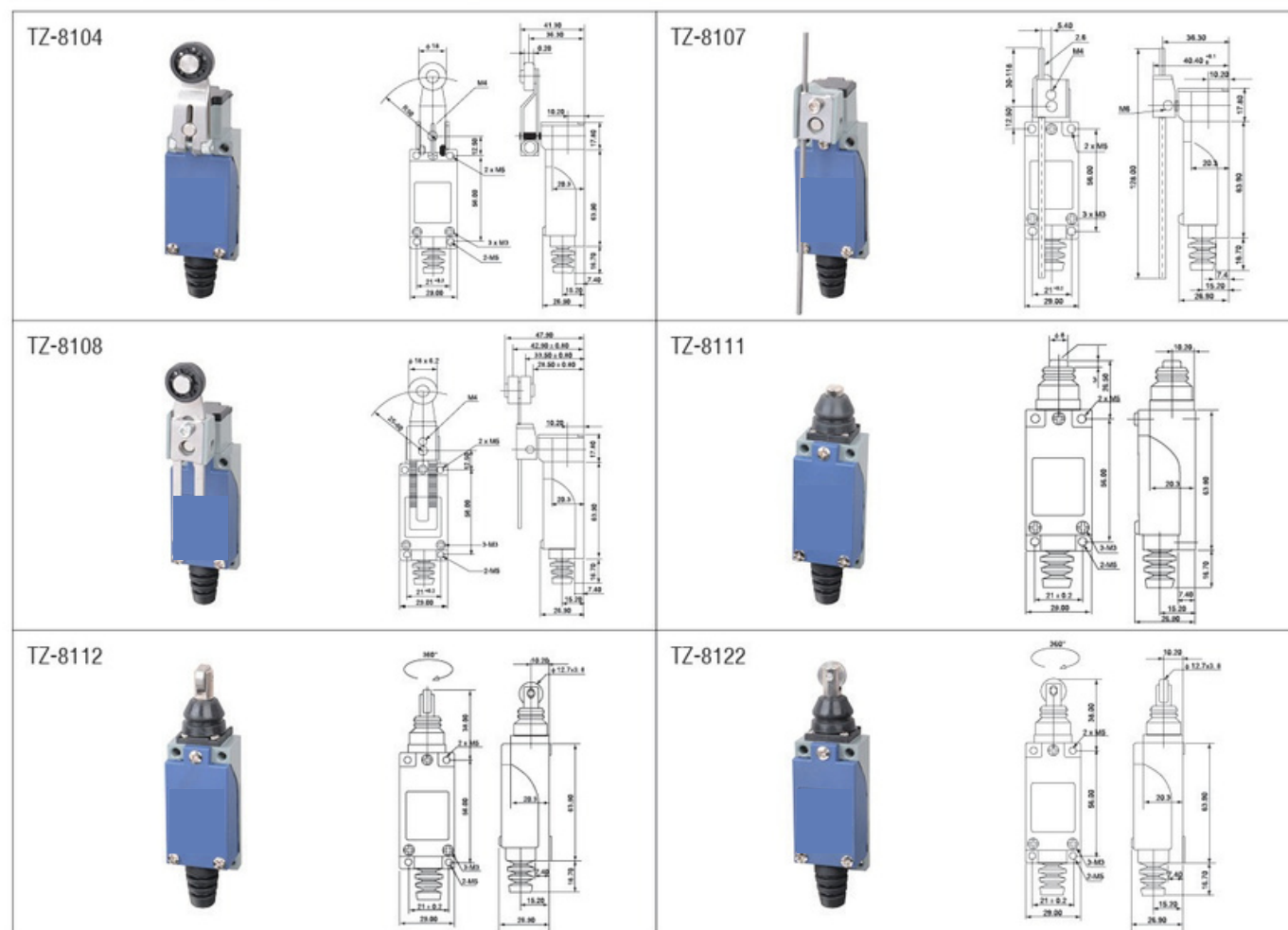
Characteristics Of Contact Module

Rated operating characteristics	Inductive load: --AC15, B300 ($U_e=240\text{V}$, $I_e=1.5\text{A}$) --DC-13, R300 ($U_e=250\text{V}$, $I_e=0.1\text{A}$) Resistive load: 250V, 5A
Rated insulation voltage	$U_i=500\text{V}$, class of pollution is 3, comply with IEC 60947-1 $U_i=300\text{V}$, comply with UL508, CSA C22-2n° 14
Insulation resistance	$>100\text{M}\Omega$, 500V时 $>100\text{M}\Omega$, at 500V
Operating frequency	120 times/min
Electrical life	1,000,000 times, AC-15 ($U_e=240\text{V}$, $I_e=1.5\text{A}$)
Contact resistance	$\leq 25\text{M}\Omega$, 5V, 5mA, after ten million times of operation

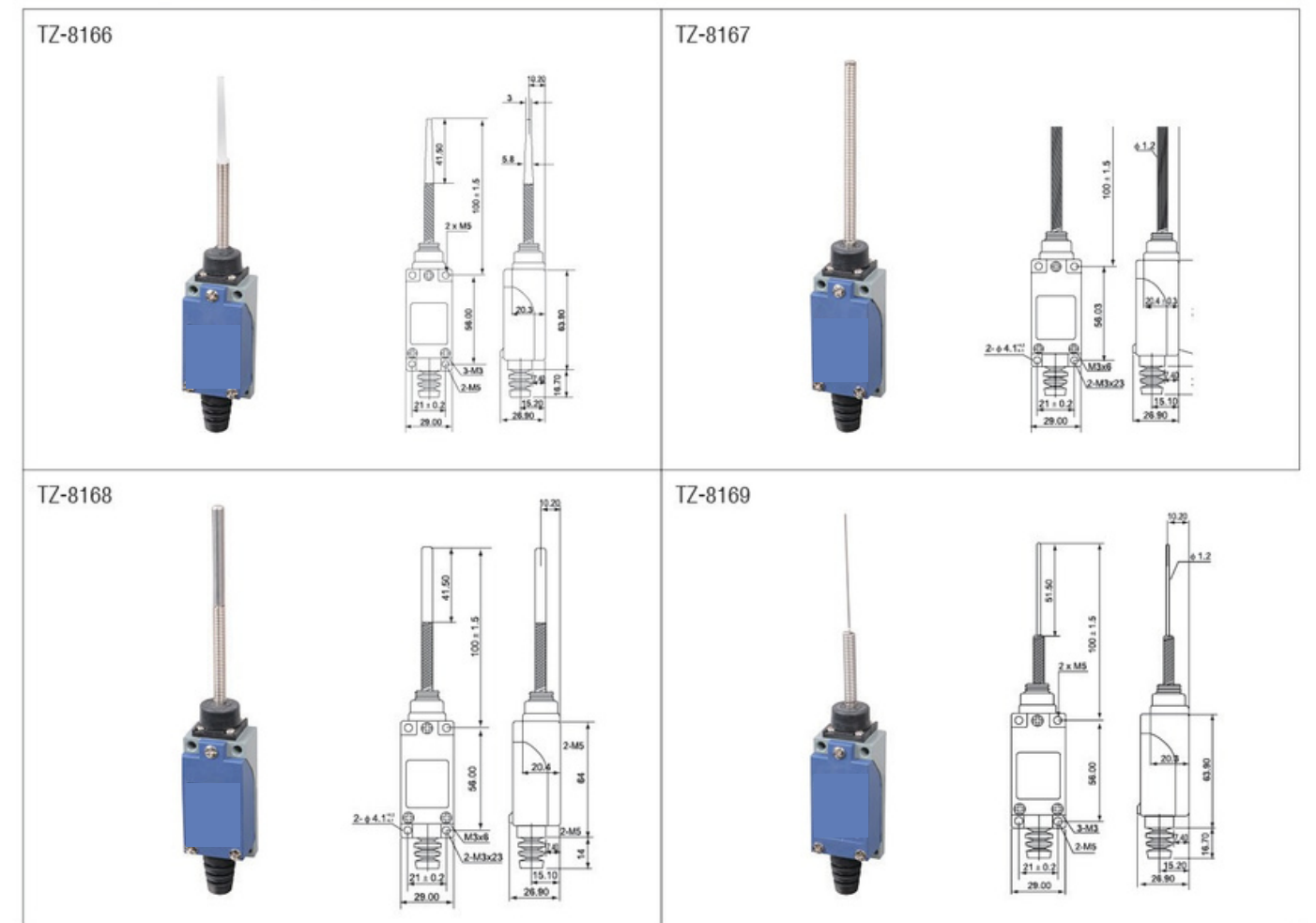
Environmental Characteristics

Normative reference	Product	IEC60947-5-1, EN60947-5-1, UL508, CSAC22-2N° 14
	Components	IEC60204-1, EN60204-1
Ambient temperature	run	-25...+70°C
	Storage	-40...+70°C
Vibration resistance	Comply with IEC60068-2-6	55Hz, 1.5mm double-amplitude
Shock resistance	Comply with IEC60068-2-27	30gn 18ms, in any position
Degree of protection		IP65, comply with IEC60529
Mechanical life		15,000,000 times

Appearance and Dimension



Appearance and Dimension





WL Limit Switch

- Double-circuit type of limit switch, is widely used
- With strong aluminum cast outer shell
- High mechanical strength
- 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

Model	WL-CA2-2 WL-CA12-2-Q	WL-CA32-41-43	WL-CL	WL-D	WL-D1/D2/D3	WL-NJ/NJ-30 /NJ-2/NJ-S2
Triggering	30° convex trigger	30° convex trigger	Any moving part	At the end	30° convex trigger	Any moving part
Contact operation	■ Contacts attract		□ Contracts separate			
Max triggering speed	1.3m/s	1.3m/s	1.3m/s	0.5m/s	0.5m/s	1.3m/s
Min restoring force	1360g	1200g	142g	2720g	2720g	120g
Min restoring force	227g		28g	910g	910g	50g
Weight (kg)	0.330	0.340	0.300	0.251	0.251	0.286

Characteristics Of Contact Module

Rated operating characteristics	~AC-15: A300(U _e =240V, I _e =3A); 1 the=10A --DC-13: Q300(U _e =250V, I _e =0.27A); comply with IEC60947-5-1 appendix table A. EN60947-1
Rated insulation voltage	Among homopolar terminals: AC 1000V(600V), 50/60Hz 1min Between charged metal part and earth wire: AC2000V(1500V), 50/60Hz 1min Uimp 2.5kV Among terminals and non-charged metal part: AC2000V, 50/60Hz 1min Uimp 2.5kV
Insulation sistance	100MΩ above (megohmmeter of 500VDC)
Operating equency	120 times/min
Electrical life	750,000 times
Contact resistance	Less than 25MΩ

Environmental Characteristics

Normative reference	Product	IEC60947-5-1, EN60947-5-1, UL508, CSAC22-2N° 14
	Components	IEC60204-1, EN60204-1
Ambient temperature		-10~+80°C
	Storage	-40~+80°C
Vibration resistance	Comply with IEC60068-2-6	10-55Hz complex amplitude 1.5mm
Shock resistance	Comply with IEC60068-2-27	Maximum 300m/s ² (30G Less than)
Degree of protection		IP67 NEMA: 3, 4, 13
Mechanical life		15,000,000 times

Appearance and Dimension

<p>WLCA2-2</p>	<p>WLCA12-2-Q</p>
<p>WLCA32-41-43</p>	<p>WLCL</p>
<p>WLD</p>	<p>WLD1</p>

Appearance and Dimension

<p>WLD2</p>	<p>WLD3</p>
<p>WLNJ</p>	<p>WLNJ-30</p>
<p>WLCA12-L</p>	<p>WLNJ-S2</p>



CSA Limit Switch

- Strong metal outer shell, swing arm max. $\pm 95^\circ$
- Stainless steel idler wheel, punch and spring
- Selective M18x1.5 cable gland

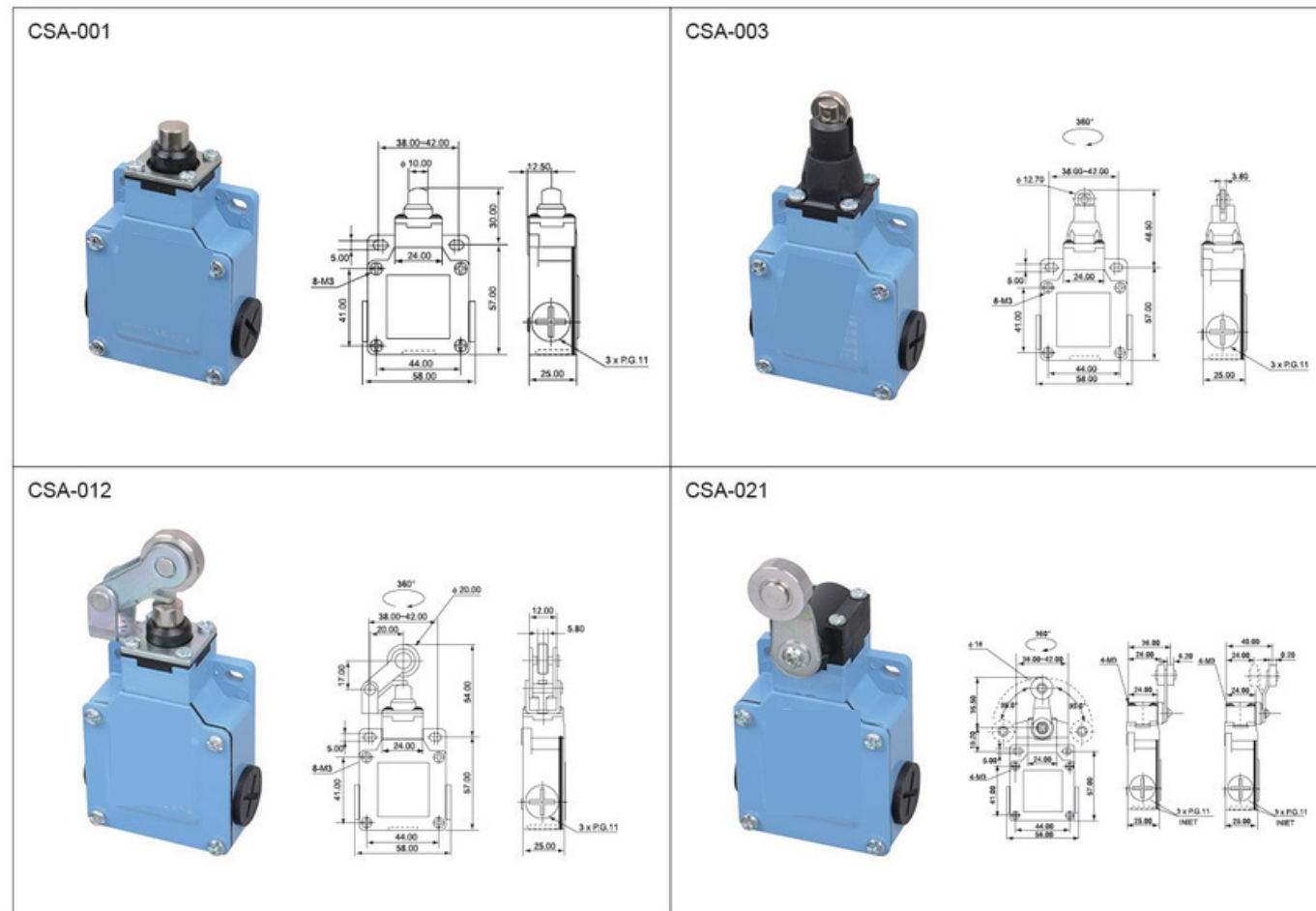
Model	CSA	CSA-001	CSA-003	CSA-012	CSA-021	CSA-041	CSA-031	CSA-051	CSA-061	CSA-071	CSA-081
Operating force	OF (Max.)	700g	700g	500g	400g-cm	400g-cm	400g-cm	400g-cm	150g	150g	150g
Release force	RF (Min.)	200g	200g	100g-cm	100g-cm	100g-cm	100g-cm	100g-cm	50g	50g	50g
Pre-travel	PT (Max.)	1.8mm	1.8mm	20°	20°	20°	20°	20°	30mm	30mm	30mm
Tripping position	TP $\pm 10\%$	2.0mm	2.0mm	22.5°	22.5°	22.5°	22.5°	22.5°	22.5°	22.5°	22.5°
Movement differential	MD (Max.)	1.2mm	1.2mm	10°	10°	10°	10°	10°	14°	14°	14°
Over travel	OT (Min.)	4.0mm	4.0mm	75°	75°	75°	75°	75°	20mm	20mm	20mm
Total travel	TT (Min.)	5.8mm	5.8mm	95°	95°	95°	95°	95°	50mm	50mm	50mm
Rotary indexing				22.5°	22.5°	22.5°	22.5°				

Characteristic/Application

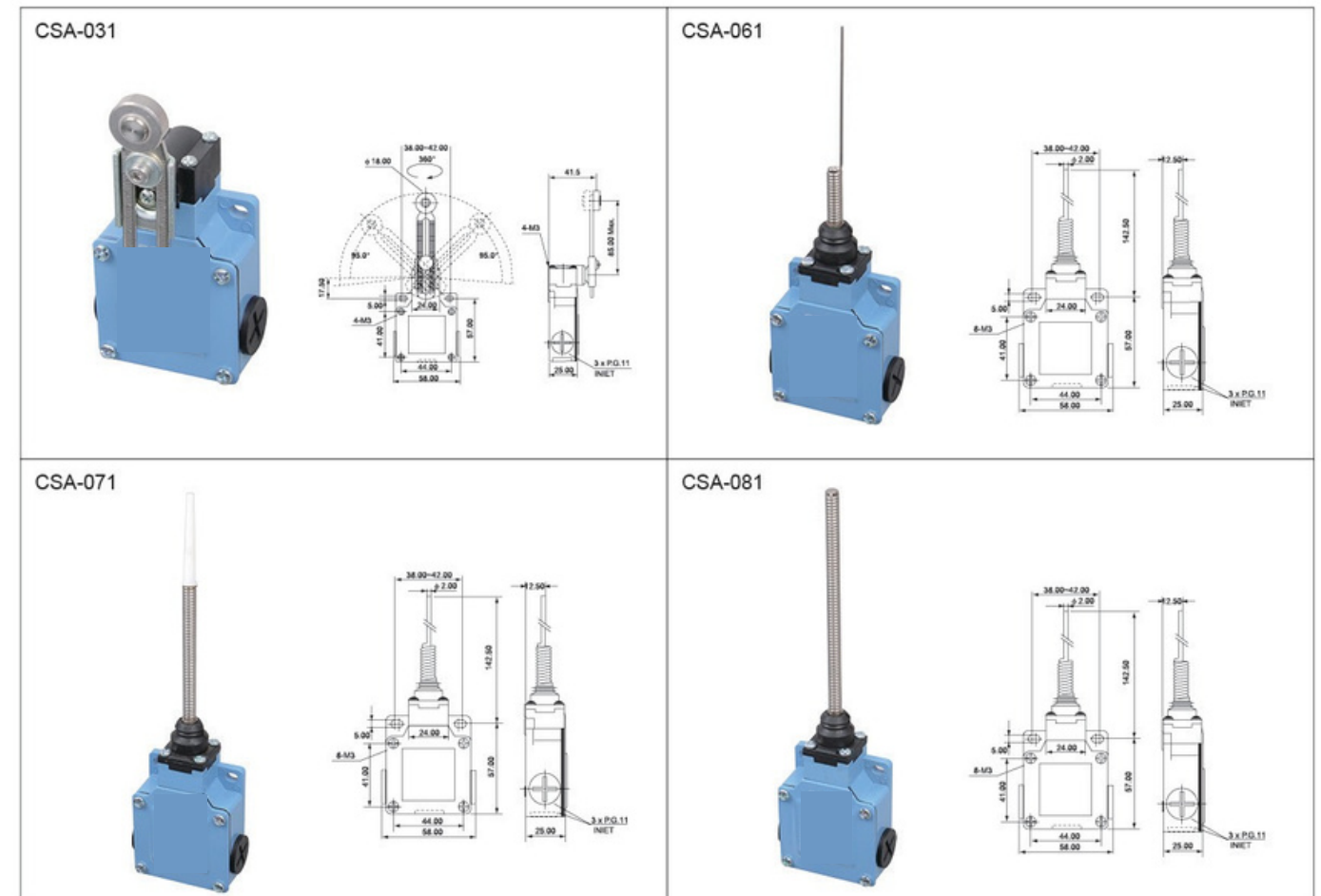
Double Break Mechanism	INO+INC Force Break snap action
Rated Voltage / Current	10(4)A, 125, 250VAC / 6(2)A, 380VAC For inductance Load, Cos $\phi = 0.4$
Contact Resistance	25m Ω max. (initial value)
Insulation Resistance	100m Ω min. (at 500VDC)
Dielectric Strength	1000VAC, 50/60 Hz for 1 minute between 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	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 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	$\phi 2$ Max
Cable Diameter	$\phi 12$ Max(IP 65 if use cable $\phi 8-9$)

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.

External appearance size



External appearance size



CLS Limit Switch

- ◉ Economical & plastic type
- ◉ Stainless steel roller, punch and spring
- ◉ Swing amplitude, extra large $\pm 95^\circ$
- ◉ M20x1.5 cable gland that can be equipped

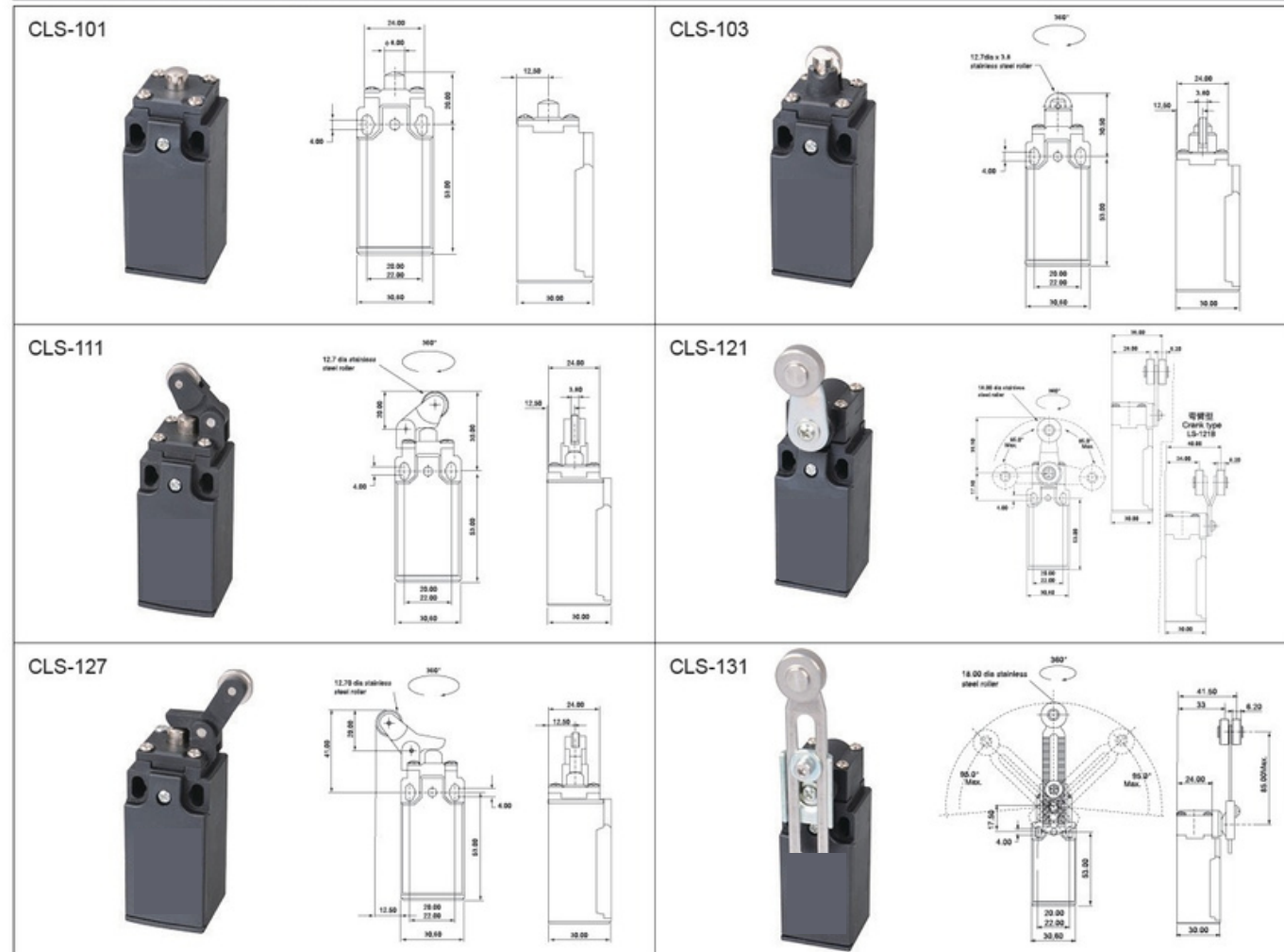
Model	CLS	101	103	111	121	127	131	161	171	181	191
Operating force	OF (Max.)	700g	700g	700g	500g	700g	500g-cm	100g	100g	100g	500g-cm
Release force	RF (Min.)	200g	200g	200g	100g-cm	200g	100g-cm	40g	40g	40g	100g-cm
Pre-travel	PT (Max.)	1.8mm	1.8mm	1.8mm	20°	1.8mm	20°	30mm	30mm	30mm	20°
Tripping position	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°

Characteristicw/Application

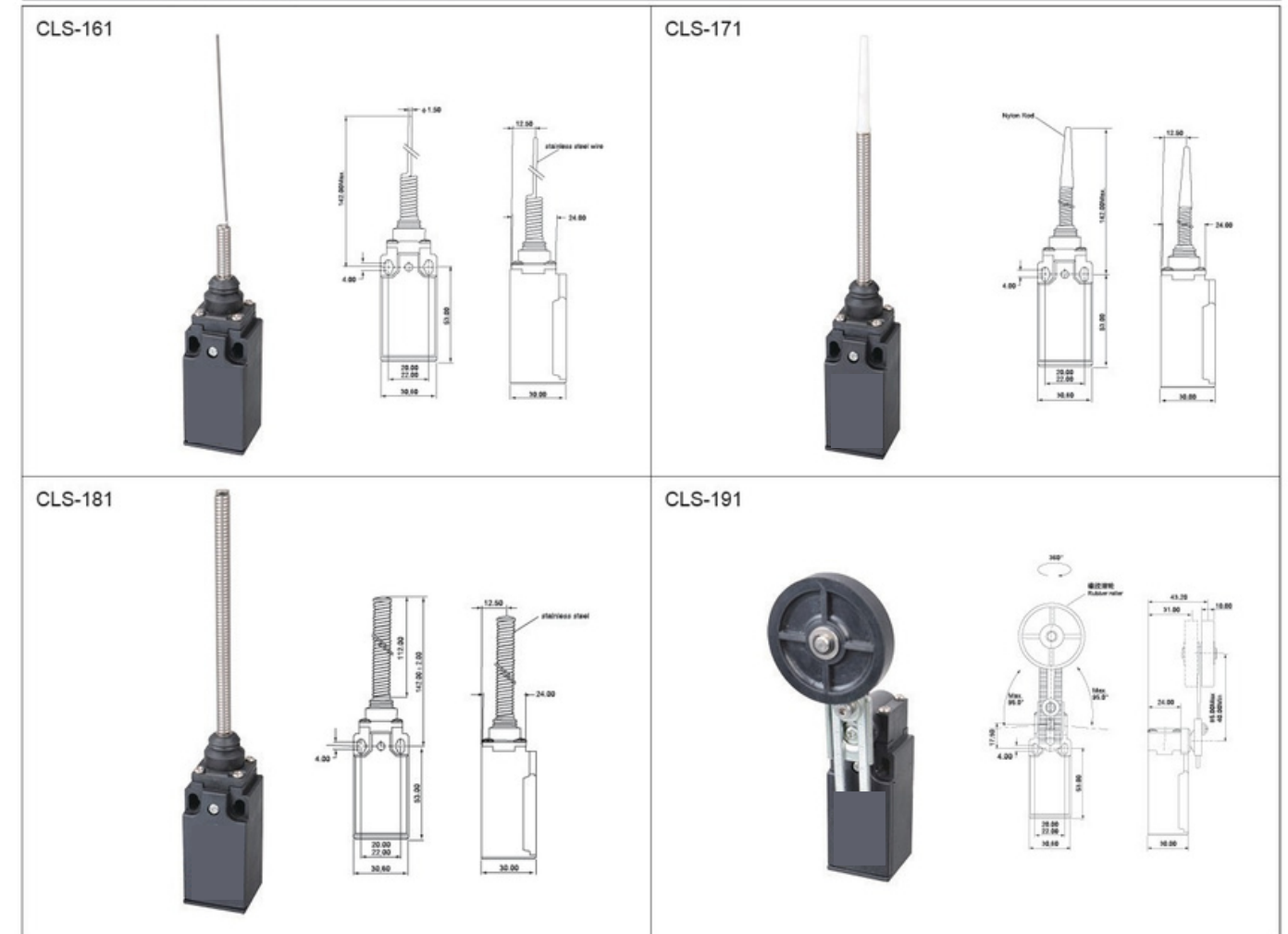
Double Break Mechanism	INO+INC Force Break snap action
Rated Voltage / Current	10(4)A, 125, 250VAC / 6(2)A, 380VAC For inductance Load, Cos $\phi = 0.4$
Contact Resistance	25m Ω max. (initial value)
Insulation Resistance	100m Ω min. (at 500VDC)
Dielectric Strength	1000VAC, 50/60 HZ for 1 minute between 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	$\phi 2$ Max.
Cable Diameter	$\phi 12$ Max.

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.

External appearance size



External appearance size



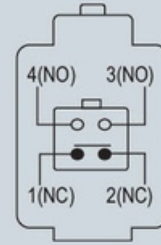


HL Limit Switch

Characteristicw/Application

Type	HL-5000	HL-5030	HL-5050	HL-5100	HL-5200	HL-5300
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	-	-	-	30 ± 0.8mm	30 ± 0.8mm	-

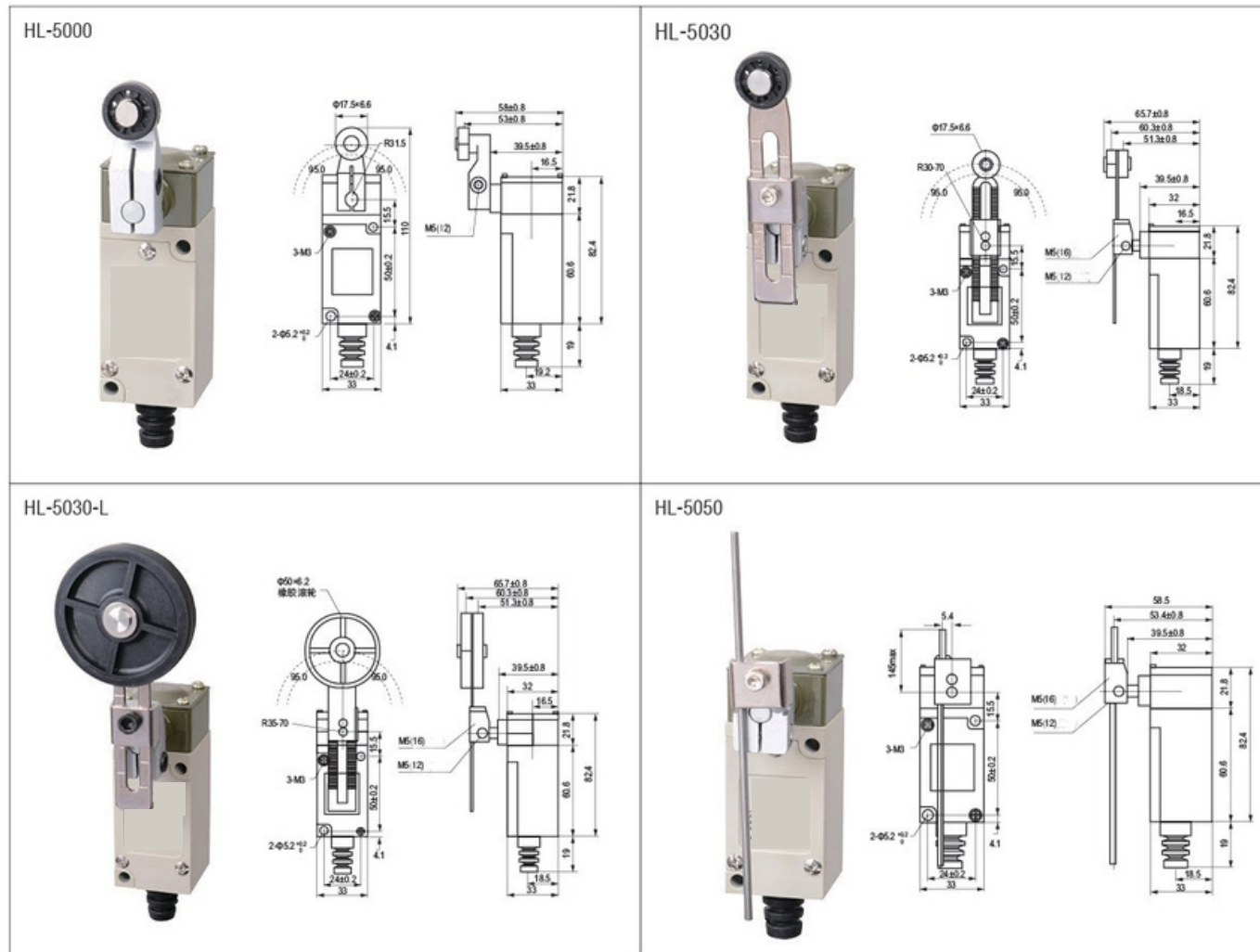
Contact form



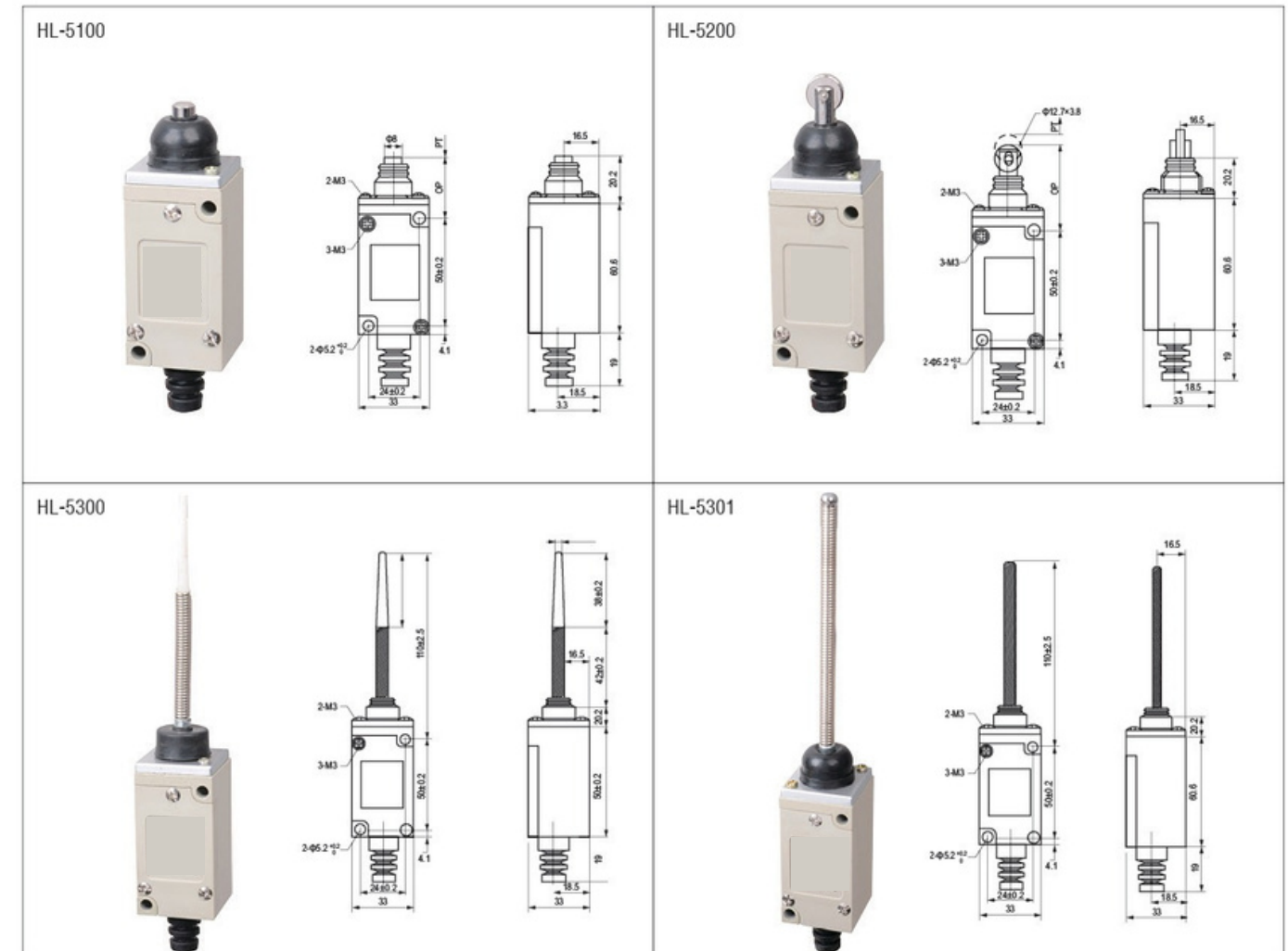
Characteristicw/Application

Protection degree	IP65	
life	Mechanical	ten million times above
	Electrical	More than 500,000 times
operation speed	5mm~0.5m/s	
operating frequency	Mechanical	120 (times/m)
	Electrical	30 (times/m)
Insulation resistance	100MΩ DC500V	
contact resistance	25MΩ hereinafter (Initial value)	
with stand voltage (50/60Hz one minute)	Between the terminals of same pole	AC 1,000V
	Between charged metal parts	AC 1,500V
	Between non-charged metal parts of each terminal	AC 1,500V 10~55Hz (amplitude 1.5mm)
vibration	misoperation	AC 250V 5A
load	AC 380V 5A DC 125V 5A DC 250V 5A	

External appearance size



External appearance size



MEA Limit Switch

Characteristicw/Application

Total plastic enclosure, light weight switch

Wide choice of heads and actuators

Captive cover screws

Dustproof, oil-tight, water-resitant

Dual contacts NO/NC contacts

Protection degree IP65

Scope of work 6A 125 or 250VAC

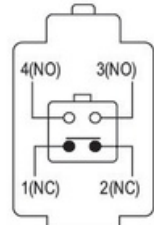
Insulation resistance 100MΩ max at 500VDC

Max.operating freq.	Mechanical	120 times/m
	Electrical	30 times/m

Life test-electrical mechanical	Mechanical	More than 10 million times
	Electrical	More than 300,000 times

Ambient operating temperature -25°C ~ +70°C

Contact form



External appearance size

	<p>MEA-9104</p>
<p>MEA-9107</p>	<p>MEA-9108</p>

External appearance size

<p>MEA-9108-L</p>	<p>MEA-9111</p>
<p>MEA-9112</p>	<p>MEA-9122</p>
<p>MEA-9124</p>	<p>MEA-9161</p>
<p>MEA-9166</p>	<p>MEA-9169</p>



LXK3 Limit Switch

Characteristicw/Application

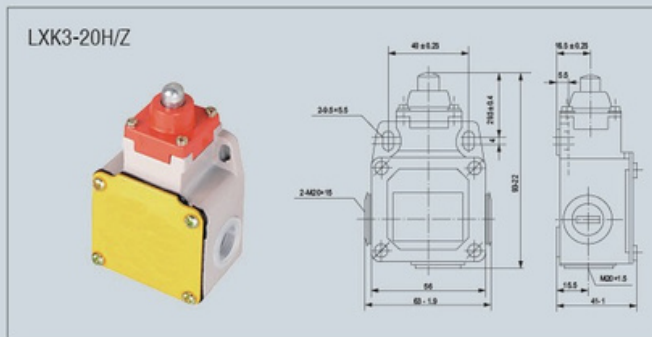
The product is to service at such control circuit as AC50-60Hz, voltage of 380VAC or 220VDC and current of 10A to automatically control machine tool, limit movement and action of drive mechanism and control program.

The nominal service conditions include an ambient temperature of -25°C+40°C, an ambient relative humidity of 90%, and altitude of 2000m and protection degree of IP65. It complies with the standard of IEC337-1 and GB14048.5-2001.

Code name for protection enclosure mode

LXK3-20S	Vertical type, a outgoing hole at the bottom
LXK3-20H	Horizontal type, there is respectively a outgoing hole at the bottom and two Sides.

External appearance size



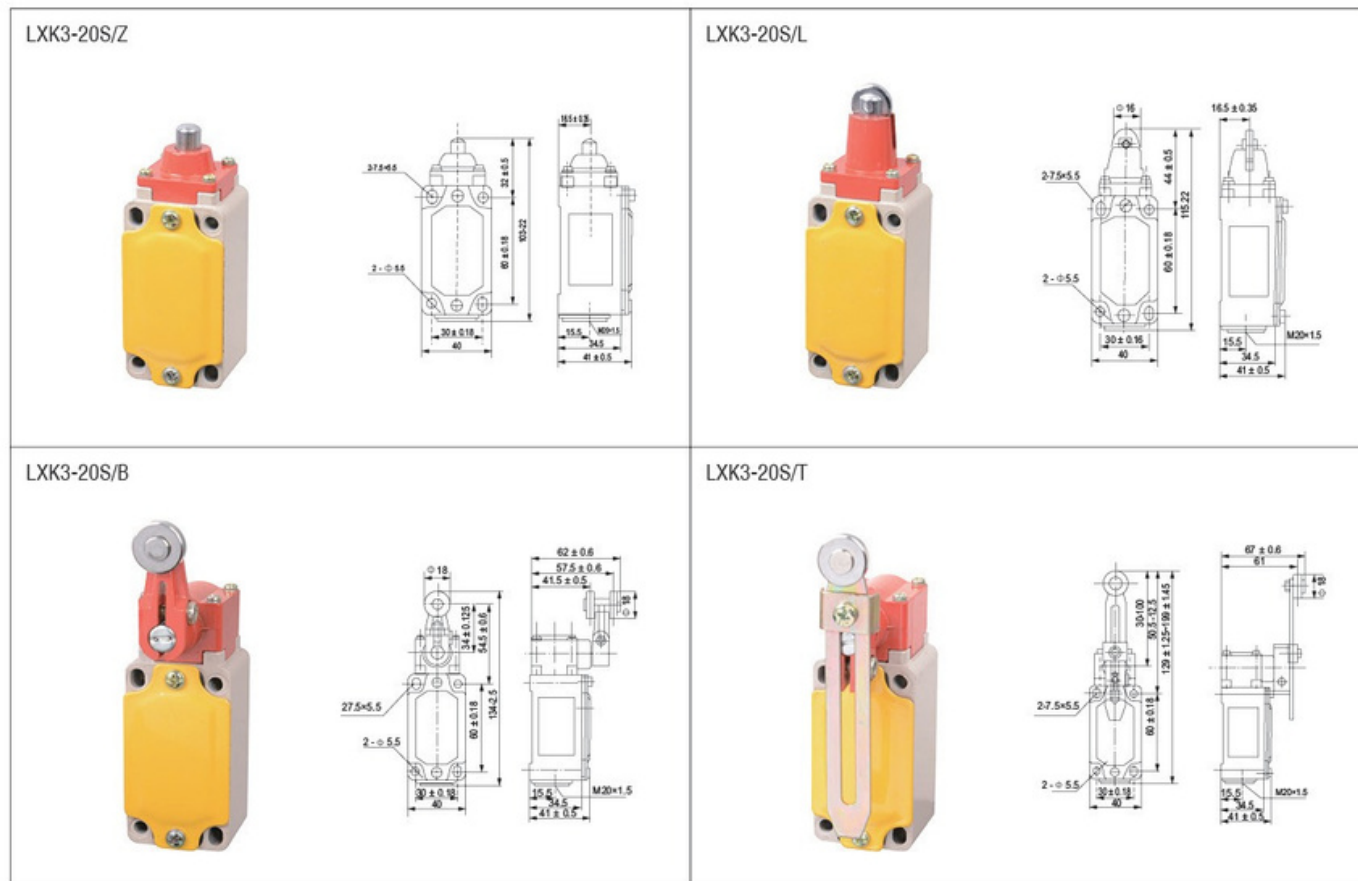
Main technology data

Use	The typical usage of travel switch is to control electrical magnet of AC or DC			
Control capacity	AC-15		DC-13	
	Rated insulation voltage	Rated working current	Rated insulation voltage	Rated working current
	380V	0.8A	220V	0.15A
	220V	1.4A	110V	0.3A
	110V	2.8A		
Rated value	Rated insulation voltage $U_i=380V$, conventional enclosed heating current $I_{th2}=10A$			
Protection for short-circuit	Rated fuse current 1000A RL1-15/10			
operation frequency	AC 2400 times/hour DC 1200 times/hour			
electrical	Electrical life of AC one million and half times, Electrical life of DC three hundred of thousand times			
mechanical	LXK3-20 S.H/H1、H2、H3、LXK3-20 S.H/W 6 million times for other specifications, 10 million times			
Repetition precision	The difference between the maximum(or the minimum) and the means is n more than 0.05mm in ten times of actions			
Protection degree of enclosure	IP65 GB4208-84			
Vibration resistance	frequency 10-55Hz acceleration 10g(90M/S) amplitude 0.75mm			

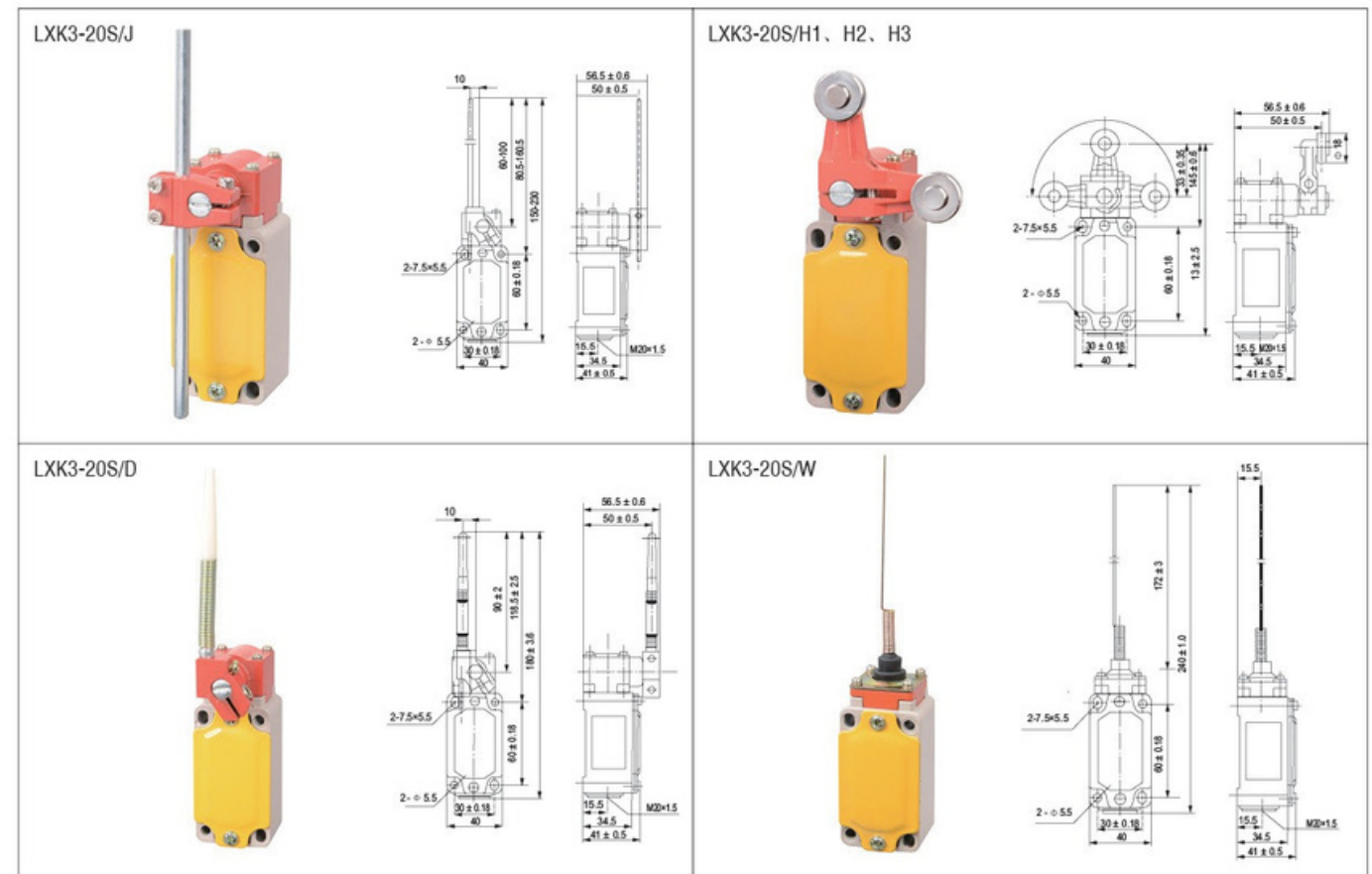
Code name for operation mode

Z	Plunger-type, automatic reset
L	Roller plunger-type, automatic reset
B	Roller rotary arm type, automatic reset
T	Adjustable roller rotary arm type, automatic reset
J	Adjustable metal pendulum arm type, automatic reset
D	Elastic pendulum arm type, automatic reset
H1	Fork type, two wheels at same direction, no automatic reset
H2	Fork type, left wheel front, right wheel back, no automatic reset
H3	Fork type, right wheel front, left wheel back, no automatic reset
W	Universal type, automatic reset

External appearance size



External appearance size





3SE3 Limit Switch

Characteristicw/Application

The product is to service at such control circuit as AC50-60Hz, voltage of 380VAC or 220VDC and current of 10A to automatically control machine tool, limit movement and action of drive mechanism and control program.

The nominal service conditions include an ambient temperature of -25°C+40°C, an ambient relative humidity of 90%, and altitude of 2000m and protection degree of IP65. It complies with the standard of IEC337-1 and GB14048.5-2001.

Code name for protection enclosure mode

G type	single rocker, single rotary wheel, automatic reset, arbitrary angle of installation of rocker
U type	single rocker with length adjustable, one wheel automatic reset

Main technology data

operation system	Characteristic	operation system	Characteristic
B type	direct action, automatic reset	G type	single rocker, single rotary wheel, automatic reset, arbitrary angle of installation of rocker
C type	direct action, automatic reset, with cushion	U type	single rocker with length adjustable, one wheel automatic reset
D type	direct action, with roller, automatic reset, with cushion	W type	length of plastic bar adjustable, automatic reset
E type	angle lever, with roller, automatic reset	T type	fork-shape bar, two wheel, can't automatic reset
F type	angle lever, with roller, automatic reset	R type	direction type, automatic reset

External appearance size

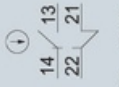
<p>3SE3-120/1G</p>	
<p>3SE3-100/1B</p>	<p>3SE3-100/1E</p>
<p>3SE3-100/1D</p>	

External appearance size

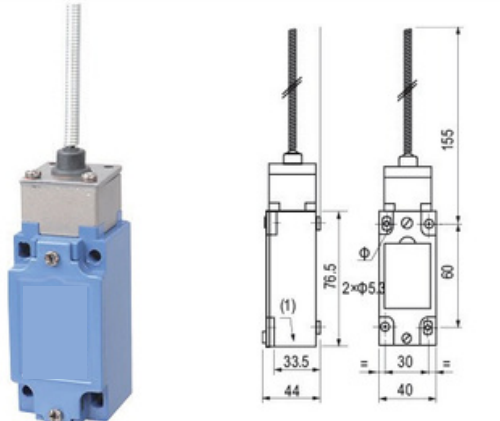
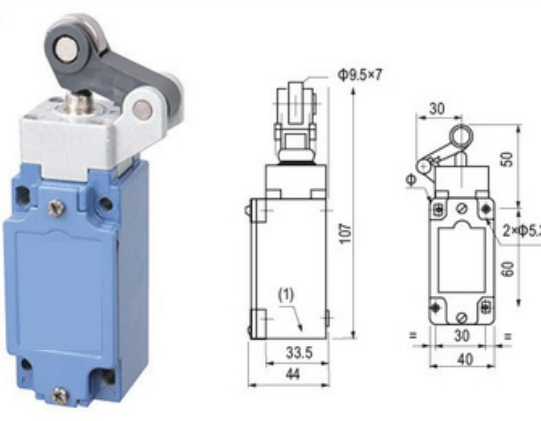
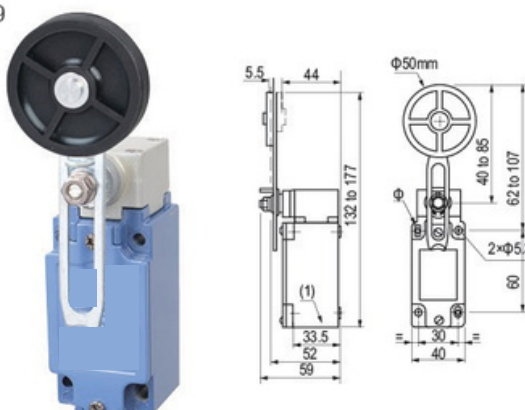
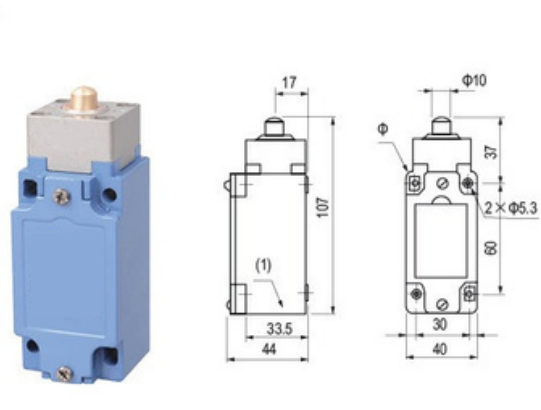
<p>3SE3-100/1F</p>	<p>3SE3-100/1G, J, H, K</p>
<p>3SE3-100/1U, N</p>	<p>3SE3-100/1T</p>
<p>3SE3-100/1W, P, Q, V</p>	<p>3SE3-100/1R</p>

QXCK-J Limit Switch

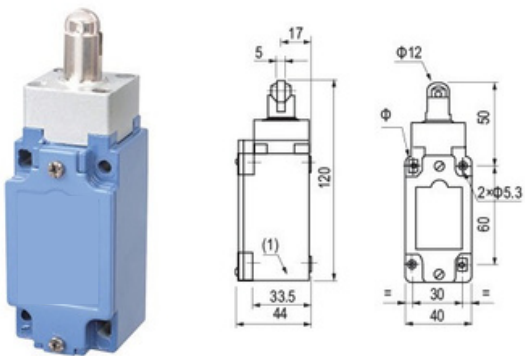
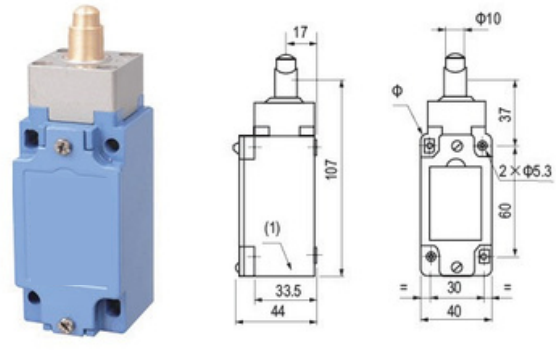
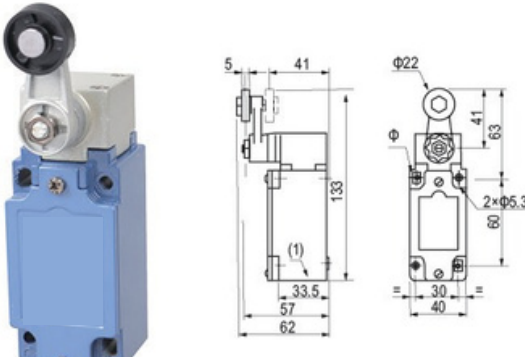
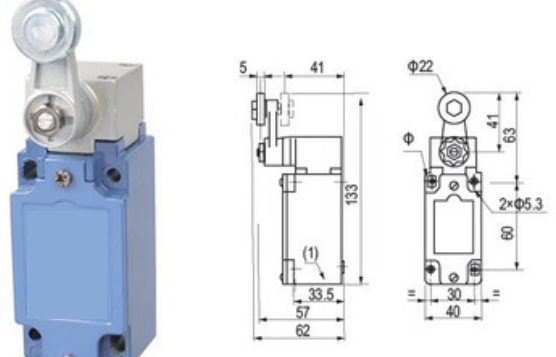
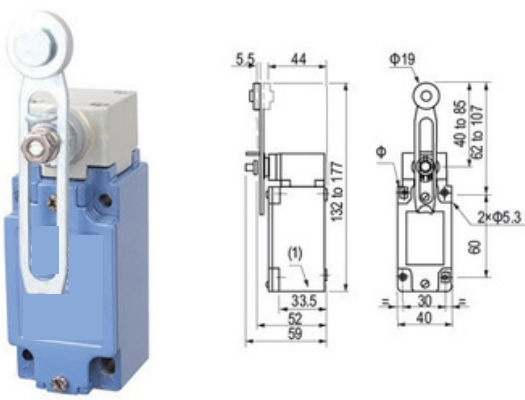
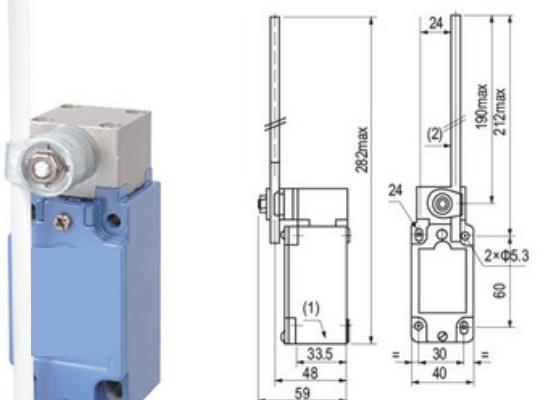
Characteristicw/Application

Item	QXCK-J model double insulation, according to CENELEC EN50041						
 2-pole contact terminal Quick	Metal head directing type	Metal steel-roller directing type	Metal thermoplastic roller tumbler directing type	Adjustable length and thermoplastic roller tumbler type	Metal thermoplastic cylindrical tumbler type Diameter=6mm length=200mm	Thermoplastic roller tumbler directing type, Single direction with horizontal movement	Multidirection type
Machine life(million times)	30	25	30	30	30	15	30
Motion speed(m/s)	0.5	1	1.5	1.5	1.5	1	1.5
Protection degree	IP65						
Rated work charcters	ALTIKAC AC 15; A 300(UE=240V, LE=3A)ALTIVAR DC13;Q 300(UE=250V, LE=0.27A)						
Boundary dimensions: width × depth × heigh	41 × 41 × 77						
Complete switch(2 poles 1-close+1-ope,quick)	QXCK-J161 QXCK-J1161	QXCK-J167	QXCK-J10511 QXCK-J10531	QXCK-J10541 QXCK-J139	QXCK-J10559	QXCK-J121	QXCK-J108

External appearance size

QXCK-J108 	QXCK-J121 
QXCK-J139 	QXCK-J161 

External appearance size

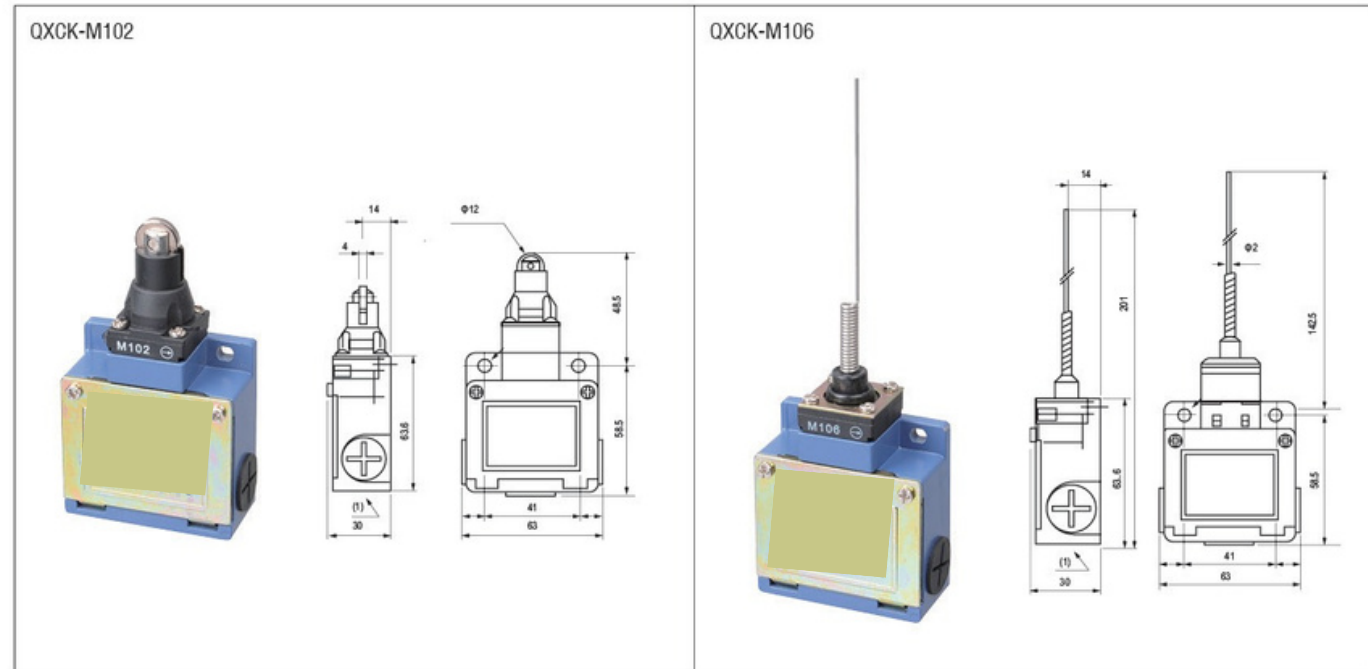
QXCK-J167 	QXCK-J1161 
QXCK-J10511 	QXCK-J10531 
QXCK-J10541 	QXCK-J10559 

QXCK-M Limit Switch

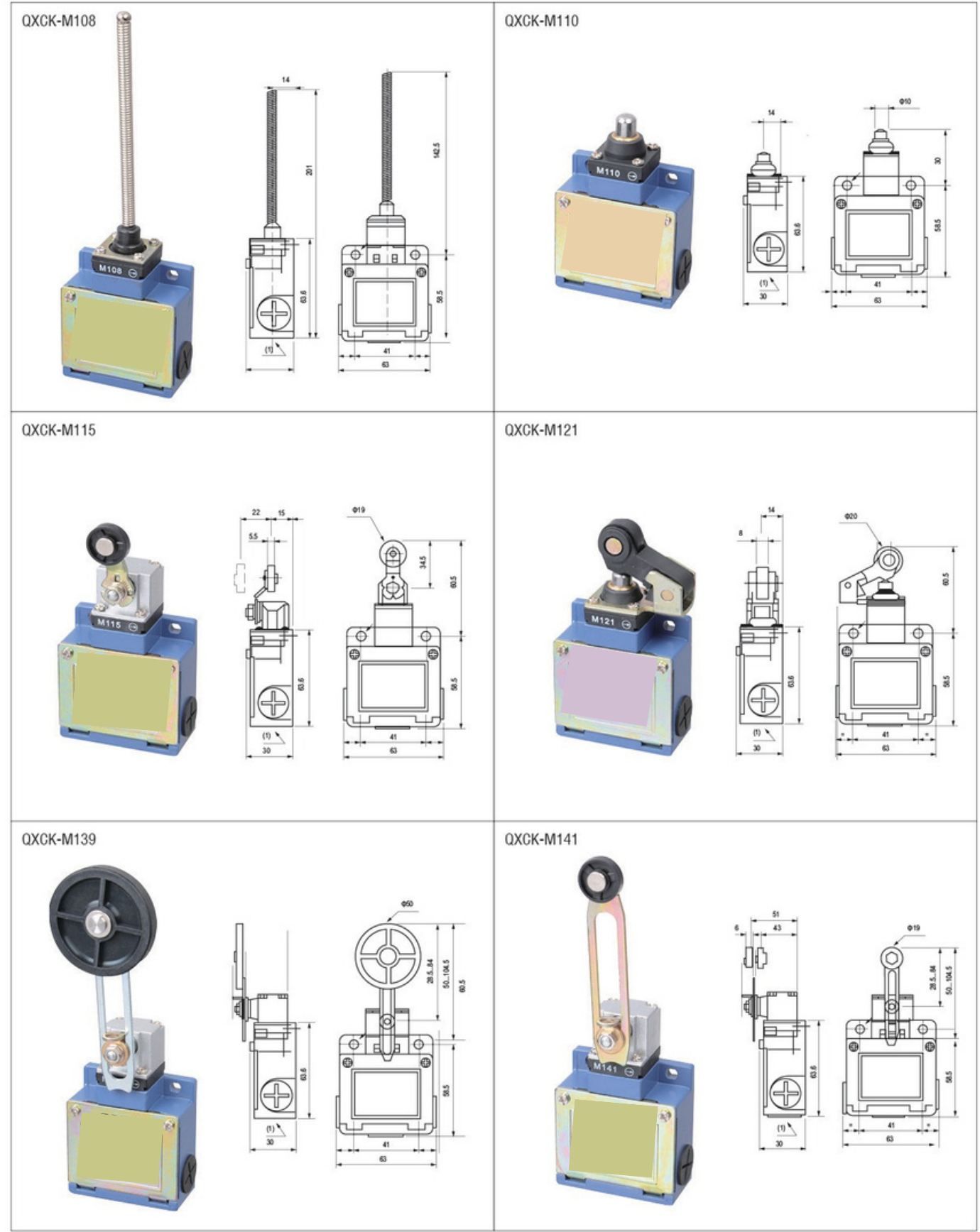
Characteristicw/Application

Item	QXCK-M model,metal three line incoming mouths.					
<p>2-pole contact terminal Quick</p>	Metal head directacting type	Meta stell-roller directacting type	Metal thermoplastic roller tumbler directacting type, single direction with horizontal movement	Adjustable length and thermoplastic roller tumbler type	Metal thermoplastic roller tumbler directacting type	Multidirection type
Machime life(million times)	15	15	15	15	15	10
Motion speed(m/s)	0.5	1	1	1.5	1	1.5
Protection degree	IP65					
Rated work charcters	ALTIPAK AC 15; A 300(UE=240V, LE=3A)ALTIVAR DC13;Q 300(UE=250V, LE=0.27A)					
Boundary dimensions:width × depth × heigh	63 × 30 × 64					
Complete switch(2 poles 1-close+1-ope,quick)	QXCK-M110 ⊖	QXCK-M102 ⊖	QXCK-M121 ⊖	QXCK-T141 QXCK-T139 ⊖	QXCK-M115 ⊖	QXCK-M106 QXCK-M108 ⊖

External appearance size



External appearance size



QXCK-T Limit Switch

Characteristicw/Application

Item	QXCK-T model double insulation, according to cenelec en50047 on line incoming mouth.						
<p>2-pole contact terminal Quick</p>	Metal head directacting type	Stell-roller directacting type	Metal thermoplastic roller tumbler directacting type	Thermoplastic roller tumbler directacting type	Adjustable length and thermoplastic roller tumbler type	Cylindrical tumbler type glass fabric cup Diameter=3mm length=125mm	Multidirection type
Machime life(million times)	15	10	15	10	15	15	10
Motion speed(m/s)	0.5	0.3	1	1.5	1.5	0.5	1.5
Protection degree	IP65						
Rated work charcters	ALTIPAK AC 15; A 300(UE=240V, LE=3A)ALTIVAR DC13;Q 300(UE=250V, LE=0.27A)						
Boundary dimensions: width × depth × heigh	58 × 30 × 50						
Complete switch(2 poles 1-close+1-open, quick)	QXCK-T110	QXCK-T102	QXCK-T118	QXCK-T121 QXCK-T128	QXCK-T139 QXCK-T145	QXCK-T155	QXCK-T106

External appearance size

<p>QXCK-T102</p>	<p>QXCK-T106</p>
<p>QXCK-T110</p>	<p>QXCK-T118</p>

External appearance size

<p>QXCK-T121</p>	<p>QXCK-T122</p>
<p>QXCK-T128</p>	<p>QXCK-T139</p>
<p>QXCK-T145</p>	<p>QXCK-T155</p>

QXCK-P Limit Switch

Characteristicw/Application

Item	QXCK-P model double insulation, according to cenelec en50047 oneline incoming mouth.						
<p>2-pole contact terminal Quick</p>	Metal head directacting type	Stell- roller directacting type	Metal thermoplastic roller tumbler directacting type	Thermoplastic roller tumbler directacting type	Adjustable length and thermoplastic roller tumbler type	Cylindrical tumbler type glass fabric cup Diameter=3mm length=125mm	Multidirection type
Machime life(million times)	15	10	15	15	15	10	5
Motion speed(m/s)	0.5	0.3	1	1	1.5	1	1
Protection degree	IP65						
Rated work charcters	ALTIPAK AC 15; A 300(UE=240V, LE=3A)ALTIVAR DC13;Q 300(UE=250V, LE=0.27A)						
Boundary dimensions: width × depth × heigh	30 × 30 × 63						
Complete switch(2 poles 1-close+1-open, quick)	QXCK-P110 -	QXCK-P102 -	QXCK-P118 -	QXCK-P121 QXCK-P128 -	QXCK-P139 QXCK-P145 -	QXCK-P155 -	QXCK-P106 -

Contact form

External appearance size

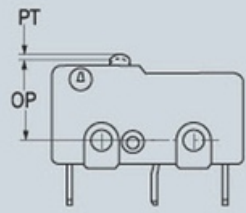
	<p>QXCK-P102</p>
<p>QXCK-P106</p>	<p>QXCK-P110</p>

External appearance size

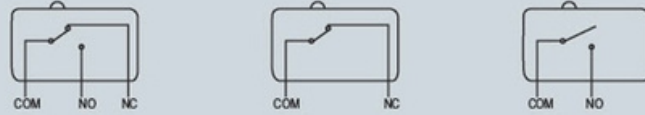
<p>QXCK-P118</p>	<p>QXCK-P121</p>
<p>QXCK-P127</p>	<p>QXCK-P128</p>
<p>QXCK-P139</p>	<p>QXCK-P145</p>
<p>QXCK-P155</p>	<p>QXCK-P181</p>



QS Micro Switch



(5A 250VAC)

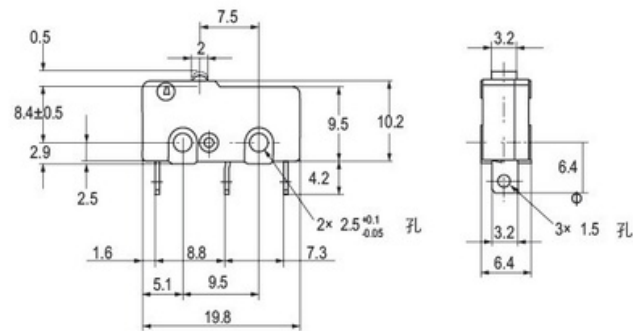


Characteristics

Project	Classification	5A, 3A/125, 250VAC
		0.1 mm~1 m/s
Permissible on/off frequency		Mechanical 400 times/minute Electrical 30 times/minute
insulation resistance		100M Ω
contact resistance		30mΩ
Withstand breakdown voltage	Between non connected terminals	AC1000V 50/60Hz
	Between non charged metal parts and various terminals	AC1500V 50/60Hz
	Between grounding and each terminal	
Vibration	malfunction	1.5mm 10 ~ 50Hz
Impact resistance	durable	1000m/s
	malfunction	300m/s
life	Electrical life (resistive load)	100,000
	Mechanical life (specified overtravel)	10,000,000
Operating environment temperature and humidity		-25 ~ +80°C , 35% ~ 85%RH

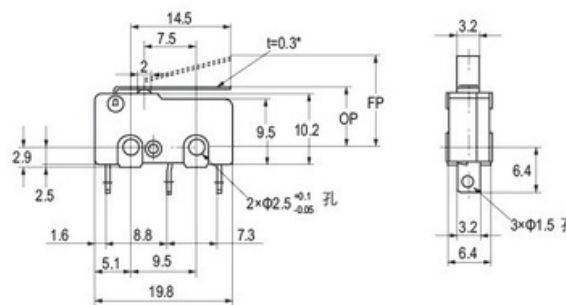
Appearance and Dimension

QS-5G



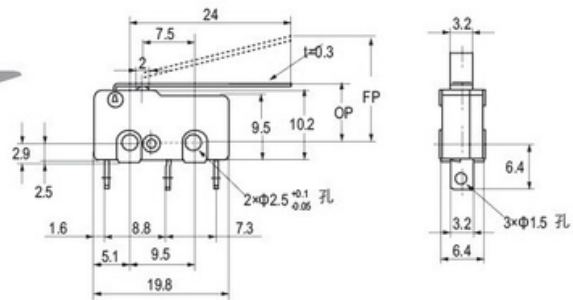
(OF)	0.49N (50gf)
(RF)	0.04N (4gf)
(PT)	0.5mm
(OT)	0.5mm
(MD)	0.2mm
(OP)	8.4 ± 0.5mm

QS-5GL



(OF)	0.16N (16gf)
(RF)	0.02N (2gf)
(PT)	3.1mm
(OT)	1.4mm
(MD)	0.8mm
(OP)	8.8 ± 0.8mm

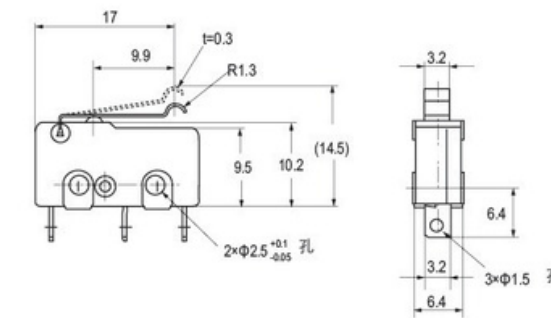
QS-5GL3



(OF)	0.16N (16gf)
(RF)	0.02N (2gf)
(PT)	2.8mm
(OT)	1.2mm
(MD)	0.8mm
(OP)	14.5 ± 0.8mm

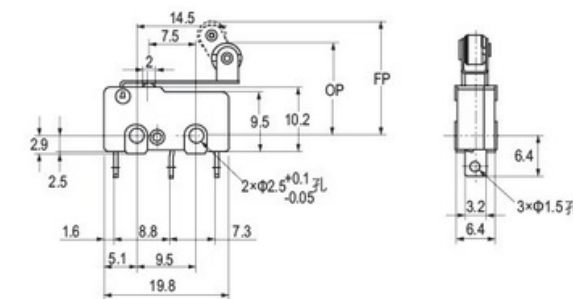
Appearance and Dimension

QS-5GL4

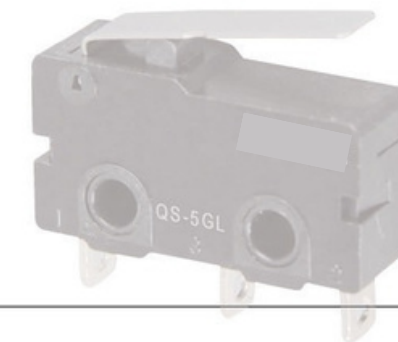


(OF)	0.16N (16gf)
(RF)	0.02N (2gf)
(PT)	2.8mm
(OT)	1.2mm
(MD)	0.8mm
(OP)	12.2 ± 0.8mm

QS-5GL5S



(OF)	0.16N (16gf)
(RF)	0.02N (2gf)
(PT)	2.8mm
(OT)	1.2mm
(MD)	0.8mm
(OP)	14.5 ± 0.8mm



QZ Micro Switch

- Virus of actuators, action position is adjustable (such as QZ1701)
- High switch on and off capacity (15A)
- High accuracy
- Wide range of operation speed

Models	QZ1300	QZ1301	QZ1303	QZ1305	QZ1306	QZ1307	QZ1308	QZ1309	QZ1701	QZ1702	QZ1703	QZ1704	QZ1705	QZ1743
OF(Max.)	350g	300g	300g	350g	350g	350g	350g	350g	70g	160g	100g	160g	10g	160g
RF(Min.)	114g	50g	50g	114g	114g	114g	114g	114g	14g	28g	22g	42g	3g	42g
PT(Max.)	0.4mm	4mm	4mm	0.4mm	0.4mm	0.4mm	0.4mm	0.4mm	10mm	5mm	7.1mm	2.7mm	20mm	2.7mm
OT(Min.)	0.13mm	1.6mm	1.6mm	1.6mm	1.6mm	5.5mm	3.58mm	3.58mm	5.6mm	2mm	4mm	2.4mm	5.6mm	2.4mm
MD(Max.)	0.05mm	1.3mm	1.3mm	0.05mm	0.05mm	0.05mm	0.05mm	0.05mm	1.27mm	1mm	1.02mm	0.5mm	3mm	0.5mm
FP(Max.)		20.6mm	31.8mm						28.2mm	24.8mm	36.5mm	32.5mm		43.6mm
OP(mm)	15.9 ± 0.4	17.4 ± 0.8	28.6 ± 0.8	28.2 ± 0.5	21.5 ± 0.5	21.8 ± 0.8	33.4 ± 1.2	33.4 ± 1.2	19 ± 0.8	19 ± 0.4	30.2 ± 0.8	30.2 ± 0.4	19 ± 0.8	43.1 ± 0.8
Weight(kg)	0.033	0.035	0.039	0.034	0.038	0.051	0.058	0.058	0.037	0.036	0.041	0.034	0.036	0.040

Appearance and Dimension

<p>QZ-1300 Z-15G-B</p>	<p>QZ-1301 Z-15GL-B</p>
<p>QZ-1303 Z-15GL2-B</p>	<p>QZ-1305 Z-15GS-B</p>
<p>QZ-1306 Z-15GD-B</p>	<p>QZ-1307 Z-15GQ-B</p>
<p>QZ-1308 Z-15GQ22-B</p>	<p>QZ-1309 Z-15GQ21-B</p>

Characteristics Of Contact Module

Rated operating characteristics	Inductive load: ~AC15,B300 (Ue=240V, Ie=1.5A) ~DC-13,R300 (Ue=250V, Ie=0.1A) Resistive load: 250V, 5A
Rated insulation voltage	Ui=500V, class of pollution is 3, comply with IEC 60947-1 Ui=300V, comply with UL508, CSA C22-2n° 14
Insulation sistance	100MΩ above (megohmmeter of 500VDC)
Operating equency	Mechanical: maximum 240 times/min.; electrical: maximum 20 times/min.
Electrical life	500,000 times
Contact resistance	Less than 15MΩ (initial value)

Environmental Characteristics

Normative reference	Product	IEC60947-5-1, EN60947-5-1, UL508, CSAC22-2N° 14
	Components	IEC60204-1, EN60204-1
Ambient temperature	Operation	-25~+80°C
	Storage	-40~+80°C
Vibration resistance	Comply with IEC60068-2-6	10-55Hz complex amplitude 1.5mm, misoperation within 1ms (in state of FP, TTP)
Shock resistance		Maximum 300m/s², misoperation within 1ms (in state of FP, TTP)
Mechanical life		10,000,000 times
Operation speed	IEC60068-2-27	0.01mm to 1m/sec (lock plug type)

Appearance and Dimension

<p>QZ-1701 Z-15GW-B</p>	<p>QZ-1702 Z15GW21-B</p>
<p>QZ-1703 Z-15GW2-B</p>	<p>QZ-1704 Z-15GW22-B</p>
<p>QZ-1705 Z-15HW24-B</p>	<p>QZ-1743 Z-15GW2277-B</p>
<p>QZ-1724 Z-15HW78-B</p>	<p>JM-COVER</p>



AZ-7 Horizontal Limit Switch

- Virous of actuators, the operation position is adjustable (such as AZ-7121);
- Outer shell covered with intensive plastic, water-proof and oil-proof. The mechanical strenth is better than TM type of micro swith, bear hitting.

Models	AZ-7100	AZ-7110	AZ-7310	AZ-7311	AZ-7312	AZ-7120	AZ-7140	AZ-7121	AZ-7141	AZ-7124	AZ-7144	AZ-7166
OF (Max.)	600g	600g	600g	600g	600g	150g	220g	180g	240g	200g	280g	120g
RF (Min.)	100g	100g	100g	100g	100g	40g	60g	50g	80g	60g	100g	
PT (Max.)	2.0mm	2.0mm	2.0mm	2.0mm	2.0mm	13.5mm	8.5mm	11.0mm	6.5mm	11mm	6.5mm	250mm
OT (Min.)	0.8mm	5.0mm	6.0mm	6.0mm	6.0mm	4.0mm	2.5mm	3.0mm	2.0mm	3.0mm	2.0mm	11mm
MD (Max.)	0.8mm	0.8mm	0.8mm	0.8mm	0.8mm	3.2mm	2.0mm	2.4mm	1.5mm	2.4mm	1.5mm	
OP(mm)	30.5 ± 0.8	44 ± 1.2	21.8 ± 1.2	33.3 ± 1.2	33.3 ± 1.2	25 ± 1	25 ± 1	40 ± 1	40 ± 1	50 ± 1.2	50 ± 1.2	
FP						35mm	32mm		46mm		56mm	
Weight(kg)	0.070	0.085	0.085	0.090	0.090	0.054	0.054	0.057	0.056	0.062	0.061	0.083

Characteristics Of Contact Module

Rated operating characteristics	Inductive load: -AC15,B300 (Ue=240V, Ie=1.5A) -DC-13,R300 (Ue=250V, Ie=0.1A) Resistive load: 250V, 5A
Rated insulation voltage	Ui=500V, class of pollution is 3, comply with IEC 60947-1 Ui=300V, comply with UL508, CSA C22-2n° 14
Insulation resistance	100MΩ above (megohmmeter of 500VDC)
Operating frequency	Mechanical: maximum 240 times/min.; electrical: maximum 20 times/min.
Electrical life	500,000 times
Contact resistance	Less than 15MΩ (initial value)

Environmental Characteristics

Normative reference	Product	IEC60947-5-1, EN60947-5-1, UL508, CSAC22-2N° 14
	Components	IEC60204-1, EN60204-1
Ambient temperature	Operation	-10~+80 °C
	Storage	-40~+80 °C
Vibration resistance	Comply with IEC60068-2-6	10-55Hz complex amplitude 1.5mm, misoperation within 1ms (in state of FP, TTP)
Shock resistance	Comply with IEC60068-2-27	Maximum 300m/s², misoperation within 1ms (in state of FP, TTP)
Degree of protection		IP54
Mechanical life		10,000,000 times
Operation speed		0.01mm to 1m/sec (lock plug type)

Appearance and Dimension

<p>AZ-7100</p>	<p>AZ-7110</p>
<p>AZ-7120</p>	<p>AZ-7121</p>
<p>AZ-7124</p>	<p>AZ-7140</p>

Appearance and Dimension

<p>AZ-7141</p>	<p>AZ-7144</p>
<p>AZ-7310</p>	<p>AZ-7311</p>
<p>AZ-7312</p>	<p>AZ-7166</p>



FS Pedal Switch

Performance

The pedal switch is to service at the control circuit of AC 50-60Hz, AC380V DC220V and current of 3-21A to control electrical unit machine tool and medical equipment, It complies with the standard of IEC337-1 and GB14048.5-2001.

External appearance size

<p>SFMS-1</p>	
<p>SFMS-10</p>	<p>SFMS-15</p>
<p>SFM-1</p>	<p>SFMP-1</p>

External appearance size

<p>FS-3</p>	<p>FS-2</p>
<p>FS-101</p>	<p>YDT1-101</p>
<p>D8107</p>	<p>VFS-201</p>
<p>FS-1</p>	<p>FS-01</p>