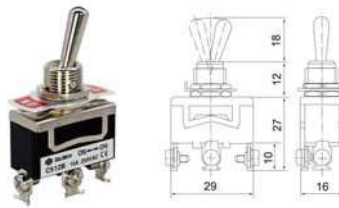
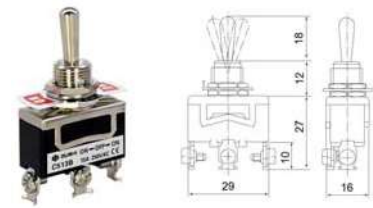


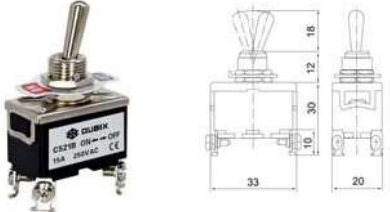
C511B



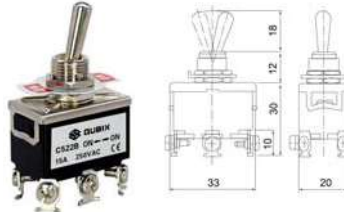
C512B



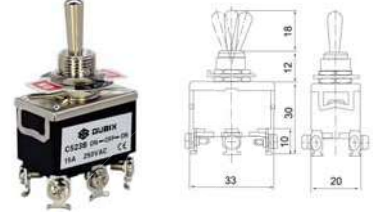
C513B



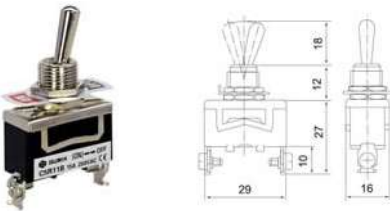
C521B



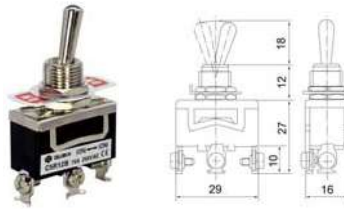
C522B



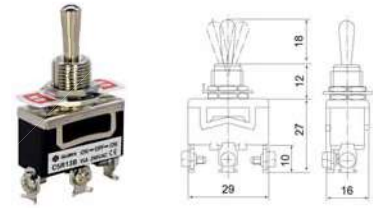
C523B



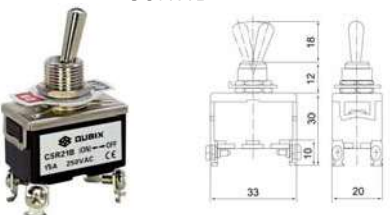
C5R11B



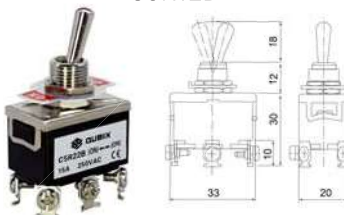
C5R12B



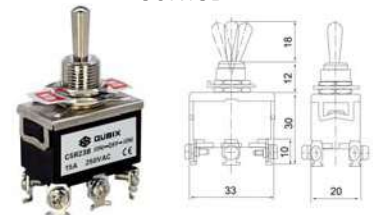
C5R13B



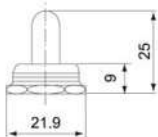
C5R21B



C5R22B



C5R23B

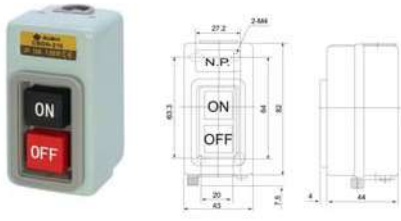


COW (Rainproof cap)

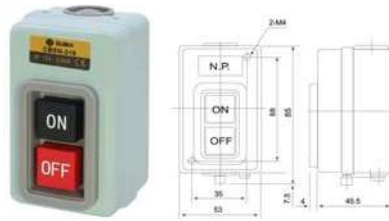
Toggle Switch

รุ่น (Model)	Pole	ขั้ว	Rated Current / Voltage	Type of operation	Contact type	Terminal type	ราคา (บาท)
C511B	1P	2	15A / 250V	ON - OFF	Go - on	Screw type	70.-
C512B	1P	3	15A / 250V	ON - ON			90.-
C513B	1P	3	15A / 250V	ON - OFF - ON			90.-
C521B	2P	4	15A / 250V	ON - OFF			105.-
C522B	2P	6	15A / 250V	ON - ON			115.-
C523B	2P	6	15A / 250V	ON - OFF - ON			115.-
C5R11B	1P	2	15A / 250V	ON - OFF	Spring return		105.-
C5R12B	1P	3	15A / 250V	ON - ON			110.-
C5R13B	1P	3	15A / 250V	ON - OFF - ON			115.-
C5R21B	2P	4	15A / 250V	ON - OFF			130.-
C5R22B	2P	6	15A / 250V	ON - ON			140.-
C5R23B	2P	6	15A / 250V	ON - OFF - ON			140.-
COW	Rainproof cap						45.-

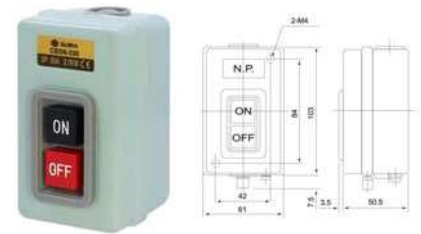
* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *



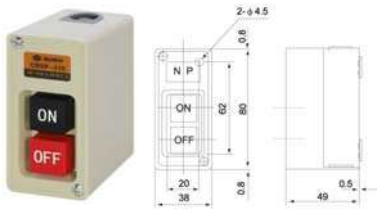
CBSN-310



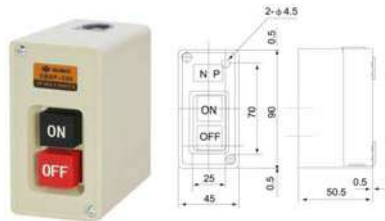
CBSN-315



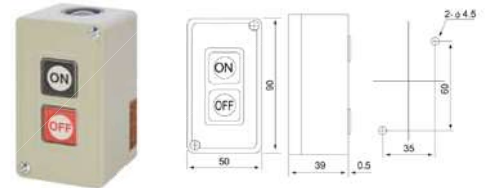
CBSN-330



CBSP-315



CBSP-330



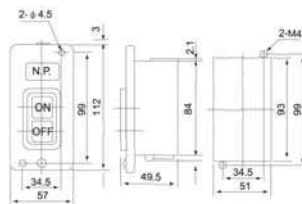
CPB-2



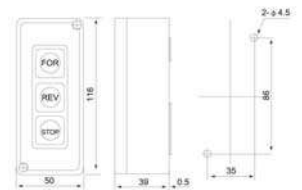
CBSY-315



CBSY-330



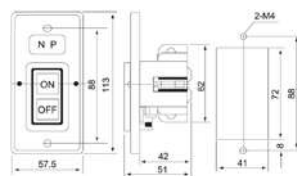
CPB-3



CBSS-315



CBSS-330



CBS / CPB Series								
รุ่น (Model)	Pole	Rated			Screw terminal	Mounting type	Material	ราคา (บาท)
		Current	Voltage	KW				
CBSN-310	3P	10A	600V	1.5KW	M3.5	Surface mounting	Iron	140.-
CBSN-315	3P	15A	600V	2.2KW	M4			165.-
CBSN-330	3P	30A	600V	3.7KW	M5		230.-	
CBSP-315	3P	15A	600V	2.2KW	M4		Plastic	160.-
CBSP-330	3P	30A	600V	3.7KW	M4			220.-
CBSY-315	3P	15A	600V	2.2KW	M4		Flush mounting	Iron
CBSY-330	3P	30A	600V	3.7KW	M4	270.-		
CBSS-315	3P	15A	600V	2.2KW	M3.5	220.-		
CBSS-330	3P	30A	600V	3.7KW	M4	250.-		
CPB-2	-	3A	250Vac	-	M4	Surface mounting	Plastic	130.-
CPB-3	-	3A	250Vac	-	M4			160.-

* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *



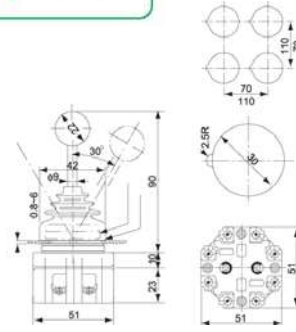
เหมาะกับงานที่มีการควบคุมทิศทาง



CMR-301-1
Stay put
2 ทิศทาง



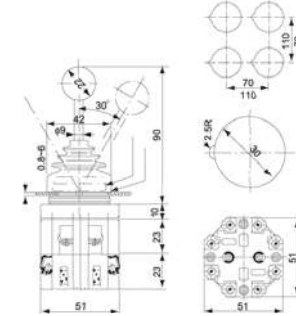
CMR-301-2
Spring Return
2 ทิศทาง



CMR-302-1
Stay put
4 ทิศทาง



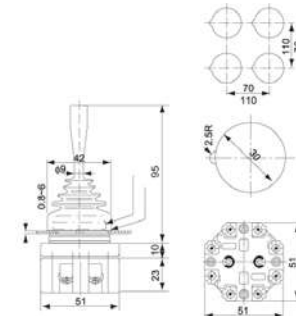
CMR-302-2
Spring Return
4 ทิศทาง



CMRN-301-1
Stay put
2 ทิศทาง



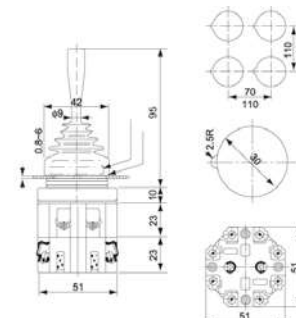
CMRN-301-2
Spring Return
2 ทิศทาง



CMRN-302-1
Stay put
4 ทิศทาง



CMRN-302-2
Spring Return
4 ทิศทาง



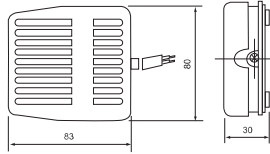
Monolever Switch

รุ่น (Model)	Pole	Rated Current / Voltage	Function type	Direction number	Mounting hole	ราคา (บาท)
CMR-301-1	1P	6A / 220V	Stay put	2 ทิศทาง	30mm.	890.-
CMR-301-2	1P	6A / 220V	Spring return			890.-
CMR-302-1	2P	6A / 220V	Stay put	4 ทิศทาง	30mm.	990.-
CMR-302-2	2P	6A / 220V	Spring return			990.-
CMRN-301-1	1P	6A / 220V	Stay put	2 ทิศทาง	30mm.	1,190.-
CMRN-301-2	1P	6A / 220V	Spring return			1,190.-
CMRN-302-1	2P	6A / 220V	Stay put	4 ทิศทาง	30mm.	1,290.-
CMRN-302-2	2P	6A / 220V	Spring return			1,290.-

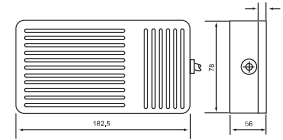
* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *



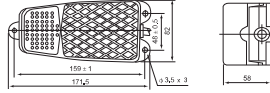
CFS-201



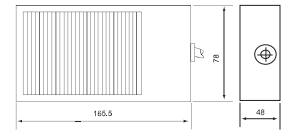
CFS-01



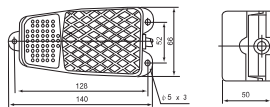
CFS-101 , CFS-102 , CFS-105



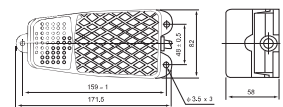
CFS-1



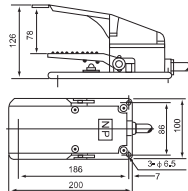
CFS-2



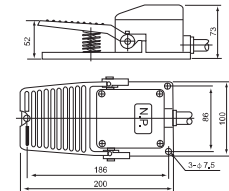
CFS-3 , CFS-3S



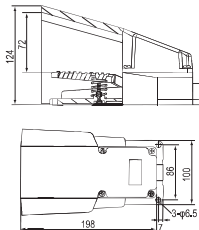
CFS-302



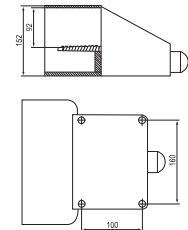
CFS-402



CFS-502



CFS-602



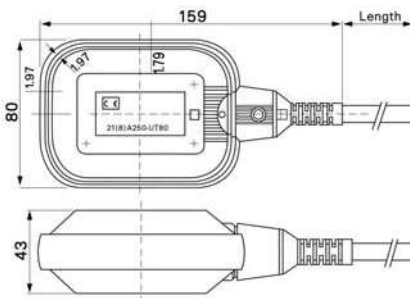
CFS Series

รุ่น (Model)	Type of switch enclosed & contact arrangement	Rated Current / Voltage	Contact Type	Cable Type / Length	Material	ราคา (บาท)
CFS-101	CMV-100D	10A / 250V	1A 1B	0.75mm ² x3C / 1M.	Plastic	450.-
CFS-102	CM-1704	15A / 250V	1A 1B	0.75mm ² x3C / 1M.		580.-
CFS-105	CS-105	6A / 250V	Push ON / OFF	0.75mm ² x2C / 1M.		800.-
CFS-2	CMV-100D	10A / 250V	1A 1B	0.5mm ² x3C / 1M.	Aluminum Cast	450.-
CFS-3	CMV-100D	10A / 250V	1A 1B	0.75mm ² x3C / 1M.		500.-
CFS-3S	CM-1704	15A / 250V	1A 1B	0.75mm ² x3C / 1M.		600.-
CFS-201	CMV-100D	10A / 250V	1A 1B	0.5mm ² x3C / 1M.	Plastic	280.-
CFS-01	CMV-100D	10A / 250V	1A 1B	0.5mm ² x3C / 1M.		320.-
CFS-1	CMV-100D	10A / 250V	1A 1B	0.5mm ² x3C / 1M.	Iron	350.-
CFS-302	CM-1704	15A / 250V	1A 1B	Accessory cable Gland (No cable)	Aluminum Cast	1,250.-
CFS-402	CM-1704	15A / 250V	1A 1B			1,100.-
CFS-502	CM-1704	15A / 250V	1A 1B			2,200.-
CFS-602	Button spring type	15A / 250V	2x1A 1B			3,900.-

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UKY-23



คุณลักษณะ

- ใช้แรงดันไฟฟ้า 220 โวลท์
- พิกัดกระแส 15 แอมป์ (8 แอมป์ สำหรับโหลดมอเตอร์ COS ϕ =0.8)

ประสิทธิภาพและจุดเด่น

- โครงสร้างไม่ซับซ้อนแต่มีความแข็งแรงทนทาน ผลิตจากวัสดุพลาสติก POLYPROPYLENE
- มีอายุการใช้งานที่ยาวนาน การบำรุงรักษาและติดตั้งทำได้ง่าย
- การปรับระดับอุปกรณ์ควบคุมระดับน้ำสามารถทำได้ง่าย เพียงไขน็อตตัวเดียว
- สามารถใช้งานได้หลากหลายกว้างขวางเช่น ใช้เปิดปิดระบบน้ำอัตโนมัติ ภายในถังเก็บน้ำเพื่อเติมน้ำให้ได้ระดับหรือป้องกันน้ำล้น และสามารถป้องกันปั้มน้ำจากปัญหาโอเวอร์โหลดได้
- ประหยัดเวลาและลดจำนวนคนที่ต้องทำหน้าที่เปิดปิดระบบน้ำ

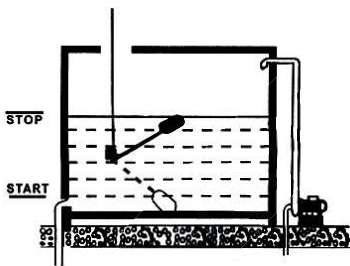
UKY Series

รุ่น (Model)	Rated Current	Cable Length (m.)	ราคา (บาท)
UKY-23	15A	3 m.	450.-
UKY-25	15A	5 m.	650.-

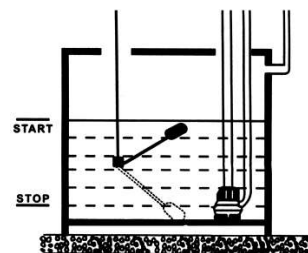
คำแนะนำการติดตั้ง

- ใช้แรงดันตามที่ระบุเท่านั้น
- เพื่อความปลอดภัยควรติดตั้งสายดิน

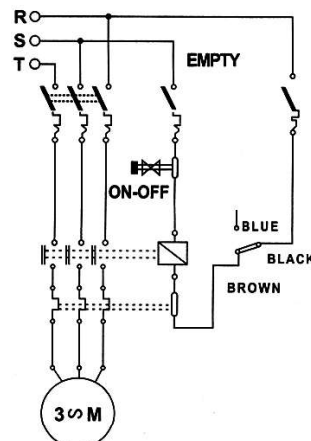
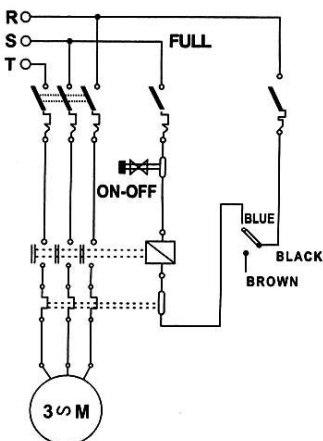
ลักษณะการติดตั้ง (Mounting Of Switch)



แบบสูบน้ำเข้า
"ใช้สายสีดำและสีน้ำเงิน"
สวิทช์จะปิดเมื่อลูกลอยลอยขึ้น
สวิทช์จะเปิดเมื่อระดับน้ำลดลง



แบบสูบน้ำออก
"ใช้สายสีน้ำตาลและสีดำ"
สวิทช์จะปิดเมื่อลูกลอยลดลง
สวิทช์จะเปิดเมื่อระดับน้ำเพิ่มขึ้น



* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *



SA-992



SA-2502



SA-3602



SA-4602



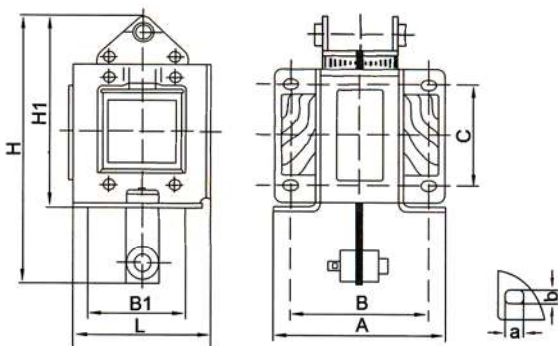
SA-56

SA - Series

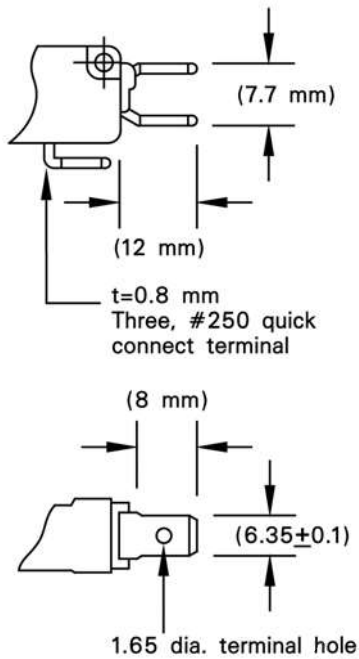
รุ่น (Model)	หน้าที่ Duties	โวลท์ Voltage	ระยะชน Rated Stroke	กำลังดึง Rated Pull	ราคา (บาท)
SA-992	Push-Pull	220 V	10 mm.	0.5 Kg.	500.-
SA-1192	Push-Pull	220 V	10 mm.	0.8 Kg.	620.-
SA-2402	Push-Pull	220 V	15 mm.	1.0 Kg.	690.-
SA-2502	Push-Pull	220 V	15 mm.	1.5 Kg.	760.-
SA-2602	Push-Pull	220 V	15 mm.	2.0 Kg.	800.-
SA-3502	Push-Pull	220 V	20 mm.	3.0 Kg.	1,300.-
SA-3602	Push-Pull	220 V	20 mm.	4.0 Kg.	1,400.-
SA-3702	Push-Pull	220 V	20 mm.	5.0 Kg.	1,520.-
SA-4502	Push-Pull	220 V	30 mm.	6.0 Kg.	3,600.-
SA-4602	Push-Pull	220 V	30 mm.	8.0 Kg.	4,100.-
SA-52	Push-Pull	220 V	40 mm.	10.0 Kg.	5,500.-
SA-56	Push-Pull	220 V	40 mm.	12.0 Kg.	7,200.-

Dimension (mm.)

Model	H	H1	L	A	B1±0.5	B1±1.5	C±0.5	axb
SA-992	85	62	38	34.5	28	24	33	5x4
SA-1192	85	62	38	43	28	32	33	5x4
SA-2402	93	69	47	45.5	34	35	35	6x4
SA-2502	93	69	47	51	34	41	35	6x4
SA-2602	93	69	47	55.5	34	45	35	6x4
SA-3502	130	96	61.5	71	46	55.5	46	9x7
SA-3602	130	96	61.5	76	46	61	46	9x7
SA-3702	130	96	61.5	82	46	67	46	9x7
SA-4502	171	123	84	102	64	83	64	10x7
SA-4602	171	123	84	112	64	93	64	10x7
SA-52	201	146.5	100	87	60	70	60	11x9
SA-56	201	146.5	100	97.5	60	80	60	11x9



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MAIN FEATURES :

- ✓ High switch on and off capacity (16A)
- ✓ Economy model

Characteristics

Item	CMV 10	CMV16	CMV 21
Operation speed	0.1mm~1m/s (Button type)		
Operation frequency	Mechanical : 240 operations/min Electrical : 20 operations/min		
Insulation resistance	100MΩ above(at 500Vdc)		
Contact resistance	15MΩmax.(initial value)		
Withstand voltage	Non-continuous terminals	1,000Vac, 50/60Hz for 1 min.	
	Current-carrying and non-current-carrying metal parts. Between terminal and earthing	1,500Vac, 50/60Hz for 1min.	2,000Vac, 50/60Hz for 1 min.
Vibration	Misoperation	10 to 55Hz, 1.5mm pairs swing	
Shock resistant	Durable	1,000m/s ² (100G)	
	Misoperation	200m/s ² (100G)	300m/s ² (100G)
Life	Mechanical	10,000,000 operations min.	
	Electrical	300,000 operations min.	100,000 operations min.
Temperature	-10°C ~ +65°C		
Humidity	85%RH		

Model Designations

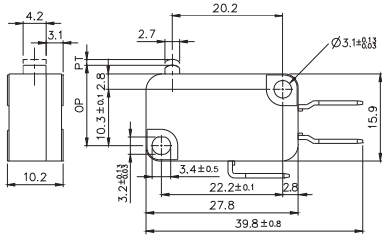
CMV 16 0 C
1 2 3

Item	Code	Description
1. Rated Current	10	10A
	16	16A
	21	21A
2. Head and driving rod	01	Pin Plunger
	11	Hinge Lever
	21	Short Hinge Lever
	31	Hinge Roller Lever
	41	Short Hinge Roller Lever
	51	Long Hinge Lever
61	Simulated Lever	
3. Terminal specifications	C	#250 terminal
	D	#187 terminal

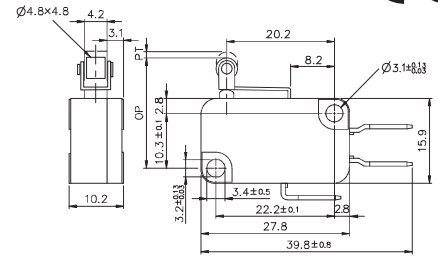
Ratings

Spec.	Rated voltage	Noninductive Load (A)				Inductive Load (A)				Inrush Current (A)	
		Resistance Load		Lamp Load		Inductive Load		Motor Load			
		NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
10A	250Vac	10		1.5		6		2		24 max.	
	8Vdc	10		3		6		3			
	30Vdc	6		3		6		3			
	125Vdc	0.3		0.1		0.6		0.1			
	250Vdc	0.3		0.05		0.3		0.05			
16A	250Vac	16		2		10		3		40 max.	
	8Vdc	16		4		10		6			
	30Vdc	10		4		10		4			
	125Vdc	0.6		0.1		0.6		0.1			
	250Vdc	0.3		0.05		0.3		0.05			
21A	250Vac	21		3		12		4		50 max.	
	8Vdc	21		5		12		7			
	30Vdc	14		5		12		5			
	125Vdc	0.6		0.1		0.6		0.1			
	250Vdc	0.3		0.05		0.3		0.05			

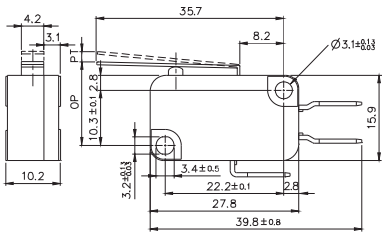
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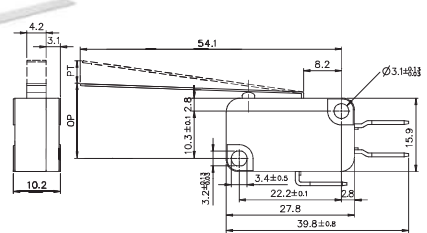
CMV16001C



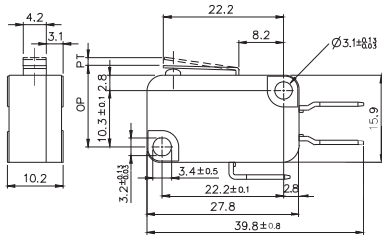
CMV16041C



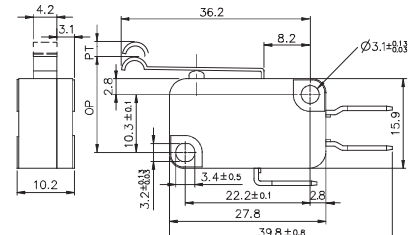
CMV16011C



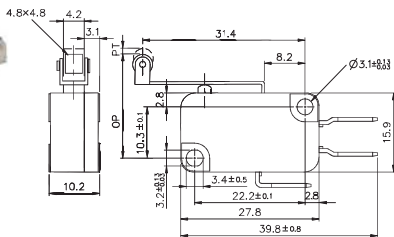
CMV16051C



CMV16021C



CMV16061C



CMV16031C

CMV16 Series

รุ่น (Model)	ลักษณะหน้าสัมผัสทำงาน	Rated Current / Voltage	Contact Type	Terminal Type	ราคา (บาท)
CMV16001C	Pin Plunger	16A / 250V	SPDT 1NO, 1NC	NEMA TYPE #250 TAB 6.3 mm	45.-
CMV16011C	Hinge Lever	16A / 250V	SPDT 1NO, 1NC		45.-
CMV16021C	Short Hinge Lever	16A / 250V	SPDT 1NO, 1NC		45.-
CMV16031C	Hinge Roller Lever	16A / 250V	SPDT 1NO, 1NC		58.-
CMV16041C	Short Hinge Roller Lever	16A / 250V	SPDT 1NO, 1NC		58.-
CMV16051C	Long Hinge Lever	16A / 250V	SPDT 1NO, 1NC		55.-
CMV16061C	Simulated Roller Lever	16A / 250V	SPDT 1NO, 1NC		55.-

* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *

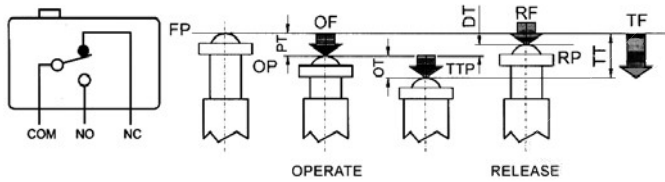
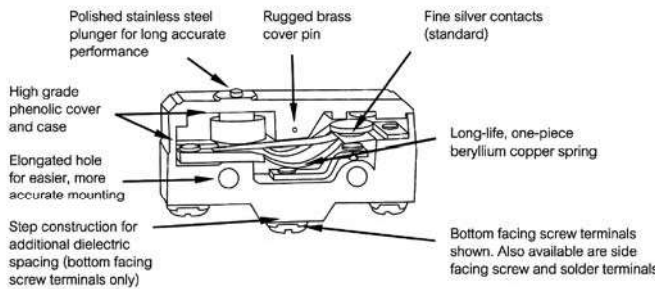


MAIN FEATURES :

- ✓ Various Actuators, action position is adjustable (such as CM1701)
- ✓ High switch on and off capacity (15A)
- ✓ High accuracy
- ✓ Wide range of operation speed

Characteristics

Operating speed	0,01mm to 1m/sec
Operating frequency	Mechanical : 240 operations/min. Electrical : 20 operations/min.
Contact resistance	15M Ω max. (initial value)
Insulation resistance	100M Ω min. (at 500 VDC)
Dielectric strength	1000 VAC, 50/60 Hz for 1 minute between terminals of the same polarity 1500 VAC, 50/60 HZ for 1 minute between current-carrying and noncurrent-carrying metal parts 1500 VAC, 50/60 HZ for 1 minute between each terminal and ground
Vibration	Malfunction durability : 10 to 55Hz; 1,5mm double amplitude
Shock resistant	Mechanical durability : Approx. 1,000m/sec ² (approx. 100G's) Malfunction durability : Approx. 300m/sec ² (approx. 30G's)
Ambient temperature	General purpose type : -25°C to +80°C (With no icing) Sealed type : -15°C to +80°C (With no icing)
Humidity	General purpose type : 85%RH max. Sealed type : 95%RH max.
Service life	Mechanically : 20,000,000 operations min. (at rate OT value) Electrically : 500,000 operations min.

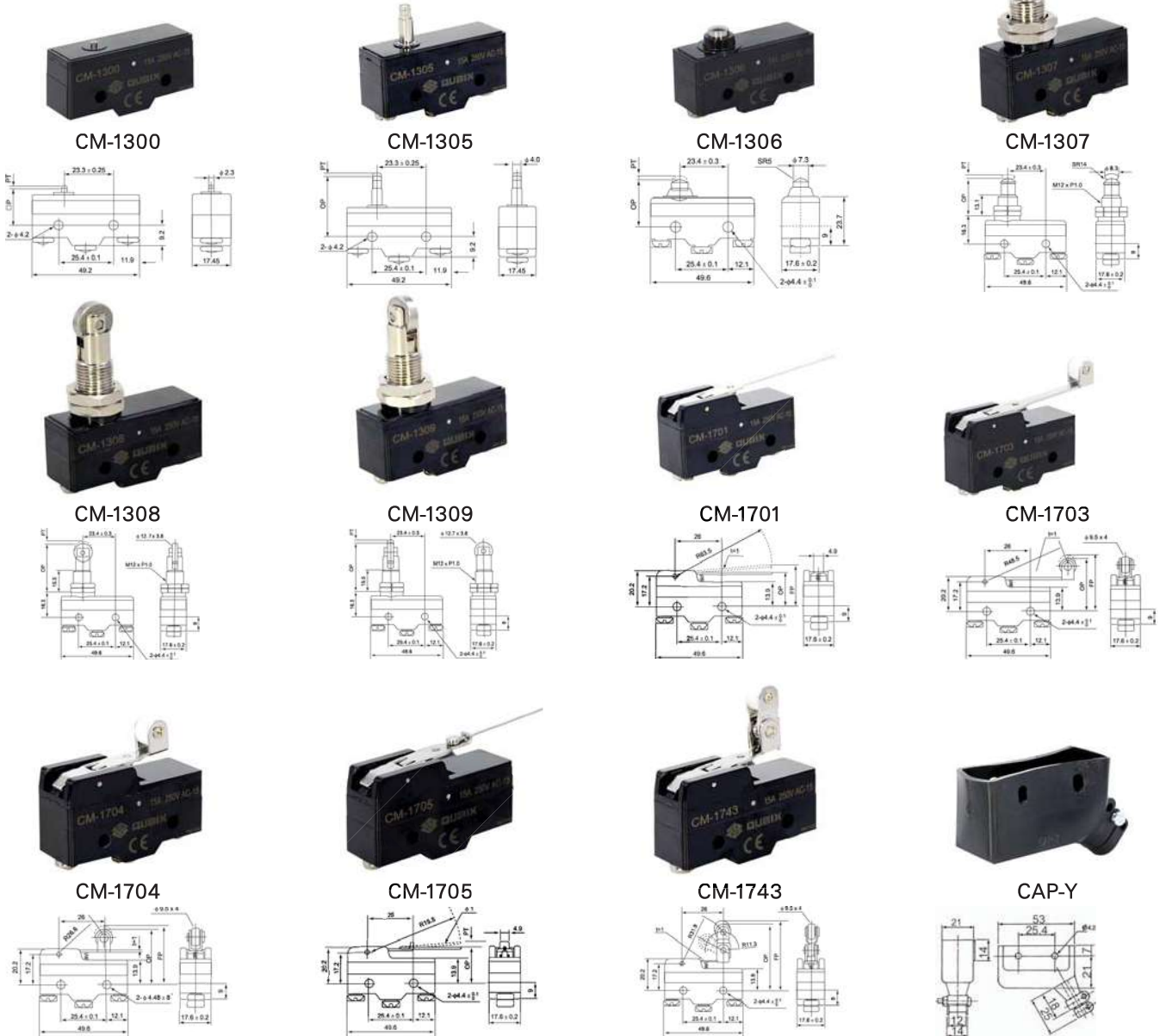


- OF : Operating Force
- RF : Releasing Force
- TF : Total Force
- FP : Free Position
- OP : Operating Position
- RP : Releasing Position
- TTP : Total Travel Position
- PT : Pretravel
- OT : Overtravel
- DT : Travel Differential
- TT : Total Travel

Rated Voltage	Non-inductive load				Inductive load			
	Resistive Load		Lamp Load		Inductive load		Motor Load	
	NC	NO	NC	NO	NC	NO	NC	NO
125 VAC	15	15	3	1.5	15	15	5	2.5
250 VAC	15	15	2.5	1.25	15	15	3	1.5
8 VDC	15	15	3	1.5	15	15	5	2.5
30 VDC	6	6	3	1.5	5	5	5	2.5
125 VDC	0.4	0.4	0.4	0.4	0.05	0.05	0.05	0.05

Types of actuator	Model	OF max (g.)	RF min (g.)	PT max (mm.)	OT min (mm.)	MD max (mm.)	FP max (mm.)	OP (mm.)
Pin plunger	CM1300	350	114	0.4	0.13	0.05	-	15.9 ± 0.4
Overtravel plunger	CM1305	350	114	0.4	1.6	0.05	-	28.2 ± 0.5
Compact Overtravel plunger	CM1306	350	114	0.4	1.6	0.05	-	21.5 ± 0.5
Panel mount plunger	CM1307	350	114	0.4	5.5	0.05	-	21.8 ± 0.8
Panel mount roller plunger	CM1308	350	114	0.4	3.58	0.05	-	33.4 ± 1.2
Panel mount cross roller plunger	CM1309	350	114	0.4	3.58	0.05	-	33.4 ± 1.2
Rigid lever	CM1701	70	14	10	5.6	1.27	28.2	19 ± 0.8
Rigid roller lever	CM1703	160	22	7.1	4	1.02	36.5	30.2 ± 0.8
Rigid short roller lever	CM1704	160	42	2.7	2.4	0.5	32.5	30.2 ± 0.4
Low force wire hinge lever	CM1705	10	3	20	5.6	3	-	19 ± 0.8
Hinge roller lever	CM1743	160	42	2.7	2.4	0.5	43.6	43.1 ± 0.8

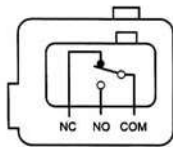
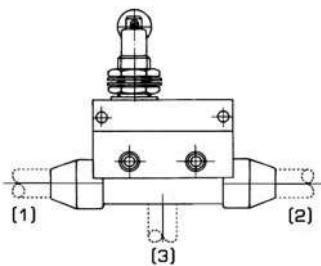
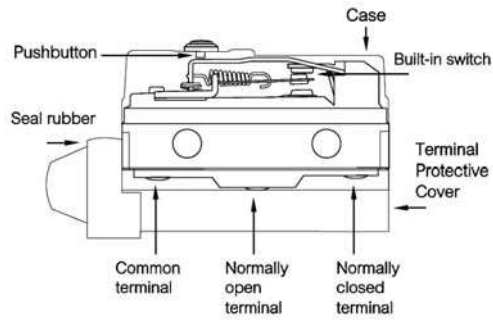
* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *



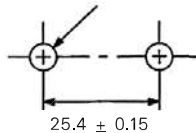
CM-1300 Series / CM-1700 Series

รุ่น (Model)	ลักษณะ หน้าสัมผัสทำงาน	Rated Current / Voltage	Contact Type	Terminal Type	Packing Pcs/Box	ราคา/ตัว (บาท)
CM-1300	Pin Plunger	15A / 250V	SPDT 1NO, 1NC	SCREW TYPE	20	110.-
CM-1305	Overtravel Plunger	15A / 250V	SPDT 1NO, 1NC		20	120.-
CM-1306	Compaq Overtravel Plunger	15A / 250V	SPDT 1NO, 1NC		20	120.-
CM-1307	Panel Mount Plunger	15A / 250V	SPDT 1NO, 1NC		20	145.-
CM-1308	Panel Mount Roller Plunger	15A / 250V	SPDT 1NO, 1NC		20	185.-
CM-1309	Panel Mount Cross Roller Plunger	15A / 250V	SPDT 1NO, 1NC		20	195.-
CM-1701	Rigid Lever	15A / 250V	SPDT 1NO, 1NC		20	135.-
CM-1703	Rigid Roller Lever	15A / 250V	SPDT 1NO, 1NC		20	145.-
CM-1704	Rigid Short Roller Lever	15A / 250V	SPDT 1NO, 1NC		20	145.-
CM-1705	Low Force Wire Hinge Lever	15A / 250V	SPDT 1NO, 1NC		20	170.-
CM-1743	Hinge Roller Lever	15A / 250V	SPDT 1NO, 1NC		20	165.-
CAP-Y	Terminal Cover	-	-		20	35.-

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10A 250V AC
0.5A 125V DC



Mounting holes
Two 4.3 dia. mounting holes
or M4 screw holes

Mode terminal model

The moded terminal model is available with right-hand, left-hand and underside leads and is recommended for use where the switch is exposed to dust, oil moisture.

Note:

1. Inductive loads have a power factor of 0.4min.(AC) and a time constant of 7 ms max.(DC).
2. Lamp load has an inrush current of 10 times the steady-state current.
3. Motor load has an inrush current of 6 times the steady-state current

MAIN FEATURES :

- ✓ Various Actuators, operation position is adjustable (such as CZ-7121)
- ✓ Outer shell covered with intensive plastic, water-proof and oil-proof. The mechanical strength is better than CM type of micro switch

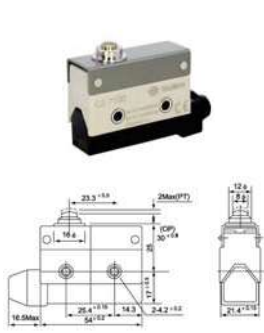
Characteristics

Operating speed	0.5mm to 50cm/sec
Operating frequency	Mechanical : 120 operations/min. Electrical : 30 operations/min.
Contact resistance	15M Ω max. (initial value)
Insulation resistance	100M Ω above (at 500 VDC)
Dielectric strength	1000 VAC, 50/60 Hz for 1 minute between terminals of the same polarity 1500 VAC, 50/60 Hz for 1 minute between current-carrying and noncurrent-carrying metal parts 1500 VAC, 50/60 Hz for 1 minute between each terminal and ground
Vibration	Action:10 to 55Hz,1.5mm pairs swing
Shock resistant	Mechanical durability : Approx. 1,000m/sec ² (approx. 100G's) Malfunction durability : Approx. 300m/sec ² (approx. 30G's)
Ambient temperature	Operating: -10°C to +80°C
Humidity	<95%RH
Service life	Mechanical : 10,000,000 operations above (under rated OT) Electrical : 500,000 operations above
Degree of protection	IP40

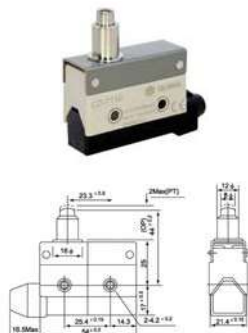
Rated Voltage	Non-inductive load				Inductive load			
	Resistive Load		Lamp Load		Inductive load		Motor Load	
	NC	NO	NC	NO	NC	NO	NC	NO
125 VAC	10	10	3	1.5	10	10	5	2.5
250 VAC	10	10	2.5	1.25	10	10	3	1.5
8 VDC	10	10	3	1.5	6	6	5	2.5
30 VDC	6	6	3	1.5	5	5	5	2.5
125 VDC	0.5	0.5	0.4	0.4	0.05	0.05	0.05	0.05

Types of actuator	Model	OF max (g.)	RF min (g.)	PT max (mm.)	OT min (mm.)	MD max (mm.)	FP max (mm.)	OP (mm.)
Short push plunger	CZ-7100	600	100	2.0	0.8	0.8	-	30.5 ± 0.8
Push plunger	CZ-7110	600	100	2.0	5.0	0.8	-	44 ± 1.2
Hinge lever	CZ-7120	150	40	13.5	4.0	3.2	35	25 ± 1
Roller lever	CZ-7121	180	50	11	3.0	2.4	-	40 ± 1
One-way roller lever	CZ-7124	200	60	11	3.0	2.4	-	50 ± 1.2
Hinge short lever	CZ-7140	220	60	8.5	2.5	2.0	32	25 ± 1
Short roller lever	CZ-7141	240	80	6.5	2.0	1.5	46	40 ± 1
One-way short roller lever	CZ-7144	280	100	6.5	2.0	1.5	56	50 ± 1.2
Flexible rod	CZ-7166	120	-	250	11	-	-	-
Panel mount push plunger	CZ-7310	600	100	2.0	6.0	0.8	-	21.8 ± 1.2
Panel mount roller plunger	CZ-7311	600	100	2.0	6.0	0.8	-	33.3 ± 1.2
Panel mount cross roller plunger	CZ-7312	600	100	2.0	6.0	0.8	-	33.3 ± 1.2

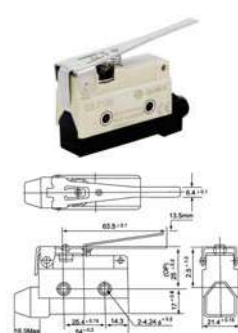
* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *



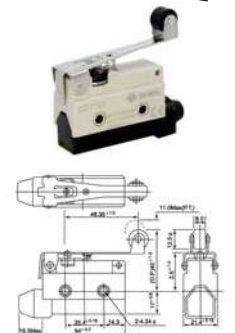
CZ-7100



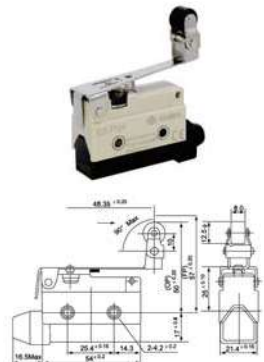
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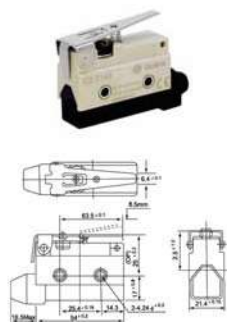
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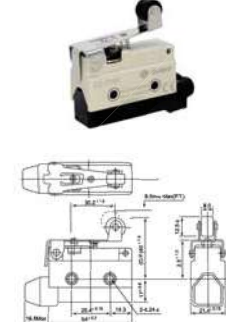
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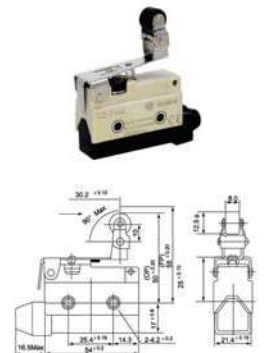
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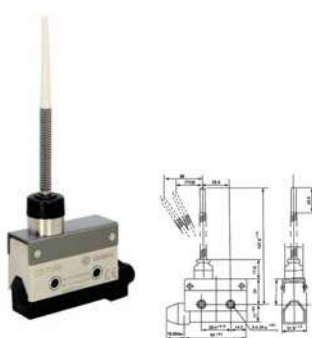
CZ-7140



CZ-7141



CZ-7144



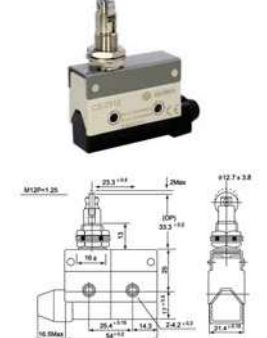
CZ-7166



CZ-7310



CZ-7311



CZ-7312

CZ-7000 Series

รุ่น (Model)	ลักษณะ หน้าสัมผัสทำงาน	Rated Current / Voltage	Contact Type	Terminal Type	Packing Pcs/Box	ราคา/ตัว (บาท)
CZ-7100	Short Push Plunger	10A / 250V	DPDT 1NO, 1NC	SCREW TYPE	10	240.-
CZ-7110	Push Plunger	10A / 250V	DPDT 1NO, 1NC		10	235.-
CZ-7120	Hinge Lever	10A / 250V	DPDT 1NO, 1NC		10	220.-
CZ-7121	Roller Plunger	10A / 250V	DPDT 1NO, 1NC		10	230.-
CZ-7124	One-way Roller Lever	10A / 250V	DPDT 1NO, 1NC		10	250.-
CZ-7140	Hinge Short Lever	10A / 250V	DPDT 1NO, 1NC		10	220.-
CZ-7141	Short Roller Lever	10A / 250V	DPDT 1NO, 1NC		10	230.-
CZ-7144	One-way Short Roller Lever	10A / 250V	DPDT 1NO, 1NC		10	250.-
CZ-7166	Flexible rod	10A / 250V	DPDT 1NO, 1NC		10	320.-
CZ-7310	Panel mount push plunger	10A / 250V	DPDT 1NO, 1NC		10	275.-
CZ-7311	Panel mount roller plunger	10A / 250V	DPDT 1NO, 1NC		10	280.-
CZ-7312	Panel mount cross roller plunger	10A / 250V	DPDT 1NO, 1NC		10	280.-

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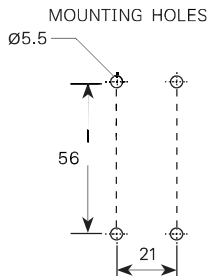
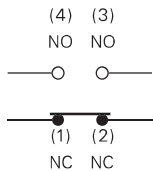
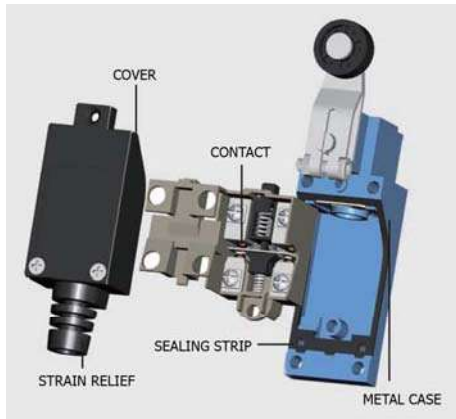
กลไกแข็งแรง ยืดอายุการใช้งาน

IP65
ระดับการป้องกัน



MAIN 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, easy to use



5A	250V AC (resistive)
0.4A	115V DC (resistive)

Note:

1. Inductive loads have a power factor of 0.4min.(AC) and a time constant of 7 ms max.(DC).
2. Lamp load has an inrush current of 10 times the steady-state current.
3. Motor load has an inrush current of 6 times the steady-state current

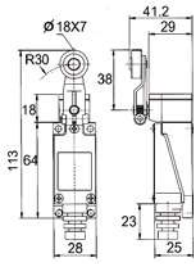
Operating speed	0.5mm to 50cm/sec
Operating frequency	Mechanical : 120 operations/min. Electrical : 30 operations/min.
Contact resistance	25M Ω max. (initial value)
Insulation resistance	100M Ω min. (below 500 VDC)
Dielectric strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity 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 to 55Hz, 1.5mm double amplitude
Shock resistant	Mechanical durability : Approx. 1,000m/sec ² (approx. 100G's) Malfunction durability : Approx. 300m/sec ² (approx. 30G's)
Ambient temperature	Operating:-5°C to+65°C
Humidity	<95%RH
Service life	Mechanical : 10,000,000 operations above Electrical : 500,000 operations above
Degree of protection	IP65

Rated Voltage	Non-inductive load				Inductive load			
	Resistive Load		Lamp Load		Inductive load		Motor Load	
	NC	NO	NC	NO	NC	NO	NC	NO
125 VAC	5	5	1.5	0.7	3	3	2	1
250 VAC	5	5	1	0.5	3	3	1.5	0.8
8 VDC	5	5	3	3	5	4	3	3
30 VDC	5	5	3	3	4	4	3	3
125 VDC	0.4	0.4	-	-	-	-	-	-

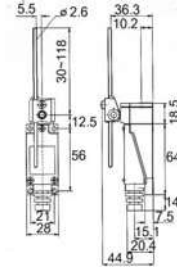
Types of actuator	Model	OF max (g.)	RF min (g.)	PT max (mm.)	OT min (mm.)	MD max (mm.)	OP (mm.)
Roller Lever	CZ-8104	750	100	20°	50°	12°	-
Adjustable Rod Lever	CZ-8107	750	100	20°	50°	12°	-
Adjustable Roller Lever	CZ-8108	750	100	20°	50°	12°	-
Top Plunger	CZ-8111	900	150	1.5	4	1	26 ± 0.8
Roller Plunger	CZ-8112	900	150	1.5	4	1	37 ± 0.8
Cross Roller Plugner	CZ-8122	900	150	1.5	4	1	37 ± 0.8
Coil Spring With Plastic End	CZ-8166	150	-	30	-	-	-
Coil Spring	CZ-8167	150	-	30	-	-	-
Metal Stick	CZ-8168	150	-	30	-	-	-
Spring wire	CZ-8169	150	-	30	-	-	-

* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *

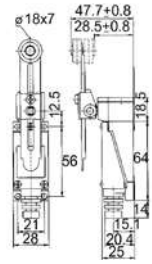
IP65
ระดับการป้องกัน



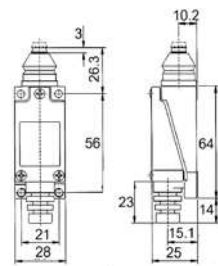
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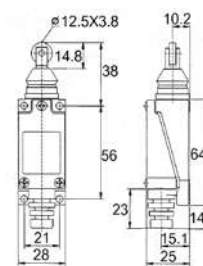
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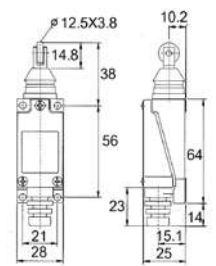
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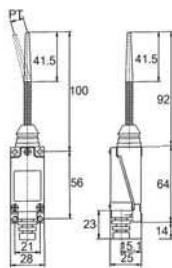
CZ-8111



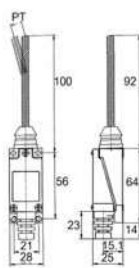
CZ-8112



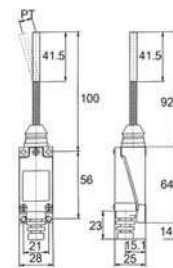
CZ-8122



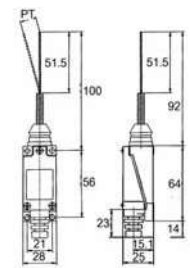
CZ-8166



CZ-8167



CZ-8168



CZ-8169

CZ-8000 Series

รุ่น (Model)	ลักษณะ หน้าสัมผัสทำงาน	Rated Current / Voltage	Contact Type	Terminal Type	Packing Pcs/Box	ราคา/ตัว (บาท)
CZ-8104	Roller Lever	5A / 250V	DPDT 1NO, 1NC	SCREW TYPE	10	530.-
CZ-8107	Adjustable Rod Lever	5A / 250V	DPDT 1NO, 1NC		10	540.-
CZ-8108	Adjustable Roller Lever	5A / 250V	DPDT 1NO, 1NC		10	580.-
CZ-8111	Top Plunger	5A / 250V	DPDT 1NO, 1NC		10	470.-
CZ-8112	Roller Plunger	5A / 250V	DPDT 1NO, 1NC		10	480.-
CZ-8122	Cross Roller Plugner	5A / 250V	DPDT 1NO, 1NC		10	480.-
CZ-8166	Coil Spring With Plastic End	5A / 250V	DPDT 1NO, 1NC		10	520.-
CZ-8167	Coil Spring	5A / 250V	DPDT 1NO, 1NC		10	520.-
CZ-8168	Metal Stick	5A / 250V	DPDT 1NO, 1NC		10	520.-
CZ-8169	Spring wire	5A / 250V	DPDT 1NO, 1NC		10	520.-

* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *



โลกแข็งแรง ยืดอายุการใช้งาน



MAIN FEATURES :

- ✓ Metallic bottom shell
- ✓ Built-in contact stand has double-spring, so it has long mechanical life
- ✓ Strong electric property 10A, 250V for 500,000 times

Specification

Model - CHL	5000	5030	5050	5100	5200	5220	5300	5330
Operating force (max.)	750g-cm.	750g-cm.	750g-cm.	750g-cm.	900g-cm.	900g-cm.	150g.	150g.
Release force (min.)	100g-cm.	100g-cm.	100g-cm.	200g.	200g.	200g.	30g.	30g.
Pre-travel (max.)	20°	20°	20°	1.8mm.	1.8mm.	1.8mm.	30mm.	30mm.
Tripping position ±10%	22.5°	22.5°	22.5°	2.0mm.	2.0mm.	2.0mm.	22.5°	22.5°
Movement dif. (max.)	10°	10°	10°	1.2mm.	1.2mm.	1.2mm.	14°	14°
Over travel (min.)	75°	75°	75°	4.0mm.	4.0mm.	4.0mm.	20mm.	20mm.
Total travel (min.)	95°	95°	95°	5.8mm.	5.8mm.	5.8mm.	50mm.	50mm.

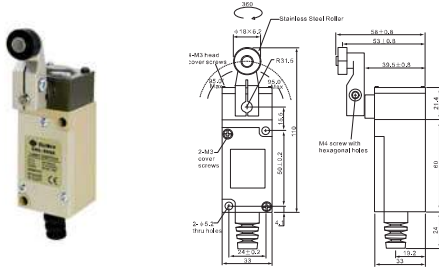
Characteristics

Double Break Mechanism	1NO+1NC 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, 50/60Hz for 1 minute between terminal of the same polarity
	1500Vac, 50/60Hz for 1 minute between current-carrying and non-current-carrying metal parts
	1500Vac, 50/60Hz 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 conditons)
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 EN50041, EN50047, IEC337-1 and VDE0660
Operating Temperature	-5°C~+65°C(with no icing)
Storage Temperature	-5°C~+65°C(with no icing)
Ambient Operating Humidity	<95%RH
Shock Resistance	Mechanical durable: 1000m/s ² min.
	Malfuction: 300m/s ² min.
Vibration Frequency	Malfuction: 10 to 55Hz 1.5mm double amplitude
Terminal Screw Torsional Force	6-8 kgf-cm.
Other Screw Torsinal Force	Cover 12-14 kgf-cm. / Head 8-9 kgf-cm ./ Mounting 50-60 kgf-cm.
Bare Wire Diameter	Ø2 max.
Cable Diameter	Ø9 max.(IP65 if use cable Ø8-9)

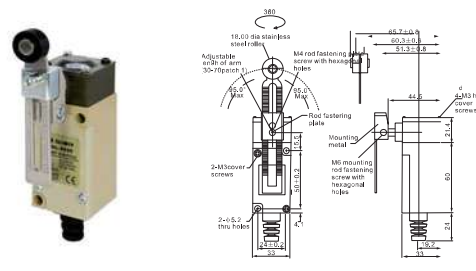
* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *

IP65
ระดับการป้องกัน

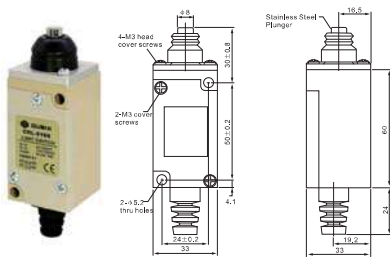
CE



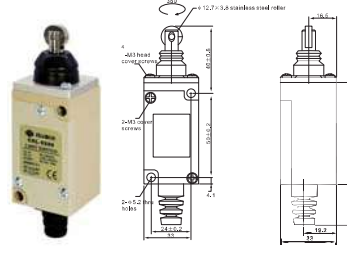
CHL-5000



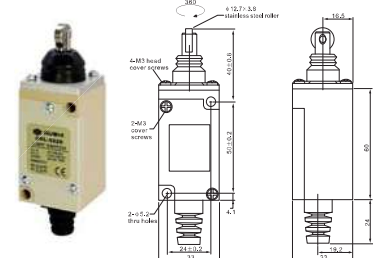
CHL-5030



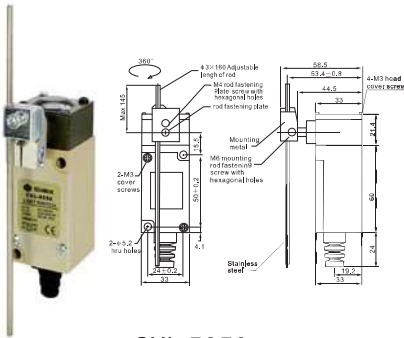
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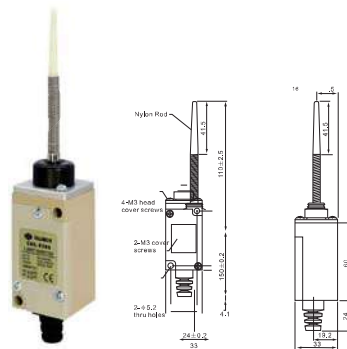
CHL-5200



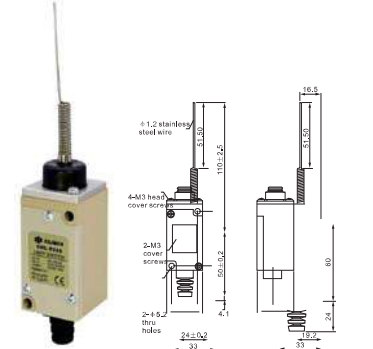
CHL-5220



CHL-5050



CHL-5300



CHL-5330

CHL Series

รุ่น (Model)	ลักษณะ หน้าสัมผัสทำงาน	Rated Current / Voltage	Contact Type	Terminal Type	ราคา (บาท)
CHL-5000	Roller Lever	5A / 250V	DPDT 1NO, 1NC	SCREW TYPE	600.-
CHL-5030	Adjustable Roller Lever	5A / 250V	DPDT 1NO, 1NC		600.-
CHL-5050	Adjustable Rod Lever	5A / 250V	DPDT 1NO, 1NC		600.-
CHL-5100	Push Plunger	5A / 250V	DPDT 1NO, 1NC		520.-
CHL-5200	Roller Plunger	5A / 250V	DPDT 1NO, 1NC		540.-
CHL-5220	Cross Roller Plunger	5A / 250V	DPDT 1NO, 1NC		540.-
CHL-5300	Coil Spring With Plastic End	5A / 250V	DPDT 1NO, 1NC		550.-
CHL-5330	Spring wire	5A / 250V	DPDT 1NO, 1NC		550.-

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ปลอดภัยกว่าด้วยกลไก Forced Disconnect (ป้องกันการหลอมติด)



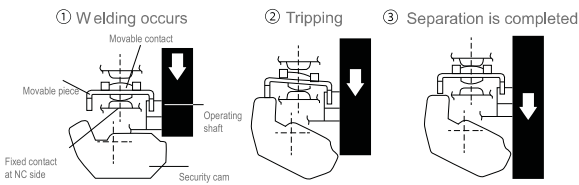
IP66
ระดับการป้องกัน



MAIN FEATURES :

- ✓ Forced open action device (NC contacts only), it can disconnect the contact when the contact has fusing and other failures.
- ✓ The set safety of lever ensures that gear ratcheting device is used between the action position indicator panel and the lever.
- ✓ Strengthened top seal structure improves the sealing performance.
- ✓ Built-in contact holder has fast-action type: 1NC / 1NO;
Slow-action: 1NC / 1NO and 2NC.

Forced disconnect fine of \ominus EN60947-5-1
(Only NC contact side has direct opening action function.)



Security cams is directly pressed to separate the movable piece

Rated voltage (V)	Non-inductive load(A)				Inductive load(A)			
	Resistive load		lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
AC	125	10	3	1.5	10	5	2.5	
	250	10	2	1	10	3	1.5	
	400	10	1.5	0.8	3	1.5	0.8	
DC	8	10	6	3	10	6		
	14	10	6	3	10	6		
	30	6	4	3	6	4		
	125	0.8	0.2	0.2	0.8	0.2		
	250	0.4	0.1	0.1	0.4	0.1		

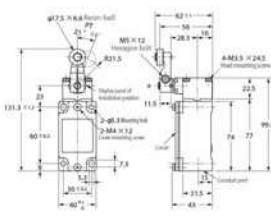
Performance

Protection Level	IP66
Mechanical Life	More than 10,000,000 times*5
Electrical Life	More than 500,000 times(250Vac 10A, resistive load)
Operation Speed	1mm~0.5m/s
Operation Frequency	Mechanical: 120 times/min
	Electrical: 30 times/min
Rated Frequency	50/60Hz
Insulation resistance	100M Ω or more (DC500V Megameter) between homopolars, and between terminals and uncharged metal parts
Contact resistance	25M Ω or less (initial value)
Withstand Voltage (EN60947-5-1)	Between homopolar terminals: 2.5kV(quick-action type) / 4kV(slow-action type)
	Between heteropolar terminals: 2.5kV(slow-action type)
	Between charged metal parts: 4kV
	Between terminals and uncharged metal parts: 6kV
Rated Insulation Voltage (Ui)	600V(EN60947-5-1)
Reverse Voltage when on/off	1500V max.(EN60947-5-1)
Pollution degree (environmental conditions)	Pollution degree 3(EN60947-5-1)
Electric shock proof protection grade	Class I (with ground terminal)
Vibration	Malfunction: 10~55Hz 0.75mm single amplitude
Shock resistant	Duration: 1,000m/s ²
	Malfunction: 300m/s ²
Ambient Temperature	-20°C~+80°C(No ice or dew)
Ambient Humidity	Less than 95%RH
Weight	250g

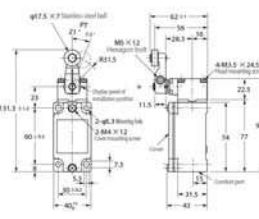
Action characteristics

Action characteristics			15N	12N	17N	18N	70N	71N	72N	81N	86N	87N
Action force	OF	Max.	9.41N	9.41N	2.12N	9.41N	18.63N	18.63N	18.63N	1.47N	1.47N	1.47N
	RF	Min.	1.47	1.47N	0.29N	1.47N	1.96N	1.96N	1.96N	-	-	-
Pretravel	PT	-	21° ±3°	21° ±3°	21° ±3°	21° ±3°	2mm.	2mm.	2mm.	15	15	15
	PT	(2nd)	(45°)	(45°)	(45°)	(45°)	(3mm.)	(3mm.)	(3mm.)	-	-	-
Overtravel	OT	Min.	50°	50°	50°	50°	5mm.	5mm.	5mm.	-	-	-
Poor response travel	MD	Max.	12°	12°	12°	12°	1mm.	1mm.	1mm.	-	-	-
Force disconnected pretravel	DOT	Min.	35°	35°	35°	35°	3.2mm.	3.2mm.	3.2mm.	-	-	-
	DOT	Min.	55°	55°	55°	55°				-	-	-
Force disconnected force	DOF	Min.	19.61N	19.61N	19.61N	19.61N	49.03N	49.03N	49.03N	-	-	-
Total travel	TT	-	(75°)	(75°)	(75°)	(75°)	(7mm.)	(7mm.)	(7mm.)	-	-	-
Free position	FP	Max.	-	-	-	-	38mm.	51mm.	51mm.	-	-	-
Action position	OP	-	-	-	-	-	35±1mm.	48±1mm.	48±1mm.	-	-	-

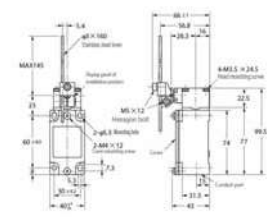
* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *



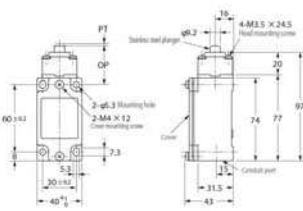
C4B-4112N



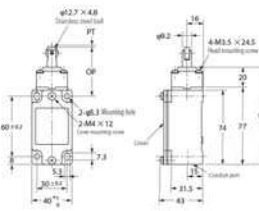
C4B-4115N



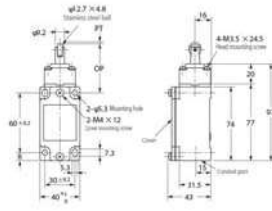
C4B-4117N



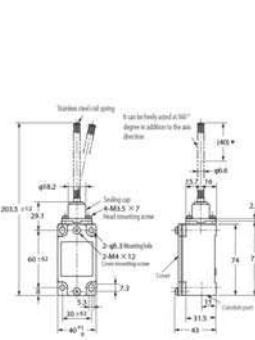
C4B-4170N



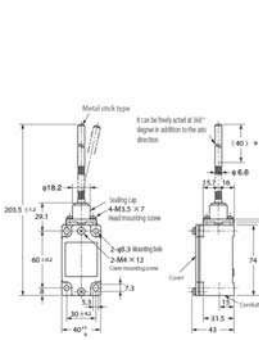
C4B-4171N



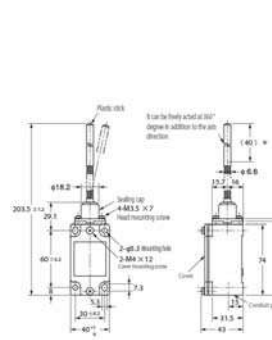
C4B-4172N



C4B-4181N



C4B-4186N

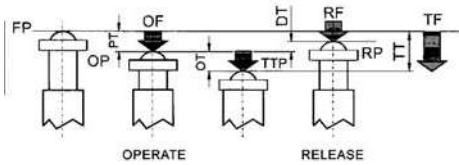


C4B-4187N

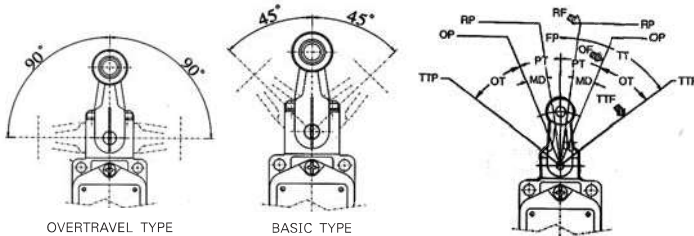
C4B Series

รุ่น (Model)	ลักษณะ หน้าสัมผัสทำงาน	Rated Current / Voltage	Contact Type	Terminal Type	ราคา (บาท)
C4B-4112N	Adjustable Roller Lever	10A / 250V	DPDT 1NO, 1NC	SCREW TYPE	1,190.-
C4B-4115N	Roller Lever	10A / 250V	DPDT 1NO, 1NC		1,170.-
C4B-4117N	Adjustable Rod Lever	10A / 250V	DPDT 1NO, 1NC		1,160.-
C4B-4170N	Top Plunger	10A / 250V	DPDT 1NO, 1NC		1,100.-
C4B-4171N	Roller Plunger	10A / 250V	DPDT 1NO, 1NC		1,120.-
C4B-4172N	Cross Roller Plunger	10A / 250V	DPDT 1NO, 1NC		1,120.-
C4B-4181N	Coil Spring	10A / 250V	DPDT 1NO, 1NC		1,080.-
C4B-4186N	Metal Stick	10A / 250V	DPDT 1NO, 1NC		1,080.-
C4B-4187N	Coil Spring With Plastic End	10A / 250V	DPDT 1NO, 1NC		1,080.-

* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *



- OF : Operating Force
- RF : Releasing Force
- TF : Total Force
- FP : Free Position
- OP : Operating Position
- RP : Releasing Position
- TTP : Total Travel Position
- PT : Pretravel
- OT : Overtravel
- DT : TravelDifferential
- TT : Total Travel



Note:

- Inductive loads have a power factor of 0.4min.(AC) and a time constant of 7 ms max.(DC).
- Lamp load has an inrush current of 10 times the steady-state current.
- Motor load has an inrush current of 6 times the steady-state current

MAIN FEATURES :

- ✓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 actuators is taken convenience for using
- ✓Built-in contact stand has double-spring, so it has longmechanical life
- ✓Standard size configuration M20x1.5 for conduit connector

Operating speed	1mm/sec to 2m/sec (with Type WLCA2)
Operating frequency	Mechanical : 120 operations/min. Electrical : 30 operations/min.
Contact resistance	15M Ω max. (initial)
Insulation resistance	100M Ω min. (at 500 VDC)
Dielectric strength	1000 VAC, 50/60 Hz for 1 minute between terminals of the same polarity 1500 VAC, 50/60 Hz for 1 minute between current-carrying and noncurrent-carrying metal parts 1500 VAC, 50/60 Hz for 1 minute between each terminal and ground
Vibration	Malfunction durability : 10 to 55Hz; 1.5mm double amplitude
Shock	Mechanical durability : Approx. 1,000m/sec ² (approx. 100G's) Malfunction durability : Approx. 300m/sec ² (approx. 30G's)
Ambient temperature	Operating:-10°C to +80°C (With no icing)
Humidity	95% RH max.
Service life	Mechanical : 15,000,000 operations above (under rated OT) Electrical : 500,000 operations above
Degree of protection	IP66

Rated Voltage	Non-inductive load				Inductive load			
	Resistive Load		Lamp Load		Inductive load		Motor Load	
	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.
125 VAC	10	10	3	1.5	10	10	5	2.0
250 VAC	5	5	2	1	5	5	3	1.0
8 VDC	10	10	6	3	10	10	6	6
30 VDC	6	6	4	3	6	6	4	4
125 VDC	0.8	0.8	0.2	0.2	0.8	0.8	0.2	0.2

Types of actuator	Model	OF max (g.)	RF min (g.)	PT max (mm.)	OT min (mm.)	MD max (mm.)	TF max (g.)	TT max	OP (mm.)
Roller Lever	CWLCA2-2	1360	227	20°	30°	12°	2720	50°	-
Adjustable Roller Lever	CWLCA12-2-Q	1360	227	20°	30°	12°	2720	50°	-
Adjustable Rod Lever	CWLCL	142	28	20°	30°	12°	200	50°	-
Fork Lever Lock	CWLCA32-41	1200	-	55°	35°	-	-	90 ± 10°	-
Fork Lever Lock	CWLCA32-42								
Top Plunger	CWLD	2720	910	1.7	6.4	1	-	34 ± 2.8	-
Cross Roller Plugner	CWLD1	2720	910	1.7	5.6	1	2720	6.5 ± 0.8	-
Roller Plunger	CWLD2	2720	910	1.7	5.6	1	-	6.5 ± 0.8	-
Ball Plunger	CWLD3	2720	910	1.7	5.6	1	2720	9 ± 0.8	-
Coil Spring (6.5 dia.)	CWLNJ	150	-	28	-	-	-	-	-
Coil Spring With Plastic End (8.0 dia.)	CWLNJ-2	120	-	28	-	-	-	-	-
Metal Stick (5.0 dia.)	CWLNJ-30	80	-	28	-	-	-	-	-
Spring Wire (1.0 dia.)	CWLNJ-S2	29	-	28	-	-	-	-	-

* ราคาสินค้าไม่รวมภาษีมูลค่าเพิ่มและราคาอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า *

