

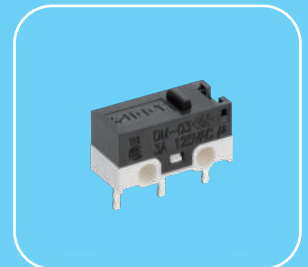
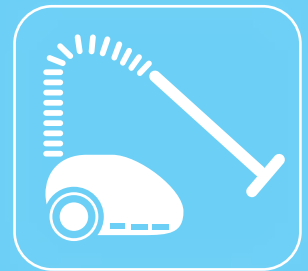


ZIPPY TECHNOLOGY CORP.

ZIPPY

Let you secure and at ease

Guide Book 2020-2021



PUSH SWITCHES P8 SERIES



177

ROCKER SWITCHES RE SERIES



179

ROCKER SWITCHES RF SERIES



180

ROCKER SWITCHES FT SERIES



181

DETECT SWITCHES B8 SERIES



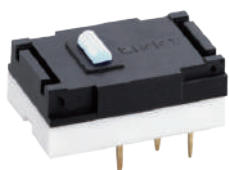
182

HOOK SWITCHES HK01 SERIES



184

HOOK SWITCHES HM2 SERIES



185

TACT SWITCHES T6 SERIES



187

ENCODER SWITCHES RP SERIES



189

LOW TORQUE SWITCHES CNR SERIES



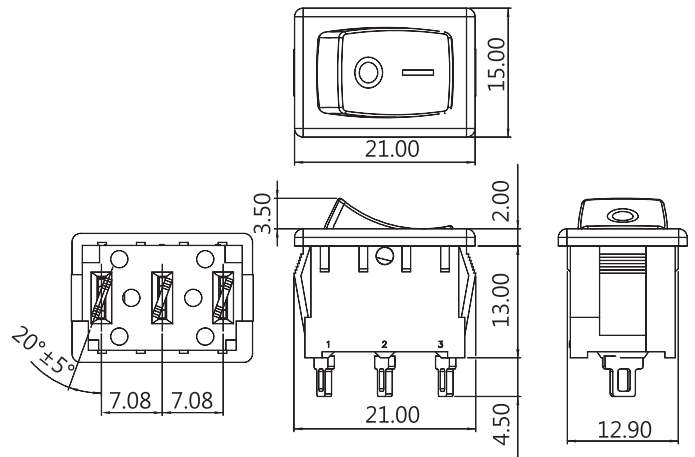
191

ROCKER SWITCHES



DIMENSIONS

Unless otherwise specified, a tolerance of $\pm 0.4\text{mm}$ applies to all dimensions.



RE SERIES

SPECIFICATIONS

Contact Resistance (initial)

Max. 50 m Ω

Measured by ohm meter - open voltage < 1VDC, driver current -100 mA

Insulation Resistance (at 500 VDC / minute)

Min. 100 M Ω

Dielectric Strength

Min. 1,000VAC(50-60HZ)/minute between Live parts.

Min. 3,000VAC(50-60HZ)/minute between Live parts and dead metal parts

Operating Temperature Range

-40°C to 55°C (with no icing)

Vibration

10~55 Hz, displacement 0.75 mm(p-p)

Electrical Service Life

Min. 10,000 operations

Electrical Operating Frequency

10~30 operations per minute

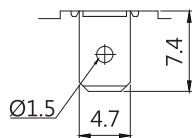
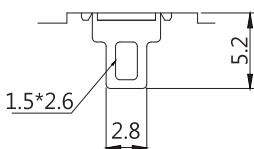
APPLICATIONS

Juice Maker, Blender, Food Processor

TERMINAL TYPES

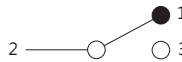
A TYPE (t=0.8mm)

D TYPE (t=0.8mm)

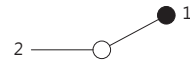


CONTACT CONFIGURATION

SPDT



SPST



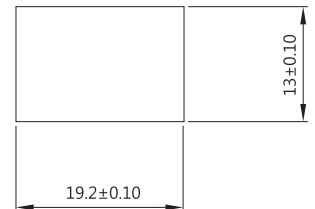
TERMINAL TYPES

MOUNTING HOLES

t=0.8mm

t=1.0mm

t=1.2mm



CERTIFICATE INFORMATION

Model Name	UL, cUL	ENEC
RE-06S	3A 250 VAC 6A 125 VAC (Temp:55°C) Min. 6,000 operations	Non
RE-12S	12A 125/250 VAC (Temp:55°C) Min. 6,000 operations	12A 125/250VAC μ T85/55 1E4

ORDERING INFORMATION

Series Prefix	Code	Rating Current	Code	Operating Force	Code	Terminal Type	Code	Type	Code	Actuator Color	Code	Circuit Arrangement	Code	Actuator Marking	Code	RoHS Code
RE	1	6A 125VAC	S	Max. 700gf	A	(Diagram)	2	Twist	B	BLACK	A	SPST	0			
	2	12A 125/250VAC			D	(Diagram)					B	SPDT	1	I, O		
													2	•		
													3	L, H		
													4	I, Φ		
													5	ON, OFF		
													6	-, O		

ROCKER SWITCHES



RF SERIES

SPECIFICATIONS

Contact Resistance (initial)

Max. 50 mΩ

Measured by ohm meter - open voltage < 1VDC, driver current -100 mA

Insulation Resistance (at 500 VDC / minute)

Min. 100 MΩ

Dielectric Strength

Min. 1000VAC(50-60HZ)/minute between Live parts.

Min. 3000VAC(50-60HZ)/minute between Live parts and dead metal parts

Operating Temperature Range

-40°C to 85°C (with no icing)

Vibration

10~55 Hz, displacement 0.75 mm(p-p)

Electrical Service Life

Min. 10,000 operations

Electrical Operating Frequency

10~30 operations per minute

APPLICATIONS

Juice Maker, Blender, Food Processor

CERTIFICATE INFORMATION

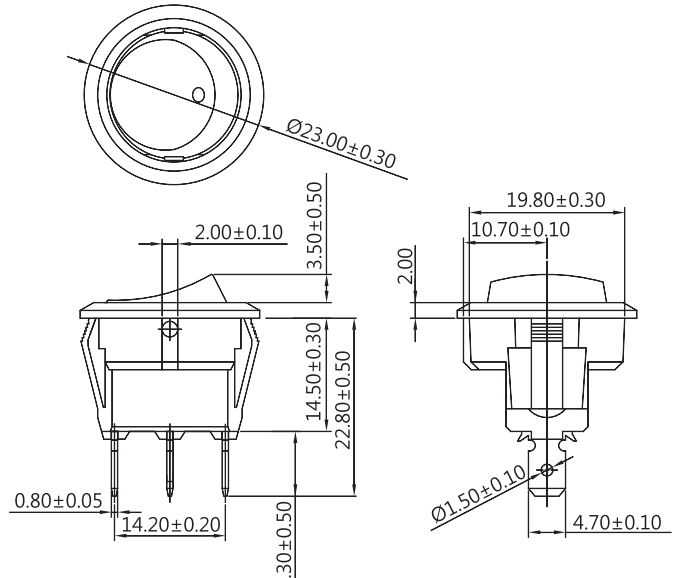
Model Name	UL, cUL	ENEC
RF-12S	12A 125/250 VAC (Temp:55°C) Min. 6,000 operations	12(4)A 250 VAC. μ T85/55, 1E4

ORDERING INFORMATION

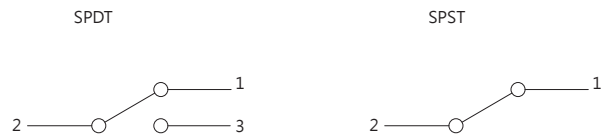
RF	12	S	D	B	R	2	0	Z							
SERIES PREFIX	C O D E	RATING CURRENT	C O D E	OPERATING FORCE	C O D E	TERMINAL TYPE	C O D E	CASE COLOR	C O D E	ACTUATOR COLOR	C O D E	CIRCUIT ARRANGEMENT	C O D E	ACTUATOR MARKING	ROHS CODE
	12	12A 125/250VAC 12(4)A 250VAC	S	Max.700gf	A	SOLDER TERMINAL	D	187 SERIES	B	BLACK	B	BLACK	1	SPST	
									W	WHITE	R	RED	2	SPDT	
											P	PURPLE	3	SPST 250VAC WITH NEON LAMP (ONLY FOR RED ACTUATOR)	
													4	SPST 125VAC WITH NEON LAMP (ONLY FOR RED ACTUATOR)	
														1	•
														2	•
														3	L H
														4	ON OFF

DIMENSIONS

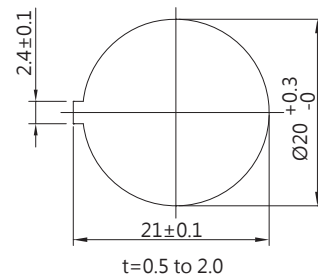
Unless otherwise specified, a tolerance of ±0.4mm applies to all dimensions.



CONTACT CONFIGURATION



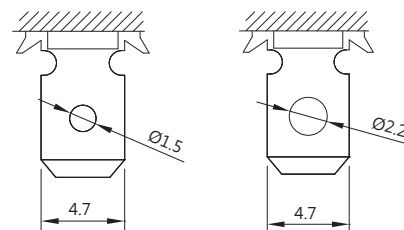
MOUNTING HOLES



TERMINAL TYPES

D TYPE
t=0.8
#187 Terminal

A TYPE
t=0.8
Solder Terminal

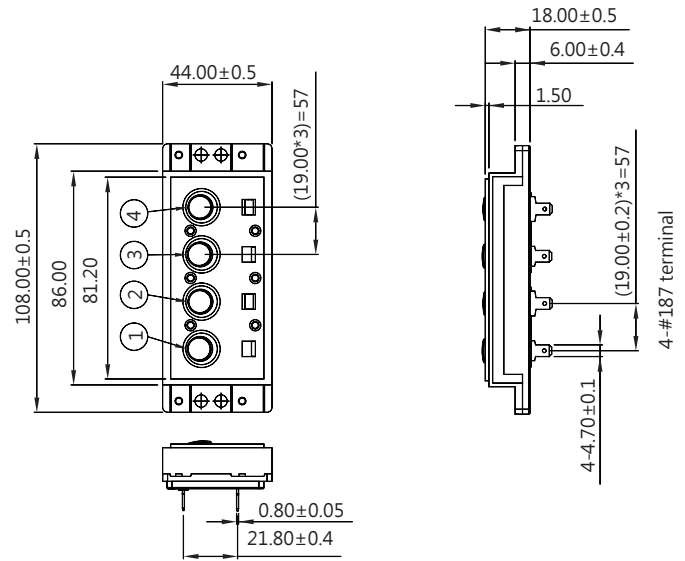


ROCKER SWITCHES



DIMENSIONS

Unless otherwise specified, a tolerance of $\pm 0.4\text{mm}$ applies to all dimensions.



FT SERIES

SPECIFICATIONS

Operating Force

2~5lb(907~2268gf)

Contact Resistance (initial)

Max. 300 m Ω

Measured by ohm meter –open voltage <1VDC, driver current -100mA

Insulation Resistance (at 500VDC/minute)

Min. 100M Ω

Dielectric Strength

Min. 1000VAC(50-60HZ)/minute between Live parts.

Min. 1250VAC(50-60HZ)/minute between Live parts and dead metal parts

Operating Temperature Range

-40°C to 50°C (with no icing)

Electrical Service Life

Min. 6,000 operations

Electrical Operating Frequency

10~30 operations per minute

Mechanical Service Life

Min. 24,000 operations

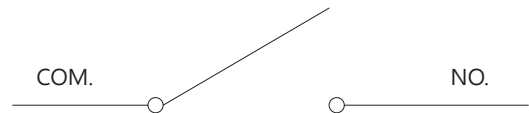
Mechanical Operating Frequency

30 operations per minute

APPLICATION

Refrigerator , Self cleaning filter,Washing machine

CONTACT CONFIGURATION



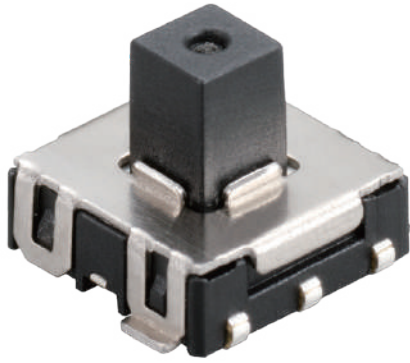
CERTIFICATE INFORMATION

Model Name	UL, cUL
FT-15	15.1A 125/250/277 VAC 1/2HP 125/250/277 VAC Temp : 50 °C Min. 6,000 operations

ORDERING INFORMATION

SERIES PREFIX	RATING CURRENT	OPERATING FORCE	COLOR	TERMINAL TYPE	Mechanical Service Life	SPECIAL CODE	ROHS CODE
FT	15.1A 1/2HP 125/250/277VAC	S 907~2268g(2~5lb)	G GRAY B BLACK	D #187 TERMINAL	S Min 24,000 Operations H Min 44,000 Operations	01	Z

DETECT SWITCHES



B8 SERIES

SPECIFICATIONS

Contact Resistance (initial)

Max. 200 mΩ

Measured by ohm meter –open voltage < 1 VDC, driver current -100 mA

Insulation Resistance (at 250VDC/minute)

Min. 100MΩ

Operating Temperature range

-10°C to 60°C (with no icing)

Vibration

10~55Hz, displacement 0.75mm(p-p)

Electrical Service Life

Min. 200,000 operations.

Electrical Operating Frequency

120 operations per minute

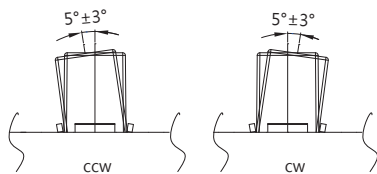
RATING

50mA 24VDC

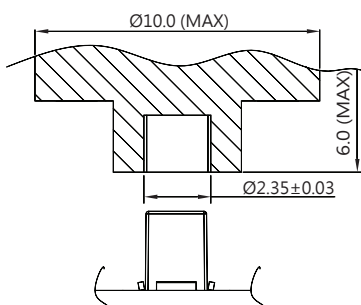
APPLICATIONS

Digital Camera · Mobile Phone

DIMENSION OF BUTTON MOVING ANGLE

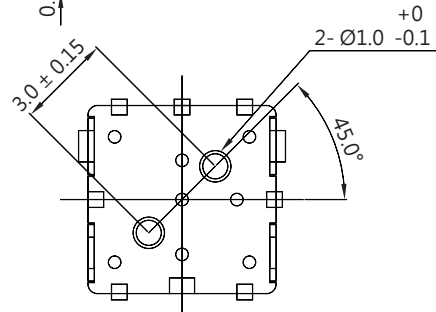
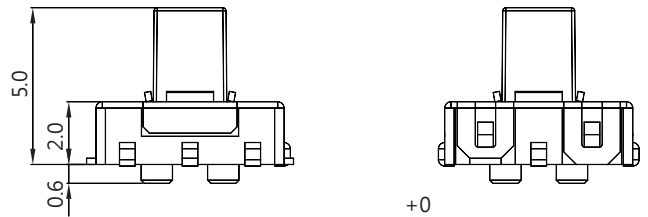
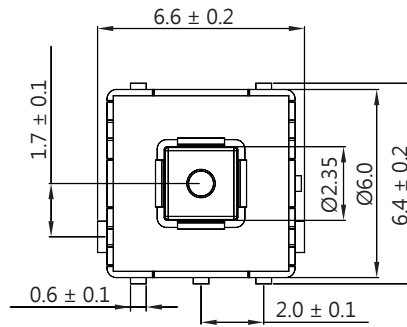


DIMENSION OF ASSEMBLY PART



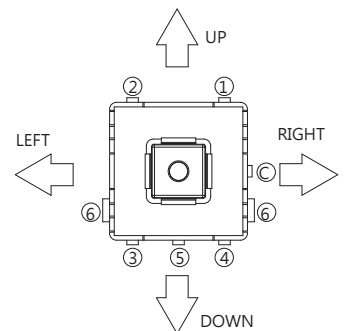
DIMENSIONS

Unless otherwise specified, a tolerance of ±0.4mm applies to all dimensions.

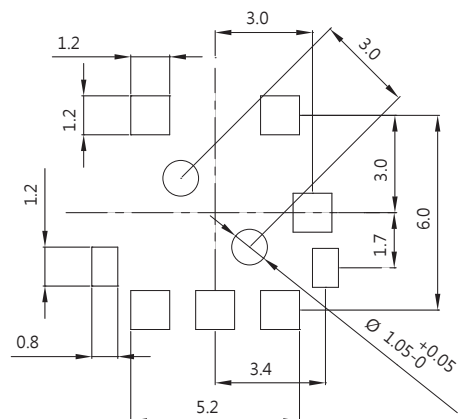


CONTACT CONFIGURATION

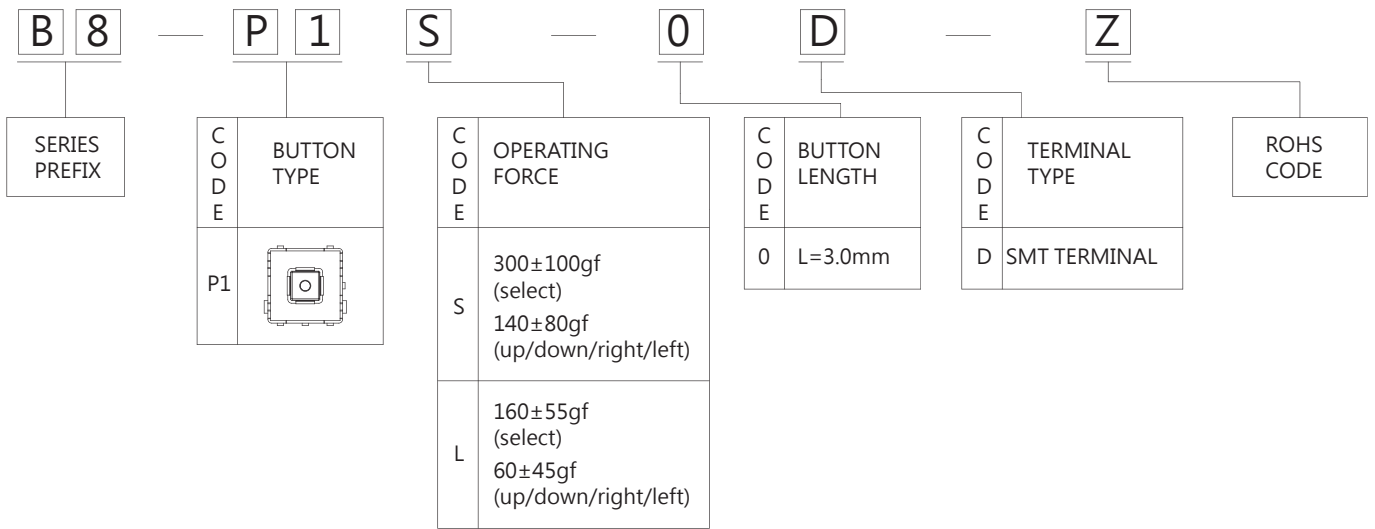
DIRECTION	①	②	③	④	⑤	⑥	C
UP	○	○					○
DOWN			○	○	○	○	○
LEFT		○	○				○
RIGHT				○	○	○	○
SELECT					○	○	○



MOUNTING HOLES



ORDERING INFORMATION



OPERATING CHARACTERISTICS

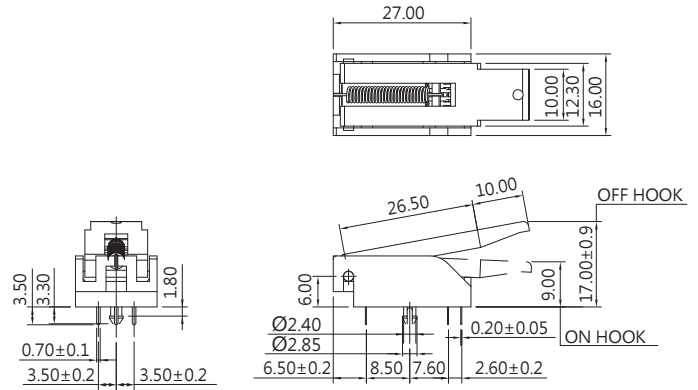
SWITCH TYPE	PART SUFFIX	OF(gf)		RF Min. (gf)	OF(UP/DOWN/R/L) (gf)	RF(UP/DOWN/R/L) Min.(gf)
B8-P1 □ -0D-Z		L	160±55gf	25gf	60±45gf	5gf
		S	300±100gf	55gf	140±80gf	10gf

HOOK SWITCHES



DIMENSIONS

Unless otherwise specified, a tolerance of $\pm 0.4\text{mm}$ applies to all dimensions.



HK01 SERIES

SPECIFICATIONS

Operating Force

Max. 110 gf at point P

Return Force

Min. 20gf at point P

Contact Resistance (initial)

Max. 100m Ω

Measured by ohm meter –Open Voltage <1VDC, Driver current -100mA

Insulation Resistance (at 500VDC/minute)

Min. 100M Ω

Operating Temperature Range

0°C to 55°C

Vibration

10 ~ 55 Hz, displacement 0.75 mm (p-p)

Electrical Service Life

Min. 500,000 operations

Electrical Operating Frequency

30 operations per minute

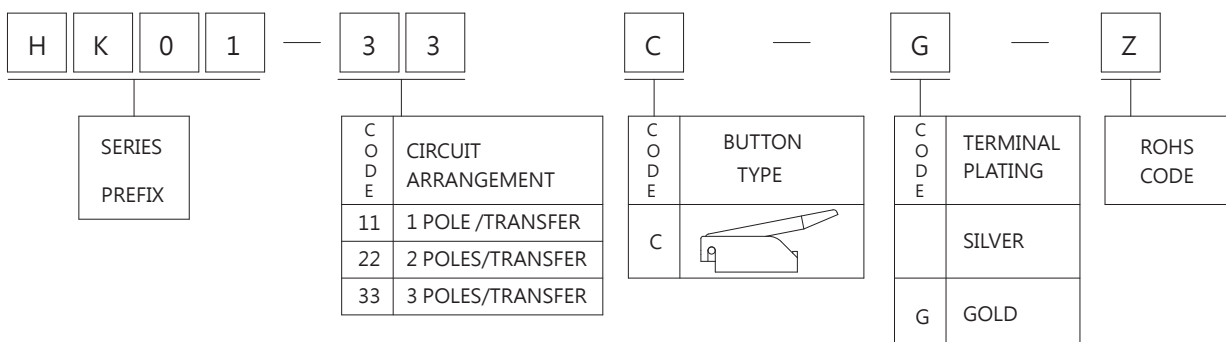
RATING

0.1A 48VDC

APPLICATIONS

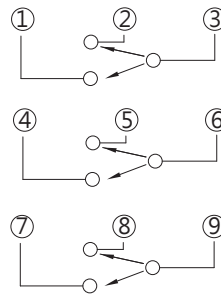
Various telephone sets, telephone-related equipment and other communication systems using telephone circuits

ORDERING INFORMATION

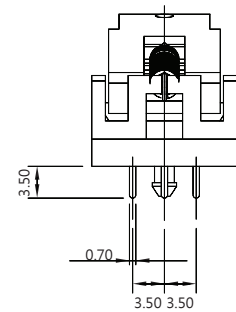


CONTACT CONFIGURATION

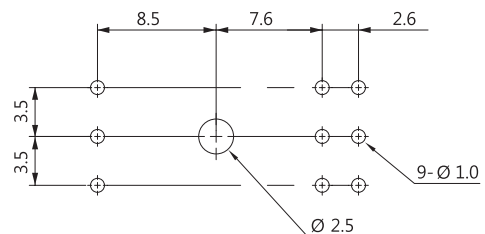
Seen from the Direction A



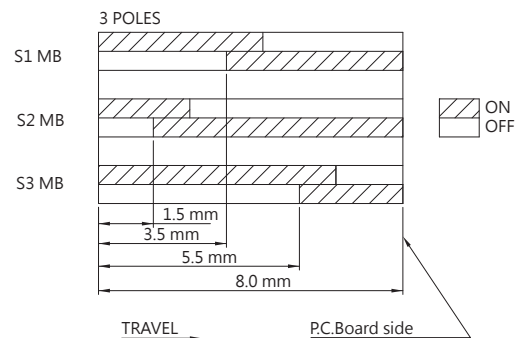
TERMINAL TYPES



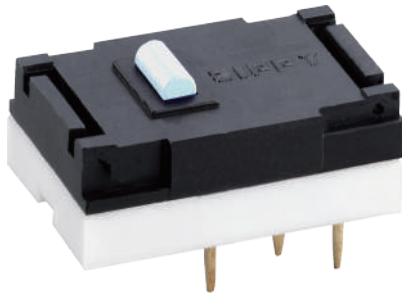
MOUNTING HOLES



SWITCH SEQUENCE



HOOK SWITCHES



HM2 SERIES

SPECIFICATIONS

Contact Resistance(Initial)

Max. 100mΩ

Measured by ohm meter -open voltage <1VDC, driver current -100mA

Insulation Resistance (at 500 VDC / minute)

Min. 100 MΩ

Dielectric Strength

Min. 1000VAC(50-60HZ)/minute between Live parts.

Min. 1250VAC(50-60HZ)/minute between Live parts and dead metal parts

Operating Temperature Range

0°C to 65°C

Vibration

10~55Hz, displacement 0.75 mm (p-p)

Electrical Service Life

1A - Min. 6,000 operations

Other ratings - Min. 500,000 operations

Electrical Operating Frequency

10~30 operations per minute

Mechanical Service Life

Min.1,000,000 operations

Mechanical Operating Frequency

120 operations per minute

Operating application of the switch

Set the switch pushing distance from 60% to 90% of the specified OT value

RATING

0.1A 60VDC, 0.2A 60VDC

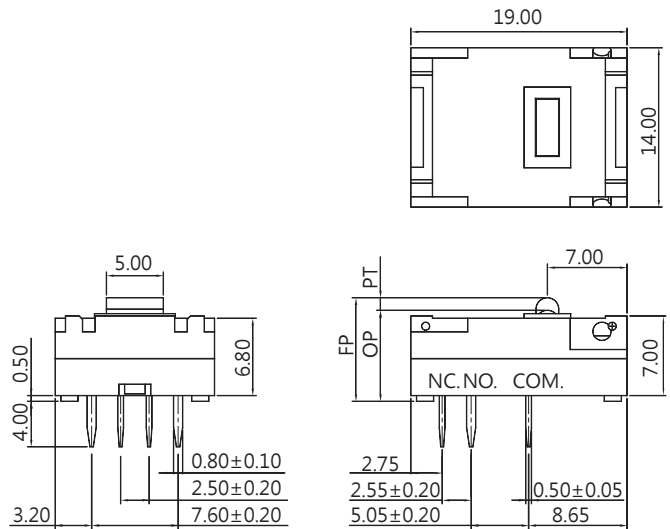
0.2A 125 VAC, 1A 125VAC

APPLICATIONS

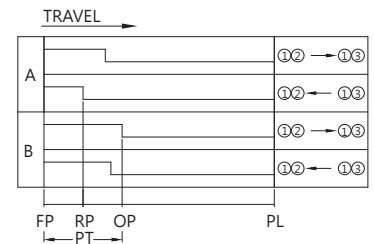
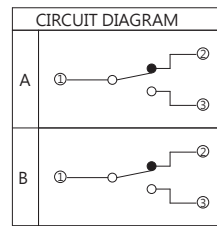
Telephone, Magnetic card reader

DIMENSIONS

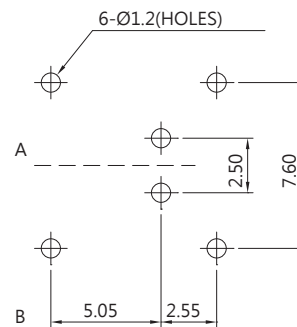
Unless otherwise specified, a tolerance of ±0.4mm applies to all dimensions.



CONTACT CONFIGURATION



MOUNTING HOLES



THE SELECTION OF RATING & FORCE

MODEL	Rating	L	S	H
HM2	0.1A	*	*	*
	0.2A	*	*	*
	1A		*	*

NOTE : The Symbol " * " to represent the result is accepted

ORDERING INFORMATION

H M 2	0 1	S	0 0	0	Z
SERIES PREFIX	RATING CURRENT	OPERATING FORCE	ACTUATOR TYPE	CIRCUIT ARRANGEMENT	ROHS CODE
	01 1A 125VAC	L LIGHT	00	0 D.P.D.T.	
	P1 0.1A 60VDC	S STANDARD	01 L=17.5	3 S.P.D.T.	
	P2 0.1A 60VDC	H HEAVY	02 L=24.5		
	0.2A 60VDC		03 L=32		
	0.2A 125VAC		04 L=27.4		

#NOTE		
ITEM	RATING CURRENT	OPERATING FORCE
1	Code:01	S,H
2	Code:P1	L,S,H
3	Code:P2	L,S,H

OPERATING CHARACTERISTICS

SWITCH TYPE	PART SUFFIX	OF - Max (gf)			OP Min. (mm)	PT Max. (mm)	OT Min. (mm)	RP Max. (mm)	RF - Min (gf)	
		2 Ways	1 Way	DPDT					SPDT	
HM2- □□□ -00 □ -Z		H	215	165	7.9	1.3	0.4	8.9	40	20
		S	155	135					25	14
		L	108	90					15	8
HM2- □□□ -01 □ -Z		H	73	55	8.5	3.6	1.1	11.6	10	7
		S	60	45					7	5
		L	40	30					4	3
HM2- □□□ -02 □ -Z		H	54	40	8.6	5.1	1.1	13.1	7	4
		S	42	32					5	3
		L	26	22					3	2
HM2- □□□ -03 □ -Z		H	40	31	8.8	6.7	1.1	14.6	5	3.5
		S	30	25					3	2.5
		L	20	17					2	1.5
HM2- □□□ -04 □ -Z		H	47	35	2.4	6.1	1.1	8.1	6	4
		S	36	28					4	3
		L	23	19					2	1.5



T6 SERIES

SPECIFICATIONS

Contact Resistance(initial)

Max. 100 mΩ

Measured by ohm meter - open voltage < 1VDC, driver current -100 mA

Insulation Resistance(at 100 VDC / minute)

Min. 100 MΩ

Operating Temperature Range

-25°C to 70°C (with no icing)

Vibration

10~55 Hz, displacement 0.75 mm(p-p)

Electrical Service Life

Min. 2,000,000 operations

Electrical Operating Frequency

120 operations per minute

RATING

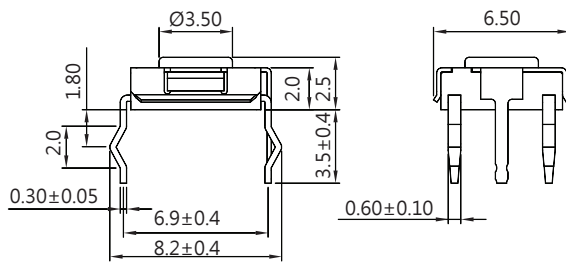
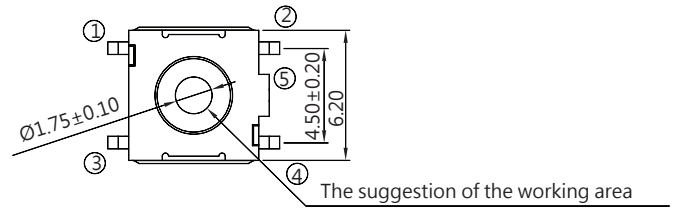
50mA 12VDC

APPLICATIONS

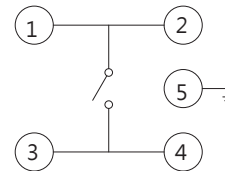
Mouse, Joystick, Notebook

DIMENSIONS

Unless otherwise specified, a tolerance of ±0.4mm applies to all dimensions.

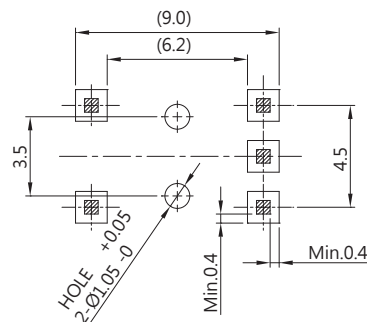


CONTACT CONFIGURATION

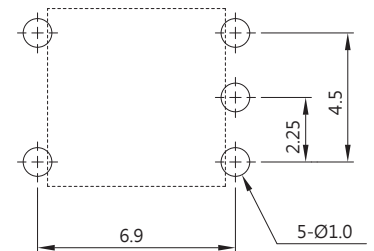


MOUNTING HOLES

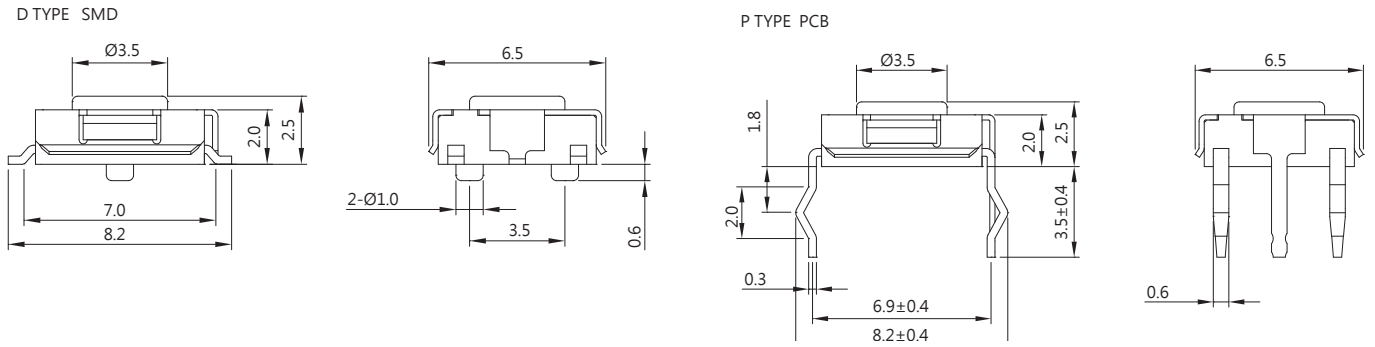
D TYPE



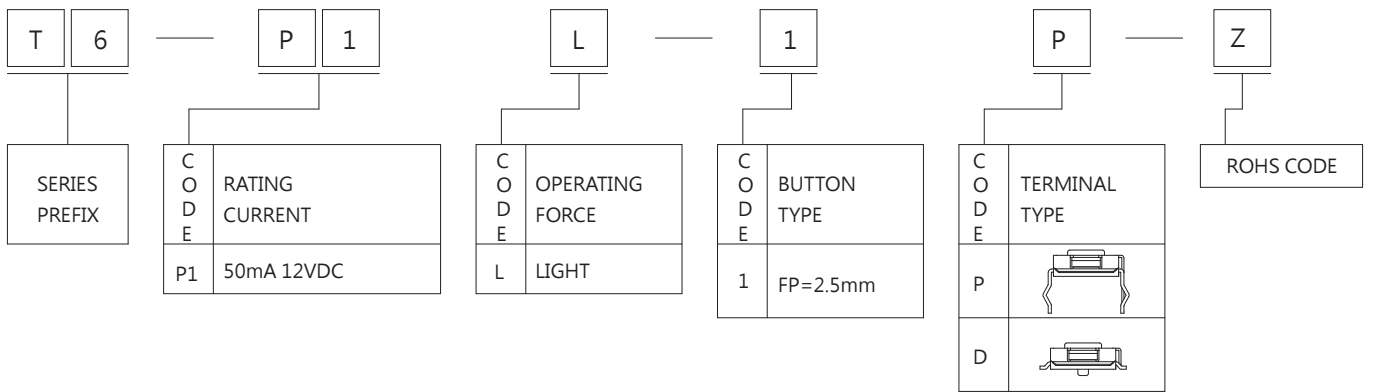
P TYPE



TERMINAL TYPES



ORDERING INFORMATION



OPERATING CHARACTERISTICS

SWITCH TYPE	PART SUFFIX	OF(gf)		TRAVEL (mm)	FP (mm)	RF- Min. (gf)
T6-P1L-1P-Z		L	60±25gf	0.5 ^{+0.2} / _{-0.1} mm	2.5 ±0.2 mm	20 gf
T6-P1L-1D-Z		L	60±25gf	0.5 ^{+0.2} / _{-0.1} mm	2.5 ±0.2 mm	20 gf

ENCODER SWITCHES



RP SERIES

SPECIFICATIONS

Contact Resistance (initial)

Max. 100 mΩ

Measured by ohm meter - open voltage < 1VDC, driver current -100 mA

Insulation Resistance (at 50VDC/minute)

Min. 10MΩ

Operating Temperature range

-10°C to 65°C (with no icing)

Vibration

10~55Hz, displacement 0.75 mm (p-p)

Electrical Service Life

Min. 200,000 operations

C.W. 100,000 & C.C.W 100,000 operations

Electrical Operating Frequency

Max.18 operations per minute

RATING

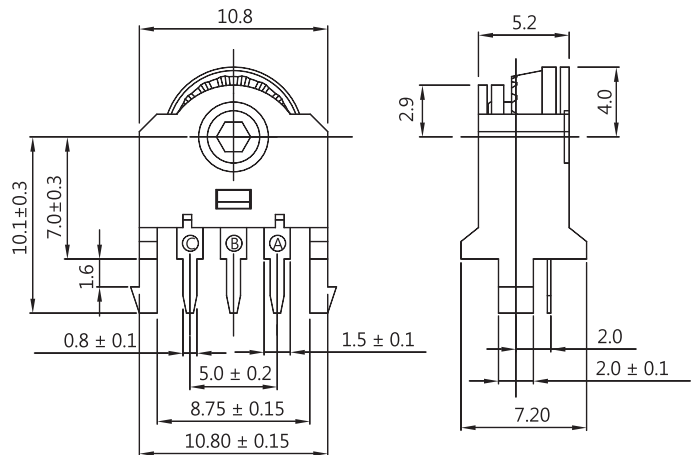
1mA 5VDC

APPLICATIONS

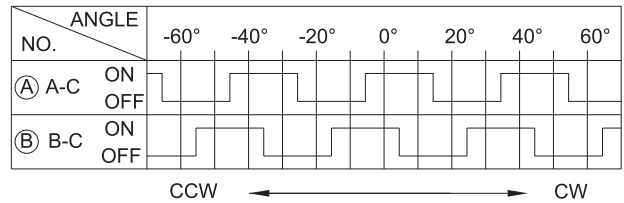
Mouse, Keyboard, Fax machine, Remote control, LCD monitor, Set top box, Browser

DIMENSIONS

Unless otherwise specified, a tolerance of ±0.4mm applies to all dimensions.

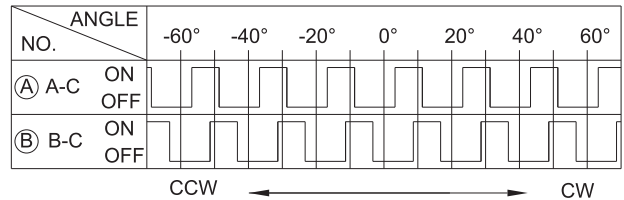


CONTACT CONFIGURATION



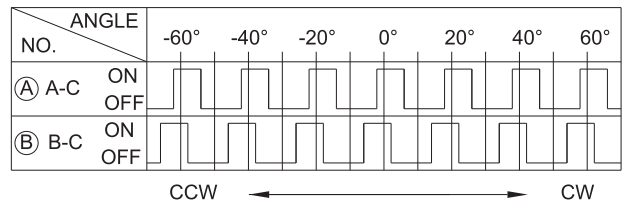
Numbers of detent : 18

Pulse / Rotation: 9 Pulse /360°



Numbers of detent : 18

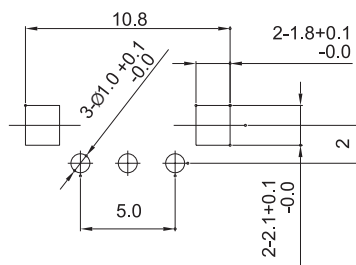
Pulse / Rotation:18 Pulse /360°



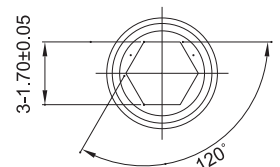
Numbers of detent : 18

Pulse / Rotation:18 Pulse /360°(reverse)

MOUNTING HOLES

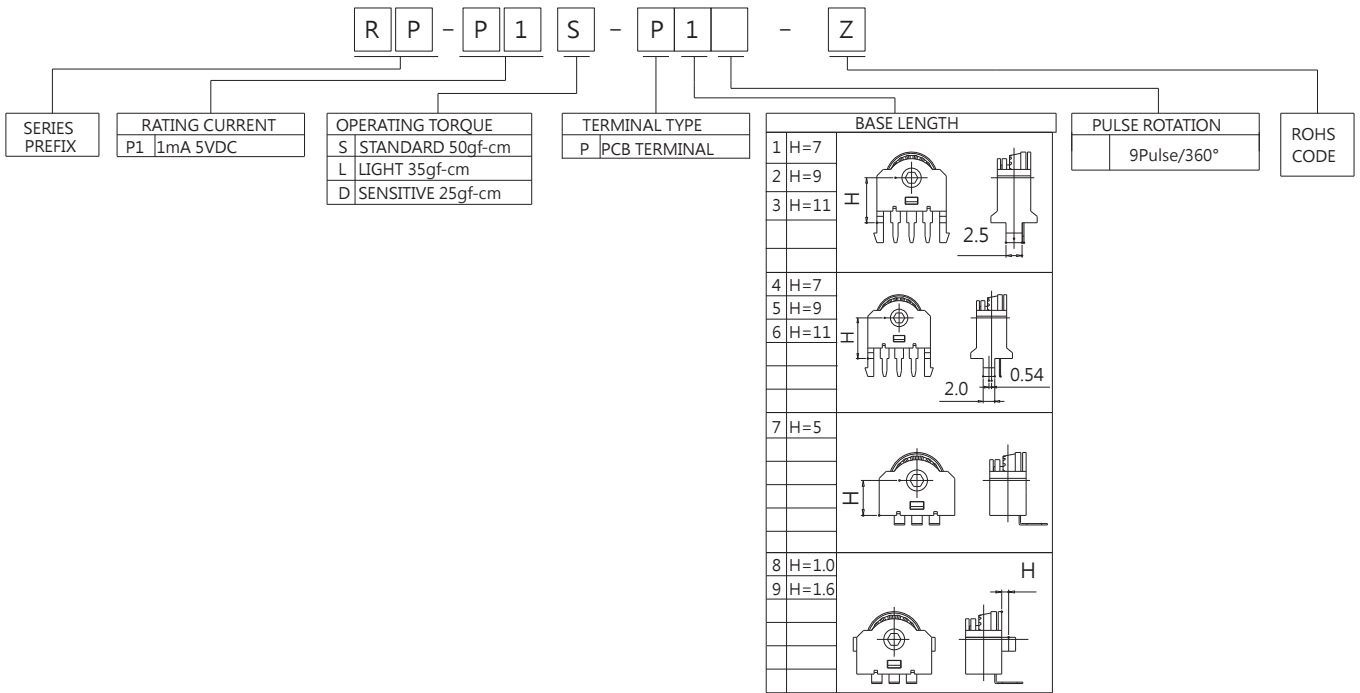


HEXAGONAL HOLE

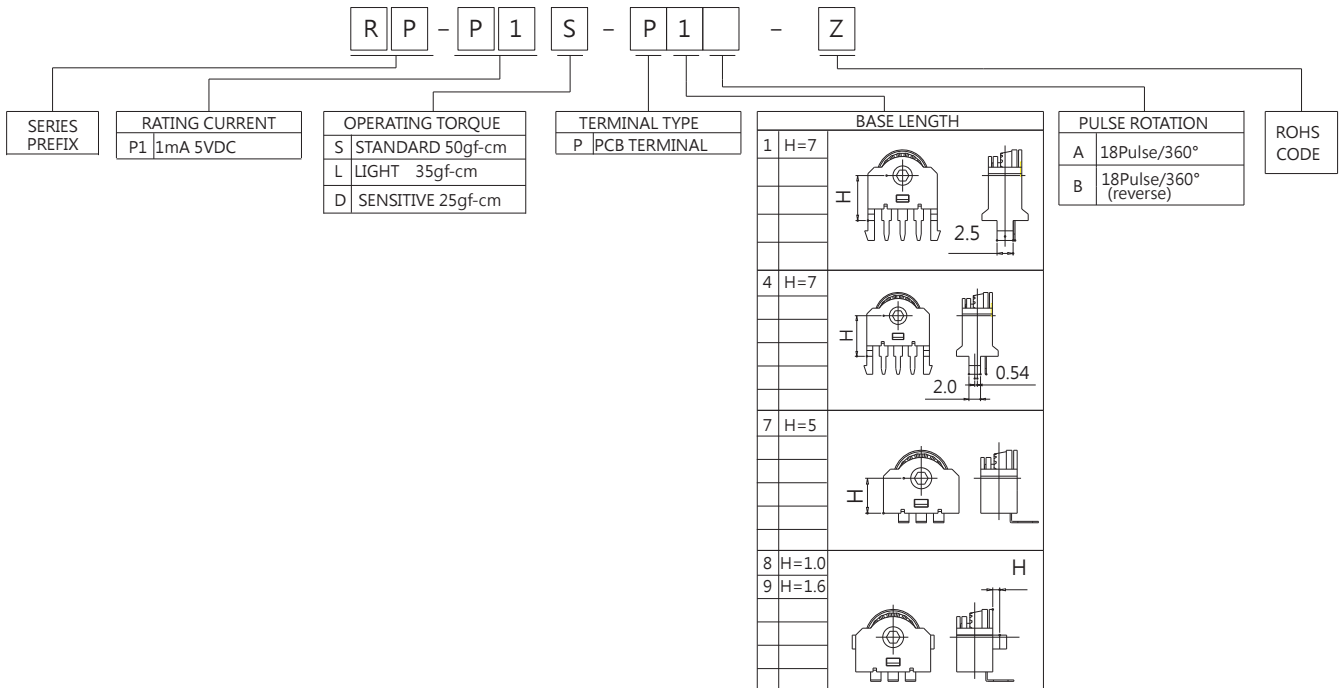


ORDERING INFORMATION

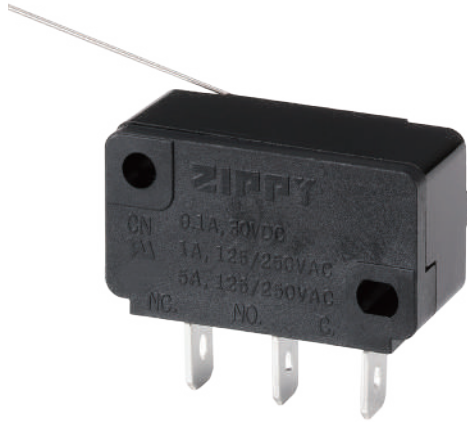
Pulse / Rotation : 9Pulses/360°



Pulse / Rotation : 18Pulses/360°

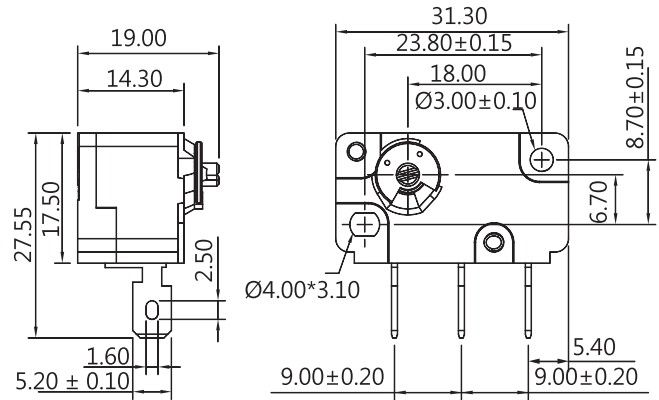


LOW TORQUE SWITCHES



DIMENSIONS

Unless otherwise specified, a tolerance of $\pm 0.4\text{mm}$ applies to all dimensions.



CNR SERIES

SPECIFICATIONS

Insulation Resistance (at 500VDC/minute)

Min. 100M Ω

Dielectric Strength

Min. 1000VAC(50-60HZ)/minute between Live parts.

Min. 1500VAC(50-60HZ)/minute between Live parts and dead metal parts

Operating Temperature Range

05 series -40°C to 65°C (with no icing)

P1 series -40°C to 85°C (with no icing)

Vibration

10~55 Hz, displacement 0.75 mm(p-p)

Electrical Service Life

Min. 6,000 operations

Electrical Operating Frequency

10~30 operations per minute

Mechanical Service Life

Min. 10,000,000 operations

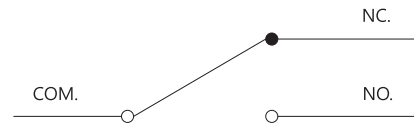
Mechanical Operating Frequency

120 operations per minute

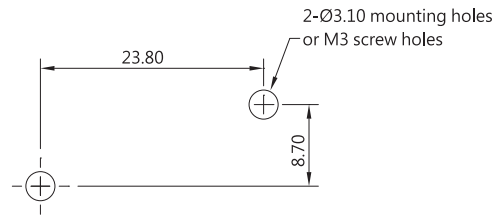
APPLICATIONS

TV Game, Vending Machine, Coin-op Phone, Pin-Ball Game

CONTACT CONFIGURATION



MOUNTING HOLES



CERTIFICATE INFORMATION

Model Name	UL, cUL
CNR-P1 CNR-05	0.1A 30VDC 1A 125/250 VAC 5A 125/250VAC Temp:85°C Min. 6,000 operations

OPERATING CHARACTERISTICS

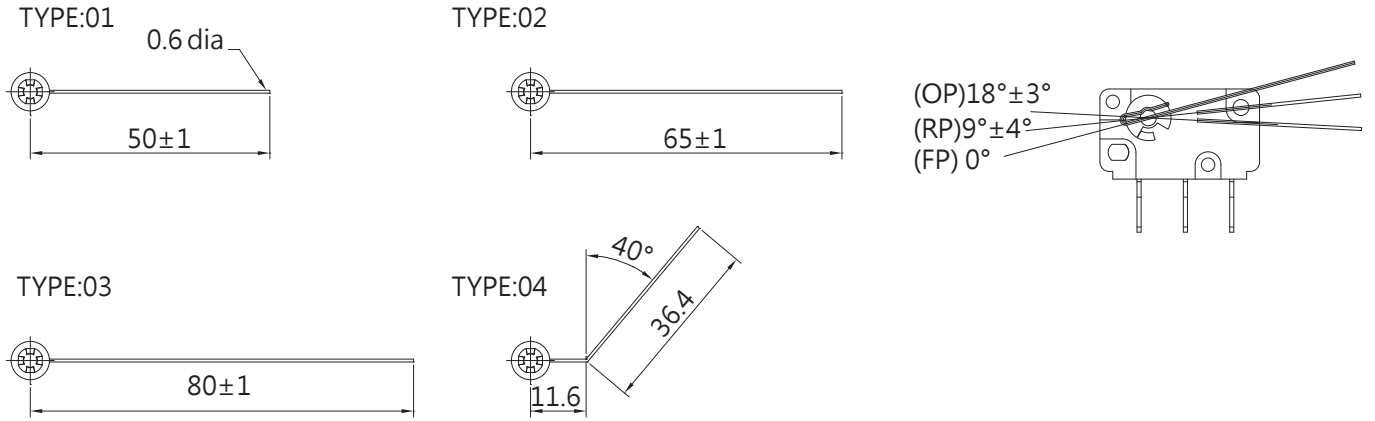
Type	L	S	H
Operating Force(OF)Max	5.1 gf	7.6 gf	10.2 gf
Releasing Force(RF)Min.	0.6 gf	0.9 gf	1.3 gf
Operating Position(OP)	18 \pm 3°		
Releasing Position(RP)	9 \pm 4°		

THE SELECTION OF RATING & FORCE

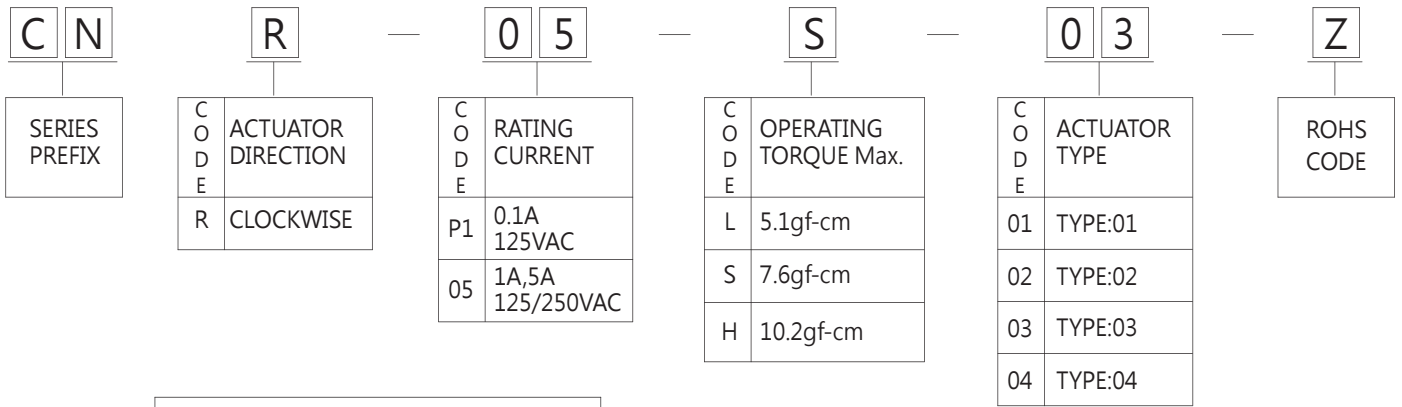
MODEL	Rating	L	S	H
CNR	0.1A	*	*	*
	1A	*	*	*
	5A	*	*	*

NOTE : The Symbol " * " to represent the result is accepted

ACTUATOR TYPES



ORDERING INFORMATION



#NOTE		
ITEM	RATING CURRENT	OPERATING FORCE
1	Code:P1	L,S,H
2	Code:05	L,S,H

CAUTIONS:

注意事項

1. To secure the switch, please use an M3 small screw on a flat surface and tighten with plane washers or spring washers to securely mount the switch, using a maximum torque of 0.59 N•m.
若使用定位孔型式，請使用M3小型螺絲固定在平面上，並使用平墊圈或者彈性墊圈以便安全的鎖固開關，鎖固扭力請勿超過0.59 N•m.
2. To ensure the best performance of the switch, when handling/installing the switch, please do not apply uneven pressure to the direction indicated by the arrow in (Figure -1). Any uneven pressure or pressure direction other than the operating direction might be harmful or damage the switch performance.
為確保開關正常運作，安裝及取用開關時，請勿直接施加壓力在(圖-1)中箭所指示的方向。如圖所示，任何不對稱的壓力或作動方向以外的壓力都不適在開關按柄上。

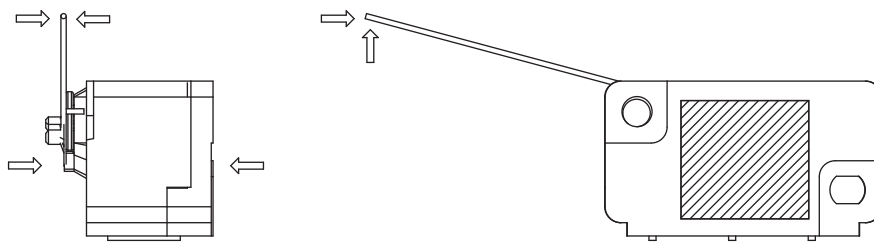


Figure-1