

► MJ SERIES PRECISION OIL-TIGHT LIMIT SWITCHES

◆ FEATURES

- Wide choice of heads and actuators.
- Variety of operating characteristics.
- Captive cover screws.
- Dustproof, Oil-Tight, Water-Resistant.
- Stainless steel essentials.
- Standard size & dimensions, 1/2" conduit entry.
- Temperature range +15°F to +175°F (-10°C to +80°C).

All oil tight limit switches are 2 circuits limit switches. 1 NO and 1 NC circuits.
The 1 NO and 1 NC contact arrangement is double break isolated.



● MJ-7102



● MJ-7102



● MJ-7103

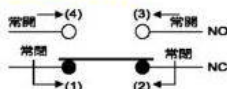
◆ RATING

10A	125 or 300V AC(resistive)
0.8A	125 V DC (resistive)
0.4A	250 V DC
1/2HP	125 V AC
1HP	250 V AC

◆ CHARACTERISTICS

Operating speed	1mm to 2m/sec
Operating frequency	Mechanically: 120 operations/min. Electrically: 30 operations/min.
Contact resistance	15m Ω max. (initial)
Insulation resistance	100M Ω min. (at 500 VDC)
Dielectric strength	1,000 VAC, 50/60 Hz for 1 minute between non-continuous terminals 2,200 VAC, 50/60 Hz for 1 minute between each terminal and non-current-carrying metal part and 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. 30 G's)
Ambient operating temperature	Operating: -10°C to + 80°C
Humidity	95% RH max
Service life	Mechanically: 15,000,000 operations min Electrically: 500,000 operations min.
Degree of protection	IEC 529 class IP67

◆ CIRCUITRY



● MJ-7204 O

NOTE: cover screws in "O" type is 3 instead of 2



● MJ-7104
● MJ-7204

◆ ORDER GUIDE

- Standard type ~ 2 screws:

MJ-7101	MJ-7102	MJ-7102R	MJ-7103	MJ-7104	MJ-7106	MJ-7126	MJ-3241	MJ-3242	MJ-3243
MJ-3244	MJ-7107	MJ-7107L	MJ-7108	MJ-7204	MJ-7207	MJ-7207L	MJ-7208	MJ-7000	

- "O" type ~ 3 screws (Custom made):

MJ-7101O	MJ-7102O	MJ-7102RO	MJ-7103O	MJ-7104O	MJ-7106O	MJ-7126O	MJ-3241O	MJ-3242O	
MJ-3243O	MJ-3244O	MJ-7107O	MJ-7107LO	MJ-7108O	MJ-7204O	MJ-7207O	MJ-7207LO	MJ-7208O	

- Plastic roller type (Custom made):

MJ-7104-P	MJ-7204-P	MJ-7108-P	MJ-7208-P
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- Ø50mm rubber's roller type (Custom made): 50mm

MJ-7104-26	MJ-7204-26	MJ-7108-26	MJ-7208-26
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- Metal roller type (Custom made):

MJ-3241-M	MJ-3242-M	MJ-3243-M	MJ-3244-M
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● MJ-7101

● MJ-7104-26
● MJ-7204-26



● MJ-7104-P
● MJ-7204-P



● MJ-7126

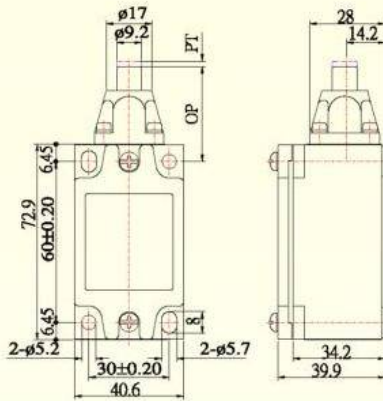


● MJ-7106

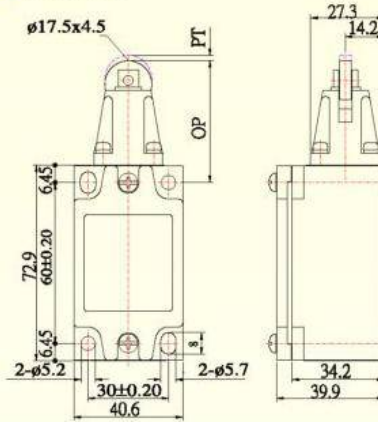
ORDER GUIDE

DIMENSIONS (mm)

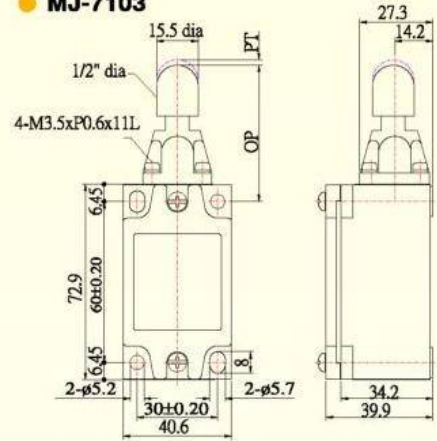
● MJ-7101



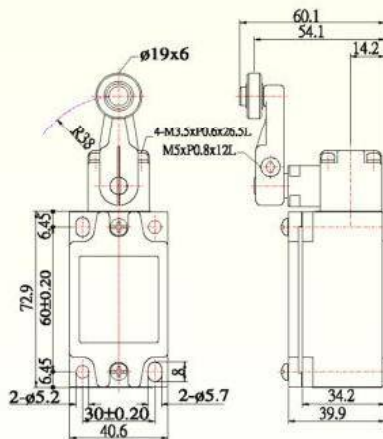
● MJ-7102



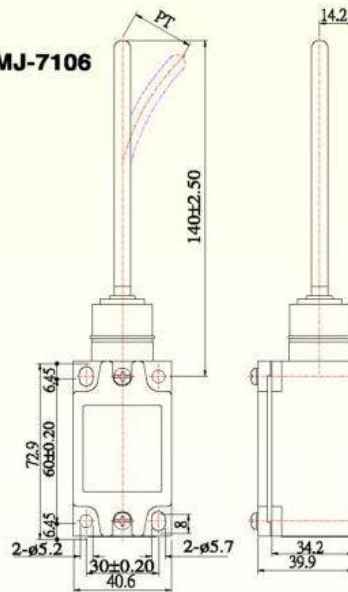
● MJ-7103



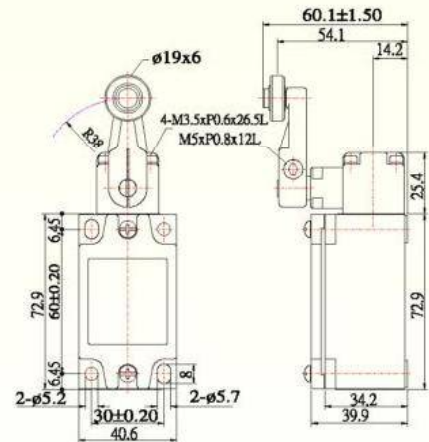
● MJ-7104



● MJ-7106



● MJ-7204



OPERATING CHARACTERISTICS

	MJ-7101
OF MAX	2800g —6 lbs.
RF MIN	900g —2 lbs. Max.
PT MAX	2mm —.070 in.
OT MIN	5.5mm —.200 in. Max.
DT MAX	1.0 mm —.040 in.
OP	34 \pm 0.8

	MJ-7104
OF MAX	1400g —.3 in. lbs.
RF MIN	227g —1/2 lb.
PT MAX	15° to 20°
OT MIN	Min, 25°
DT MAX	Max, 12°
	TF: Max 2720g-4 in lbs.
	TT: Min. 43°

	MJ-7102
OF MAX	2800g —6 lbs.
RF MIN	900g —2 lbs. Max.
PT MAX	2mm —.070 in.
OT MIN	5.5mm —.200 in. Max.
DT MAX	1.0 mm —.040 in.
OP	44 \pm 0.8

	MJ-7106
OF MAX	150g —5 in. oz.
RF MIN	-
PT MAX	30°
OT MIN	
DT MAX	

	MJ-7103
OF MAX	2800g —6 lbs.
RF MIN	900g —2 lbs. Max.
PT MAX	2mm —.070 in.
OT MIN	4mm —.157 in. Max.
DT MAX	1.0 mm —.040 in.
OP	44.5 \pm 0.8

	MJ-7204
OF MAX	900g —2 in. lbs.
RF MIN	50g —2 in oz.
PT MAX	25° to 30°
OT MIN	60°
DT MAX	16°
	TT: 90° + 10°

PRECISION OIL-TIGHT LIMIT SWITCHES

◆ **OVERTRAVEL TYPE**

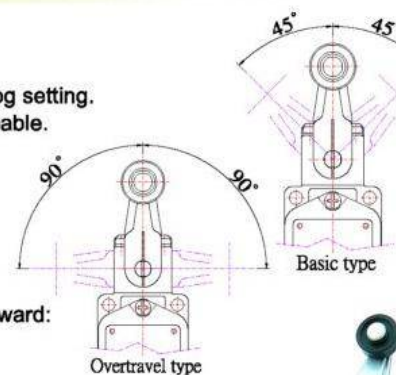
The Overtravel Type is a limit switch which is provided with a greater OT to facilitate dog setting. Since this type is identical to the Basic Type in dimension, both types are interchangeable. The Overtravel Type is classified into two versions - 71 series and - 72 series.

-71 SERIES

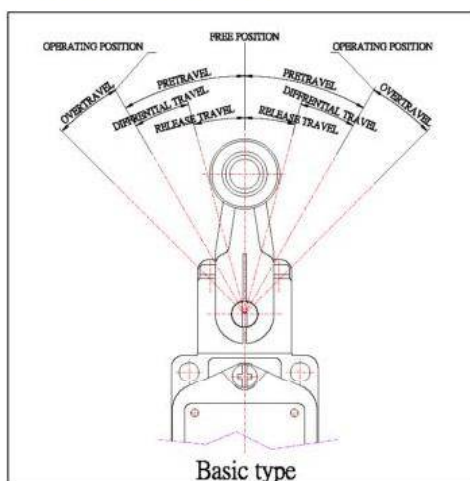
The head of-71 series switch can be installed in any of the four directions:
45° operation on either side - possible

-72 SERIES

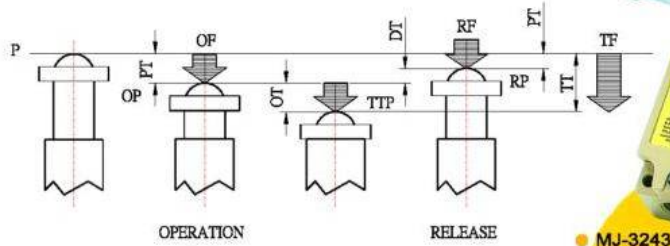
The head of -72 series switch can be installed only in two directions, forward and backward:
90° operation on either side - possible



◆ ROTARY ACTUATION



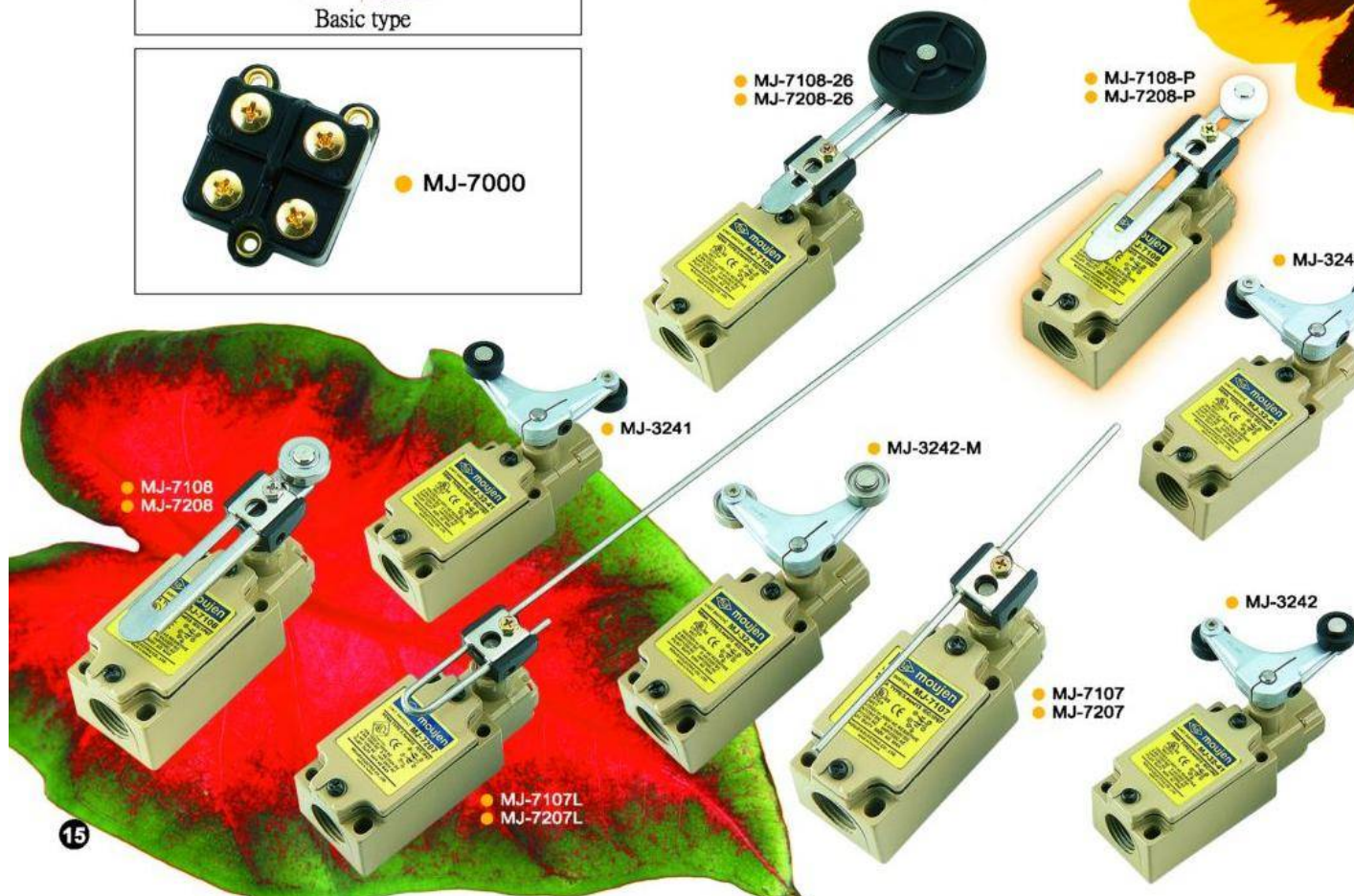
◆ IN-LINE PLUNGER ACTUATION



Characteristics: OF-Operating Force; PT-Pretravel; OT-Over Travel; DT-Differential Travel
RF-Release Force; OP-Operation Position; TF-Travel Force; RP-Release Position; TT-Total

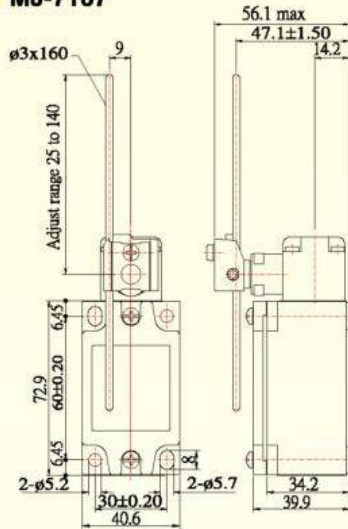
◆ REMARK

- MJ-7107L, MJ-7207L → 395mm long stick: 395mm

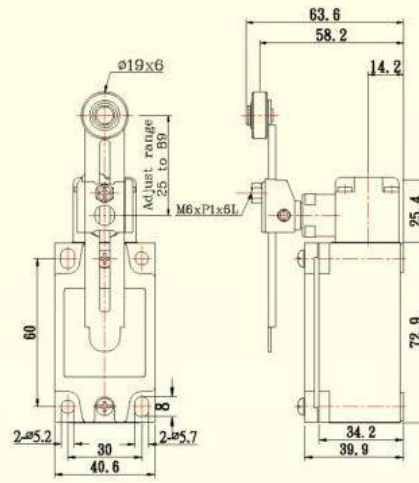


DIMENSIONS (mm)

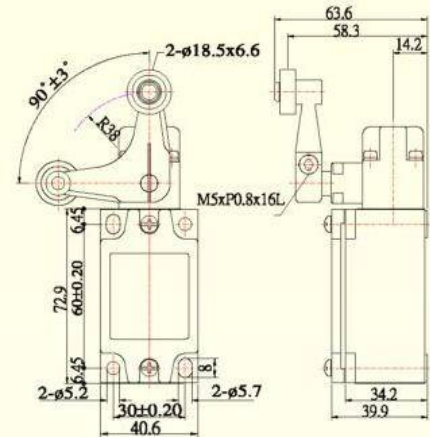
● **MJ-7107**



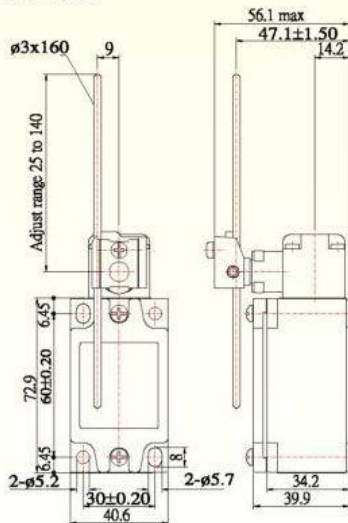
● **MJ-7108**



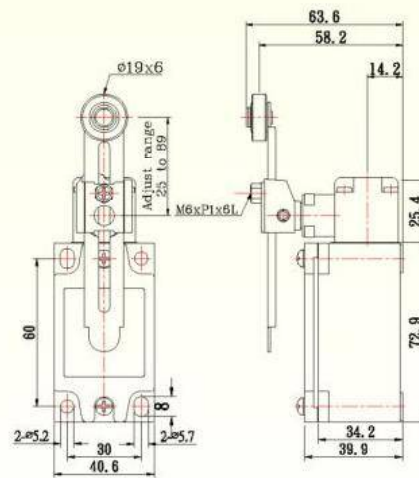
● MJ-3241 ● MJ-3243
● MJ-3242 ● MJ-3244



● **MJ-7207**



● **MJ-7208**



OPERATING CHARACTERISTICS

	MJ-7107
OF MAX	245g —.5 in. oz.
RF MIN	28g —1 in. oz.
PT MAX	15° to 20°
OT MIN	30°
DT MAX	12°
	TF: Max. 200g-1/2 in lb.
	TT: Min 43°

	MJ-7108
OF MAX	1400g —.3 in. lbs.
RF MIN	227g —1/2 lb.
PT MAX	15° to 20°
OT MIN	25°
DT MAX	12°
	TF: Max. 2720g-4 in lbs. TT: Min 43°

	MJ-3241
OF MAX	1200g —.2 ln. oz.
RF MIN	—
PT MAX	55°
OT MIN	35°
DT MAX	

	MJ-7207
OF MAX	150g —.5 in. oz.
RF MIN	25g —1 in. oz.
PT MAX	25° to 30°
OT MIN	60°
DT MAX	16°
	TF: Max. 200g-1/2 in lb.
	TT: 90° + 10°

	MJ-7208
OF MAX	900g —.3 in. lbs.
RF MIN	50g —1/2 lb.
PT MAX	25° to 30°
OT MIN	60°
DT MAX	16°
	TF: Max. 1820g-4 in lbs. TT: 90° + 10°