

MP1 series

PNEUMATIC PRESSURE SWITCH



User manual



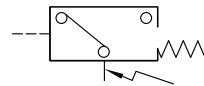
Selection table



Features

- High Repeatability : $\leq \pm 1\%$ F.S.
- Quick response : 5ms.
- Hysteresis adjustable.
- Low cost.

Symbol



Specification

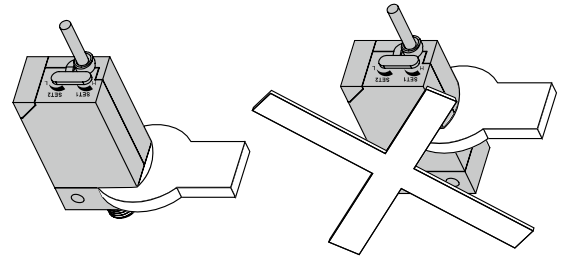
Model	MP1-1 (Vacuum)	MP1-2 (Low pressure)	MP1-3 (Positive)
Operating /Setting pressure range	-101 to 0 kPa	0 to 100 kPa	0 to 1 MPa
Allowable pressure	300 kPa		1.5 MPa
Fluid	Filtered air, Non-corrosive/ Non-flammable gas		
Power supply voltage	12 to 24V DC $\pm 10\%$, Ripple (P-P) 10% or less		
Response time	5ms or less		
Repeatability	$\pm 1\%$ F.S.		
Current consumption	1 NPN or 1 PNP output: 21mA max., 2 NPN output: 35mA max.		
Environment	Enclosure	IP40	
	Ambient temp. range	Operation: 0 ~ 50°C, storage : -20 ~ 60°C (No condensation or freezing)	
	Ambient humidity range	Operation/ Storage: 35 ~ 85% RH (No condensation)	
	Withstand voltage	1000V AC in 1-min. (between case and lead wire)	
	Insulation resistance	50M Ω min. (at 500V DC, between case and lead wire)	
	Vibration	Total amplitude 1.5mm or 10G, 10Hz-55Hz-10Hz scan for 1 minute, 2 hours each direction of X, Y and Z	
	Shock	980m/s ² (100G), 3 times each in direction of X, Y and Z	
Temperature characteristic	$\pm 3\%$ F.S. of detected pressure (25°C) at temp. Range of 0~50°C		
Port size	R1/8", M5; NPT1/8", M5; G1/8", M5		
Lead wire	Oil-resistance cable (0.18mm ²)		
Weight	Approx. 50 g (with 1M lead wire)		

Output specification

Model	MP1-□-01	MP1-□-02	MP1-□-03
Connect diagram			
Output method	NPN open collector 30V 80mA	PNP open collector 80mA	NPN open collector 30V 80mA
Hysteresis	1~10% of setting pressure (Adjustable)		3% F.S. or less (Fixed)
Setting points	1Point		2Point
Operation indicating lamp	Light at ON (Red)		Light at ON (out1 Red, out2 Green)
Hysteresis adjustable (Output hysteresis "H" is user adjustable)	<p>1~10% of setting pressure (Adjustable)</p> <p>Vacuum Pressure / Low Pressure</p>		<p>Hys. $\leq 3\%$ F.S.</p> <p>Positive Pressure</p>

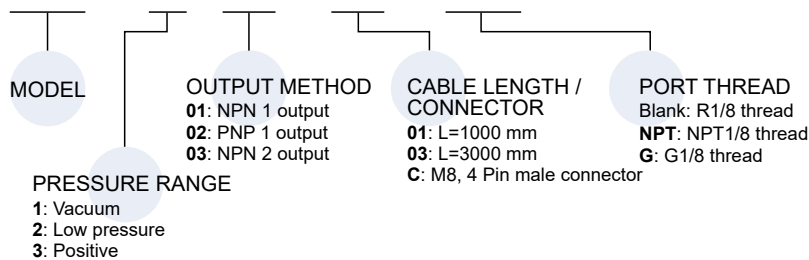
Installation precautions

- When mounting, always use the wrench on the metallic area near the pressure port. Never apply a wrench to the plastic body, it will damage the sensor.
- Over tightening may cause damages to the port thread, mounting bracket and pressure sensor. Under tightening may result loosen or leakage.
- Apply pressure and power after installation and make necessary adjustments and inspect any possible signs of leakage to ensure proper installation.

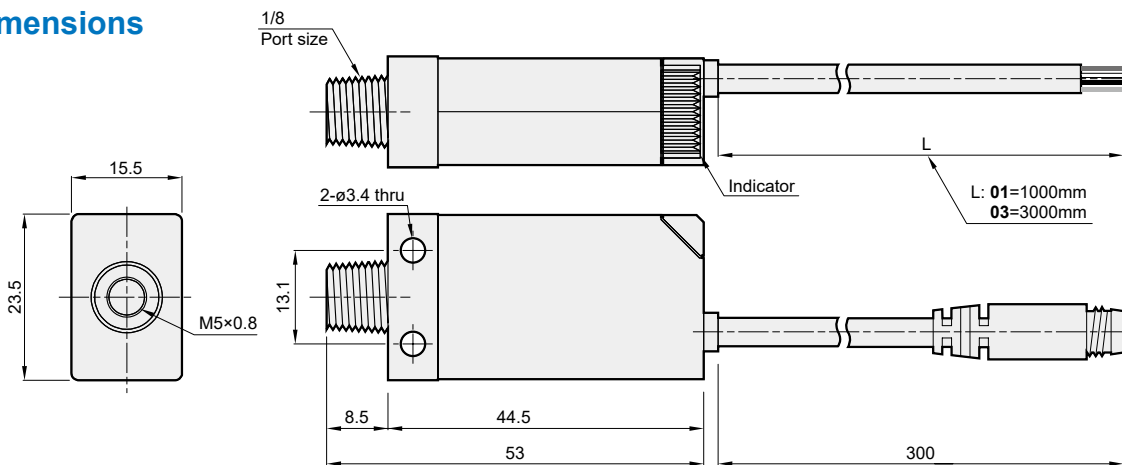


Order example

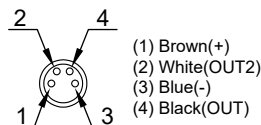
MP1 – 1 – 01 – 01 – NPT



Dimensions

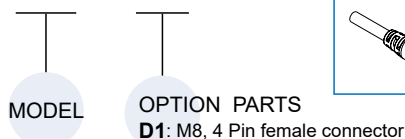


QD Pinout



Mounting accessories (Option)

MP – D1



MP-D1

M8, 4 Pin female connector

