

MPM4503

Pressure Transmitter



Features

- Micro-fused technology, overpressure resistance, water-hammer resistance;
- Water hammer preventing and cracking resistant;
- Temperature compensation and linear correction.

Application

- Energy & Water Treatment System
- Building Automation System
- IoT Terminal
- VF constant pressure water supply
- Compressor

Introduction

MPM4503 pressure transmitter is a cost-effective pressure transmitter. It uses silicon micro-fused technology sensing element and specialized amplifier circuit to realize linear correction and temperature compensation. The sensing elastic diaphragm is made of stainless steel which can resist the problem of transient overload pressure and also could meet different needs for pressure measurement and control in various environmental conditions. The product is batch produced in automatic production line and all the specifications are strictly controlled. The whole transmitter experiences a strict testing and aging screening for sensing element, semi-finished and finished product, which makes it more stable and has a good consistency.

Specification

Pressure Range	0bar ~ 10bar,16bar,20bar,25bar, 50bar
Overpressure	≤ 1.5×FS
Burst pressure	≤ 5×FS (Max 100bar)
Pressure Type	Gauge , Sealed gauge
Accuracy	≤±1%FS
Long Term Stability	< 0.3 %FS/year
Compensated temperature	0°C~ 70°C
Working temperature	-10°C~ 80°C
Storage temperature	-40°C~ 100°C
Vibration	5g, 10Hz ~ 500Hz (GB/T2423.10/ IEC60068-2-6)
Shock	10g, 11ms (GB/T2423.5/ IEC60068-2-27)
Insulation resistance	100MΩ, 500V
Protection class	IP65 IP68
Weight	≤60g

2. Output parameters

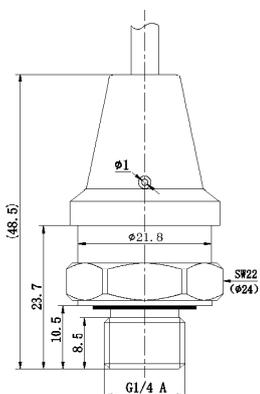
Output Signal	Power Supply	Output Format	Load Resistance	Transmission Distance
4mA ~ 20mA DC (E)	10V ~ 28V DC	2-wire	$\leq (U-10) / 0.02 (\Omega)$	< 1000m (@24V DC,load250Ω)
0.5V ~ 4.5V DC(K1)	5V±0.1V DC	3-wire	≥10kΩ	≤5m
0.5V ~ 2.5V DC(W1)				
0.5V ~ 2.5V DC(W)	3.3V±0.1V DC			

Electromagnetic Compatibility

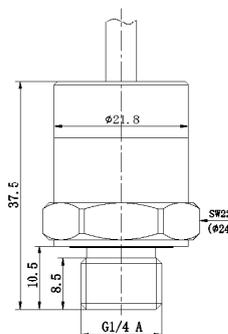
Code	Test Item	Standard
1	Electrostatic Discharge Immunity	GB/T 17626.2/IEC 61000-4-2
2	Radio-frequency Field	GB/T 17626.3/IEC 61000-4-3
3	Power Frequency Magnetic Field	GB/T 17626.8/IEC 61000-4-8
4	Immunity of Electrical Fast Pulse Group	GB/T 17626.4/IEC 61000-4-4
5	Surge Immunity	GB/T 17626.5/IEC 61000-4-5
6	RF Induction Conduction Anti-harassment	GB/T 17626.6/IEC 61000-4-6

Outline Construction

(Unit:mm)



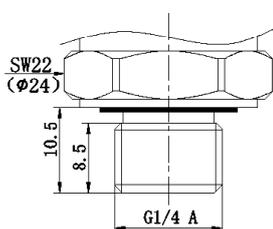
IP65 protection class



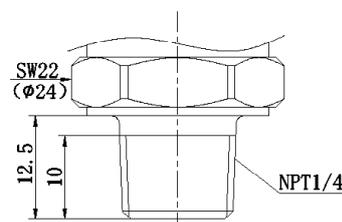
IP68 protection class

Process Connection

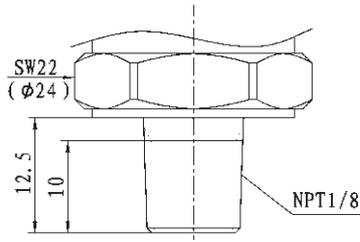
(Unit:mm)



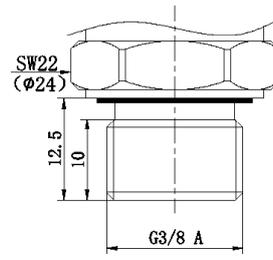
C2 (G1/4 male, end face seal)



C6 (NPT1/4 male)



C7 (NPT1/8 male)



C16 (G3/8 male, end face seal)

The max. torque during the installation and uninstallation of the transmitter is about 20N•m ~ 25N•m.

Electrical Connection

Wire color	2-wire	3-wire
Red	Power (+V)	Power (+V)
Green	Null	Output+ (+OUT)
Black	Output+ (OV/+OUT)	Common (GND)

Structure Material

Wetted part

Isolation diaphragm: stainless steel 17-4PH
 Pressure port: stainless steel 304
 Sealing ring: FKM/NBR

Non-Wetted part

Cable: polyvinyl chloride (5-core, φ5 mm)

Order Guide

MPM4503	Pressure Transmitter						
	Range	0bar ~ 10bar,16bar,20bar,25bar,50bar					
	[0 ~ X]bar	X: Actual pressure range					
	Code	Electrical Connection					
	B2	Cable (Default 0.5m)					
	Code	Output Signal					
	E	4mA ~ 20mA DC (10V ~ 28V DC power)					
	K1	0.5V ~ 4.5V DC (5V±0.1V DC power)					
	W1	0.5V ~ 2.5V DC (5V±0.1V DC power)					
	W	0.5V ~ 2.5V DC (3.3V±0.1V DC power)					
	Code	Process Connection					
	C2	G1/4male, end face seal					
	C6	NPT1/4 male					
	C7	NPT1/8 male					
	C16	G3/8male, end face seal					
	Code	Water-proof Rating					
	IP65	IP65 Protection class					
	IP68	IP68 Protection class					
	Code	Description					
	A	Fixed code for corporate internal use					
MPM4503	[0 ~ 10]bar	B2	E	C2	IP65	A	the whole spec.

Notes

1. Please pay attention that the measured media shall be compatible with the material of wetted part;
2. I²C output products is available, please consult with our company to customize this demand;
3. If the user has special requirement, please feel free to contact us.