

MPM4511A

Operation Manual

V1.2



MICROSENSOR



Thank you very much for selecting Micro Sensor's product. MPM4511 pressure transmitter is precise instrument, please read the operation manual very carefully before using the product and complete your operation according to the methods of this manual.

1 Introduction

MPM4511A pressure transmitter has the pressure chamber which is made of single complete stainless steel piece, and all-metal sealing construction. The transmitter uses silicon micro-fusion technology and has specially designed construction, with overall digital calibration and temperature compensation.

Featuring a dual-output circuit for high security, stronger anti-interference capabilities, and temperature resistance, this product can be widely applied in the field of engineering equipment.

2 Specifications

Measurement range: 0bar~16bar...350bar

Overpressure: 3×FS (Range≤50bar) 2×FS (50bar<Range≤350bar)

Burst pressure: 5×FS (max. 1400bar)

Power supply: 5V±0.1V DC 8V~33V DC 9V~33V DC 12V~ 33V DC

Output signal: 4mA~20mA DC 0V~10V DC 0.5V~4.5V DC

4mA~20mA&20mA~4mA DC

0.5V~4.5V&4.5V~0.5V DC

Accuracy: ±0.5%FS@25°C

±1% FS (within temperature compensation range)

$\pm 2\%FS$ (outside temperature compensation range)

Compensation temperature: $-10^{\circ}\text{C} \sim 80^{\circ}\text{C}$

Operating temperature: Single output: $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$

Dual output: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$

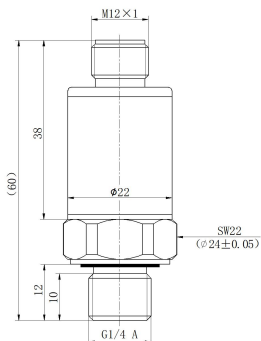
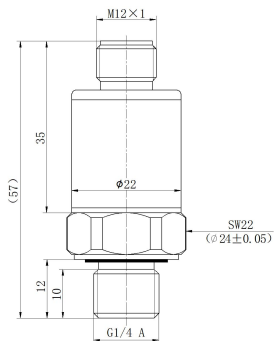
Storage temperature: $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$

Medium compatibility: Various media compatible with 17-4PH and 304 stainless steel

The measuring range of dual-output instruments is limited to 250 bar~350 bar.

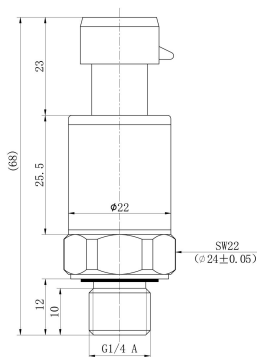
3 Outline Construction

Unit: mm

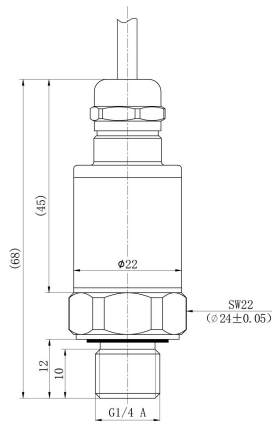


B41(M12×1 4-pin, metal M12 thread)

B42(M12×1 5-pin, plastic M12 thread)



B5(Packard)



B2(Cable)

4 Electrical Connection

Definition	B2 (Cable)				B41 (M12×1 4-pin)		B41 (M12×1 5-pin)		B5 (Packard Plug)	
	/									
					Single output		Dual output		Single output	
	Current 2-wire	Voltage 3-wire	Voltage 3-Wire	Voltage 3-Wire	Current 2-wire	Voltage 3-wire	Current 3-wire	Voltage 3-wire	Current 2-wire	Voltage 3-wire
+V	Red	Red	Red	Red	1	1	1	1	B	B

+OUT	Black	Black	Black (+OUT 1) White (+OUT 2)	Black (+OUT 1) White (+OUT 2)	4	4	4 (+OUT1) 2 (+OUT2)	4 (+OUT1) 2 (+OUT2)	A	C
GND	Null	White	Green	Green	Null	3	3	3	Null	A

5 Installation instructions

- 1) The measured pressure should not exceed the measurement range of transmitter, and the measured medium should be compatible with structural material.
- 2) For parallel thread products, the surface to be mounted is required to have a flat surface and perpendicular to the mounting hole, sealed by the sealing gasket of the rear end of the mounting screw of the transmitter.
- 3) For taper thread products, they can be sealed by wrapping tape on thread, and then screw the transmitter into the mounting hole with a wrench for seal, please do not overexert, tightening torque less than 18Nm.
- 4) Plug connection:
 - a) When connect the plug, insert the plug lock into the socket and tighten the lock.
 - b) When separate the plug, remove the lock and pull out the plug.
Do not remove the lock or pull the plug directly.
- 5) The pressure connection is not limited to the types shown in datasheet. Customized products are available according to

customers' requirements.

- 6) The maximum torque during the installation and uninstallation of the transmitter is about $20\text{N}\cdot\text{m} \sim 25\text{N}\cdot\text{m}$.

6 Shipment Included in the delivery

6.1 Unpacking

Check whether the package box is in good condition and set it down according to the "Upward" sign;

Do not unpack it by force to avoid damaging products.

6.2 The pressure transmitter shipped from the factory shall include:

MPM4511 Pressure Transmitter	1
Cable type	default length 0.5m
Operating manual	1
Product certificate	1

6.3 Storage

The transmitter shall be kept or stored in a room with no corrosive air and surround temperature range: $-40\text{ }^{\circ}\text{C} \sim 125\text{ }^{\circ}\text{C}$, relative humidity $\leq 85\%$.

7 Responsibility

Within one year from delivery date, we shall repair or replace the instrument with any quality fault caused by material parts or our manufacturing technique free of charge. For non-quality malfunction during user's operation, we are in charge of repair, the packing expenses and the shuttle transportation fees should be borne by users.

www.microsensorcorp.com



MICRO SENSOR CO.,LTD.

ADD: No.18 Yingda Road, Baoji, 721006, Shaanxi, P.R.China

Tel: +86(29)8834 6384 Ext.801

Fax: +86(29)8834 6384 Ext.807

E-mail: service@microsensor.cn