MPM/MDM Series Pressure Sensor

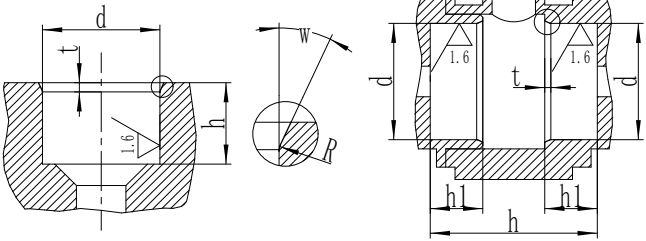
Operation Manual

V1.2

MICROSENSOR

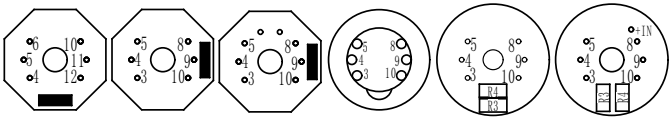
Thank you very much for choosing pressure sensors of Micro Sensor CO., LTD. To use it better, please read the instructions carefully before using.

Suggested Installation Dimension(Unit: mm)



Product model	d	h	h1	R(max.)	t	w
MPM270	$\Phi19^{+0.05}_{+0.02}$	≥15.5	N/A	0.5	1.5	15°～25°
MPM280						
MPM281		≥12.5				
MPM283	$\Phi12.6^{+0.12}_{+0.08}$	≥11				
MPM285	$\Phi15^{+0.05}_{+0.02}$					
MPM286	$\Phi19^{+0.05}_{+0.02}$	≥8		0.3	1	
MPM287	$\Phi17^{+0.05}_{+0.02}$	≥10				
MPM288	$\Phi19^{+0.05}_{+0.02}$	≥15.5		0.5	1.5	
MDM290		27±0.2	9	0.3	1	

Electrical Connection



The following six types of pin definitions are available for reference.

Pin	Definition	Wire Color
4	+OUT	Red
5	+IN	Black
6	-IN	Yellow(White)
10	-OUT	Blue
The rest pins are useless.		

Pin	Definition	Wire Color
4	+OUT	Red
5	-IN	Yellow(White)
8	+IN	Black
9	-OUT	Blue
The rest pins are useless.		

Pin	Definition	Wire Color
4	+OUT	Red
5	+IN	Black
6	-IN	Yellow
10	-OUT	Blue

Pin	Definition	Wire Color
4	-OUT	Blue
5	-IN	Yellow(White)
8	+IN	Black
9	+OUT	Red

11	-IN	White	The rest pins are useless.
12	+IN	Black	

Note: The actual electric connection method, please check the parameter label enclosed with products.

Attentions

1. Please be sure the pressure sensor' construction material is compatible with measuring media.

2. please pay attention to the normal usage conditions of this product:

Power Supply: ≤2.0mADC or ≤10VDC.

Working Temp/ Storage Temp Range: -40℃ ~ 125℃.

3. The pressure sensor should be mounted as SUSPEMSION mode according to the suggested installation dimension. Please pressurize it slowly and be sure the measured pressure should not exceed the overpressure of the sensor; Normally, the measured pressure should be within the pressure measurement range;

4. Please be sure it is static-free for ground equipment and personnel when assembling and operating. The electrical contact pads are protected against ESD up to 4 kV HBM (human body model).

5. Please do not press the diaphragm with sharp things or figures. When assembling the sensor, please clean up the scrap iron and other remains in the installation hole to avoid any damages on the sealing ring and diaphragm;

6. Please do not press the compensated board and do not contact it with any

conductive items to avoid any possible damages. And also please do not pull or bend the pins;

7. Please pay attention to the pressure measurement range, and don't act large pressure over FS for a long time. If the pressure exceeds the overpressure, the sensor may be destroyed;

8. When assembling the sensor, please apply a little vacuum grease around the "O" ring. If the media is oxygen, please do not apply any lubrication;

9. During application, please note the high and low sides of the differential sensor. They are marked "H" and "L" on the body separately. Make sure the pressure on the high side should be higher than that of the low side.

10. We recommend you operate differential pressure sensor with 3-manifold valve together.

11. Please be sure the wet and corrosive media shall not go into the electric connection part. Please keep the breath tube (only Gauge Type sensor) connect with atmosphere

12. For pin electric connection, the sensor pins could be cut off, but the remaining length shall be ≥ 5mm and welding time shall be≤ 5s. The pins could not be heated for a long time.

Definition

NL：Non-linearity	SPAN：FS Output
RP：Repeatability	TCZ：Zero Temp. Coefficient
HY：Hysteresis	TCSP：FS Temp. Coefficient

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