

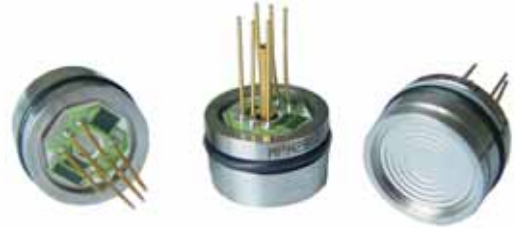
MPM281 High Stable OEM Pressure Sensors

Applications

- Industry Processing Control
- Level Measurements
- Gases Pressure Measurements
- Aviation & Navigation Measurements
- Pressure Measurements Instruments

Features

- Long-term Stability: 0.1%FS/year
- Wide Temperature Compensation: -10 ~+80
- Wide Pressure Range: 0~35kPa ...70MPa
- Non-linearity typical value : 0.1%FS
- Φ19mm Standard O-ring Sealing
- Over- pressure: 2 x FS
- Pressure Type: Gauge (G), Absolute (A) and Sealed Reference (S)



General Introduction

Series MPM281 piezo-resistive OEM pressure sensor is a high stable isolated measuring element which is precisely compensated. In which, the silicon pressure sensitive element adopts special high stable silicon chip being built in a Φ19mm 316L stainless steel housing. The measuring pressure from 316L isolated diaphragm is transferred onto the sensitive chip through the filling oil. It achieves the precise transfer from the pressure to electric signals.

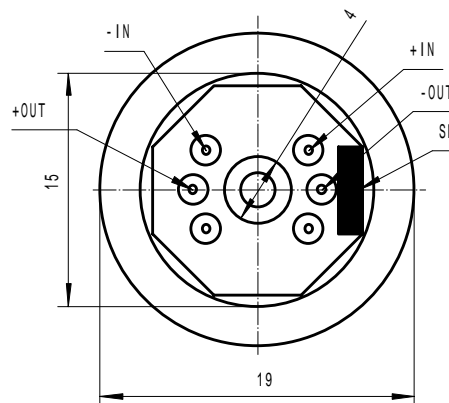
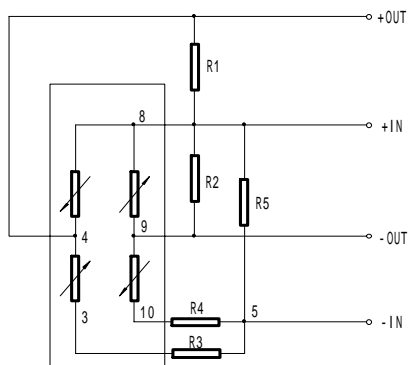
Series MPM281 sensor is selected after severe testing on our automatic production line, and by several repeatedly testing and inspection. The precisely trimmed thick film circuit can achieve wide temperature compensation and zero error correction. The sensor can be widely used in various pressure measurements requiring high characteristics.

Pressure Range with its Code

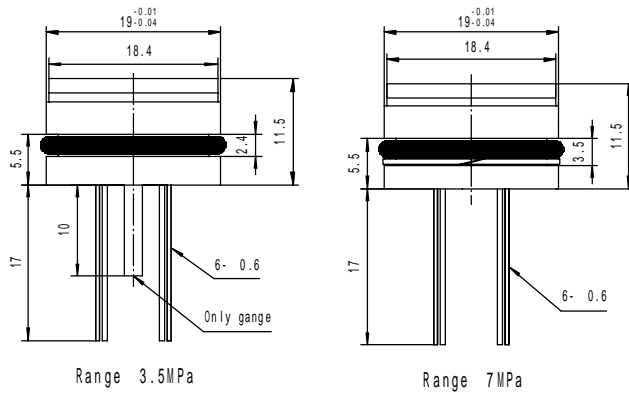
Code	0A	02	03	07	08	09
Unit	kPa	kPa	kPa	kPa	kPa	kPa
Range	0~35	0~70	0~100	0~200	0~350	0~700
Pressure Types	G	G/A	G/A	G/A	G/A	G/A

Code	10	12	13	14	15	17	18	19
Unit	MPa	MPa	Mpa	MPa	MPa	Mpa	MPa	MPa
Range	0~1	0~2	0~3.5	0~7	0~10	0~20	0~35	0~70
Pressure Types	G/S/A	G/S/A	G/S/A	S/A	S/A	S/A	S/A	S/A

Electrical Connection



Construction (unit: mm)



Specifications

(Based on Current Supply 1.5mADC at 35)

	Min.	Type.	Max.	Units	Remark
Zero Output	-2	±1	+2	mVDC	
Span Output	70			mVDC	
Non-linearity	-0.2	±0.1	+0.2	%FS	BFSL
Repeatability	-0.075	±0.01	+0.075	%FS	
Hysteresis	-0.075	±0.01	+0.075	%FS	
Zero Temperature Error	-0.75	±0.2	+0.75	%FS	-10 ~+80
Span Temperature Error	-0.75	±0.2	+0.75	%FS	-10 ~+80
Zero long-term stability error			0.1	%FS	1 year
FS long-term stability error			0.1	%FS	1 year
Over pressure	2 X FS				
Environmental Characteristics					
Compensated Temp. Range	-10~+80				
Operating Temp. Range	- 40~+125				
Storage Temp. Range	- 40~+125				
Vibration	10			gRMS	
Shock	100			g	
Longevity	10X1,000,000			Pressure circles	
Electrical Characteristics					
Power Supply	≤2.0			mADC	
Input Impedance	4000			Ω	±25%
Output Impedance	5000			Ω	±25%
Bridge Resistor	5000			Ω	±25%
Insulation Resistor	1X100,000,000			Ω	50VDC

Materials of Construction:

Housing & Diaphragm: Stainless Steel 316L
 O-ring: Viton
 Lead: Gold-plated Kovar
 Weight: About 23g.

Order Guide

MPM281 High Stable OEM Pressure Sensors

MPM281		High Stable OEM Pressure Sensor					
Code	Pressure range (kPa)	Ref.	Code	Pressure range (kPa)	Ref.		
0A	0~35	G	12	0~2000	G/S/A		
02	0~70	G/A	13	0~3500	G/S/A		
03	0~100	G/A	14	0~7000	S/A		
07	0~200	G/A	15	0~10000	S/A		
08	0~350	G/A	17	0~20000	S/A		
09	0~700	G/A	18	0~35000	S/A		
10	0~1000	G/S/A	19	0~70000	S/A		
		Code	Pressure type				
		G	Gauge				
		A	Absolute				
		S	Sealed				
		Code	Pressure port				
		0	φ19 O-ring				
		Code	Temperature compensation				
		L	Laser trimming compensation				
		M	With outer compensated resistors				
		Code	Electric connection				
		1	Kovar pins				
		2	4-color 100mm flexible wire				
		Code	Special measure				
		Y	Gauge sensor, used to measure vacuum				
MPM281	17	S	0	L	1	Y	the whole spec

Note:

1. We recommend the sensor is assembled in" floating", not press the sensor too tightly in the housing for sealing, it may cause unstable of the sensor.
2. Take care of protecting the isolated diaphragm and compensated board, it is easy to be damaged or may cause faulty of the sensor.
3. For any special applications or requirements, please contact the factory.