

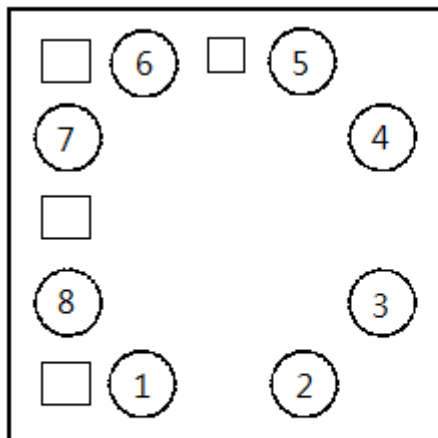
## GMPD02 Pressure Sensor

### General Introduction

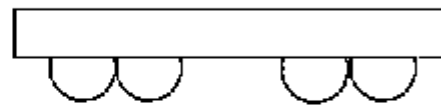
GMPD02 is absolute analog pressure sensor with the smallest chip size of  $0.9 \times 0.9 \times 0.25 \text{ mm}^3$ . The wide sensing range further opens enough windows for pressure detection. The small form factor makes it an easy fit-in for compact applications like wearables, industry, automotive.

### Features

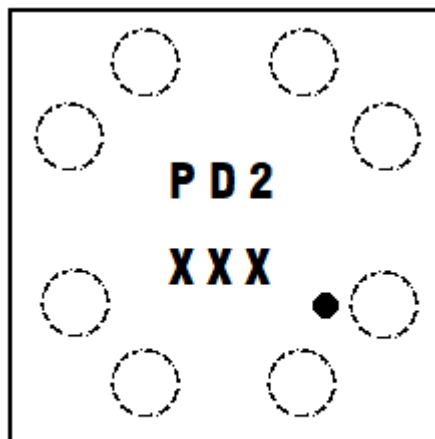
- Operation range:
  - Pressure: 0~900KPa.
  - Temperature:  $-40 \sim +85^{\circ}\text{C}$
- Supply voltage:
  - VDD:  $+1.0\text{V} \sim +10\text{V}$
- RoHS-compliance package:
  - CSP-8 Pins package
  - Footprint:  $0.9 \times 0.9 \text{ mm}^2$
  - Height: 0.25 mm.



Bottom View



Side View



Top View

## Specifications

Table 1: Pin Descriptions

Pin#	Name	Description
1	NC	No Connection
2	NC	No Connection
3	Vout+	Analog output voltage +
4	GND	Ground pin
5	NC	No Connection
6	NC	No Connection
7	Vout-	Analog output voltage -
8	VDD	Power supply in

Table 2: Specification

Parameter	Units	Specification		
		min.	typ.	max.
Excitation Voltage	°C	-	5	10
Bridge Resistance	kΩ	5	5.4	6
Range of Measurement	KPa	900		
Full range output (@5V)	mV	-	120	-
Offset	mV	-10	0	10
Linearity	%FS	-0.3	±0.15	0.3
TC Span (Constant Voltage)	%FS/°C	-0.17	-0.22	-0.27
TC Span (Constant Current)	%FS/°C	-0.08	±0.02	0.08
TC Offset	%FS/°C	-0.08	-0.05	0.08
Burst Pressure	Rated FS			3X
Operating Temperature	°C	-40		85
Storage Temperature	°C	-40		125

## Package

### Outline Dimension

Unit: um

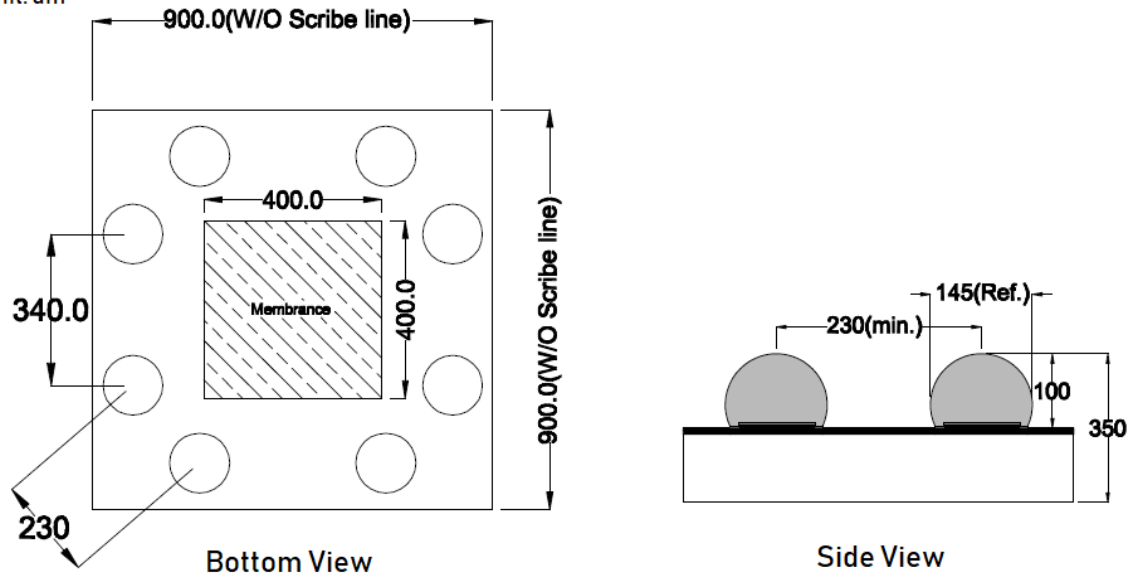


Figure 1: Package Outline Dimension

Table 3. Pin Coordinate

Pin#	Name	X	Y
1	NC	240	105
2	NC	660	105
3	Vout+	810	280
4	GND	810	620
5	NC	660	795
6	NC	240	795
7	Vout-	90	620
8	VDD	90	280

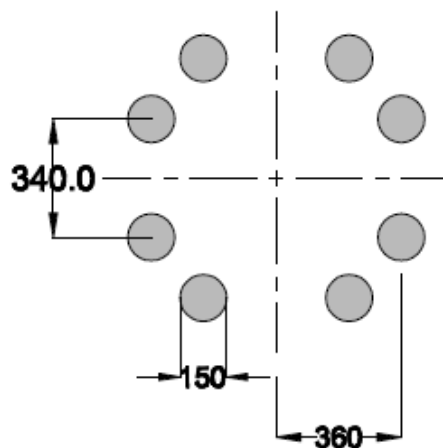


Figure 2: PCB Foot Print Layout

**RoHS Compliance**

GMEMS CSP package is compliant with Restrictions on Hazardous Substances (RoHS) and having lead-free terminations. Reflow profiles applicable to those processes can be used successfully for soldering the devices.

**Moisture Sensitivity Level**

GMPD02 package MSL rating is Level 2.

*Document History and Modification*

<b>Revision No.</b>	<b>Description</b>	<b>Date</b>
V0.10	Preliminary datasheet	2019.4.29