

GMPA02 Analog Pressure Sensor

General Introduction

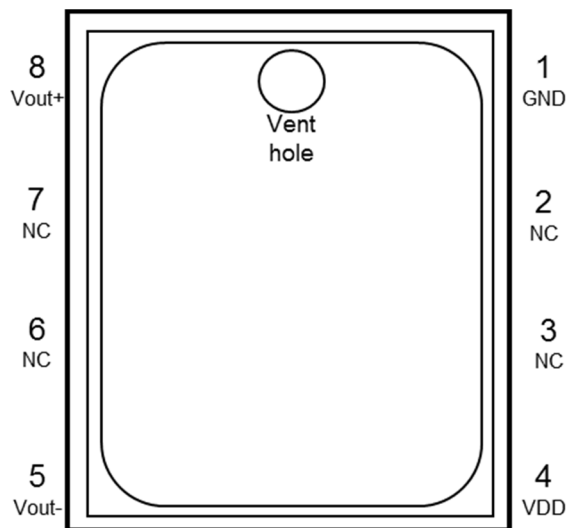
GMPA02 is an absolute analog pressure sensor packaging a MEMS sensing element in a compact $2 \times 2.5 \times 1.05 \text{ mm}^3$ package. The wide sensing range further opens enough windows for pressure detection. The small form factor makes it an easy fit-in for compact applications like handheld devices, industry, and automotive.

Features

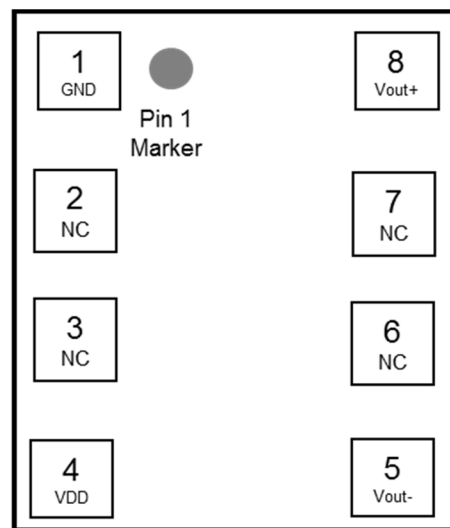
- Operation range: 0~900kPa
- Absolute type sensor
- Operation voltage: +1V ~ +10V
- Constant current or constant voltage drive
- 8-pin LGA metal lid package.
- Footprint: $2 \text{ mm} \times 2.5 \text{ mm}$, height: 1.05mm.
- RoHS compliance & Halogen Free material

Applications

- Tire pressure sensor
- Industrial sensor
- Pressure gauge



Top View



Bottom View

Specifications

Table 1: Pin Descriptions

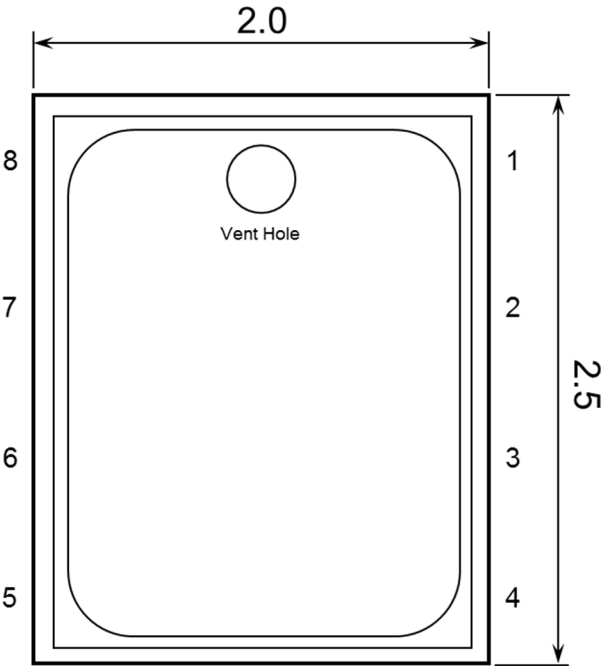
Pin#	Name	Description
1	GND	Ground pin
2	NC	No connection inside
3	NC	No connection inside
4	VDD	Power supply in
5	Vout-	Analog output voltage -
6	NC	No connection inside
7	NC	No connection inside
8	Vout+	Analog output voltage +

Table 2: General specification

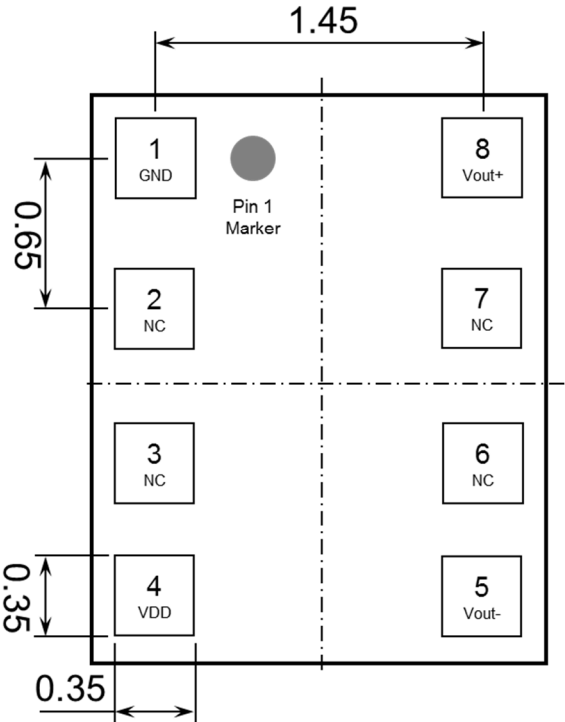
Parameter	Condition	Min.	Typ.	Max.	Unit
Excitation voltage		—	5	10	V
Operation current		—	1	2	mA
Bridge impedance		5	5.4	6	kΩ
Pressure range		0		900	kPa
Full scale span	Vin=5V		120		mV
Offset	Vin=5V	-10	0	10	mV
Linearity		-0.3	±0.15	+0.3	%FS
TC span	Constant voltage	-0.17	-0.22	-0.27	%FS/°C
	Constant current	-0.08	±0.02	+0.08	%FS/°C
TC offset		-0.08	-0.05	+0.08	%FS/°C
Burst pressure				5X	Rated FS
Temperature range		-40	25	85	°C
Storage temperature		-40		125	°C

Package outline dimensions

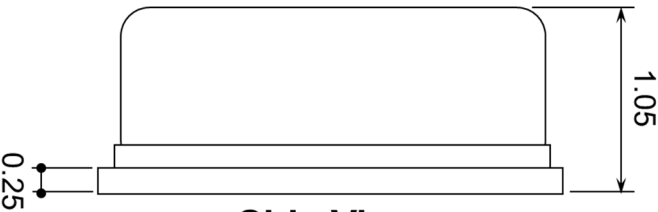
Unit: mm



Top View



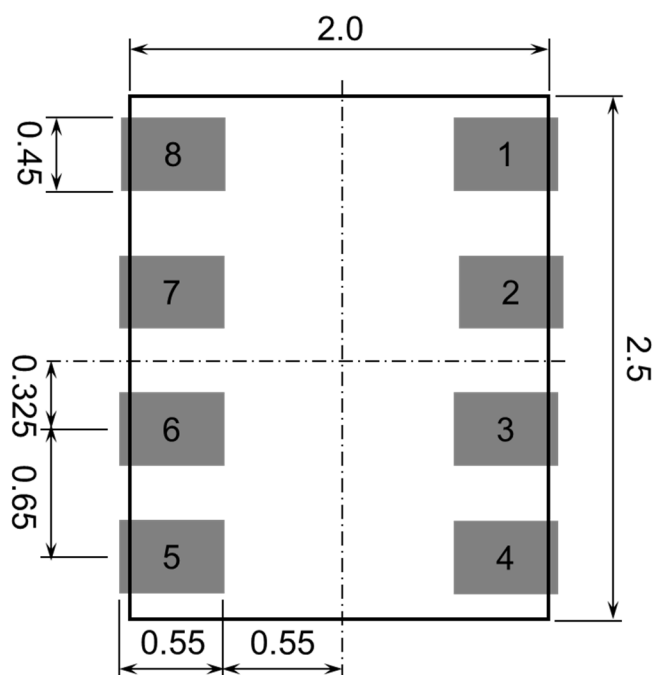
Bottom View



Side View

Surface mount information

Unit: mm



Document History and Modification

Revision No.	Description	Date
V1.0	Formal release	2019/1/24
V1.1	Update the burst pressure specification	2021/5/14
V1.2	Modify the package vent hole position	2021/8/17