

## GMP01-WC01 Silicon Pressure Sensor

### *General Introduction*

GMP01-WC01 is an absolute type silicon pressure sensor especially designed for applications requiring pressure measurement from 0 to 900 kPa. The pressure sensor is based on the industry-recognized piezo-resistive technology featuring long-term stability and EMC robustness. Its small size,  $0.9 \times 0.9 \text{ mm}^2$ , benefits the miniature packages.

### *Features*

- Operation range: 0~900 kPa
- Absolute type sensor
- Constant current or constant voltage drive
- Small size:  $0.9 \times 0.9 \text{ mm}^2$
- Low cost

### *Applications*

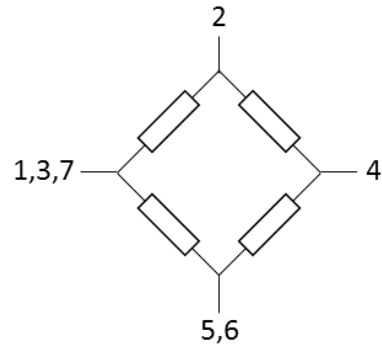
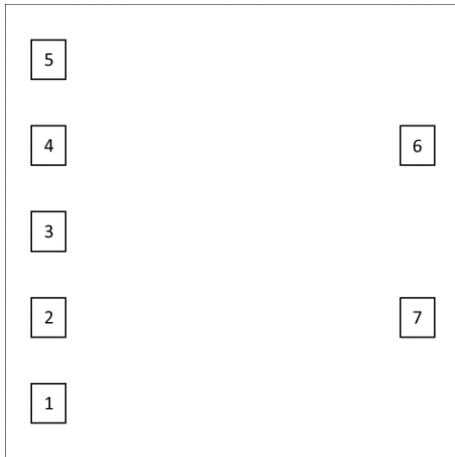
Tire pressure sensor, pressure gauge, industrial sensor

- Tire pressure sensor
- Industrial sensor
- Pressure gauge

## Specifications

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Operation voltage	V <sub>in</sub>		—	5	10	V
Operation current	I <sub>0</sub>		—	1	2	mA
Bridge impedance			5	5.4	6	kΩ
Pressure range			0		900	kPa
Full scale span	FS	V <sub>in</sub> =5V		120		mV
Offset		V <sub>in</sub> =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					3X	Rated FS
Temperature range			-40	25	+85	°C
Storage temperature			-40		+125	°C

## Pads layout and definition



- Die size: 0.9mm×0.9mm (without scribe line)
- Pad size: 70μm×80μm
- Scribe line: 80μm

Pin#	Name	Description
1	Vout+	Output voltage +
2	Vin	Power supply in
3	Vout+	Output voltage +
4	Vout-	Analog output voltage -
5	GND	Ground pad
6	GND	Ground pad
7	Vout+	Output voltage +

*Document History and Modification*

Revision No.	Description	Date
V0.1	Preliminary first release	2017/5/25
V0.2	Modification of the pressure range Add specification of linearity, TC span, TC offset	2017/8/21
V0.3	Modification of the pressure range	2018/3/27
V0.4	Modification of the pressure range	2018/5/18
V0.5	Update pin definition and scribe line width	2019/3/25
V0.6	Update Full Scale Span	2019/8/30