

GMP11-WA01 Silicon Pressure Sensor

General Introduction

GMP11-WA01 is a gauge type silicon pressure sensor especially designed for applications requiring pressure measurement from 0 to 48 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: 0~48 kPa
- Gauge type sensor
- Constant current or constant voltage drive
- Small size: $0.9 \times 0.9 \text{ mm}^2$
- Low cost

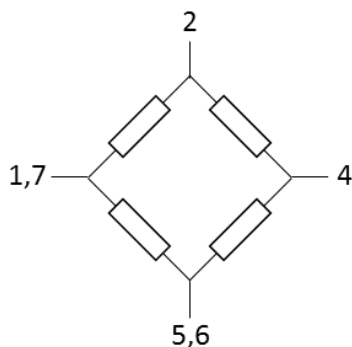
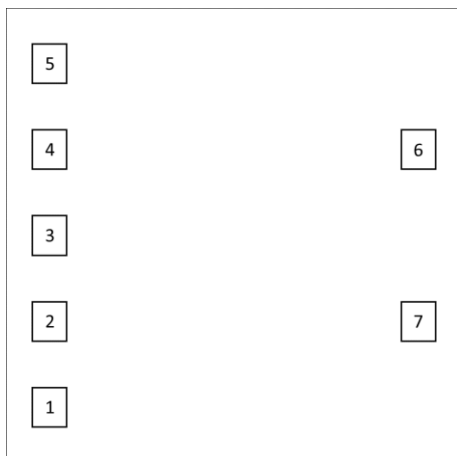
Applications

- Blood pressure sensor
- Pressure gauge

Specifications

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Operation voltage	Vin		—	5	10	V
Operation current	I0		—	1	2	mA
Bridge impedance			5	5.4	6	kΩ
Pressure range			0		48	kPa
Full scale span	FS	Vin=5V		70		mV
Offset			-20	0	20	mV
Linearity			-0.3	±0.2	+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
Proof pressure					2X	Rated FS
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: 100μm

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