

TO8 Pressure Sensor

Features

- Small range
- Constant current excitation
- High reliability imported pressure chip
- Temperature compensation
- High performance, all solid state, high reliability
- 18 months warranty

Application

- Industrial process control system
- Pressure calibration instrument
- Refrigeration and air conditioning systems
- Gas pressure measurement
- Biological medical devices
- Pressure measuring instrument

Note:

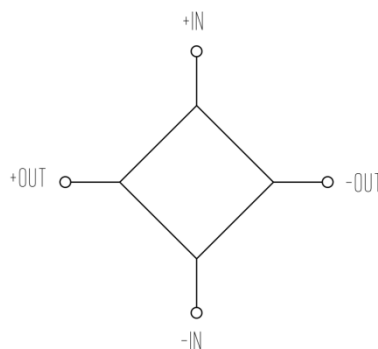
1. Do not touch the pressure hole and gauge pressure at both ends of the pressure sensor with hard objects, otherwise the chip will be damaged.
2. Before installation, please read the product instruction carefully and check the relevant information of the product.
3. Strictly follow wiring mode, otherwise it will lead to product damage and other potential faults.
4. Improper use can lead to danger and personal injury.



TO8 pressure sensor is the core component of manufacturing pressure sensor and pressure transmitter. As a pressure sensor with small range and high performance, it can be conveniently amplified and assembled into a standard signal output transmitter. TO8 is diffused silicon pressure sensitive cement chips kovar alloy base, welding encapsulation rimming steel cap and the base to provide energy storage, safe and reliable, plus pressure direct effect to the sensitive chips, sensitive chip positive pressure, formation pressure measurement of all solid state structure, so the product can be applied to measure only clean and dry non-corrosive gases.

The company can also produce the customized products according to the needs of users, such as wide temperature compensation, high reliable pressure sensor.

The equivalent circuit



Note:

1. Don't misuse files.
2. The information in this selection is for reference only, and cannot be used as product installation instructions.
3. Provide complete installation, operation and maintenance information in the product manual.
4. Improper use can lead to danger and personal injury.

Electrical performance index

Pressure range	0~250Pa...1MPa
Pressure reference	Gauge pressure Absolute pressure Sealed gauge pressure
Excitation	1.5mA
The input impedance	2kΩ~5kΩ
Electrical connections	Kovar alloy pin
Compensation temperature	0℃~50℃
Working temperature	-20℃~85℃
Storage temperature	-20℃~85℃
Insulation resistance	≥200MΩ/250VDC
The response time	≤1ms (Up to 90%FS)
Measuring the medium	Clean, non-corrosive liquids and gases
Mechanical vibration	20g(20~5000HZ)
Shock	100g(10ms)
Lifetime	10×10 ⁶ (cycles)

Structural performance index

Housing material	08F
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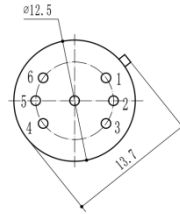
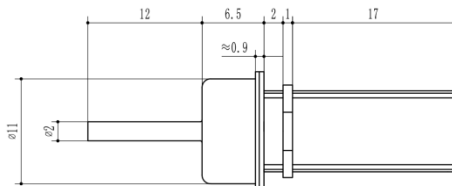
Basic parameter index

Item	Condition	Min	Typical	Max	Unit	Note
Nonlinear		-1.0	±0.5	1.0	%FS	Note(1)
Hysteresis		-0.05	±0.03	0.05	%FS	
Repeatability		-0.05	±0.03	0.05	%FS	
Zero output		-2	±1	2	mV	
Span output	250Pa 500Pa 1kPa 2kPa 5kPa Other ranges	20 10 20 30	35 20 45	50 35 70 150	mV	
Zero temp. coefficient		-2.0	±1.5	+2.0	%FS	Note(2)
Span temp. coefficient		-2.0	±1.5	2.0	%FS	Note(2)
Thermal hysteresis		-0.075	±0.05	0.075	%FS	Note(3)
Long term stability		-0.3	±0.2	0.3	%FS/ Year	

Note:

- (1) According to the least square method of BFS.
- (2) In the range of the compensation temperature 0℃~50℃, refer to 30℃.
- (3) After high and low temperature, return to the reference temperature.

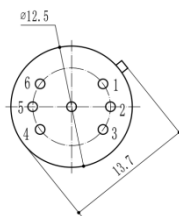
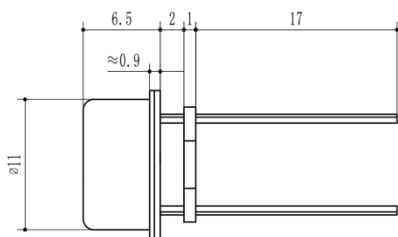
1 TO8-AN



Pin definition

- 2 pin output positive or negative (OUT+/OUT-)
- 3 pin input positive (IN+)
- 4 pin output positive or negative (OUT+OUT-)
- 5 pin input negative IN-.

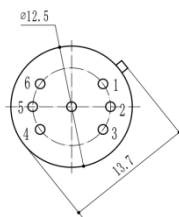
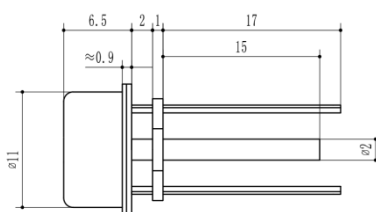
2 TO8-NN



Pin definition

- 2 pin output positive or negative (OUT+/OUT-)
- 3 pin input positive (IN+)
- 4 pin output positive or negative (OUT+OUT-)
- 5 pin input negative IN-.

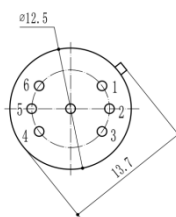
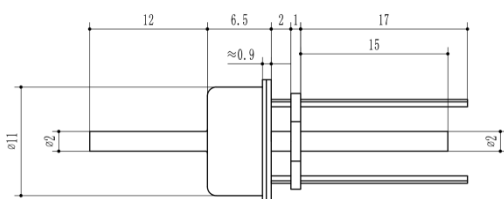
3 TO8-NA



Pin definition

- 2 pin output positive or negative (OUT+/OUT-)
- 3 pin input positive (IN+)
- 4 pin output positive or negative (OUT+OUT-)
- 5 pin input negative IN-.

4 TO8-AA



Pin definition

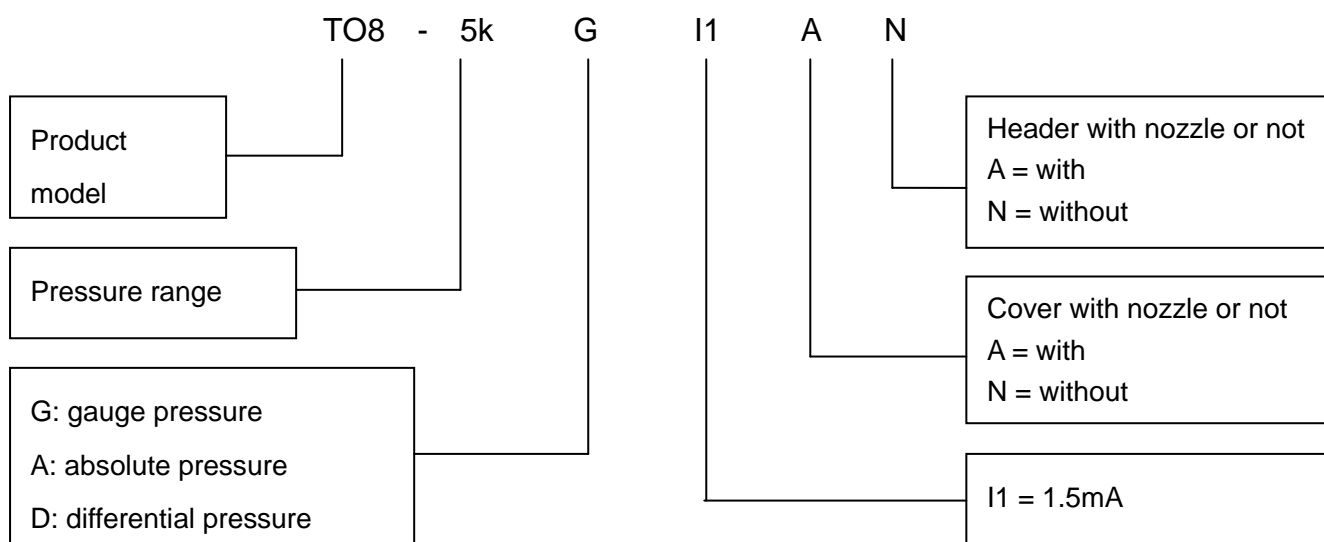
- 2 pin output positive or negative (OUT+/OUT-)
- 3 pin input positive (IN+)
- 4 pin output positive or negative (OUT+OUT-)
- 5 pin input negative IN-.

Note: refer to the operation manual for the specific pin definition.

Pressure range selection

Range code	Pressure range	Overpressure	Burst pressure	O-ring
250Pa	0~250Pa	200%FS	500%FS	NBR
500Pa	0~500Pa	200%FS	500%FS	NBR
1k	0~1kPa	200%FS	500%FS	NBR
2k	0~2kPa	200%FS	500%FS	NBR
5k	0~5kPa	200%FS	500%FS	NBR
10k	0~10kPa	200%FS	500%FS	NBR
20k	0~20kPa	200%FS	500%FS	NBR
35k	0~35kPa	200%FS	500%FS	NBR
70k	0~70kPa	200%FS	500%FS	NBR
100k	0~100kPa	200%FS	500%FS	NBR
250k	0~250kPa	150%FS	300%FS	NBR
400k	0~400kPa	150%FS	300%FS	NBR
600k	0~600kPa	150%FS	300%FS	NBR
1M	0~1MPa	150%FS	300%FS	NBR

How to order



Notes

1. It can be overrange or downrange selection, range control within 30%FS.
2. The pressure mode is gauge pressure and absolute pressure.
3. Confirming the maximum overload of the system. The maximum overload of the system should be less than the overload protection limit of the sensor, otherwise it will affect the service life of the product or even damage the product.
4. 1.5mA constant current compensation is the common compensation method of the product.
5. The material and process of manufacturing the negative pressure core are different from the positive pressure, so the surface pressure core cannot be used to replace the negative pressure core.
6. If you have special requirements on product performance parameters and functions, welcome to negotiate with us.



Wotian reserves the right to make any change in this publication without notice. The information provided is believed to be accurate and reliable as of this product sheet.

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