

SS105 series piezoresistive pressure transducers

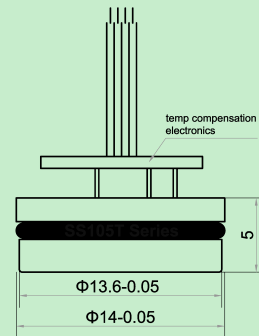
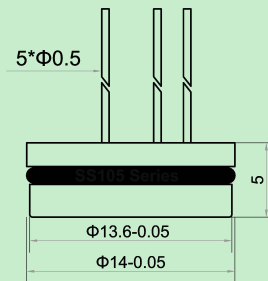
- Standard size Ø14*5.0mm
- High accuracy and reliability
- Stainless steel 316L wetted parts
- 1.0mA, 1.5mA constant current supply
- 5VDC, 10VDC constant voltage supply
- Non-temperature compensated(SS105)
- External temperature compensation(SS105T)
- Isolated construction, able to test various media
- Absolute, vented gauge and sealed gauge pressure



Descriptions

SS105 series OEM piezoresistive pressure transducers are piezoresistive pressure sensor with ultra-thin structure, the core sensing part is made of a high performance silicon chip protected by oil and stainless steel 316L. when the medium pressure act on the diaphragm, the pressure is transmitted to the silicon chip through the silicone oil, and then shape changed, the resistance is converted into electrical signal output by Wheatstone electric circuit. Suitable to measure all stainless steel compatible gas or liquid.

SS105 series have the height only 5.0mm, and 14mm diameter is suitable for many industrial applications. Without temp compensation, but this does not affect the excellent performance, available from the pressure range 4 to 25bar(400KPa to 2.5MPa). Ultra-thin design makes the SS105 series high in the ratio of performance to price, especially suitable for the those in mass production but also price sensitive.



Pressure ranges (typical)

Vented gauge(defining atmospheric pressure as zero) (Unit: Bar)

| | | | | | | |
|-------|-----|-----|----|----|----|--|
| Range | 4.0 | 6.0 | 10 | 16 | 25 | |
|-------|-----|-----|----|----|----|--|

Absolute(defining absolute vacuum as zero) (Unit: Bar)

| | | | | | | |
|-------|-----|-----|----|----|----|--|
| Range | 4.0 | 6.0 | 10 | 16 | 25 | |
|-------|-----|-----|----|----|----|--|

Sealed gauge(defining standard atmospheric pressure as zero) (Unit: Bar)

| | | | | | | |
|-------|----|----|----|--|--|--|
| Range | 10 | 16 | 25 | | | |
|-------|----|----|----|--|--|--|

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Technical data

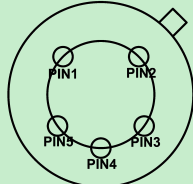
| | | |
|-----------------------------|------------------------------------|---------------------------|
| Power supply | 1.5mADC (typical) | 5VDC, 10VDC is on request |
| Zero output | Not adjusted (SS105 series)① | ±2mV (SS105T series) |
| Span output | 100±20mV (typical) | |
| Accuracy(0~600KPa...2.5MPa) | 0.5%F.S. @25°C (typical) | |
| Overload | 2.0*F.S. | |
| Temperature compensation | None(SS105 series) | 0~70°C (SS105T series) |
| Operating temperature | -20~100°C | |
| Storage temperature | -40~125°C | |
| Bridge resistance | 2.3KΩ~4KΩ | |
| Insulation | 100MΩ/250VDC | |
| Vibration | 20g/(20~5000Hz) | |
| Endurance | >100 x 10 ⁶ F.S. cycles | |
| Stability | ≤0.2% F.S./Year | |

①: The zero output signal need to be adjusted by our clients.

Constructions

| | |
|-----------------------|----------------------|
| O-ring | Viton(Ø12*1.0mm) |
| Wetted parts | Stainless steel 316L |
| Housing | Stainless steel 304 |
| Filling liquid | Silicone oil |
| Electrical connection | Kovar pins |
| Diameter | Ø14mm |
| Height | 5.0mm |
| Weight | 8g |

Electrical connections

| wires | | pins | |
|-------|----------|--|--|
| Color | Function |  | |
| Red | Supply + | | |
| Black | Supply - | | |
| White | Output + | | |
| Blue | Output - | | |
| | | | |
| | | PIN2: Output - | |
| | | PIN3: Supply - | |
| | | PIN4: Supply - | |
| | | PIN5: Output + | |

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Ordering information

EXAMPLE: [SS105 C 01 A](#)

| | | |
|---|--|----|
| 1 | Pressure range(Bar) | C |
| | A(4.0) B(6.0) C(10) D(16) E(25) F(Other range or unit is on request) | |
| 2 | Pressure type | 01 |
| | 01 Vented gauge 02 Absolute 03 Sealed gauge | |
| 3 | Power supply | A |
| | A 1.5mADC B 5VDC C 10VDC D Other supply is on request | |

Optional

| | |
|--|--|
| External temperature compensation(SS105T series) | |
|--|--|

Contact us

| | | |
|-------------------------|---|-------------------------|
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*Specifications subject to change without notice, the latest date sheet please contact: sales@sendo-sensor.com