

SS121E24 series piezoresistive standard pressure transducers

Features

- Customized size
- High accuracy, high reliability
- Stainless steel 316L diaphragm
- 1.0mA, 1.5mA constant current supply
- 5VDC, 10VDC constant voltage supply
- 0-70°C temperature compensation range
- Isolated construction, able to test various media
- Absolute, gauge and sealed gauge pressure is optional



NO O-ring used inside

All stainless steel integrated structure

Descriptions

SS121E24 series piezoresistive pressure transducers are developed for pressure applications that involve measurement of hostile media in harsh environments compatible with 316L stainless steel. They are calibrated and temperature compensated, available for use with either a constant voltage or current source. They feature a variety of pressure connections to allow use in a wide range of OEM equipment.

SS121E24 series are rugged and reliable transducers, all stainless steel structure, no O-ring used for sealing, cover the pressure range from -100KPa to 40MPa, recommend for use in a wide variety of pressure sensing applications where corrosive liquids or gases are monitored.

Technical data

Performance (EN 60770)

| | | | |
|---------------------------|--|------------------|-------------------|
| Power supply | 1.5 mADC (typical) | 5 VDC (optional) | 10 VDC (optional) |
| Zero output | 0 ± 2 mV ① | | |
| Span output | 100 ± 20 mV ① | | |
| Accuracy | 0.25% F.S. ① | | |
| Measuring range | Minimum range: 0.2 bar Maximum range: 400 bar See more details in page 3 (part number chart) | | |
| Overload range | 2.0 × F.S. (≤ 200 bar) | | |
| | 1.5 × F.S. (> 200 bar) and burst 400 bar | | |
| Compensated temp range | 0 → 70 °C | | |
| Operating temp range | -20 → 100 °C | | |
| Storage temp range | -40 → 125 °C | | |
| Zero thermal error | ≤ 0.02% F.S./°C | | |
| Sensitivity thermal error | ≤ 0.02% F.S./°C | | |
| Stability | ≤ 0.2% F.S./Year | | |
| Input impedance | 2.3 → 4 KΩ | | |
| Insulation resistance | > 100 MΩ at 250 V | | |

①: The zero output, span output and accuracy may different if the supply power, measuring range and pressure type is different, please contact us if you need more details.

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Mechanical characteristics

| | | | |
|-----------------------|---|---|---|
| Materials | Diaphragm | Stainless steel 316L (typical) | More options see Page 3 |
| | Housing | Stainless steel 304 (typical) | Stainless steel 316L (optional) |
| | Pressure connection | Stainless steel 304 (typical) | Stainless steel 316L (optional) |
| | Filling liquid | Silicone oil | |
| | Sealing inside | NOT USED, All stainless steel welding structure | |
| Pressure connection | 1/4" BSP, 1/4" NPT, 9/16-18 UNF, M14 x 1.5 | | More options see page 3 |
| Electrical connection | Wire connection, Pin connection | | More options see page 3 |
| Weight | 100-200g (depending on pressure connection and electrical connection) | | |

Electrical connections

| wires | | 5Pins connection mode 1 | | 5Pins connection mode 2 | |
|-------|----------|-------------------------|------------------|-------------------------|------------------|
| Color | Function | | PIN1: Supply + | | PIN1: Supply + |
| Red | Supply + | | PIN2: Output - | | PIN2: Output + |
| Black | Supply - | | PIN3: Supply - | | PIN3: Supply - |
| White | Output + | | PIN4: Supply - ② | | PIN4: Supply - ② |
| Blue | Output - | | PIN5: Output + | | PIN5: Output - |

②: PIN4 is not used for 4Pins connection

Dimensions (Unit: mm)

| G1/2" thread | G1/4" thread | G1/8" thread |
|----------------|----------------|----------------|
| | | |
| 1/2"NPT thread | 1/4"NPT thread | 1/8"NPT thread |
| | | |

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Part number chart (How to order)

PART NUMBER REQUIRED: **SS121E24.PL.01.A.01.A (EXAMPLE)**

| | | |
|---|--|----|
| 1 | Pressure range(bar) | PL |
| | NA(-1...0) NB(-0.7...0) NC(-0.5...0) ND(-0.35...0) NE(-0.2...0) PB(0...0.2) PC(0...0.35) PD(0...0.5) PE(0...0.7) PF(0...1) PG(0...1.6) PH(0...2) PI(0...2.5) PJ(0...4) PK(0...6) PL(0...10) PM(0...16) PN(0...25) PO(0...40) PP(0...60) PQ(0...100) PR(0...160) PS(0...200) PT(0...250) PU(0...300) PV(0...350) PW(0...400) CA(-1...0.6) CB(-1...1.5) CC(-1...3) CD(-1...5) CE(-1...9) CF(-1...15) CG(-1...24) 1Z(Other pressure range or unit is on request) | |
| 2 | Pressure type | 01 |
| | 01(Vented gauge) 02(Absolute) 03(Sealed gauge) | |
| 3 | Electrical connection ③ | A |
| | A(4Wires) B(5Wires) C(4Pins mode 1) D(4Pins mode 2) E(5Pins mode 1) F(5Pins mode 2) | |
| 4 | Power supply | 01 |
| | 01(1.5mADC) 02(2mADC) 03(5VDC) 04(10VDC) 4Z(Other supply is on request) | |
| 5 | Pressure connection | A |
| | A(1/4" NPT male) B(1/2" NPT male) C(1/8" NPT male) D(G 1/4" male) E(G 1/2" male) F(G 1/8" male) G(PT 1/4" male) H(PT 1/2" male) I(PT 1/8" male) J(9/16-18 UNF male) K(7/16-20 UNF male) L(1/2-20 UNF male) M(3/8-24 UNF male) N(M10 x 1.25 male) O(M14 x 1.5 male) P(M20 x 1.5 male) Q(1/8" NPT female) R(1/4" NPT female) S(9/16-18 UNF female) T(7/16-20 UNF female) 5Z(Other pressure connection is on request) | |

③: 4Wires and 4Pins connection: the zero signal is set by SENDO SENSOR before leave factory.

③: 5Wires and 5Pins connection: the zero signal can be set by clients.

③: Pins Mode1 and Mode2: please see the details in the Electrical connection in page 2.

NON- REQUIRED: **SS121E24.PL.01.A.01.A - V4E (EXAMPLE)**

| | | |
|---|--|-----|
| 1 | Material of diaphragm | V4E |
| | V4D(Titanium) V4E(Tantalum) V4F(Hastelloy-C) | |
| 2 | Material of wetted parts (metal parts, not include the diaphragm) | V5G |
| | V5G(Stainless steel 316L) | |
| 3 | Pulse snubber / Bumper (Anti cavitation, pressure spikes, or pulses) | V6H |
| | V6H(Assemble into the pressure hole) | |

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Contact us

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