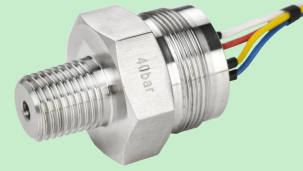


SS121E27 series piezoresistive standard pressure transducers

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

SS121E27 series piezoresistive standard pressure transducers are of all welded stainless steel construction, with integral media isolation diaphragm, no 'O' ring seals are used, maximum pressure range up to 100MPa. The size of housing, and the pressure/screw connection can be designed according to the request.

A high performance piezoresistive silicon chip is used inside makes the transducer have a great working performance, the accuracy can be 0.25%F.S., offering improved reliability and significantly lower production costs. Two types of electrical connections pins or wires is optional. The SS121E27 series are the ideal basis for pressure transmitters, pressure switches or digital pressure instruments.

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: 0.1 bar Maximum range: 1000 bar See more details in page 3 (part number chart)		
Overload range	2.0 × F.S. (< 250 bar)		
	1.5 × F.S. (≥ 250 bar); 1.2 × F.S. (1000 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		4-Pins / 5-Pins connection mode	
Color	Function		PIN1: Supply +
Red	Supply +		PIN2: Output -
Black	Supply -		PIN3: Supply -
White	Output +		PIN4: Supply - ②
Blue	Output -		PIN5: Output +

②: PIN4 is not used for 4-Pins 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: **SS121E27.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) NF(-0.1...0) PA(0...0.1) 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) PX(0...500) PY(0...600) PZ(0...1000) 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(4-Wires) B(5-Wires) C(4-Pins) D(5-Pins)	
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(1/2" NPT female) T(9/16-18 UNF female) U(7/16-20 UNF female) 5Z(Other pressure connection is on request)	

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

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

NON- REQUIRED: **SS121E27.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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*Specifications subject to change without notice, the latest date sheet please contact: sales@sendo-sensor.com