

SS302+ series piezoresistive pressure transmitters for industrial environment

Features

- CE conformity
- Reverse polarity protection
- Stainless steel 316L wetted parts
- Rugged construction, silicone oil filled inside
- Enhanced anti-interference and surge protection
- Piezoresistive silicon pressure sensor
- Pressure ranges from 0.1 up to 600 bar
- Isolated construction, able to test various media
- Output signals: 4-20mA and 0.5-4.5V, 0-5V, 0-10V
- A wide range of pressure and electrical connections



Descriptions

SS302+ series piezoresistive pressure transmitters are an updated version of SS302 series, in order to have a higher stability and the feature of enhanced anti-interference and surge protection, a high quality electronic circuit is assembled inside the sensor, give an incredible steady 4-20mA and voltage signal. A modular concept uses the selection of off-the-shelf capsules, allowing a customized production. Numerous options and variants are available, fully adapted to the customer requirements: power supply, signal outputs, mechanical and electrical interface, ports, materials in media contact, oil filling, special feature, etc.

The wetted parts of the SS302+ series are made of stainless steel 316L, O-ring sealed inner structure, 0 to 70°C wide temperature compensation, the sensors are well suitable for precision applications in industrial environments for pressures ranging from 0,1 to 1000 bar, liquids or gas.

Technical data

Performance (EN 60770)

Accuracy @25°C	±0.5% F.S.(incl. non-linearity, hysteresis and repeatability)
Non-linearity BFSL (conformity)	±0.3% F.S.
Hysteresis and repeatability	±0.1% F.S.
Response time	< 4 ms
Pressure range	0...0.1bar to 600bar(positive pressure) -1...0bar, -0.1...0bar(negative pressure) -1...3bar, -1...15bar(compound pressure)
Overload pressure	2.0 × F.S. (≤ 250 bar) 1.5 × F.S. (> 250 bar)
Pressure type	vented gauge, sealed gauge, absolute
Long term stability	≤0.2%F.S./Year
Temperature coefficient	±0.03%F.S./°C

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Electrical specifications

Output signal	4-20mA	0-10V	0-5V/0.5-4.5V	0.5-4.5V
Supply voltage	9-30Vdc	12-30Vdc	9-30Vdc	5Vdc
Polarity protected	yes	yes	yes	yes
Short-circuit protected	yes	yes	yes	yes
Zero and span adjustment	No	No	No	No
Surge protection	yes	yes	yes	yes

Environmental conditions

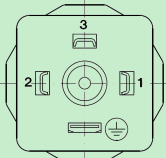
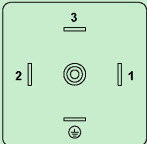
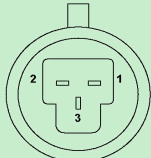
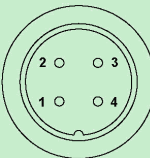
Medium temp range	-20°C → +100°C
Ambient temp range	-20°C → +80°C (depending on electrical connection)
Compensated temp range	0°C → +70°C
EMC - Emission	EN 61000-6-3
EMC - Immunity	EN 61000-6-1
Insulation resistance	>100 MΩ at 250 V

Mechanical characteristics

Materials	Diaphragm	Stainless steel 316L (typical)	More options see Page 4
	Housing	Stainless steel 304 (typical)	Stainless steel 316L (optional)
	Pressure connection	Stainless steel 316L (typical)	More options see Page 4
	Electrical connection	PA66 (typical)	
	O-ring	Viton	
Pressure connection	See Ordering information in page 4		
Electrical connection	DIN43650A, DIN43650C, Direct cable, M12*1, LED Display, BP3		
Weight	150-300g (depending on pressure connection and electrical connection)		
Sealing rating	IP 65 (fulfilled together with mating connector)		

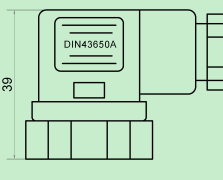
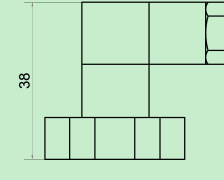
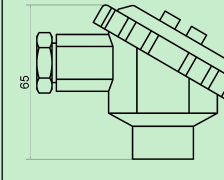
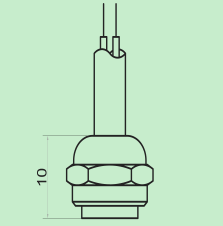
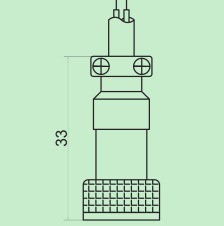
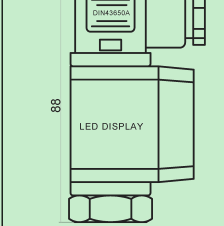
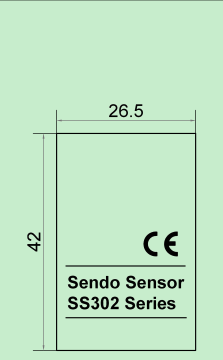
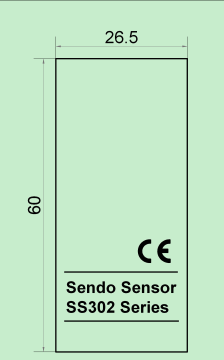
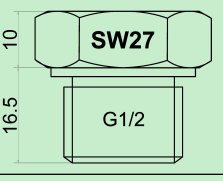
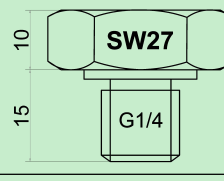
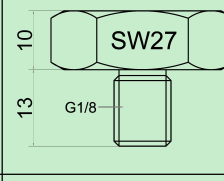
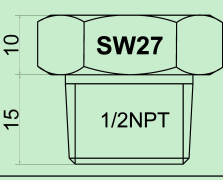
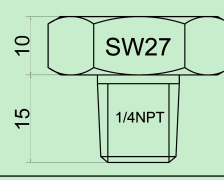
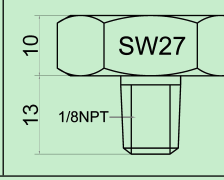
Electrical connections

	PIN connections (DIN43650A, DIN43650C, 3-pin Packard, M12*1)	Wire connections
4-20mA Current output signal (2 wire)	Pin 1: + supply Pin 2: + output Pin 3: Not used Earth: Not connected	Red: + supply Black: + output
0-10V, 0-5V, 0.5-4.5V Voltage output signal (3 wire)	Pin 1: + supply Pin 2: GND Pin 3: + output Earth: Not connected	Red: + supply Black: GND Blue: + output

DIN43650A	DIN43650C	3-pin Packard	M12*1
			

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Dimensions(Unit: mm)

Electrical connections			
DIN43650A	DIN43650C	BP3	
			
Direct cable	M12*1	LED display	
			
Housings			
Housing(typical)	Housing(Optional)		
			
Pressure connections			
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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Ordering information

EXAMPLE: [SS302+ PJ 01 A 04 A 06](#)

1	Pressure range(bar)	PJ
	NA(-1...0) NB(-0.7...0) NC(-0.35...0) ND(-0.2...0) NE(-0.1...0) PA(0.1) PB(0.2) PC(0.35) PD(0.7) PE(1.0) PF(1.6) PG(2.5) PH(4.0) PI(6.0) PJ(10) PK(16) PL(25) PM(40) PN(60) PO(100) PP(160) PQ(200) PR(250) PS(400) PT(600) CA(-1...0.6) CB(-1...1.5) CC(-1...3) CD(-1...5) CE(-1...9) CF(-1...15) CG(-1...24) X(Other pressure range or unit is on request)	
2	Pressure type	01
	01(Gauge) 02(Absolute)	
3	Electrical connection	A
	A(DIN43650A) B(Direct cable) C(M12*1) D(LED Display) E(DIN43650C) F(BP3)	
4	Pressure connection	04
	01(1/4"NPT) 02(1/2"NPT) 03(1/8"NPT) 04(G1/4") 05(G1/2") 06(G1/8") 07(PT1/4") 08(PT1/2") 09(PT1/8") 10(Other pressure connection is on request)	
5	Signal & supply	A
	A(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc) E(0.5-4.5V & 5Vdc)	
6	Cable length	06
	01(1m) 02(2m) 03(3m) 04(4m) 05(5m) 06(None) 07(Other length is on request)	

Optional(please contact us for more details)

1	Pulse snubber
	A(YES) B(NO)
2	Material of diaphragm
	01(Titanium) 02(Tantalum) 03(Hastelloy-C)
3	Material of pressure connection
	A(Titanium) B(Tantalum) C(Hastelloy-C)

Contact us

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