

SS305 series piezoresistive pressure transmitters for severe industrial environments

Features

- CE conformity
- 4*F.S. to 6*F.S. high overload
- Stainless steel 316L wetted parts
- All stainless steel integrated structure
- Piezoresistive pressure sensor, oil filled
- Output signals: 4-20mA and voltage output
- Enhanced anti-interference and surge protection
- Pressure from 0.1bar up to 60 bar in gauge or absolute
- Resistant to cavitation, liquid hammer and pressure peaks



Descriptions

SS305 series high overload pressure transmitters are a portfolio of highly configurable pressure sensors that use piezoresistive sensing technology, meet the high overload protection demand and are suitable for almost all types of severe industrial applications.

SS305 series is an improved pressure transmitter based on SS302 series, all stainless steel integrated structure, a special designed pressure transducer is laser welded with the housing, no elastic component is used in side, no O-ring, no leaking problems.

SS305 series is fully calibrated and compensated for offset, sensitivity, temperature effects and non-linearity, is a precise pressure measurement solution that optimizes system performance at a competitive cost, numerous standard or custom connectors, ports, pressure ranges and types, and output signal options. With the special designed transducer and signal conditioning circuit, the transmitter offer more than 4 f.s. high overload, this feature makes the sensor is perfect for the hydraulic applications especially for the water treatment market.

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 60bar(positive pressure) -1...0bar, -0.1...0bar(negative pressure) -1...3bar, -1...15bar(compound pressure)
Overload pressure	6.0 × F.S.
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

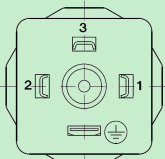
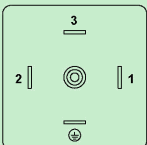
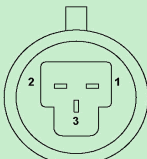
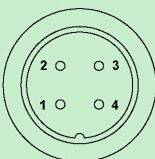
Medium temp range	-40°C → +100°C
Ambient temp range	-20°C → +80°C (depending on electrical connection)
Compensated temp range	0°C → +70°C
EMC - Emission	EN 61000-6-3
EMC - Immunity	EN 61000-6-1
Insulation resistance	>100 MΩ at 250 V

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)	
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)		

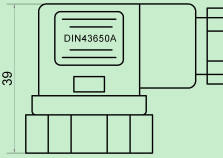
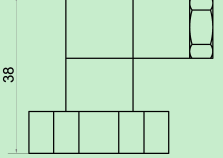
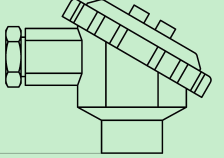
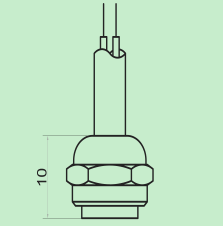
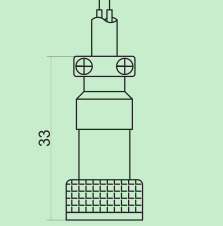
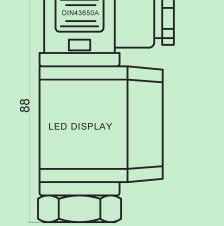
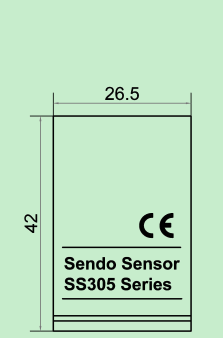
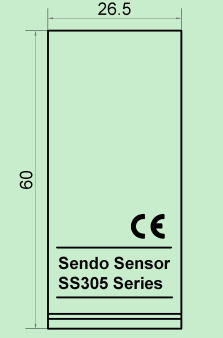
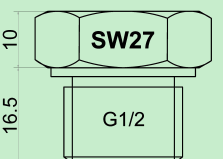
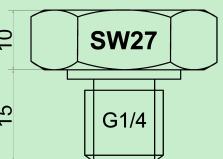
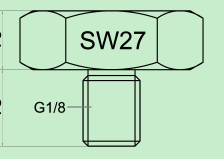
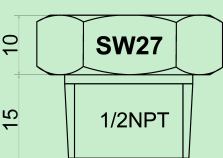
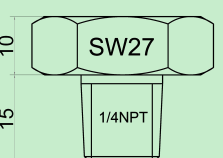
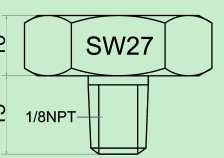
Electrical connections

	PIN connections (DIN43650A, DIN43650C, 3-pin Packard, M12*1)		Wire connections
4-20mA Current output signal (2 wire)	Pin 1: + supply Pin 3: Not used	Pin 2: + output Earth: Not connected	Red: + supply Black: + output
0-10V, 0-5V, 0.5-4.5V Voltage output signal (3 wire)	Pin 1: + supply Pin 3: + output	Pin 2: GND 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: **SS305 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) 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