

SS303 series piezoresistive pressure transmitters for high temperature application

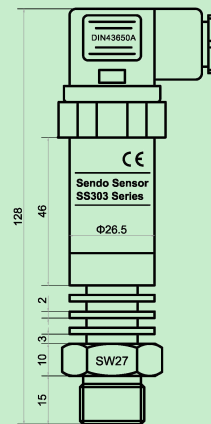
- CE conformity
- Compact, rugged construction
- Stainless steel 316L diaphragm
- Piezoresistive pressure sensor, oil filled
- Pressure ranges from 0..0.1 up to 1000 bar
- Isolated construction, able to test various media
- Integrated with cooling fins, maximum temp to 350°C
- Output signals: 4-20mA and 0-10V, 0-5V voltage output



Descriptions

SS303 series piezoresistive pressure transmitters are developed from SS302 series, different numbers of cooling fins are integrated with the housing, makes the SS303 series able to test various kinds of high temperature medium, the standard medium working temperature is -20°C to 125°C, maximum medium working temperature up to 350°C.

SS303 series adopt a high performance pressure transducer as the sensing part, O-ring sealed inside, well suitable for precision applications in industrial environments for range 0...10kpa to 100mpa.



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 features, etc.

Technical data

Performance (EN 60770)

Accuracy @25°C (incl. non-linearity, hysteresis and repeatability)	±0.5% F.S.
Non-linearity BFSL (conformity)	≤ ±0.3% F.S.
Hysteresis and repeatability	≤ ±0.1% F.S.
Response time	< 4 ms
Overload pressure	2.0 × F.S. (≤ 250 bar)
	1.5× F.S. (> 250 bar)
	1.2× F.S. (1000bar)
Pressure range	-1~0bar, 0~0.1...1000bar
Pressure type	vented gauge, sealed gauge, absolute
Long term stability	≤0.2%F.S./Year
Temperature coefficient	±0.03%F.S./°C
Durability, P: 10-90% F.S.	>10×10 ⁶ cycles

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Electrical specifications

	4-20mA (Current output)	0-10V, 0-5V (Not Ratio-metric)	Ratio-metric (10-90% of Vs.)
Supply voltage [UB]	12-36V	12-36V	5 V ± 10%
Load [RL] (load connected to 0 V)	$RL \leq (UB-12V)/0.02 A$	---	---
Polarity protected	yes	No	No
Short-circuit protected	yes	No	No

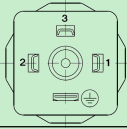
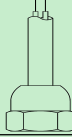
Environmental conditions

Medium temperature range	-20°C → +125°C
Ambient temperature range (depending on electrical connection)	-20°C → +80°C
Compensated temperature range	-10°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
	Enclosure	Stainless steel 304
	Electrical connections	PA66, stainless steel
	O-ring	Viton
Weight (depending on pressure connection and electrical connection)	0.15 - 0.3 kg	
Pressure connection	See page 3 (Ordering information)	
Electrical connection	DIN43650A(Hirschmann), Direct cable, M12*1, BP3	

Electrical connections

	DIN43650A(Hirschmann) connection 	Direct cable connection 
4-20mA Current output signal (2 wire)	Pin 1: + supply Pin 2: + output Pin 3: Not used Earth: Not connected	Red: + supply Green/Yellow: + output
0-10V, 0-5V, 0.5-4.5V Voltage output signal (3 wire)	Pin 1: + supply Pin 2: - supply Pin 3: + output Earth: Not connected	Red: + supply Green: - supply Yellow: + output
IP protection (fulfilled together with mating connector)	IP 65	IP 65

SS303 series piezoresistive pressure transmitters for high temperature application**Ordering information**EXAMPLE: **SS303 K 01 A 04 B 01 A 01**

1	Pressure range(bar)	K
	A(-1~0) B(-0.35~0) C(-0.2~0) D(0~0.1) E(0~0.2) F(0~0.35) G(0~1.0) H(0~2.5) I(0~4.0) J(0~6.0) K(0~10) L(0~16) M(0~25) N(0~40) O(0~60) P(0~100) Q(0~250) R(0~400) S(0~600) T(0~1000) U(Other pressure range or unit is on request)	
2	Pressure type	01
	01 Gauge 02 Absolute	
3	Electrical connection	A
	A Hirschmann(DIN43650A) B Direct cable C M12*1 D 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	Voltage supply	B
	A 5VDC B 12~36VDC	
6	Output signal	01
	01 4~20mA 02 0.5~4.5V 03 0~5V 04 0~10V 05 Other output signal is on request	
7	Medium working temperature	A
	A -20~150°C B -20~200°C C -20~250°C D -20~300°C E -20~350°C	
8	Cable length	01
	01 None 02 1m 03 2m 04 3m 05 4m 06 Other length is on request	

Optional

Accuracy 0.25%F.S.	Material of wetted parts stainless steel 316L or Ti	
Supply voltage 9~36V	Enhanced anti-interference and surge protection	
Housing filled with silicon gel	Pulse snubber	Zero and span adjustable

Contact us

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