

## SS302 series piezoresistive pressure transmitters for industrial environment

- CE conformity
- Compact, rugged construction
- Stainless steel 316L diaphragm
- Piezoresistive pressure sensor, oil filled
- Pressure ranges from 0.1 up to 1000 bar
- Isolated construction, able to test various media
- Vented gauge, sealed gauge and absolute pressure
- A wide range of pressure and electrical connections
- Output signals: 4-20mA and 0-10V, 0-5V voltage output
- AK Fluids US silicon oil, good bio-compatibility, nontoxicity



DIN43650A connection



Direct cable connection



M12 connection



BP3 connection

### Descriptions

SS302 series piezoresistive pressure transmitters are the basic type in sendo sensor, also it is the most widely used one, work following the piezoresistive principle, standard medium working temperature from -20~100°C. 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.

SS302 series adopt a high performance piezoresistive pressure transducer as the sensing part, the inner structure is O-ring sealed, -10 to 70°C wide temperature compensation, 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 (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 <sup>6</sup> 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)	$RL \leq (UB-12V)/0.02 \text{ A}$	---	---
Polarity protected	yes	No	No
Short-circuit protected	yes	No	No

### Environmental conditions

Medium temperature range	-20°C → +100°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

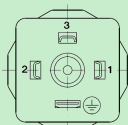
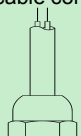
Materials	Diaphragm	Stainless steel 316L
	Enclosure	Stainless steel 304
	Electrical connections	PA66, stainless steel
	O-ring	Viton
Weight (depending on pressure connection and electrical connection)	0.15 - 0.3 kg	
Pressure connection	See page 3 (Ordering information)	
Electrical connection	DIN43650A(Hirschmann), Direct cable, M12*1, BP3	

### Dimensions

DIN43650A connection	Direct cable connection	M12*1 connection	BP3 connection

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### 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

### Ordering information

EXAMPLE: **SS302 K 01 A 04 B 01 A**

1	Pressure range(bar) 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)	<b>K</b>
2	Pressure type 01 Gauge 02 Absolute	<b>01</b>
3	Electrical connection A Hirschmann(DIN43650A) B Direct cable C M12*1 D BP3	<b>A</b>
4	Pressure connection 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)	<b>04</b>
5	Voltage supply A 5VDC B 12~36VDC	<b>B</b>
6	Output signal 01 4~20mA 02 0.5~4.5V 03 0~5V 04 0~10V 05 Other output signal is on request	<b>01</b>
7	Cable length A None B 1m C 2m D 3m E 4m F 5m G 6m H Other length is on request	<b>A</b>

### 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

**SS302 series piezoresistive pressure transmitters for industrial environment****Contact us**

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\*Specifications subject to change without notice, the latest data sheet please contact: [sales@sendo-sensor.com](mailto:sales@sendo-sensor.com)