

SS305 Series Piezoresistive Pressure Transmitters for severe industrial environments

- CE conformity
- 4*FS to 6*FS high overload
- Stainless steel 316L diaphragm
- All stainless steel integrated structure
- Piezoresistive pressure sensor, oil filled
- Output signals: 4-20mA and voltage output
- A wide range of pressure and electrical connections
- Pressure ranges in gauge or absolute from 0 up to 60 bar
- Resistant to cavitation, liquid hammer and pressure peaks
- AK Fluids US silicon oil, good bio-compatibility, nontoxicity



Descriptions

SS305 series high overload pressure sensor is a portfolio of highly configurable pressure sensors that use piezoresistive sensing technology with a special signal conditioning circuit in a stainless steel housing, meets the high burst protection demands and is suitable for the use in almost all types of severe industrial applications.

SS305 series is fully calibrated and compensated for offset, sensitivity, temperature effects and non-linearity, provides a Total Error Band of $\pm 0.5\%$ over the operating temperature range of $-10\text{ }^{\circ}\text{C}$ to $80\text{ }^{\circ}\text{C}$ [$14\text{ }^{\circ}\text{F}$ to $176\text{ }^{\circ}\text{F}$].

SS305 series 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 options.

Technical data

Performance (EN 60770)

Accuracy @25°C (incl. non-linearity, hysteresis and repeatability)	$\pm 0.5\%$ FS
Non-linearity BFSL (conformity)	$\leq \pm 0.3\%$ FS
Hysteresis and repeatability	$\leq \pm 0.1\%$ FS
Total error band (inside the compensated temperature range)	$\pm 0.5\%$
Response time	< 4 ms
Overload pressure	4 × FS (max. 250 bar)
Durability, P: 10-90% FS	$> 10 \times 10^6$ cycles
Pressure range	0~0.1...60bar (min 0.1bar, max 60bar)
Pressure type	vented gauge, sealed gauge, absolute
Stability	$\leq 0.2\%$ FS/Year
Temp coefficient	$\pm 0.03\%$ FS/°C

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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)	$RL \leq (UB-7.3V)/0.02 \text{ A}$	---	---
Polarity protected	yes	No	No
Short-circuit protected	yes	No	No

Environmental conditions

Medium temperature range	-40°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 500 V

Mechanical characteristics

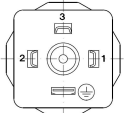
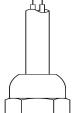
Materials	Diaphragm	Stainless steel 316L
	Enclosure	Stainless steel 304
	Electrical connections	PA66, stainless steel
Weight (depending on pressure connection and electrical connection)	0.15 - 0.3 kg	
Pressure connection	See page 4 (Ordering informations)	
Electrical connection	DIN43650A(Hirschmann), 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
		
IP protection(fulfilled together with mating connector)	IP 65	IP 65
Materials	Glass filled polyamid, PA 66	Stainless steel 304
4-20mA (Current output 2 wire)	Pin1: + supply Pin 2: + output Pin 3: Not used Earth: Not connected to enclosure	Red: + supply Green/Yellow: + output
0-10V, 0-5V, 0.5-4.5V (Voltage output 3 wire)	Pin 1: + supply Pin 2: - supply Pin 3: + output Earth: Not connected to enclosure	Red: + supply Green: - supply Yellow: + output

Ordering informationsEXAMPLE: [SS305 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(Other pressure range or unit is on request)	K
2	Pressure Type 01 Gauge 02 Absolute	01
3	Electrical Connection A Hirschmann(DIN43650A) B Direct cable C M12*1 D BP3	A
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)	04
5	Voltage Supply A 5VDC B 12~36VDC	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	01
7	Cable Length A None B 1m C 2m D 3m E 4m F 5m G 6m H Other length is on request	A

Optionals

Accuracy 0.25%	Material of wetted parts stainless steel 316L or Ti	
Housing filled with silicon gel	Pulse snubber	Zero and span adjustable
Customized dimension		

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Contact us

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