SS125 series flush diaphragm pressure transducers

Features

- Total flatted diaphragm
- High accuracy and reliability
- Stainless steel 316L wetted parts
- 1.0mA, 1.5mA constant current supply
- 5VDC, 10VDC constant voltage supply
- 0-70°C temperature compensation range
- Isolated construction, able to test various media
- G1/2", NPT1/2", M20 various pressure connection
- Absolute, vented gauge and sealed gauge pressure

Descriptions

SS125 series flush membrane pressure transducer is designed with cavity-free hygienic flush diaphragm connection with 316L stainless steel by the latest piezoresistive technology, the transducer is different from conventional ones which have a small diameter inlet port with internal diaphragm cavity, the open face diaphragm is completely flat that prevents media blocking and clogging, is particularly suitable for use with high viscosity or contaminated materials of food industry, chemical industry.

SS125 series use a high performance silicon chip inside the housing, the transducer housing encases the piezoresistive silicon chip and a small quantity of oil, the latter of which is required to efficiently transfer the pressure exerted on the media-isolation diaphragm to the silicon pressure chip. It is available with absolute pressure, relative pressure and vacuum measurement, pressure measuring ranges -1 ... 0 bar up to 0 ... 600 bar.

Pressure ranges (typical)

Vented gauge (defining atmospheric pressure as zero) (Unit: bar)

Range	-1.0	-0.7	-0.35	0.35	0.7	1.0
	2.5	4.0	6.0	10	16	25

Absolute (defining absolute vacuum as zero) (Unit: bar)

Range	1.0	2.5	4.0	6.0	10	16
	25	40	60	100	160	250
	400	600				

Sealed gauge (defining standard atmospheric pressure as zero) (Unit: bar)

Range	10	16	25	40	60	100	
	160	250	400	600			

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Technical data

Performance (EN 60770)

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Power supply	1.5 mADC (typical)	5 VDC (optional)	10 VDC (optional)	
Zero output	0 ± 2 mV ①			
Span output	100 ± 20 mV ①			
Accuracy	0.25% F.S. 1			
Overload range	2.0 × F.S. (≤ 250 bar)			
	1.5 × F.S. (> 250 bar), 1.	2 × F.S. (1000bar)		
Compensated temp range	$0 \rightarrow 70 \ ^{\circ}\text{C}$			
Operating temp range	-20 → 100 °C			
Storage temp range	-40 → 125 °C			
Zero thermal error	≤ 0.02% F.S./°C			
Sensitivity thermal error	≤ 0.02% F.S./°C			
Stability	≤ 0.2% F.S./Year			
Input impedance	2.3 → 4 KΩ			
Insulation resistance	> 100 MΩ at 250 V			
Vibration	20g / (20 to 5000 Hz)			
Endurance	> 100 x 10 ⁶ F.S. cycles			

(1): The zero output, span output and accuracy may different if the supply power, measuring range and pressure type is different, please contact us if you need more details.

Mechanical characteristics

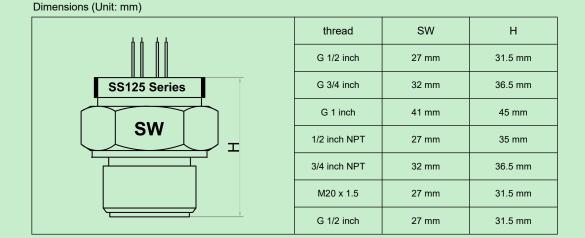
Diaphragm	Stainless steel 316L	More options see Page 3	
Wetted parts	Stainless steel 316L		
Filling liquid	Silicone oil		
O-ring	All stainless steel welding structure, no O-ring sealing used inside		
Electrical connection	10 cm silicone sheathed wires, Kovar pins		
Pressure connection	1/2" BSP, 1/2" NPT, M20 x 1.5	More options see Page 3	

Electrical connections

wir	wires 4-Pins / 5-Pins co		onnection mode	
Color	Function		PIN1: Supply +	
Red	Supply +	+	PIN2: Output -	
Black	Supply -		PIN3: Supply -	
White	Output +		PIN4: Supply - 2	
Blue	Output -	PĪN4	PIN5: Output +	

2: PIN4 is not used for 4-Pins connection

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Part number chart (How to order)

PART NUMBER REQUIRED: SS125.PL.01.A.01.A (EXAMPLE)

1	Pressure range(bar)	PL
	NA(-10) NB(-0.70) NC(-0.50) ND(-0.350) PC(00.35) PD(00.5) PE(00.7)	
	PF(01) PG(01.6) PH(02) PI(02.5) PJ(04) PK(06) PL(010) PM(016)	
	PN(025) PO(040) PP(060) PQ(0100) PR(0160) PS(0200) PT(0250)	
	PU(0300) PV(0350) PW(0400) PX(0500) PY(0600)	
	CA(-10.6) CB(-11.5) CC(-13) CD(-15) CE(-19) CF(-115) CG(-124)	
	1Z(Other pressure range or unit is on request)	
2	Pressure type	01
	01(Vented gauge) 02(Absolute) 03(Sealed gauge)	
3	Electrical connection ③	Α
	A(4-Wires) B(5-Wires) C(4-Pins) D(5-Pins)	
4	Pressure connection	01
	01(1/2" NPT male) 02(1" NPT male) 03(3/4" NPT male) 04(G 1/2" male) 05(G 1" male)	
	06(G 3/4" male) 07(PT 1/2" male) 08(PT 1" male) 09(PT 3/4" male) 16(M20 x 1.5 male)	
	4Z(Other pressure connection is on request)	
5	Power supply	Α
	A(1.5mADC) B(2mADC) C(5VDC) D(10VDC) 5Z(Other supply is on request)	

3: 4-Wires and 4-Pins connection: the zero signal is set by SENDO SENSOR before leave factory.

(3): 5-Wires and 5-Pins connection: the zero signal can be set by clients.

NON- REQUIRED: SS125.PL.01.A.01.A - V4E (EXAMPLE)

1	Material of diaphragm		
	V4D(Titanium) V4E(Tantalum) V4F(Hastelloy-C)		

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