

# SS116 series front flush diaphragm pressure transducers

## Features

- 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
- G1/2", G1", M20 various pressure connection
- Isolated construction, able to test various media
- Absolute, vented gauge and sealed gauge pressure
- Piezoresistive silicon based transducer, silicone oil filled inside



## Descriptions

SS116 series flush mount pressure transducer is rugged silicon technology based and all-welded flush mounted designed that facilitates accurate measurements of corrosive or higher viscosity media, the transducer offers great flexibility and reliability for a wide range of applications in many industries such as water, food, beverage and pharmaceutical where non-flush port transducer is otherwise prone to clogging or damage with competitive price.

The transducer offers excellent long term performance throughout the complete range of pressures from 0-0.35 to 0-600 bar, pressure is coupled from a SS 316 membrane that deforms with pressure via a transmission fluid (silicone oil), wetted materials are SS #316, compatible to almost all industrial fluids and gases, it can be customized to g 1/2 inch, g 3/4 inch, g 1 inch and other male thread interfaces upon request.

## 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)

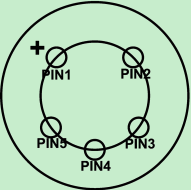
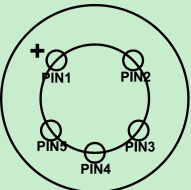
Power supply	1.5 mADC (typical)	5 VDC (optional)	10 VDC (optional)
Zero output	0 ± 2 mV ①		
Span output	100 ± 20 mV ①		
Accuracy	0.25% F.S. ①		
Overload range	2.0 × F.S. (≤ 250 bar)		
	1.5 × F.S. (> 250 bar), 1.2 × F.S. (1000bar)		
Compensated temp range	0 → 70 °C		
Operating temp range	-20 → 100 °C		
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 <sup>6</sup> 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, 3/4" BSP, 1" BSP	More options see Page 3

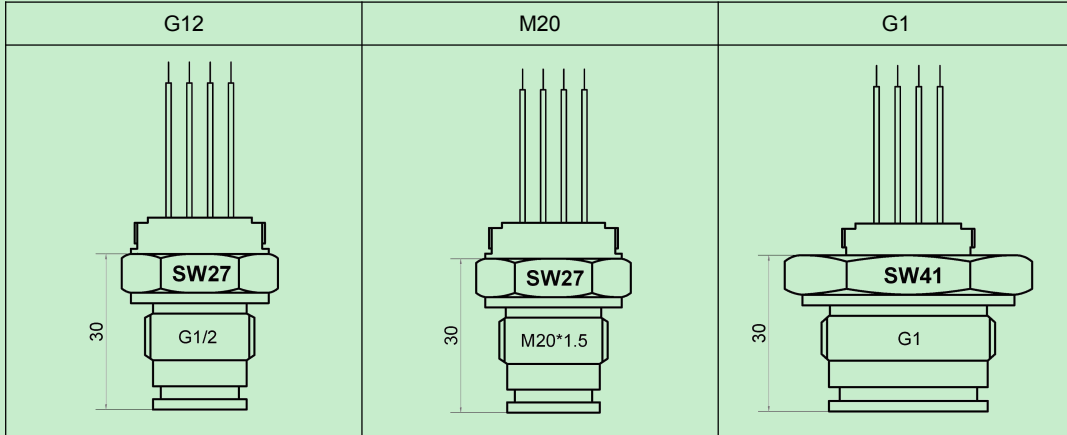
Electrical connections

wires		5Pins connection mode 1		5Pins connection mode 2	
Color	Function		PIN1: Supply +		PIN1: Supply +
Red	Supply +		PIN2: Output -		PIN2: Output +
Black	Supply -		PIN3: Supply -		PIN3: Supply -
White	Output +		PIN4: Supply - ②		PIN4: Supply - ②
Blue	Output -		PIN5: Output +		PIN5: Output -

②: PIN4 is not used for 4Pins connection

## SS116 series front flush diaphragm pressure transducers

Dimensions (Unit: mm)



### Part number chart (How to order)

PART NUMBER REQUIRED: **SS116.PL.01.A.01.A (EXAMPLE)**

1	Pressure range(bar)	PL
	NA(-1...0) NB(-0.7...0) NC(-0.5...0) ND(-0.35...0) PC(0...0.35) PD(0...0.5) PE(0...0.7) PF(0...1) PG(0...1.6) PH(0...2) PI(0...2.5) PJ(0...4) PK(0...6) PL(0...10) PM(0...16) PN(0...25) PO(0...40) PP(0...60) PQ(0...100) PR(0...160) PS(0...200) PT(0...250) PU(0...300) PV(0...350) PW(0...400) PX(0...500) PY(0...600) CA(-1...0.6) CB(-1...1.5) CC(-1...3) CD(-1...5) CE(-1...9) CF(-1...15) CG(-1...24) 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	A
	A(4Wires) B(5Wires) C(4Pins mode 1) D(4Pins mode 2) E(5Pins mode 1) F(5Pins mode 2)	
4	Pressure connection	01
	01(G 1/2" male) 02(G 1" male) 03(G 3/4" male) 04(G 1 1/2" male) 05(M20 x 1.5 male) 4Z(Other pressure connection is on request)	
5	Power supply	A
	A(1.5mADC) B(2mADC) C(5VDC) D(10VDC) 5Z(Other supply is on request)	

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

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

③: Pins mode1 and mode2: please see the details in the Electrical connection in page 2.

NON- REQUIRED: **SS116.PL.01.A.01.A - V4E (EXAMPLE)**

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

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