SS117 series miniature flush diaphragm pressure transducers

Features

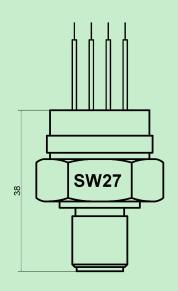
- G1/4" flush connection
- High accuracy and reliability
- Stainless steel 316L wetted parts
- 1.0mA, 1.5mA constant current supply
- 5VDC, 10VDC constant voltage supply
- 0-70°C temperature compensation range
- Isolated construction, able to test various media
- Absolute, vented gauge and sealed gauge pressure
- Piezoresistive silicon based transducer, silicone oil filled inside



Descriptions

SS117 series miniature flush diaphragm pressure transducer is piezoresistive silicon developed and designed with a small size flush-mounted 316L stainless steel process connection e.g. G 1/4", G 3/8", 1/4 BSP, M10 × 1.25, 3/4-16 UNF, is available for measuring ranges from 0 to 25 bar to 0 to 600 bar, relative, absolute and differential version.

The flush diaphragm design, no dead volume, and miniature size makes the transducer is ideal for many viscous or contaminated media applications where mounting space is limited, it is highly configurable, can be customized to meet your unique requirements.



Pressure ranges (typical)

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

Range	25	40	60	100	160	250
	400	600				

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

Range	25	40	60	100	160	250
	400	600				

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Technical data

Performance (EN 60770)

1.5 mADC (typical)	5 VDC (optional)	10 VDC (optional)		
0 ± 2 mV ①				
100 ± 20 mV ①				
0.25% F.S. ①				
2.0 × F.S. (≤ 250 bar)				
1.5 × F.S. (> 250 bar), 1.2 × F.S. (1000bar)				
0 → 70 °C				
-20 → 100 °C				
-40 → 125 °C				
≤ 0.02% F.S./°C				
≤ 0.02% F.S./°C				
≤ 0.2% F.S./Year				
$2.3 \rightarrow 4 \text{ K}\Omega$				
> 100 MΩ at 250 V				
20g / (20 to 5000 Hz)				
> 100 x 10 ⁶ F.S. cycles				
	$0 \pm 2 \text{ mV } \bigcirc$ $100 \pm 20 \text{ mV } \bigcirc$ $100 \pm 20 \text{ mV } \bigcirc$ $0.25\% \text{ F.S. } \bigcirc$ $2.0 \times \text{ F.S. } (\le 250 \text{ bar})$ $1.5 \times \text{ F.S. } (> 250 \text{ bar}), 1.00 \rightarrow 70 \text{ °C}$ $-20 \rightarrow 100 \text{ °C}$ $-40 \rightarrow 125 \text{ °C}$ $\le 0.02\% \text{ F.S./°C}$ $\le 0.02\% \text{ F.S./°C}$ $\le 0.02\% \text{ F.S./°C}$ $\le 0.2\% \text{ F.S./Year}$ $2.3 \rightarrow 4 \text{ K}\Omega$ $> 100 \text{ M}\Omega \text{ at } 250 \text{ V}$ $20g / (20 \text{ to } 5000 \text{ Hz})$	$0 \pm 2 \text{ mV } \bigcirc$ $100 \pm 20 \text{ mV } \bigcirc$ $0.25\% \text{ F.S. } \bigcirc$ $2.0 \times \text{ F.S. } (\le 250 \text{ bar})$ $1.5 \times \text{ F.S. } (> 250 \text{ bar}), 1.2 \times \text{ F.S. } (1000 \text{bar})$ $0 \rightarrow 70 ^{\circ}\text{C}$ $-20 \rightarrow 100 ^{\circ}\text{C}$ $-40 \rightarrow 125 ^{\circ}\text{C}$ $\le 0.02\% \text{ F.S./°C}$ $\le 0.02\% \text{ F.S./°C}$ $\le 0.2\% \text{ F.S./Year}$ $2.3 \rightarrow 4 \text{ K}\Omega$ > 100 MΩ at 250 V $20g / (20 \text{ to } 5000 \text{ Hz})$		

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		
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	1/4" BSP, 9/16-18 UNF, M14 x 1.5	More options see Page 3	

Electrical connections

wires		5Pins connection mode 1		5Pins connection mode 2		
Color	Function		PIN1: Supply +		PIN1: Supply +	
Red	Supply +	+ O PIN2	PIN2: Output -	+ D D PIN2	PIN2: Output +	
Black	Supply -		PIN3: Supply -	(PIN1 PIN2	PIN3: Supply -	
White	Output +	PIN5 PIN3	PIN4: Supply - 2	PIN3 PIN3	PIN4: Supply - 2	
Blue	Output -	PĬÑ4	PIN5: Output +	PĬŇ4	PIN5: Output -	

^{2:} PIN4 is not used for 4Pins connection

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Part number chart (How to order)

PART NUMBER REQUIRED: SS117.PN.01.A.01.A (EXAMPLE)

1	Pressure range(bar)	PN				
	PN(025) PO(040) PP(060) PQ(0100) PR(0160) PS(0200) PT(0250)					
	PU(0300) PV(0350) PW(0400) PX(0500) PY(0600)					
	1Z(Other pressure range or unit is on request)					
2	Pressure type	01				
	01(Absolute) 02(Sealed gauge)					
3	Electrical connection ③	Α				
	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 1/4" male) 02(M14 x 1.5 male) 03(9/16-18 UNF 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: 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.

Contact us

Company Ningbo Send		lo Electronic Technology CO., LTD		
Email sales@sendo		o-sensor.com		
Email cain.chen@s		endo-sensor.com		
Factory No 15, Yongx		ring 2nd Rd, Chengbei Industrial Park, Huizhou District, 245900 China		
Office Building. 1#1		108, Wante business center, Hi-Tech, 315040 China		
Website http://www.pr		essuresensorsuppliers.com	http://www.sendo-sensor.com	
Skype: sendosensor		WeChat: chenjie4884	WhatsApp: +8613616574884	
Tel: 0086-0574-2772	5960	Fax: 0086-0574-27725970	Phone: 0086-13616574884	