

SS403 series miniature flush diaphragm pressure transmitters

Features

- CE conformity
- Reverse polarity protection
- G1/4" miniature flush diaphragm
- Stainless steel 316L wetted parts
- Silicone oil filled, rugged construction
- Wide measuring range: 0-25bar to 600bar
- Output signals: 4-20mA or 0-10V, 0-5V, 0.5-4.5V



DIN43650A



Cable outlet



Plug type



DIN43650C



LED Display



M12 x 1

Descriptions

SS403 series miniature flush pressure sensor has a small size flush diaphragm which allows the use of a smaller size G 1/4" , 1/4" BSP, 1/4" NPT or M14 x 1.5 male thread for fitting where there is limited room or access to the process measurement point. It is designed by the piezoresistive technology, works following the piezoresistive effect, stainless steel welded structure and silicone oil filled, offers a stable and accurate output signal of 4-20 mA with options for 0-5 Vdc, 0-10 Vdc throughout the complete range with spanning from 25 bar up to 600 bar. It is robustly constructed from stainless steel and incorporates the latest piezoresistive technology together with a custom IC amplifier, offers excellent stability and accuracy over a long service life. Typical applications include food processing, pharmaceutical, petrochemical, waste water and slurry handling.

Technical data

Performance (EN 60770)

Accuracy @ 25 °C	± 1.0% F.S. (incl. non-linearity, hysteresis and repeatability)
Response time	< 4 ms
Pressure range	Minimum range: 25 bar Maximum range: 600 bar See more details in page 5 (part number chart)
Overload pressure	2.0 × F.S. (≤ 250 bar) 1.5 × F.S. (> 250 bar)
Pressure type	sealed gauge, absolute
Long term stability	≤ 0.2% F.S./Year
Temperature coefficient	± 0.03% F.S./°C

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Electrical specifications

Output signal	4-20mA	0-10V	0-5V/0.5-4.5V	0.5-4.5V	10%-90%
Supply voltage	9-30Vdc	12-30Vdc	9-30Vdc	5Vdc	5V ratio-metric
Polarity protected	yes	yes	yes	yes	yes
Short-circuit protected	yes	yes	yes	yes	yes
Zero and span adjustment	No	No	No	No	No
Surge protection	yes	yes	yes	yes	yes

Environmental conditions

Medium temp range	-40 → +100 °C
Ambient temp range	-20 → +80 °C (depending on electrical connection)
Compensated temp range	0 → +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 (typical)	More options see page 5
	Housing	Stainless steel 304 (typical)	Stainless steel 316L (optional)
	Pressure connection	Stainless steel 316L	
	Electrical connection	Depending on the connection type	
	O-ring	Not used, all stainless steel welding structure	
Pressure connection	1/4" BSP, 1/4" NPT, 9/16-18 UNF, M14 x 1.5		More options see page 5
Electrical connection	DIN43650A, DIN43650C, Cable outlet, M12 × 1, LED Display		
Weight	225-500g (depending on pressure connection and electrical connection)		
Sealing rating	IP 65 (fulfilled together with mating connector)		

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Electrical connector type

DIN43650A	DIN43650C	3-pin Packard	M12 × 1

Electrical connections for 4-20mA current output signal (2 wire)

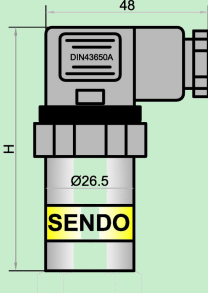
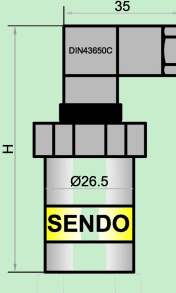
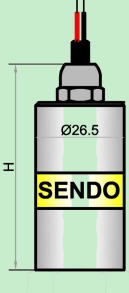
DIN43650	M12 × 1	Cable outlet
Pin 1: + supply Pin 2: + output	Pin 1: + supply Pin 3: + output	Red: + supply Black: + output

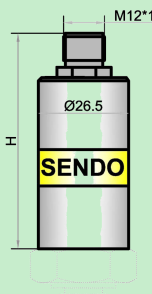
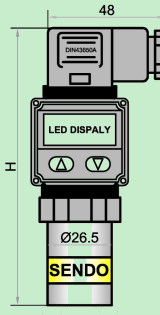
Electrical connections for 0-10V, 0-5V, 0.5-4.5V voltage output signal (3 wire)

DIN43650	M12 × 1	Cable outlet
Pin 1: + supply Pin 2: GND Pin 3: + output	Pin 1: + supply Pin 3: GND Pin 4: + output	Red: + supply Black: GND Blue: + output

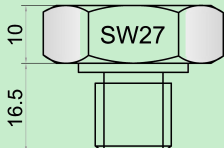
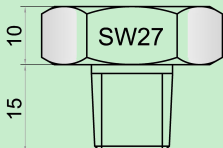
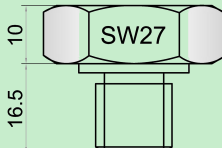
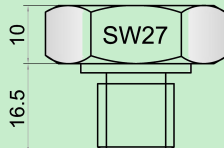
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Dimensions for electrical connections and housing (Unit: mm)

DIN43650A	DIN43650C	Cable outlet
		
H = 74 mm	H = 74 mm	H = 64 mm

M12 × 1	LED Display	
		
H = 67 mm	H = 122 mm	

Dimensions for pressure connections (Unit: mm)

G 1/4" thread	1/4" NPT thread	M14 x 1.5 thread	9/16-18 UNF male
			

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Part number chart (How to order)

PART NUMBER REQUIRED: **SS403.PN.01.A.01.A.06 (EXAMPLE)**

1	Pressure range(bar)	PN
	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) 1Z(Other pressure range or unit is on request)	
2	Pressure type	01
	01(Gauge) 02(Absolute)	
3	Electrical connection	A
	A(DIN43650A) B(Cable Outlet) C(M12 × 1) D(LED Display) E(DIN43650C) F(Plug type)	
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	Signal & supply	A
	A(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc) E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc ratiometric)	
6	Cable length	06
	01(1m) 02(2m) 03(3m) 04(4m) 05(5m) 06(None) 6Z(Other length is on request)	

NON- REQUIRED: **SS403.PN.01.A.01.A.06 - V3C**

1	Material of housing	V3C
	V3C(Stainless steel 316L)	
2	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



WARNING: DO NOT USE THIS PRODUCT AS SAFETY OR EMERGENCY STOP DEVICE OR IN ANY OTHER APPLICATION WHERE FAILURE OF THE PRODUCT COULD RESULT IN PERSONAL INJURY OR EVEN DEATH.