

SS634 series 4-20mA signal submersible pressure sensors

Descriptions

SS634 series 4-20mA submersible pressure sensors are designed to give accurate current readings at pressure ranges from 100mbar (corresponding to the water column depths of 1.0 m). These sensors are mature products in SENDO to measure liquid level and depth for many years. Their hermetically IP68 grade sealed housing makes them well suitable for immersion in almost all kinds of industrial liquids and oils compatible with stainless steel and viton.



The electrical connection is a special designed PU or PE cable with air tube and the pressure connection part is an exposed 316L stainless steel corrugated diaphragm, no pressure port and no blocking problems, easy for daily maintenance. Typical applications including water and sewage treatment plants, water level monitoring at reservoirs, dams, down-hole water wells.

Technical data

Performance (EN 60770)

Accuracy @ 25 °C	± 0.5% F.S. (incl. non-linearity, hysteresis and repeatability)
Response time	< 4 ms
Medium depth	Minimum range: 1 meter Maximum range: 50 meter See more details in page 3 (part number chart)
Overload pressure	2.0 × F.S.
Pressure type	vented gauge
Long term stability	≤ 0.2% F.S./Year
Temperature coefficient	± 0.03% F.S./°C

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

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Environmental conditions

Medium temp range	-20 → +85 °C
Ambient temp range	-20 → +80 °C
Compensated temp range	0 → +50 °C
EMC - Emission	EN 61000-6-3
EMC - Immunity	EN 61000-6-1
Insulation resistance	> 100 MΩ at 250 V

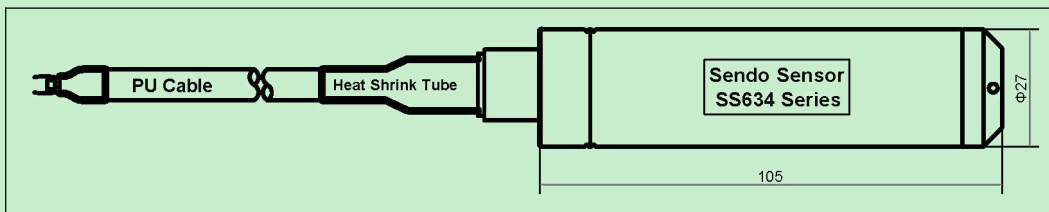
Mechanical characteristics

Materials	Diaphragm	Stainless steel 316L (typical)	More options see page 3
	Housing	Stainless steel 304 (typical)	Stainless steel 316L (optional)
	Cable	PU (typical)	PE (optional)
	O-ring	FKM / Viton (typical)	EPDM (optional)
Weight	0.5 - 5.0 kg (depending on cable length)		
Sealing rating	IP 68 (fulfilled together with mating connector)		

Electrical connections

4-20mA (current signal)	Red: Voltage +		Black: Signal +
0-10V/0-5V/0.5-4.5V	Red: Voltage +	Black: GND	Blue: Signal +

Dimensions (Unit: mm)



Installation and precautions

- The installation place should be easy to operation and fixing
- The installation place should be away from the inlet as far as possible
- The installation place should be away from the heat source as far as possible
- The installation place should be away from the vibration source as far as possible
- When installation, the metal probe should sink to the bottom of the container and fixed

Precautions for safety use

- Clean the metal probe (sensor) regularly to avoid block the pressure port
- The cable is special waterproof designed, abrasion, puncture, and cut the cable is strictly prohibited
- The wiring should strict reference to the electrical connection, wrong wiring will cause damage to the sensor
- A SS 316L diaphragm is exposed in the front part of the sensor, artificially foreign body touch is not prohibited

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Part number chart (How to order)

PART NUMBER REQUIRED: **SS634.D.04.A.01.A (EXAMPLE)**

1	Medium depth	D
	A(1m) B(2m) C(3m) D(4m) E(5m) F(6m) G(7m) H(8m) I(9m) J(10m) K(15m) L(20m) M(25m) N(30m) O(35m) P(40m) Q(45m) R(50m) 1Z(Other range is on request)	
2	Cable length	04
	01(2m) 02(5m) 03(8m) 04(10m) 05(12m) 06(15m) 07(20m) 08(25m) 09(30m) 10(35m) 11(40m) 12(45m) 13(50m) 2Z(Other length is on request)	
3	Test medium	A
	A(Water) B(Diesel) 3Z(Other medium is on request)	
4	Density	01
	01(1g/cm ³) 02(0.85g/cm ³) 4Z(Other density 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)	

NON- REQUIRED: **SS634.D.04.A.01.A - V3C**

1	Material of cable	V1A
	V1A(PE)	
2	Material of O-ring sealing	V2B
	V2B(EPDM)	
3	Material of housing	V3C
	V3C(Stainless steel 316L)	
4	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.