

SS636 series submersible pressure sensors for level and depth applications

Descriptions

SS636 series low cost submersible pressure sensor is designed by piezoresistive technology and has been optimised for simple measuring requirements in level measurement. It offers excellent quality, is cost-effective and quite reliable, enhanced double O-ring(viton) sealing for the front end and the back end consist of FKM Fluoroelastomers, 316L or 304 stainless steel and polyurethane, can be fully submerged and meet the IP68 grade protection.



SS636 series features a big open 316L stainless steel corrugated diaphragm, is easy for daily maintenance. The sensors give a long term and accurate readings at pressure ranges from 100 mBar up to 5 Bar in the measurement of level and depth (corresponding to water column depths of 1 m to 50 m). Typical applications including river level, tank level, borehole level, aquifer level and environmental monitoring.

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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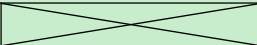
Environmental conditions

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

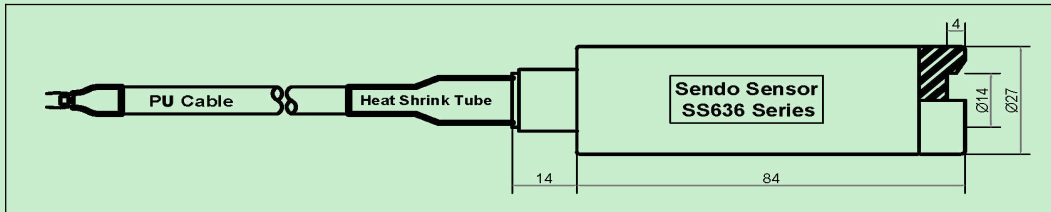
Mechanical characteristics

Materials	Diaphragm	Stainless steel 316L (typical)	More options see page 3
	Housing	Stainless steel 316L (typical)	Stainless steel 304 (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: **SS636.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: **SS636.D.04.A.01.A - V1A**

1	Material of cable	V1A
	V1A(PE)	
2	Material of O-ring sealing	V2B
	V2B(EPDM)	
3	Material of diaphragm	V4E
	V4D(Titanium) V4E(Tantalum) V4F(Hastelloy-C)	

Contact us

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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.