



S12S

Submersible Level Transmitter with Silicon sensor and SDI-12

- Highly stable piezo-resistive pressure sensor
- Accuracy: $<\pm 0.1\%$ FS Total Error
- ranges from 0.5mWG to 100mWG
- Gauge, Sealed Gauge or Absolute reference
- Level and Temperature output as standard

The S12S hydrostatic submersible level transmitter, has a stainless steel piezo-resistive silicon pressure sensor offering the ability to measure low pressure ranges from as little as 0.5mWG to be measured accurately. The use of a silicon sensor improves the resolution and stability of the device and offers a higher level of overall accuracy compared to other sensing technologies. Every device is temperature compensated and calibrated and supplied with a traceable serial number and calibration certificate. The electronics incorporate a microcontroller based electronics circuit, this means there are no adjusting pots and therefore the electronics are very stable. Every device is compensated and calibrated to a total error band of $<\pm 0.1\%$ over -5 to +45°C. As well as the level measurement the device outputs the temperature value also.

The options available on the S12S Level transmitter include the following :

- Pressure range and engineering units
- Pressure reference (G, SG or Abs)
- Cable material
- O ring seal material

Suitable for the following applications:

- River and reservoir level
- Tank and vessel level
- Borehole level
- Environmental monitoring
- V-notch weir flow measurement

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Input Level Range

Nominal pressure, Gauge	mW	0.5	1	2.5	3.5	5	7	10	20	35	70	100
Nominal pressure, Absolute & SG	mW	-	-	-	-	-	-	-	20	35	70	100
Permissible Overpressure	mW	10	10	10	10	10	21	21	60	105	210	210

Input Temperature Range

Temperature Range -20 to +60°C

Output Signal & Supply Voltage

Wire system

3-wire

Output

SDI-12

(version 1.3, <http://www.sdi-12.org/>)

Supply Voltage

6 – 40V dc

Level Sensor Performance

Accuracy (Non-linearity & hysteresis) $\lt; \pm 0.06\% / FS \text{ (BFSL)}$

Setting Errors (offsets) Zero: $\lt; \pm 0.25\% / FS$, Span: $\lt; \pm 0.25\% / FS$

Temperature Sensor Performance

Accuracy $\lt; \pm 0.5^\circ\text{C}$

Temperature sensor resolution $\lt; \pm 0.01^\circ\text{C}$

Permissible Temperatures & Thermal Effects

Media temperature -20°C to +60°C (non-freezing)

Storage temperature -20°C to +70°C

Compensated temperature range 20°C \pm 25°C

Total thermal error band $\lt; \pm 0.1\% / FS$

Electrical Protection

Supply reverse polarity protection No damage but also no function

Lightning Protection Internally fitted

Electromagnetic compatibility CE Compliant

Materials

Housing material 316L Stainless Steel

'O' ring seals Viton

Diaphragm 316L Stainless Steel

Media wetted parts Housing, diaphragm and 'O' ring seal

Miscellaneous

Current consumption $\lt; 250\mu\text{A}$ when idle
$\lt; 4\text{mA}$ when active

Weight Transmitter: 300g including nose cone
Cable: 48g per mtr

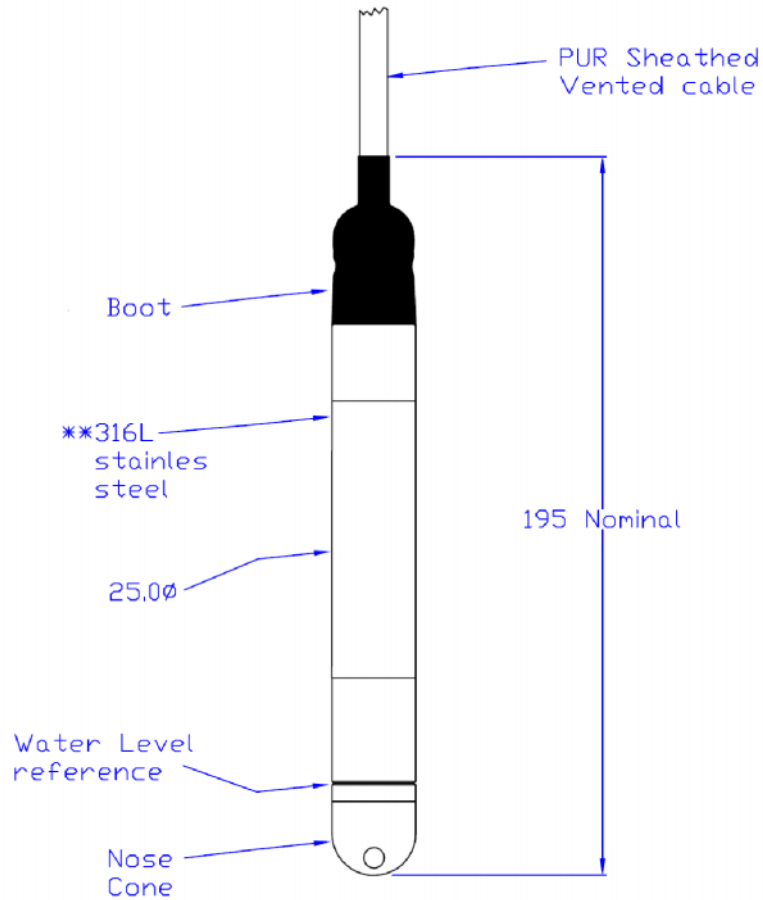
Installation position Any



Wiring Designation

Red	Positive Supply
Blue	Negative Supply
Yellow	SDI-12 Output
Green	Cable Screen
White	Transmitter Body

Outline Drawing



Accessories



Cable support hanger



Cable Terminal Box with Vent



Wall mounted digital indicator

Supported Commands

