

## Model: SLS-A

Submersible level sensor

- Analogue output



### Description:

The SLS series of submersible level transmitters have been developed using an isolated diaphragm silicon piezo-resistive sensing element housed in a robust stainless steel housing. It has an integrated moulded cable assembly to provide permanent submersible in liquids up to 100m depth for continuous operation.

The device is available in either a raw millivolt output which is great for low power applications or an internal microprocessor is fitted to provide an amplified output such as 4-20mA, 0-10V, 0.5 to 4.5V ratiometric.

The onboard 16-bit microprocessor enables a high level of linearisation, temperature compensation and calibration to be performed ensuring the highest accuracy, stability and repeatability are met for demanding applications such as environmental monitoring and flood defence systems, river, reservoir or borehole measurement.

Product Highlights:	Applications include, but not limited to:
<ul style="list-style-type: none"> <li>• Level ranges from 0.5mWG up to 100mWG</li> <li>• Accuracy <math>&lt;\pm 0.25\%</math>, <math>&lt;\pm 0.15\%</math>, <math>&lt;\pm 0.1\%</math></li> <li>• 316 Stainless steel construction</li> <li>• High integrity overmolded cable assembly</li> <li>• Various output configurations available</li> <li>• Low power consumption millivolt signal</li> <li>• Temperature output, optional</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental monitoring</li> <li>• V-notch weir flow measurement</li> <li>• Rivers, reservoirs and boreholes</li> <li>• Tank, IBC, Tote level measurement</li> <li>• Telemetry and data logging</li> <li>• Flood defence monitoring and research</li> <li>• Academic research</li> </ul>

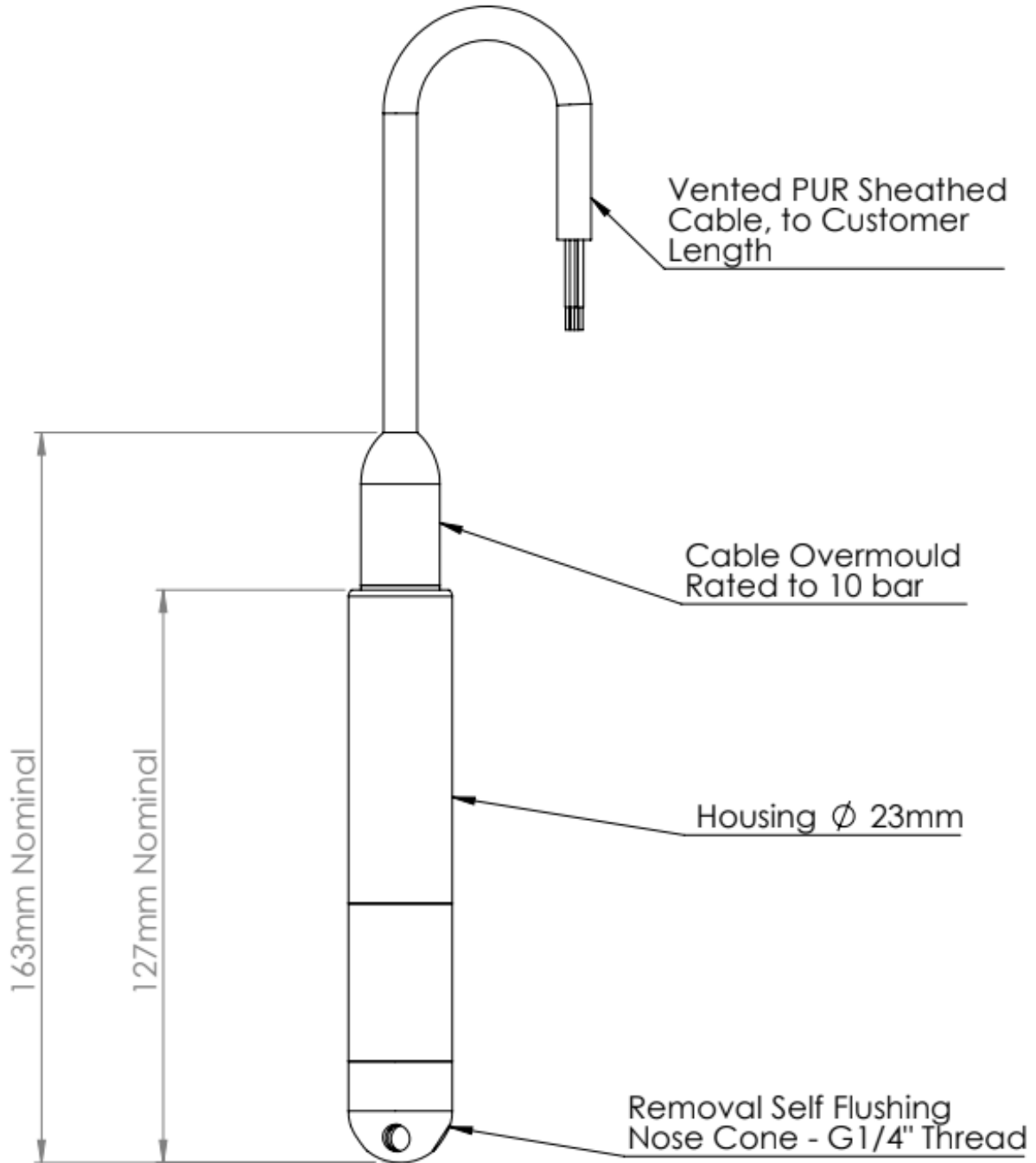
**Specification:**

<b>Submersible Level Sensor, Digital - SLS-A</b>	
<b>Sensor technology</b>	Piezo-resistive Silicon Sensor
<b>Output Versions</b>	4-20mA (2-wire), 0-5V/0-10V (3-wire), 0.5 to 4.5V (3-wire ratiometric)
<b>Supply voltage</b>	<b>4-20mA:</b> 8 - 32V dc / <b>0-5V/0-10V/:</b> 12 - 32V dc / <b>Ratiometric:</b> 2.7 - 5.5V dc
<b>Pressure reference</b>	Gauge (standard), Sealed Gauge, Absolute
<b>Level ranges</b>	0.5, 1, 2.5, 3.5, 5, 10, 20, 30, 50, 100mWG
<b>Safe over pressure</b>	1.5 times rated pressure
<b>Burst Pressure</b>	3 times rated pressure
<b>Accuracy (NL&amp;H)</b>	$\leq \pm 0.25\%$ / $\leq \pm 0.15\%$ / $\leq \pm 0.10\%$ / % FS (dependant on range)
<b>Long term stability:</b>	$\leq \pm 0.10\%$ FS
<b>Compensated temperature range</b>	20 °C $\pm$ +20 °C
<b>Media temperature</b>	-10 °C to +60 °C, non-freezing
<b>Temperature effects</b>	Typical thermal zero and span coefficients $\pm 0.015\%$ FS/ °C
<b>Supply reverse polarity protection</b>	No damage but also no function
<b>Lightning Protection</b>	Integral GDS (gas discharge tube) for lightning protection
<b>Electromagnetic compatibility</b>	CE Compliant
<b>Media wetted parts</b>	316 Stainless Steel, Viton, PUR (EPDM, NBR seals also available)
<b>Permissible media</b>	All fluids compatible with media wetted parts
<b>Electrical connection</b>	PUR submersible cable, terminated in tails. Internal vent tube
<b>Pressure connection</b>	Nose cone, G1/4" DIN 3852 male when unscrewed
<b>Current consumption</b>	<b>4-20mA:</b> dependant on output signal / <b>0-5V/0-10V/:</b> 6mA / <b>Ratiometric:</b> 2.5mA
<b>Weight (g)</b>	Transmitter: <270g, Cable: 48g per mtr
<b>Environmental Protection</b>	IP68, Fully submersible up to 100m depth



## Dimensional Drawings:

### Submersible level transmitter with moulded cable assembly





Part Numbering system:

Submersible level transmitter part numbering										
SLS-A - Submersible Level Transmitter - Analogue SLS-A - X X - X X X X - X X - X X X X X - X X										
<b>Output Type</b>										
mV/V	A									
2mV/V	B									
10mV/V	C									
4-20mA (2-wire)	D									
0-5V (3-wire)	E									
1-5V (3-wire)	F									
0-10V (3-wire)	G									
0.5 to 4.5V (3-wire)	H									
<b>Accuracy Class</b>										
0.25%	A									
0.15%	B									
0.10%	C									
<b>Cable Material</b>										
PUR	A									
<b>Cable Length (m)</b>										
2m		0	0	2						
5m		0	0	5						
10m		0	1	0						
20m		0	2	0						
30m		0	3	0						
50m		0	5	0						
100m		1	0	0						
Special Length... On request		9	9	9						
<b>Housing Material</b>										
316 Stainless Steel						B				
<b>Seal Material</b>										
Viton							V			
(Drinking Water Approved) EPDM							E			
NBR							N			
<b>Level Range</b>										
0 - 1mWG							0	1	0	0
0 - 2.5mWG							0	2	5	0
0 - 3.5mWG							0	3	5	0
0 - 5mWG							0	5	0	0
0 - 10mWG							1	0	0	0
0 - 20mWG							2	0	0	0
0 - 30mWG							3	0	0	0
0 - 50mWG							5	0	0	0
0 - 100mWG							1	0	0	1
Special Range... On request							9	9	9	9
<b>Pressure Datum</b>										
Gauge										G
Sealed Gauge										S
Absolute										A
<b>Special Options</b>										
None										0 0