

SLS Series

Model: SLS-SA

Submersible level sensor

- Silicon sensor, analogue



Description:

The SLS-SA 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 a proprietary cable gland 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.

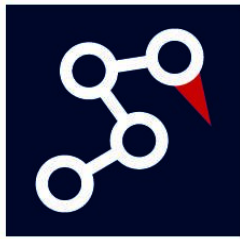
The onboard 16-bit microprocessor enables a high level of linearisation, temperature compensation and calibration to be performed ensuring the highest accuracy, stability and repeatability are met for demanding applications such as environmental monitoring and flood defence systems, river, reservoir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

Product Highlights:

- Level ranges from 0.5mWG up to 100mWG
- Accuracy $<\pm 0.25\%$, $<\pm 0.15\%$, $<\pm 0.1\%$
- 316 Stainless steel construction
- High integrity cable gland assembly
- Various output configurations available
- Low power consumption millivolt signal
- Temperature output, optional

Applications include, but not limited to:

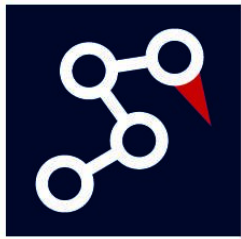
- Environmental monitoring
- V-notch weir flow measurement
- Rivers, reservoirs and boreholes
- Tank, IBC, Tote level measurement
- Telemetry and data logging
- Flood defence monitoring and research
- Academic research



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Specification:

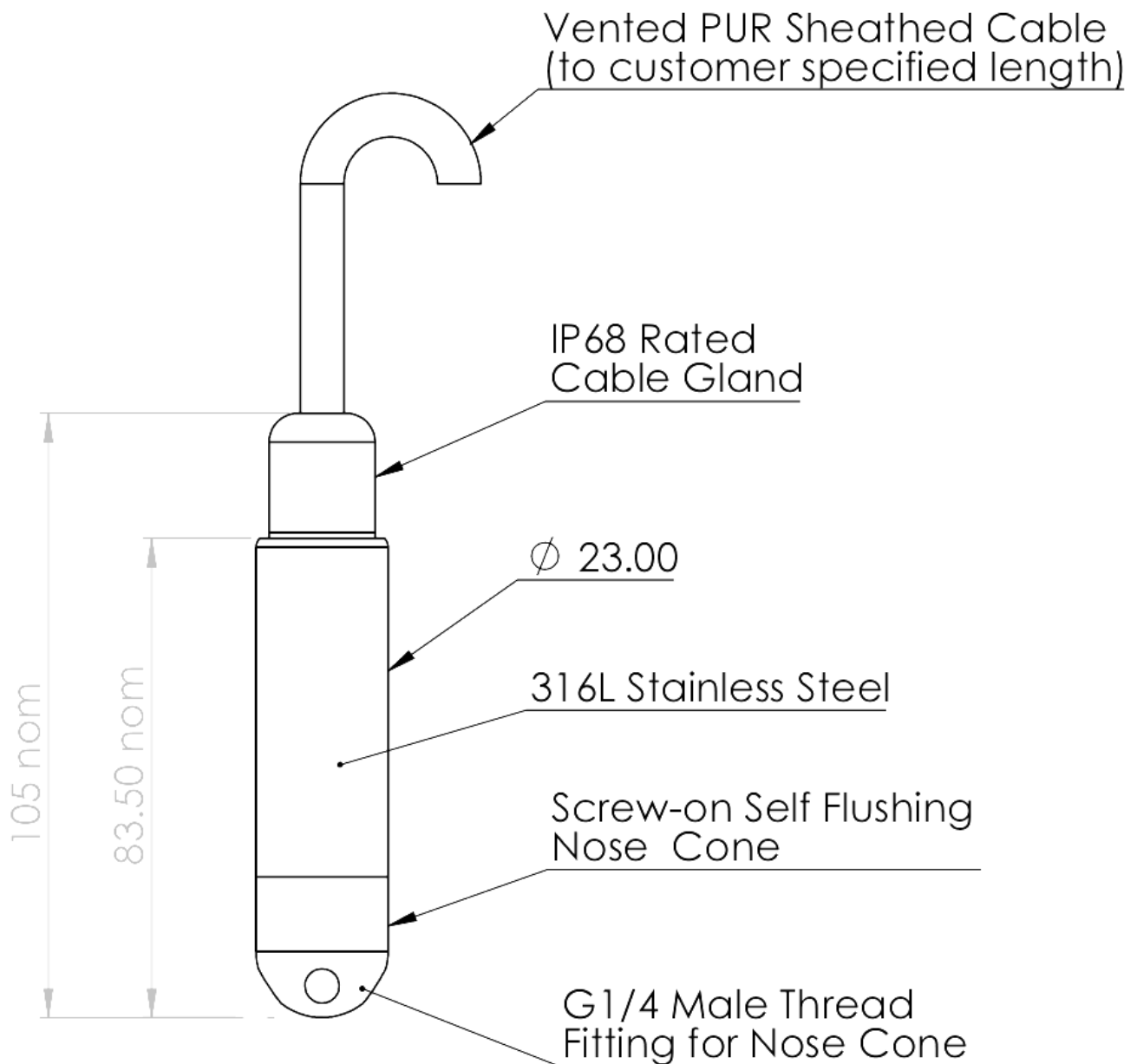
Submersible Level Sensor, Digital - SLS-SA	
Sensor technology	Piezo-resistive Silicon Sensor
Output Versions	4-20mA (2-wire), 0-5V/0-10V (3-wire), 0.5 to 4.5V (3-wire ratiometric)
Supply voltage	4-20mA: 8 - 32V dc / 0-5V/0-10V/: 12 - 32V dc / Ratiometric: 2.7 - 5.5V dc
Response time	<10ms
Pressure reference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

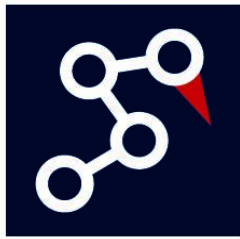


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Dimensional Drawings:

SLS Series - Submersible level sensor - SLS-SA

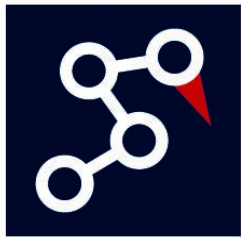




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Part Numbering system

SLS-SA - Analogue Submersible Level Transmitter, Silicon Sensor										X	X	-	X	X	X	X	-	X	X	-	X	X	X	X	X	-	X	X
Output Type																												
mV/V										A																		
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), Ratiometric										H																		
0.5 to 4.5V (3-wire), Regulated										J																		
Accuracy Class																												
0.25%										A																		
0.15%										B																		
0.10%										C																		
Cable Material																												
PUR										A																		
Cable Length (m)																												
2											0	0	2															
3											0	0	3															
5											0	0	5															
10											0	1	0															
15											0	1	5															
20											0	2	0															
25											0	2	5															
30											0	3	0															
40											0	4	0															
50											0	5	0															
100											1	0	0															
Special Length... On request											9	9	9															
Housing Material																												
316 Stainless Steel																A												
Seal Material																												
Viton (FKM)																	V											
(Drinking Water Approved) EPDM																	E											
NBR																	N											
Level / Pressure Range																												
0 - 0.5mWG												0	0	5	0													
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													
Pressure Datum																												
Gauge																									G			
Sealed Gauge																									S			
Absolute																									A			
Special Options																												
None																										0	0	



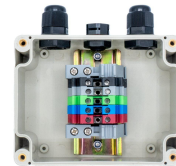
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Accessories:

NPT Threaded Adaptor



Vented Junction Box



Cable Hanger

