

SLS Series

Model: SLS-CD

Submersible level sensor

- Ceramic sensor, Digital



Description:

The SLS-CD 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 internal electronics is designed to convert the analogue output from the piezo-resistive silicon sensor into SDI-12 digital communications which provides the level and temperature readings as a serial output using the environmentally friendly SDI-12 version 1.4 protocol. Coupled with our powerful SDi-12 communications software, this enables the user to calibrate the sensor and offers settings for built in density correction using the integrated temperature sensor. There is also the ability to connect up to 9 sensors, data log and diagnose the communications between the device and software.

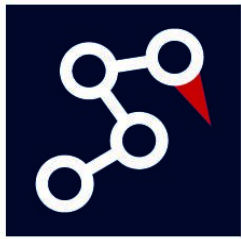
The onboard 16-bit microprocessor enables a high level of linearisation, temperature compensation and calibration to be performed ensuring the highest accuracy, stability and repeatability are met for demanding applications such as environmental monitoring and flood defence systems.

Product Highlights:

- Level ranges from 5mWG up to 100mWG
- Accuracy $\leq \pm 0.25\%$, $\leq \pm 0.15\%$
- 316 St/St or Marine Bronze CA104
- Fully verified SDi-12 Version 1.4 compliant
- Low power consumption
- Level and Temperature output as standard

Applications include, but not limited to:

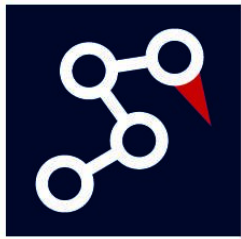
- Environmental monitoring
- V-notch weir flow measurement
- Rivers, reservoirs and boreholes
- Telemetry and data logging
- Flood defence monitoring and research
- Academic research



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Specification:

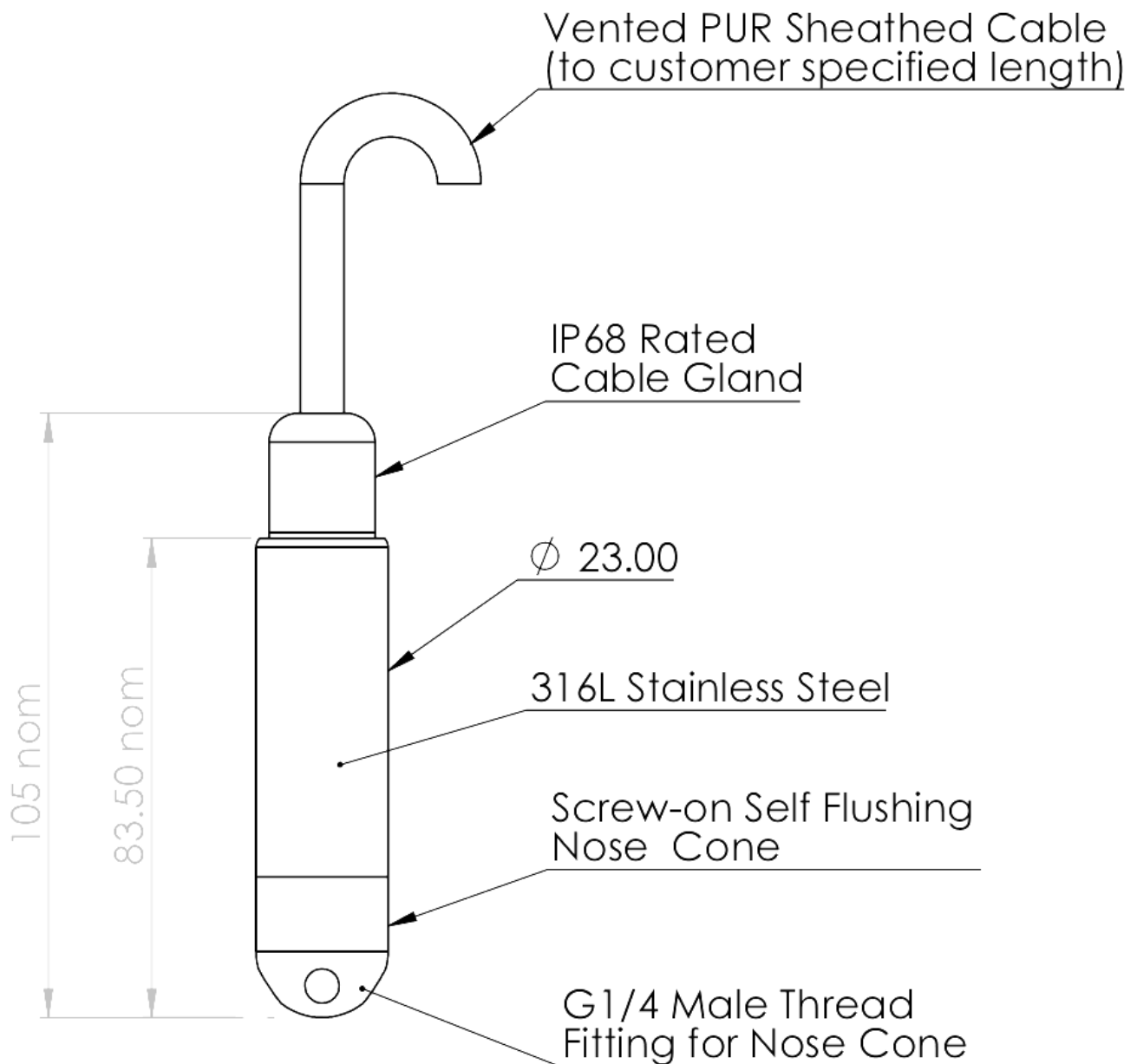
Submersible Level Sensor, Digital - SLS-CD	
Sensor technology	Piezo-resistive Ceramic Sensor
Output Versions	SDi-12, V1.4
Supply voltage	6-36V dc
Response time	<10ms
Pressure reference	Gauge (standard), Sealed Gauge, Absolute
Level ranges	5, 10, 20, 30, 50, 100mWG
Safe over pressure	1.5 times rated pressure
Burst Pressure	3 times rated pressure
Accuracy (NL&H)	$\leq \pm 0.25\%$ / $\leq \pm 0.10\%$
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 $\pm 0.01\%$ 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: Ceramic Al ₂ O ₃ , Housing: 316 ST/ST or Marine Bronze CA104, 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	<250 μ A when idle, <4mA when active
Weight (g)	Transmitter: <300g, Cable: 48g per mtr
Environmental Protection	IP68, Fully submersible up to 100m depth

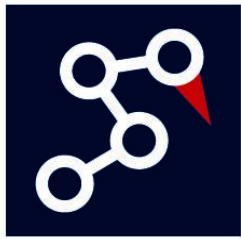


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Dimensional Drawings:

SLS Series - Submersible level sensor - SLS-CD

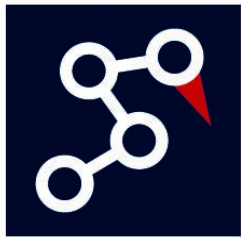




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Part Numbering system

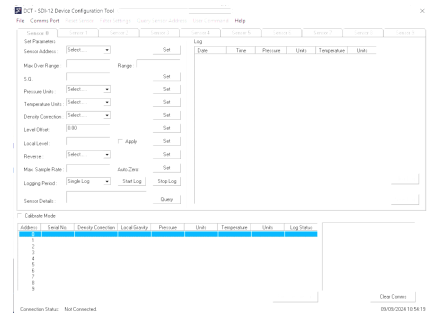
SLS-CD - X X - X X X X - X X - X X X X X - X X																	
Output Type																	
SDi-12		A															
Accuracy Class																	
0.25%		A															
0.10%		B															
Cable Material																	
PUR		A															
Cable Length (m)																	
3					0	0	3										
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									
Marine Bronze CA104								M									
Seal Material																	
FKM								V									
(Drinking Water Approved) EPDM								E									
NBR								N									
Level Range																	
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



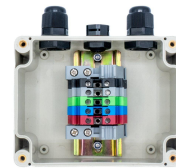
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Accessories:

USB Communications Interface



Vented Junction Box



Cable Hanger

