

LVCS Continuous Level Sensor



The LVCS is a liquid level sensor featuring a float that can move vertically along a stem. Sensors in the stem detect small step-changes in level and, particularly over longer lengths, the output approximates to a continuous analogue signal.

The following range of analogue outputs are supplied as standard: 0-2V, 0-4V, 0-10V and the industrial standard 4-20mA current loop.

The standard LVCS is designed to fit a 21mm hole in the top of a tank, secured by an aluminium head, and has a ½ inch BSP thread. Sensing resolution is 5mm with measuring lengths of 250mm, 500mm, 750mm and 1m.

All fittings inside the tank are made from stainless steel 316L and are welded to make a tough and durable sensor. The LVCS is therefore ideally suited for use in food and petrochemical applications, and for use in harsh environments. It also has an IP rating of IP67.

Non-standard output options are available including:

- 0-20mA

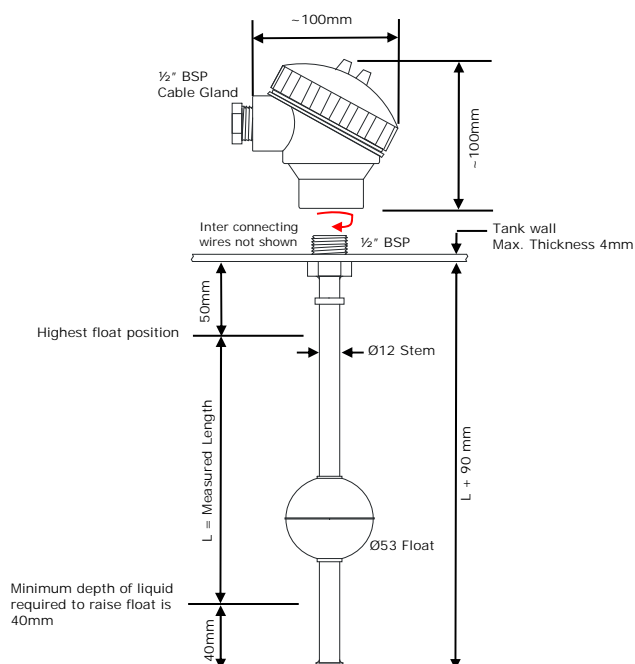
- Loop-powered 4-20mA

- Multi-interface driver with 4-20mA output, 0-10V output, two open-collector transistor outputs, and a serial communications port. Further details of the Multi-Interface Board are on the Deeter website.

Custom lengths can be made to order and heads with different threads or pressure tank fittings are available.

Deeter also make the LVCS in other materials and with other sensing resolutions – see our website for further details or call our sales office to discuss your requirements.

LVCS Continuous Level Sensor



LVCS 1: Measured length L = 250mm

LVCS 2: Measured length L = 500mm

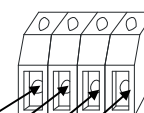
LVCS 3: Measured length L = 750mm

LVCS 4: Measured length L = 1000mm

Note: The overall length is 90mm longer than the measuring length. Please check you have enough clearance in the tank.

Screw terminal wiring connections for external powered 4-20mA

Output ← 0 Volts
Output ← 4-20mA
Input → +24 Volts
Input → 0 Volts



Standard LVCS Specifications

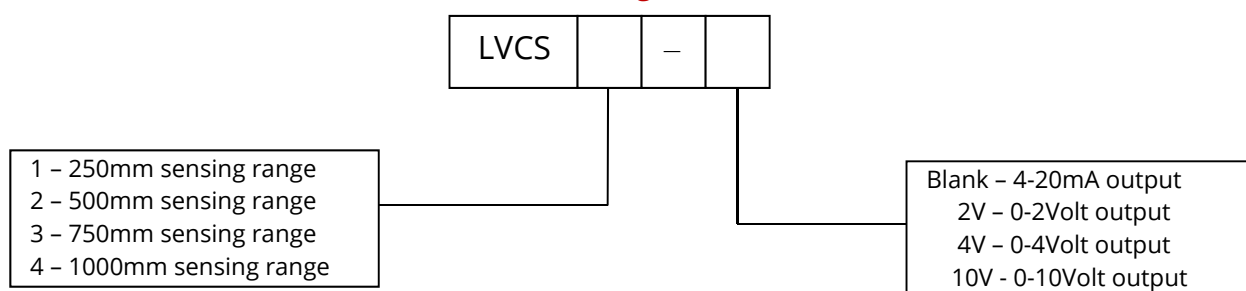
Supply: Current Loop 0-2V, 0-4V 0-10V	15-28VDC @ 24mA 8-28VDC @ 5mA 15-28VDC @ 5mA	Stem Temperature Head Electronics Temperature	-20 °C to 120 °C 0 °C to 80 °C
Current Loop Output	0-20mA or 4-20mA into 10Ω [#] to 1.2KΩ [*]	Voltage Output Ranges	0-2.048V 0-4.096V 0-10V
Sensing Resolution	5mm	Connection Type	Screw Terminals
Operating Pressure	31 Bar	Float Specific Gravity	0.65

* At maximum operating voltage and temperature, the minimum load resistance increases to approximately 500 ohms. (An approximate formula is: $R_{load(min)} = [Supply\ Voltage / 20mA] - [150^{\circ}C - Ambient\ Temperature] / 0.04^{\circ}C/ohm$)

* Maximum load resistance is given by the formula: $R_{load(max)} = (Supply\ Voltage - 2V) / 20mA$

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Ordering Information



Example: LVCS3-4V is a 750mm LVCS liquid level sensor with a 0-4Volt output

All electrical equipment should be installed by a qualified/certified electrician.

Deeter Electronics follows a policy of continual development of its products and reserves the right to change specifications and/or features without notice.