

## OLS2 SERIES

### OPTICAL LIQUID LEVEL SENSOR - EXTERNAL M12 MOUNT



The OLS2 series is a liquid level sensor for single point liquid level detection.

The sensor has an infra-red emitter and detector aligned within an accurately shaped cone to give good optical coupling when the sensor is in air. This coupling is greatly reduced, when the sensor is immersed in liquid, as the infra-red light escapes through the liquid rather than being reflected back to the detector.

The sensor has a transistor output, so can be configured by the user for particular applications.

Output is via TTL compatible push pull output.

#### Features

- Low cost sensors for general liquid sensing
- High reliability optical sensing
- External mount via M12x1 thread
- Standard temperature range -25°C to +80°C  
Extended temperature range -40°C to +125°C
- High and Low output versions
- Resistant to false triggering caused by foaming

## SPECIFICATIONS

### Technical

<b>Mounting Style</b>	External
<b>Mounting Thread</b>	M12x1
<b>Body Material</b>	Polysulfone UDEL 1700
<b>Temperature Range</b>	-25 to +80°C/-40° to +125°C
<b>Maximum Pressure</b>	7bar
<b>Tightening Torque for Fixing</b>	1.5Nm/13.26lbs in
<b>Mounting Hole</b>	12mm
<b>Cable Length - Standard</b>	25cm
<b>Wire Size</b>	24AWG
<b>Cable Conductor Material</b>	Tinned copper
<b>Wire Sheath Material</b>	PTFE
<b>Wire Temperature Rating</b>	125°C
<b>Sealing Gasket</b>	Not supplied

Note. LLPK1 - 'O' ring and M12 nut kit - is available as an optional extra.

### Electrical

<b>Supply Voltage (Vs)</b>	<b>Vdc</b>	4.5 to 15.4 or 10 to 28
<b>Supply Current Max (Is)</b>	<b>mA</b>	2.5 (Vs = 15.4Vdc)
<b>Output Type</b>	Voltage High or Low (L in part number indicates low)	
<b>Output Voltage (Vout) @ Iout =100mA</b>	Output High Vout = Vs-1V max Output Low Vout = 0.5Vmax	
<b>Output Sink &amp; Source Current Iout</b>	100mA max or 1A	
<b>Sensor Connections</b>	Red= supply + ve, Blue= common(OV), Green= Output (see wiring diagrams overleaf)	



## STANDARD PARTS

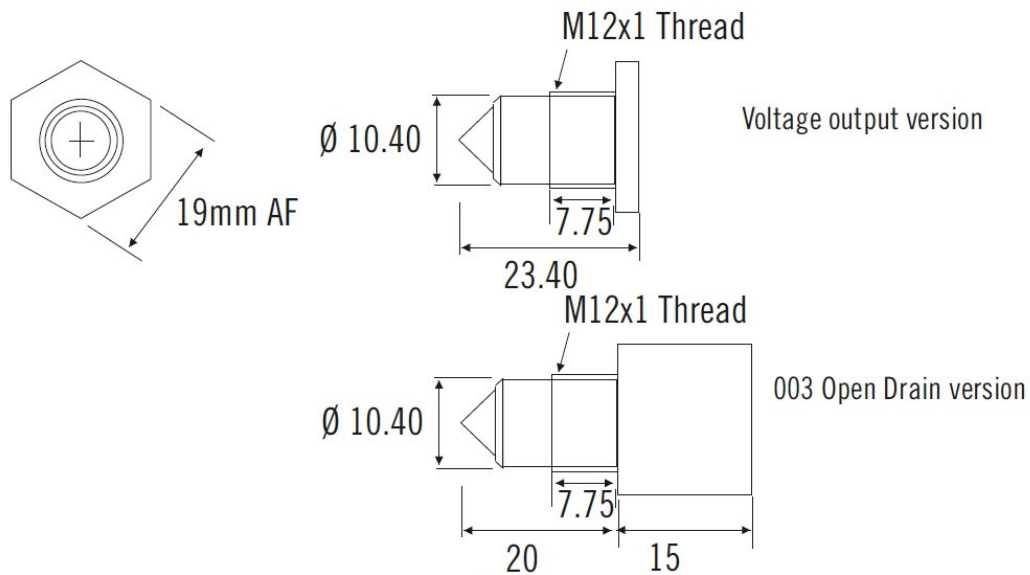
	Mount	Temp Range °C	Supply Volts V	Output	
<b>OLS200D3SH</b>	M12x1	-25 to +80	5 to 15dc	High in air	Volts
<b>OLS200D3LSH</b>	M12x1	-25 to +80	5 to 15dc	Low in air	Volts
<b>OLS210D3SH</b>	M12x1	-40 to +125	5 to 15dc	High in air	Volts
<b>OLS210D3LSH</b>	M12x1	-40 to +125	5 to 15dc	Low in air	Volts
<b>OLS210D324-003</b>	M12x1	-40 to +125	10 to 28dc	High in air	Open drain
<b>OLS210D3L24-003</b>	M12x1	-40 to +125	10 to 28dc	Low in air	Open drain

Custom versions can be made for particular applications. Please contact Sensata with your requirements.



## DIMENSIONS

All dimensions are in millimeters.

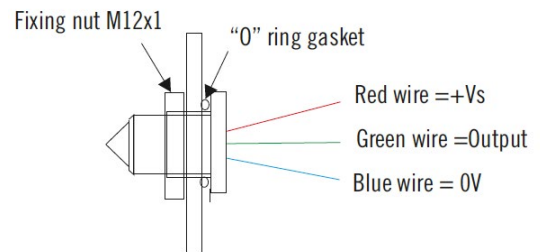


## INSTALLATION

The sensor can be mounted in either the side or the bottom of a tank. It must not be mounted in the top of a tank with the cone downwards.

This sensor requires a hole of 12mm minimum or an M12x1 thread socket connection. The hole should be in a flat surface and be free of burrs.

The sensor with suitable gasket should be inserted into the hole and a fixing nut fitted on the M12 thread on the inside of the tank. Alternatively the sensor can be screwed into a M12x1 socket. The sensor should not be over tightened.



Note. LLPK1 - Nitrile 'O' ring and Nickel plated brass M12 nut kit - is available as an optional extra.