

OLS5 Series

Optical liquid level sensor - Internal M10 mount



The OLS5 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.

- Low cost sensors for general liquid sensing
- High reliability optical sensing
- Internal mount via M10x1 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

Technical Specification

Mounting style	Internal	Cable length - standard	25cm
Mounting thread	M10x1	Wire size	24AWG
Body material	Polysulfone UDEL 1700	Cable conductor material	Tinned copper
Temperature Range	-25 to +80°C/-40° to +125°C	Wire sheath material	PTFE
Maximum pressure	20 bar	Wire temperature rating	125°C
Tightening torque for fixing	1.5Nm/13.26lbs in	Sealing gasket & nut	Not supplied

Electrical Specification

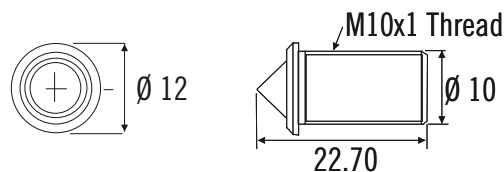
Supply Voltage (Vs)	Vdc	4.5 to 15.4
Supply Current Max (Is)	mA	2.5 (Vs = 15.4Vdc)
Output type		Voltage High or Low
Output Voltage (Vout) @ Iout=100mA		Output High Vout = Vs-1V max Output Low Vout = 0.5Vmax
Output Sink & Source Current Iout		100mA max

Sensor connections Red= supply +ve, Blue= common(0V), Green= Output (see diagrams overleaf)

Standard Parts	Mount	Temp Range °C	Supply Volts V	Output
OLS500D3	M10x1	-25 to +80	5 to 15dc	High in air
OLS500D3L	M10x1	-25 to +80	5 to 15dc	Low in air
OLS510D3	M10x1	-40 to +125	5 to 15dc	High in air
OLS510D3L	M10x1	-40 to +125	5 to 15dc	Low in air

Custom versions can be made for particular applications. Please contact Cynergy3 with your requirements.

Mechanical Dimensions



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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 10mm minimum or an M10x1 thread socket connection. The hole should be in a flat surface and be free of burrs.

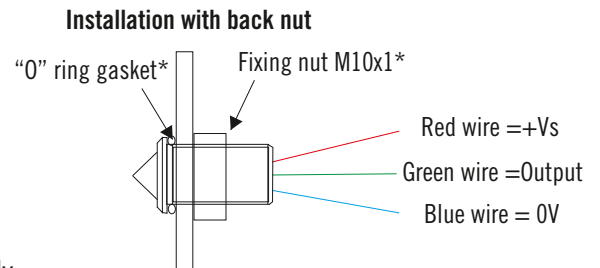
The sensor with suitable gasket should be inserted into the hole and a fixing nut fitted on the M10 thread on the outside of the tank. Alternatively the sensor can be screwed into a M10x1 socket. The sensor should not be overtightened.

Cleaning

Proper fluids should be selected based on the type of contamination to be removed. It is recommended that freon or alcohol based solvents are used. DO NOT USE chlorinated solvents such as trichloroethylene as these are likely to attack the sensor housing material.

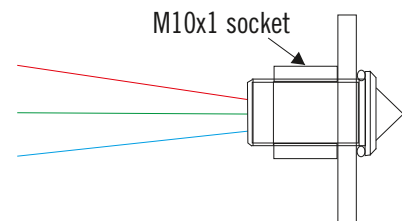
Liquid Media Compatibility

Check that the fluid in which you wish to use the sensor is compatible with Polysulfone.

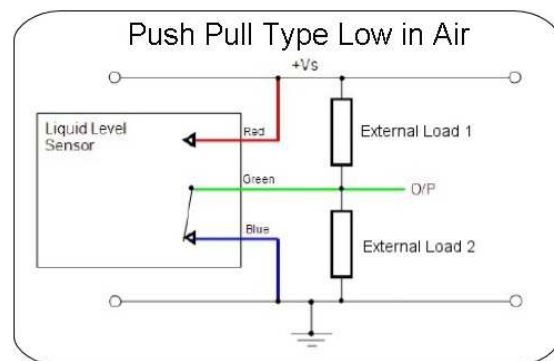
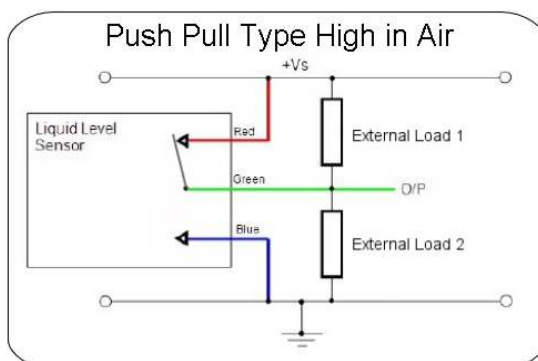


*Note. M10 nut and ‘O’ ring not supplied

Installation in M10x1 socket



Electrical Connections



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Sensata:

[OLS500D3](#) [OLS500D3L](#) [OLS510D3](#)