

DATA SHEET

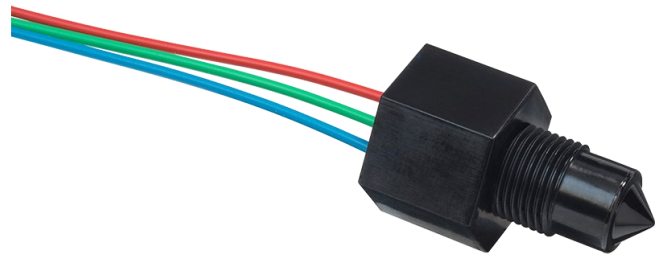
Liquid Level Switches

Optomax Industrial Series



FEATURES

- Liquid level switches that can detect almost any liquid type; oil or water based
- Choice of material; Polysulfone (standard) or Trogamid®
- Choice of threads



Housing/ Mounting	Output Type / Logic	Supply Voltage	Output Current	Temp
<ul style="list-style-type: none">M12x11/4" NPT1/2" SAE	<ul style="list-style-type: none">N-TYPEP-TYPEPUSH PULLHIGH IN AIRLOW IN AIR	<ul style="list-style-type: none">4.5 - 15.4 V VOLTAGE8 - 30 V VOLTAGE	<ul style="list-style-type: none">UP TO 1A CURRENT	<ul style="list-style-type: none">-25°C to +80°C TEMPERATURE-40°C to +125°C TEMPERATURE

BENEFITS

- High power
- Industrial supply voltage
- Direct load drive design

OUTPUT VALUES

Output Voltage³ (Vout): Iout = 1A

Vs = 4.5—15.4V_{DC}

Output High

Vout = Vs - 1.5V max

Output Low

Vout = 0V + 0.5V max

Output Voltage (Vout): Iout = 1A

Vs = 8—30V_{DC}

Output High

Vout = Vs - 1.8V max

Output Low

Vout = 0V + 0.7V max

TECHNICAL SPECIFICATIONS

Supply voltage (Vs)	4.5V _{DC} to 15.4V _{DC}
	or 8V _{DC} to 30V _{DC}
Supply current (Is)	2.5mA max. (Vs = 15.4V _{DC})
	or 7.5mA max. (Vs = 30V _{DC})
Output sink and source current (Iout)	1A
Operating temperatures	Standard: -25°C to +80°C Extended: -40°C to +125°C
Storage temperatures	Standard: -30°C to +85°C Extended: -40°C to +125°C
Housing material ^{1, 2}	Polysulfone or Trogamid®
Sensor termination	20AWG, 250mm PTFE wires, 8mm tinned

Other sensor options available on request, email:

technical@sstsensing.com

Need help? Ask the expert

Tel: + 44 (0)1236 459 020

and ask for "Technical"

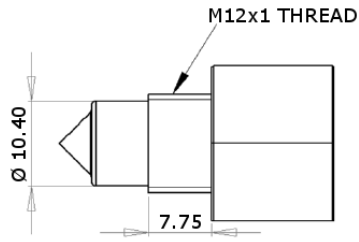
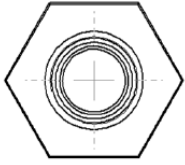


- 1) Above +85°C, Trogamid is suitable for water based liquids. Oil based liquids can cause deformation of the sensing tip and must be tested for compatibility.
- 2) Before use check that the fluid in which you wish to use these devices is compatible either with Polysulfone or Trogamid®.
- 3) Voltages applicable to output value stated.

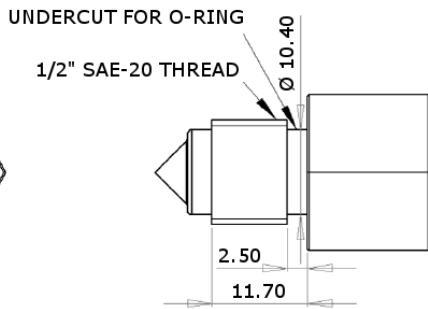
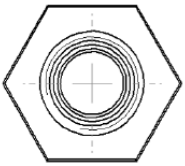
OUTLINE DRAWING

All dimensions shown in mm. Tolerances = ± 1 mm.

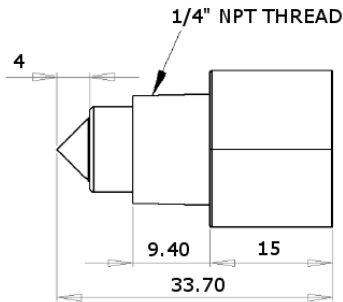
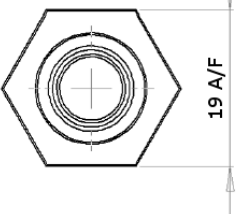
LLx2x0 Series



LLx6x0 Series



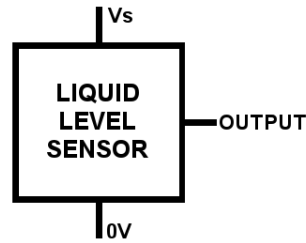
LLx7x0 Series



HOUSING SPECIFICATIONS

	Housing Series		
	2x0	6x0	7x0
Thread	M12x1x8g with hex nut ¹	1/2" SAE with O-ring ¹	1/4" NPT ²
Pressure ³	7 bar / 101 psi maximum		
Tightening Torque	1.5 Nm / 13.26 in-lbs maximum		

ELECTRICAL INTERFACE



Wire	Designation
Red	Vs
Green	Output
Blue	0V



- 1) Hex nut and O-ring sold separately; email: technical@sstsensing.com for details.
- 2) NPT version can be sealed with PTFE tape.
- 3) When correctly sealed.

In order to suit any application, these sensors have been designed with various output circuit configurations. They are identified by the 3-digit code at the end of the part number as shown in [Order Information](#).

**N-Type with Flyback Protection Diode
High in Air**



**N-Type with Flyback Protection Diode
Low in Air**



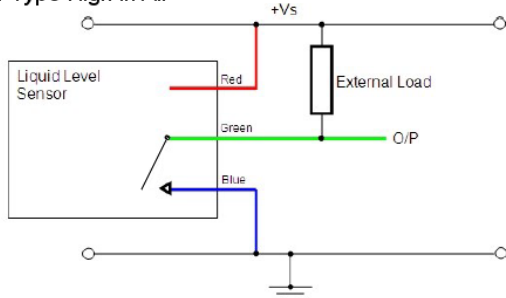
**N-Type with Internal 10kΩ Pull-Up Resistor
High in Air**



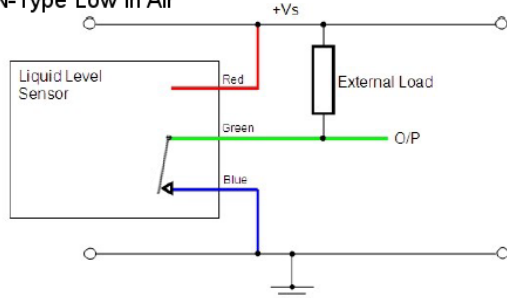
**N-Type with Internal 10kΩ Pull-Up Resistor
Low in Air**



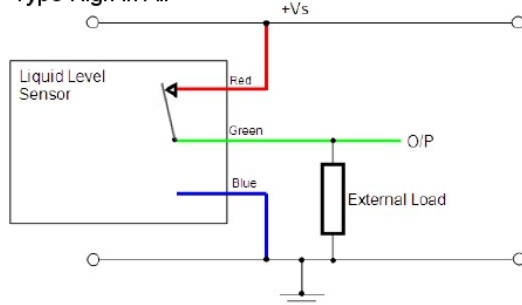
N-Type High in Air



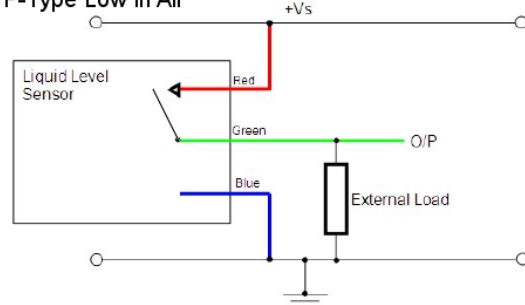
N-Type Low in Air



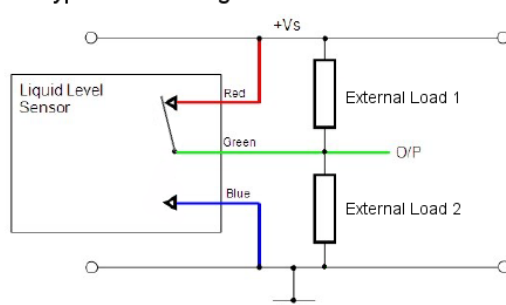
P-Type High in Air



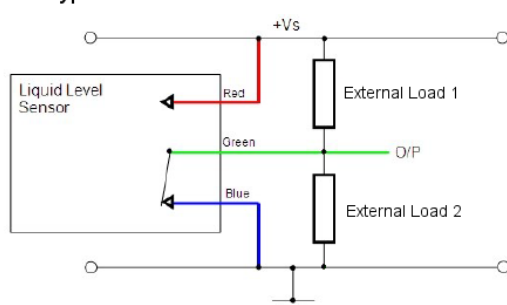
P-Type Low in Air



N&P-Type Push Pull High in Air



N&P-Type Push Pull Low in Air



CAUTION: Take care when connecting loads.

The minimum load impedance should not exceed $V_s/\text{max output current}$.

Note: Shorting the output to V_s or $0V$ will result in irreparable damage to the sensor.