DATA SHEET

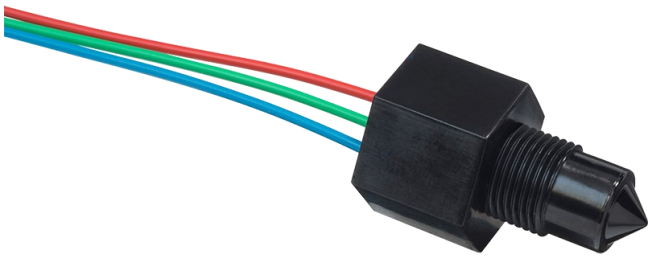
Liquid Level Switches

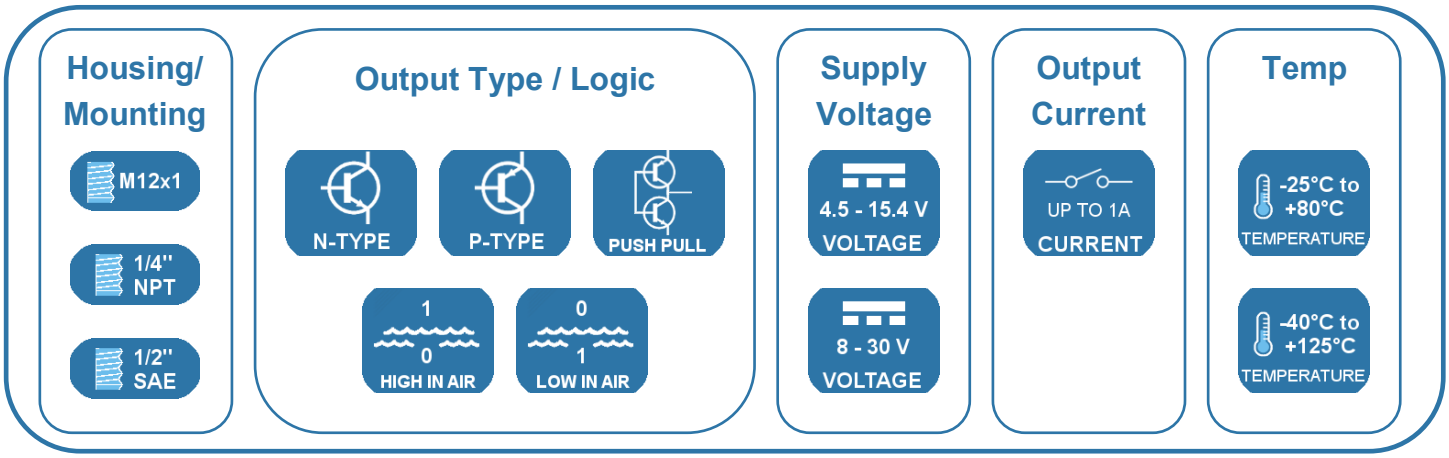
Optomax Industrial Series

DESIGN • MANUFACTURE • CUSTOMISE • CONFIGURE

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





BENEFITS

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

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

OUTPUT VALUES

Output Voltage[3] (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

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"

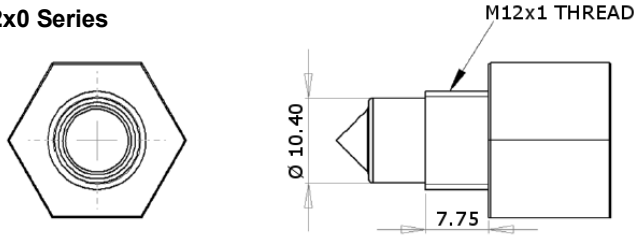
NOTES

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.

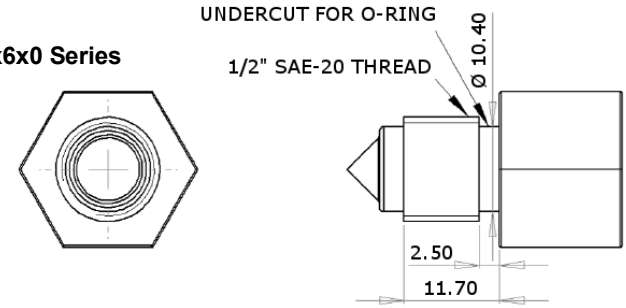
OUTLINE DRAWING

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

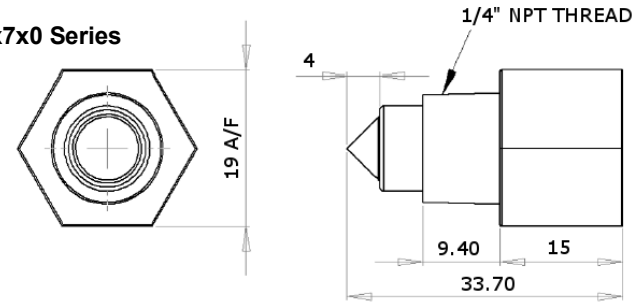
LLx2x0 Series



LLx6x0 Series



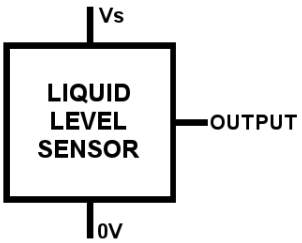
LLx7x0 Series



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

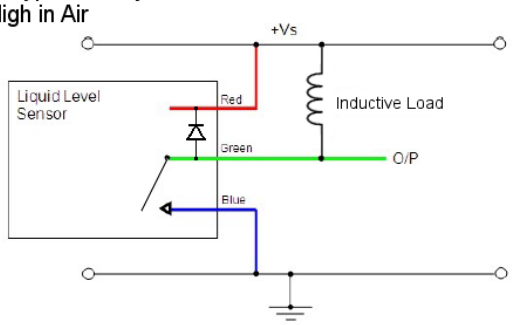
NOTES

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.

CIRCUIT DIAGRAMS

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



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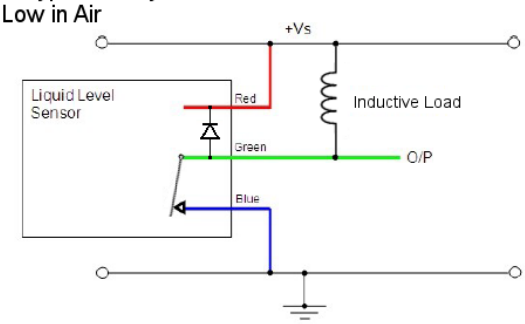
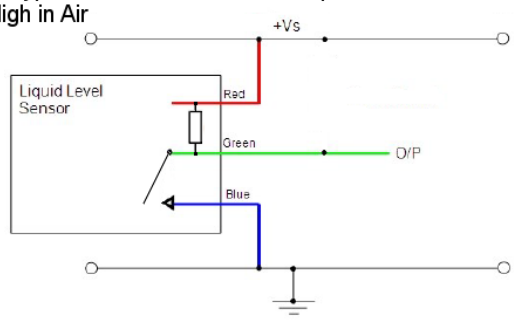


N-Type with Internal 10kΩ Pull-Up Resistor
High in Air



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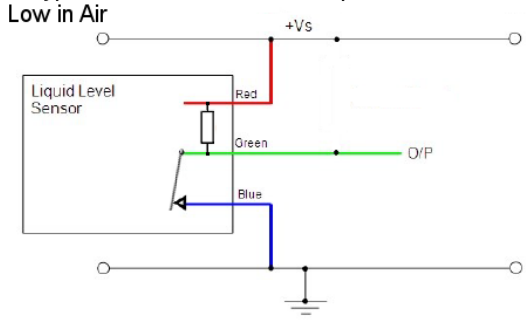
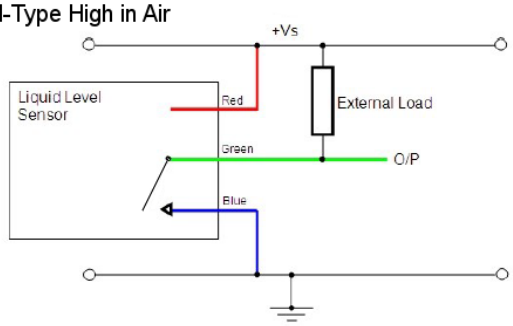
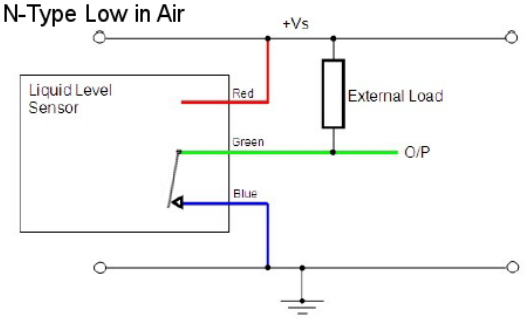


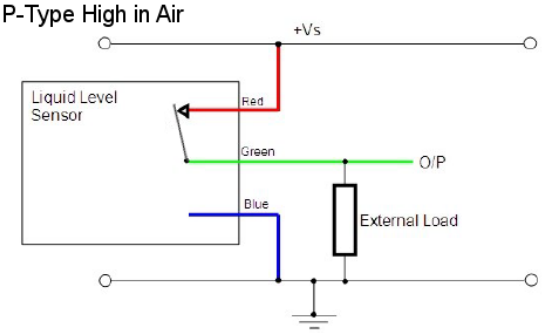
N-Type High in Air



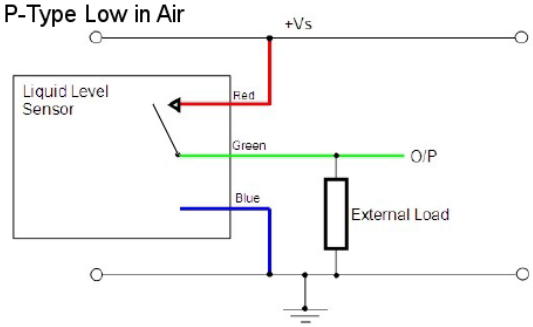
N-Type Low in Air



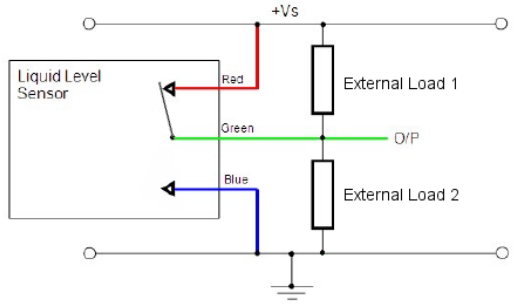
P-Type High in Air



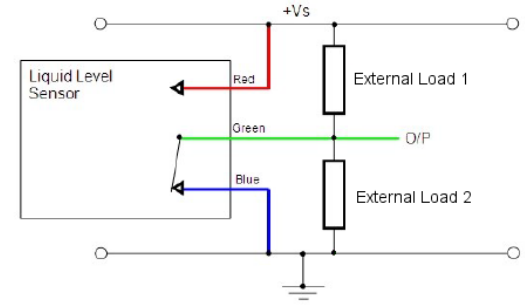
P-Type Low in Air



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 Vs/max output current.

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