

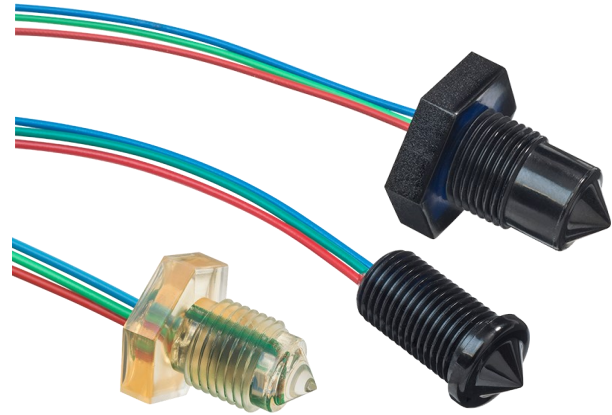
DATA SHEET

Liquid Level Switches

Optomax Digital Series

FEATURES

- Liquid level switches that can detect almost any liquid type; oil or water based
- Choice of material; Trogamid® or Polysulfone
- Choice of threads and terminal connections



Housing/ Mounting <ul style="list-style-type: none"> M10x1 M12x1 1/4" NPT 1/2" SAE 	Output Type / Logic <ul style="list-style-type: none"> PUSH PULL 1 HIGH IN AIR 0 LOW IN AIR PWM 	Supply Voltage <p>4.5 - 15.4 V VOLTAGE</p>	Output Current <p>UP TO 100mA CURRENT</p>	Temp <ul style="list-style-type: none"> -25°C to +80°C TEMPERATURE -40°C to +125°C TEMPERATURE
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BENEFITS

- Low power
- Low cost
- Compact design

Housing material
Sensor termination

Trogamid® or Polysulfone¹
24AWG, 250mm PTFE wires, 8mm tinned

TECHNICAL SPECIFICATIONS

Supply voltage (Vs)	4.5V _{DC} to 15.4V _{DC}
Supply current (Is)	2.5mA max. (Vs = 15.4V _{DC})
Output sink and source current (Iout)	100mA
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

OUTPUT VALUES

Output Voltage² (Vout):	Iout = 100mA
Output High	Vout = Vs - 1V max
Output Low	Vout = 0V + 0.5V max
PWM	
Duty cycle in air	25% ± 10%
Duty cycle in liquid	75% ± 10%
Frequency	2kHz ± 10%



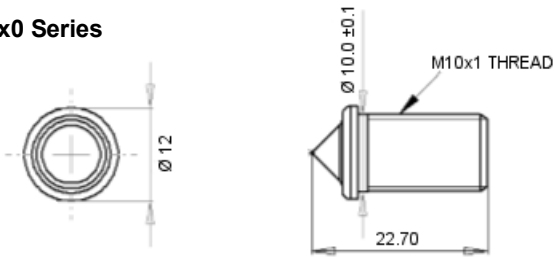
- 1) Before use check that the fluid in which you wish to use these devices is compatible either with Trogamid® or Polysulfone.
- 2) Voltages applicable to output value stated.

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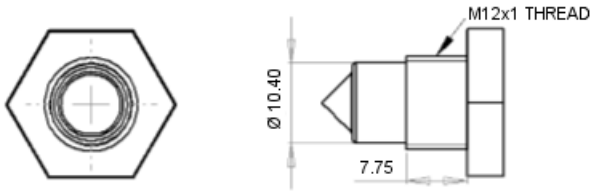
OUTLINE DRAWING

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

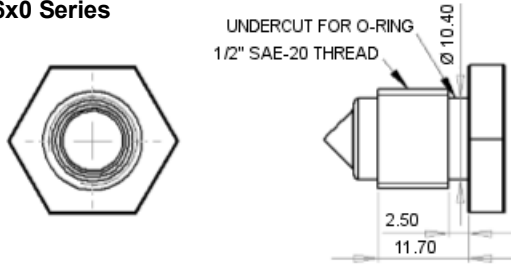
LLx5x0 Series



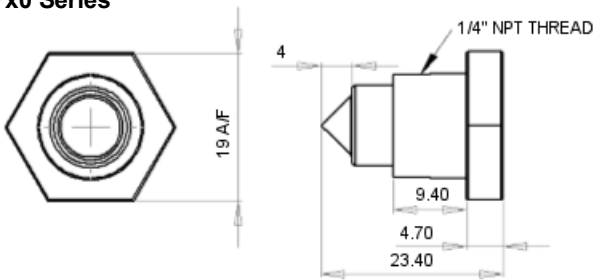
LLx2x0 Series



LLx6x0 Series



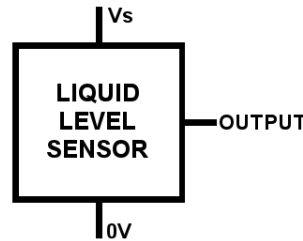
LLx7x0 Series



HOUSING SPECIFICATIONS

	Housing Series			
	5x0	2x0	6x0	7x0
Thread	M10x1	M12x1x8g with hex nut ¹	1/2" SAE with O-ring ¹	1/4" NPT ²
Pressure ³	20 bar	7 bar maximum		
Tightening Torque	1.5 Nm / 13.26 in-lbs maximum			

ELECTRICAL INTERFACE



Wire	Designation
Red	Vs
Green	Output
Blue	0V

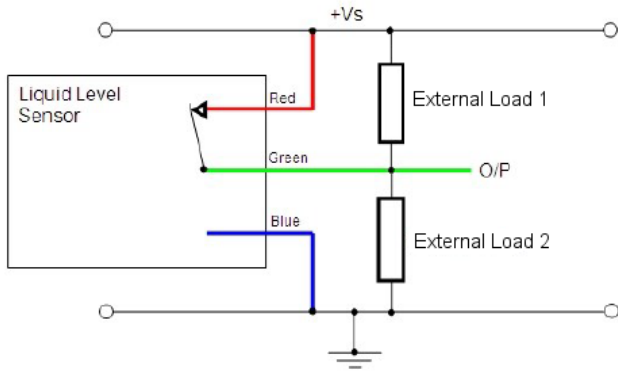


- 1) Hex nut and O-ring sold separately; email:
- 2) NPT version can be sealed with PTFE tape.
- 3) When correctly sealed.

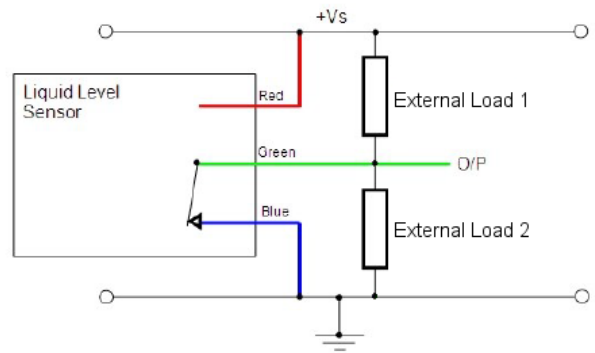
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In order to suit any application, these sensors have been designed with various output circuit configurations.

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.



ORDER INFORMATION

Generate your specific part number using the convention shown opposite. Use only those letters and numbers that correspond to the sensor and output options you require — omit those you do not.

Sensor mounted from inside vessel

L L **X** 5 **X** 0 D 3 **X**

Housing Material	Operating Temp.	Output Logic
C Polysulfone	0 -25 °C to +80°C	Blank Output High in air
T Trogamid®	1 -40 °C to +125°C	L Output Low in air
		P PWM output

Sensor mounted from outside vessel

L L **X X X** 0 D 3 **X** S H

Housing Material	Housing Type	Operating Temp.	Output Logic
C Polysulfone	2 2x0 SH series M12x1	0 -25 °C to +80°C	Blank Output High in air
T Trogamid®	6 6x0 SH series 1/2" SAE	1 -40 °C to +125°C	L Output Low in air
	7 7x0 SH series 1/4" NPT		P PWM output

Notes:

- 5x0 series sensors are mounted internally
- 2x0, 6x0 & 7x0 series sensors are mounted externally
- SH suffix applicable to 2x0, 6x0 & 7x0 series sensors only; omit from 5x0 series sensor part number

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