

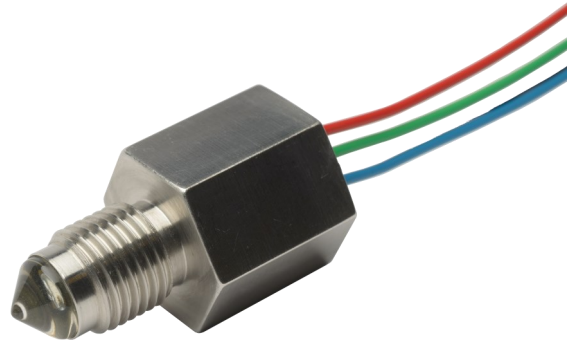
DATA SHEET

Liquid Level Switches

Optomax Industrial Glass Series

FEATURES

- Liquid level switches that can detect almost any liquid type; oil or water based
- Suitable for harsh environments; robust stainless steel housing and glass tip
- Choice of mounting threads



<h4>Housing/ Mounting</h4> <ul style="list-style-type: none"> M12x1 1/4" NPT 1/2" NPT 1/2" SAE 	<h4>Output Type / Logic</h4> <ul style="list-style-type: none"> N-TYPE P-TYPE PUSH PULL 1 0 HIGH IN AIR 0 1 LOW IN AIR 	<h4>Supply Voltage</h4> <ul style="list-style-type: none"> 4.5 - 15.4 V VOLTAGE 8 - 30 V VOLTAGE 	<h4>Output Current</h4> <ul style="list-style-type: none"> UP TO 1A CURRENT 	<h4>Temp</h4> <ul style="list-style-type: none"> -40°C to +125°C TEMPERATURE
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BENEFITS

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

Operating pressure	0 to 600bar
Housing material	Stainless steel with glass tip
Sensor termination	20AWG, 250mm PTFE wires, 8mm tinned

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 ¹	-40°C to +125°C
Storage temperatures	-40°C to +125°C

OUTPUT VALUES

Output Voltage² (Vout):	Iout = 1A
Vs = 4.5—15.4V_{DC}	
Output High	Vout = Vs - 1.5V max
Output Low	Vout = 0V + 0.5V max
Output Voltage² (Vout):	Iout = 1A
Vs = 8—30V_{DC}	
Output High	Vout = Vs - 1.8V max
Output Low	Vout = 0V + 0.7V max

NOTES

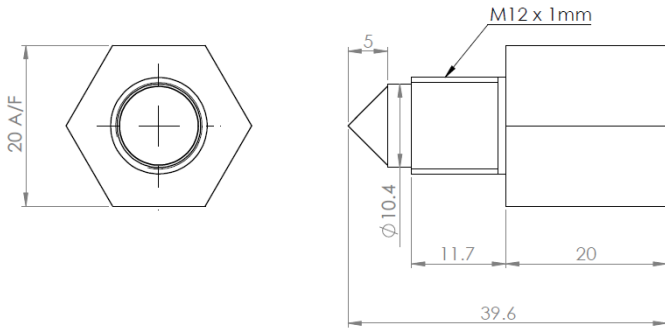
- 1) Not suitable for use in freezing liquid or high condensing environments such as steam.
- 2) Voltages applicable to output value stated.

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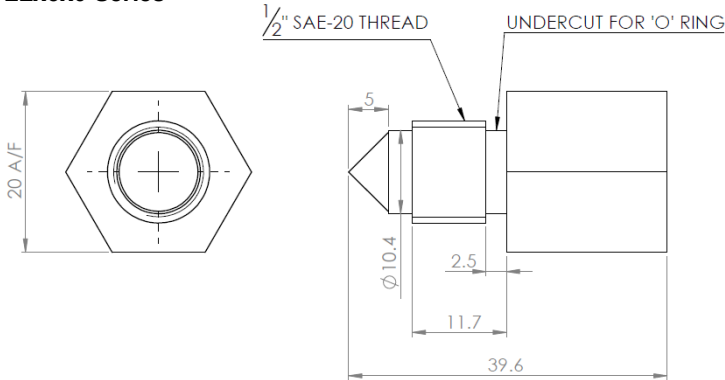
OUTLINE DRAWING

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

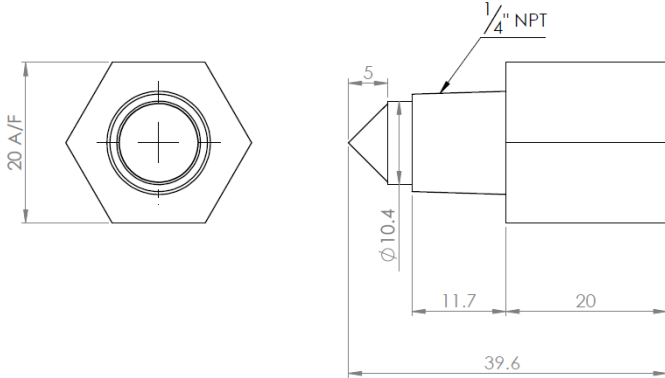
LLx2x0 Series



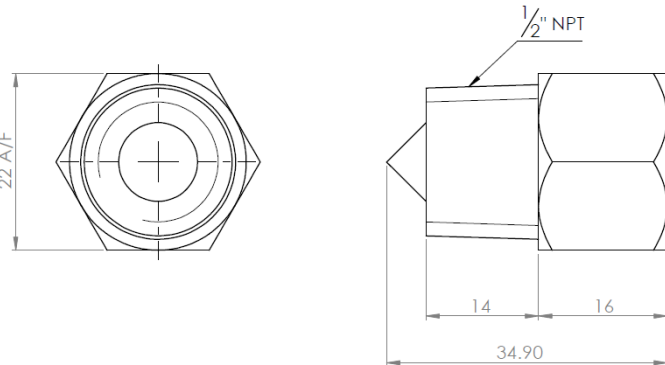
LLx6x0 Series



LLx7x0 Series



LLx8x0 Series

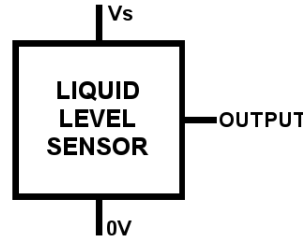


HOUSING SPECIFICATIONS

	Housing Series	
	G2x0	G6x0
Thread	M12x1x8g with hex nut ¹	1/2" SAE with O-ring ¹
Pressure ³	100 bar / 1450 psi maximum	
Tightening Torque ⁴	3 Nm / 26.5 in-lbs maximum	

	Housing Series	
	G7x0	G8x0
Thread	1/4" NPT ²	1/2" NPT ²
Pressure ³	100 bar / 1450 psi max.	600 bar / 8702 psi max.
Tightening Torque ⁴	3 Nm / 26.5 in-lbs maximum	

ELECTRICAL INTERFACE



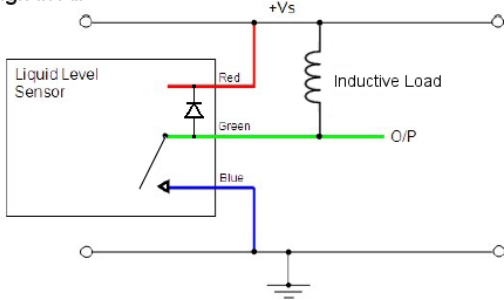
Wire	Designation
Red	Vs
Green	Output
Blue	0V



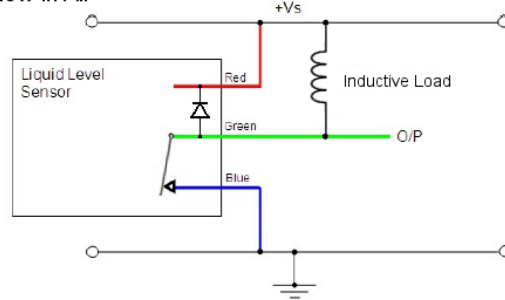
- 1) Hex nut and O-ring sold separately; email:
- 2) NPT version can be sealed with a curing type thread sealant such as "Loctite 565" with primer "N". Do NOT use PTFE tape.
- 3) When correctly sealed.
- 4) Do NOT over-tighten as this can permanently damage the sensor.

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](#).

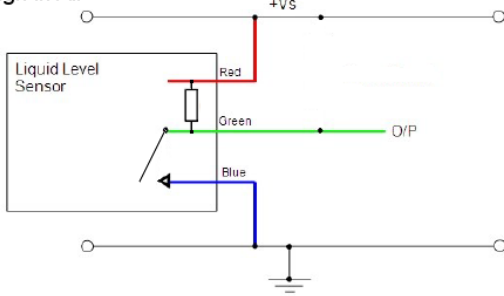
**N-Type with Flyback Protection Diode
High in Air**



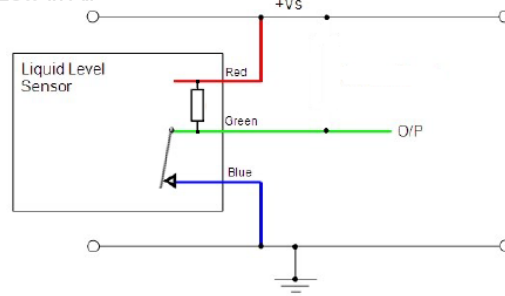
**N-Type with Flyback Protection Diode
Low in Air**



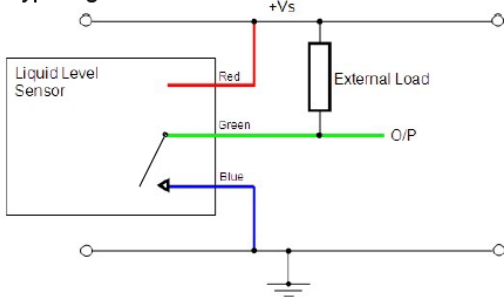
**N-Type with Internal 10kΩ Pull-Up Resistor
High in Air**



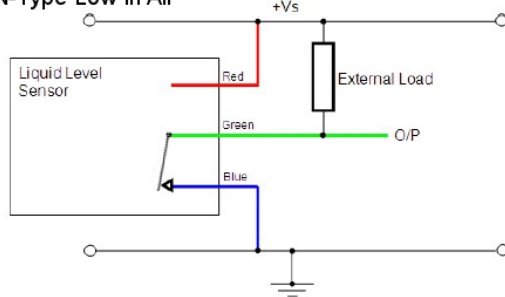
**N-Type with Internal 10kΩ Pull-Up Resistor
Low in Air**



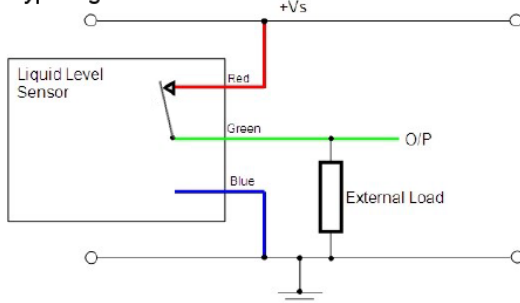
N-Type High in Air



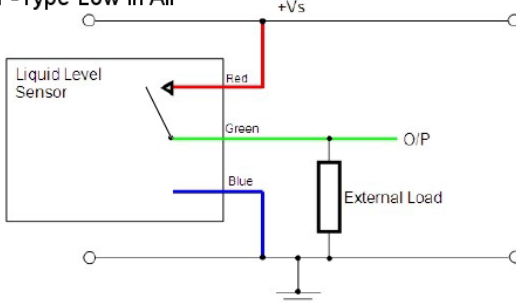
N-Type Low in Air



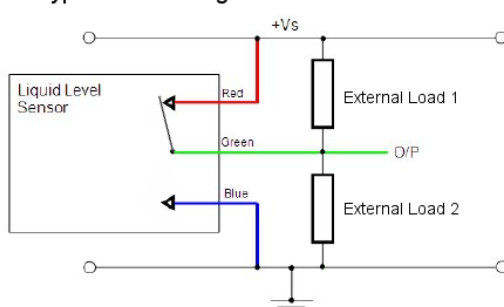
P-Type High in Air



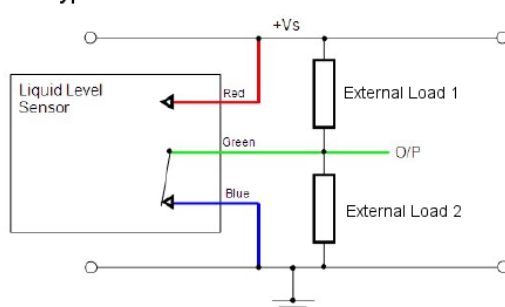
P-Type Low in Air



N&P-Type Push Pull High in Air



N&P-Type Push Pull Low in Air



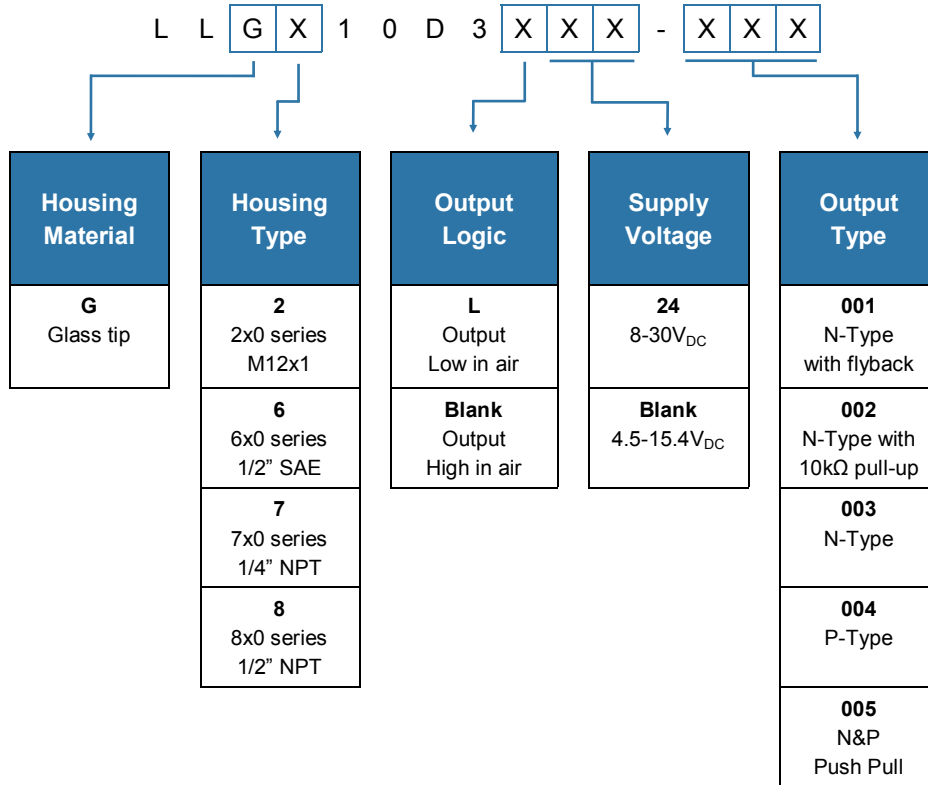
CAUTION: Take care when connecting loads.

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.

ORDER INFORMATION

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



CAUTION

Do not exceed maximum ratings and ensure sensor(s) are operated in accordance with their requirements.

Carefully follow all wiring instructions. Incorrect wiring can cause permanent damage to the device.

Apollo Sensing Ltd recommend using alcohol based cleaning agents. Do NOT use chlorinated solvents such as trichloroethane as these are likely to attack the sensor material.

Failure to comply with these instructions may result in product damage.

INFORMATION

As customer applications are outside of Apollo Sensing Ltd.'s control, the information provided is given without legal responsibility. Customers should test under their own conditions to ensure that the equipment is suitable for their intended application. Before use, check that the fluid in which you wish to use these devices is compatible with Stainless Steel and glass.

Apollsense Ltd