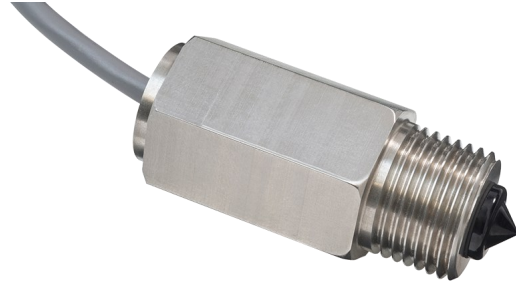


# DATA SHEET

## Liquid Level Switches

### High Performance Series



#### FEATURES

- Liquid level switches that can detect almost any liquid type; oil or water based
- Large load output; high switching currents
- Choice of threads and terminal connections

Housing/ Mounting	Output Type / Logic	Supply Voltage	Output Current	Temp
<ul style="list-style-type: none"><li>3/8" BSPP</li><li>1/2" BSPP</li><li>1/2" NPT</li><li>3/4"-16 UNJF</li></ul>	<ul style="list-style-type: none"><li>N-TYPE</li><li>P-TYPE</li><li>PUSH PULL</li><li>1 0 HIGH IN AIR</li><li>0 1 LOW IN AIR</li></ul>	<ul style="list-style-type: none"><li>4.5 - 15.4 V VOLTAGE</li><li>10 - 45 V VOLTAGE</li></ul>	<ul style="list-style-type: none"><li>UP TO 100mA CURRENT</li><li>UP TO 800mA CURRENT</li></ul>	<ul style="list-style-type: none"><li>-25°C to +80°C TEMPERATURE</li><li>-40°C to +125°C TEMPERATURE</li></ul>

#### BENEFITS

- Robust stainless steel housing
- Suitable for use within aggressive environments
- Larger mounting threads; standard or custom

#### TECHNICAL SPECIFICATIONS

Supply voltage (Vs)	4.5V <sub>DC</sub> to 15.4V <sub>DC</sub> (±5%)
or	10V <sub>DC</sub> to 45V <sub>DC</sub> (±5%)
Supply current (Is)	15mA max. (Vs = 12V <sub>DC</sub> )
or	35mA max. (Vs = 45V <sub>DC</sub> )
Output sink and source current (Iout)	100mA max. (15.4V <sub>DC</sub> )
or	800mA max. (45V <sub>DC</sub> )
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	Stainless Steel with Polysulfone tip <sup>a</sup>
Sensor termination	Various; refer to <a href="#">page 2</a>

#### OUTPUT VALUES

**Output Voltage (Vout): Iout = 100mA**  
**Vs = 4.5—15.4V<sub>DC</sub>**  
Output High Vout = Vs - 1.5V max  
Output Low Vout = 0V + 0.5V max

**Output Voltage (Vout): Iout = 800mA**  
**Vs = 10—45V<sub>DC</sub>**  
Output High Vout = Vs - 1.8V max  
Output Low Vout = 0V + 0.7V max

Other sensor options available on request, email: [technical@sstsensing.com](mailto:technical@sstsensing.com)

**Need help? Ask the expert**  
**Tel: + 44 (0)1236 459 020**  
**and ask for "Technical"**

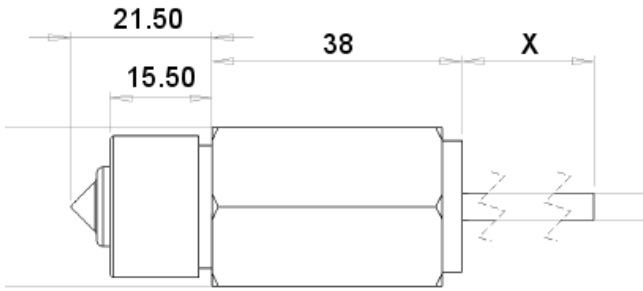


a) Before use check that the fluid in which you wish to use these devices is compatible with Stainless Steel and Polysulfone.

## OUTLINE DRAWING

All dimensions shown in mm. Tolerances =  $\pm 1$ mm.

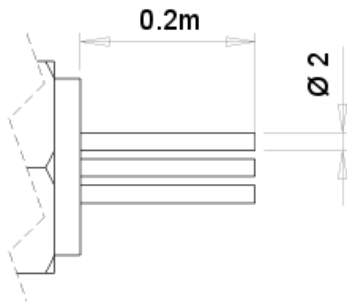
### Cable



### Brad Harrison micro



### Flying Leads



Note: "X" can equal 0.5, 1.0 or 3.0 metres.

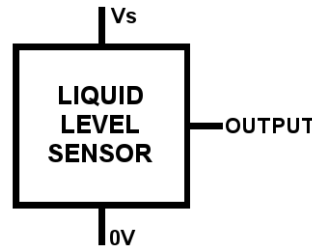
## HOUSING SPECIFICATIONS

Installation drawings and 3D (.step) files available on [the product webpage](#).

	Housing			
Thread	1/2" BSPP	3/8" BSPP	1/2" NPT	3/4"-16 UNJF
Pressure <sup>b</sup>	25 bar / 363 psi maximum			
Sensor Termination	Cable: 0.5m, 1m or 3m lengths (IP67)			
	M12x1 Brad Harrison micro (IP67)			
	Flying leads: 24AWG, 0.2m PTFE wires, 8mm tinned (IP65)			

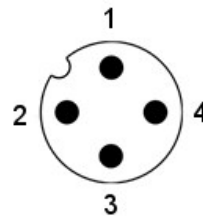
## ELECTRICAL INTERFACE

### Cable



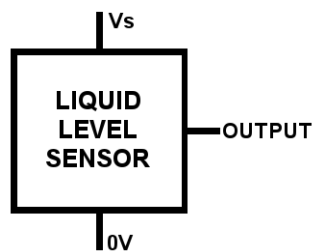
Wire	Designation
Red	Vs
White	Output
Black	0V

### Brad Harrison micro



Pin	Designation
1	Vs
2	Not connected
3	0V
4	Output

### Flying Leads



Wire	Designation
Red	Vs
Green	Output
Blue	0V

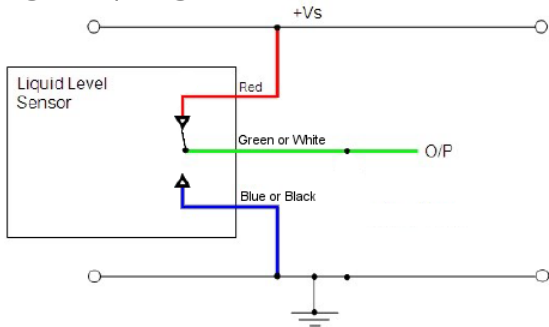


b) When sealed correctly.

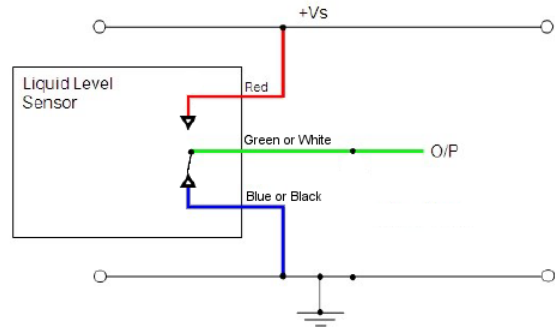
In order to suit any application, these sensors have been designed with various output circuit configurations.

4.5V—15.4V<sub>DC</sub>

Digital Output High in Air

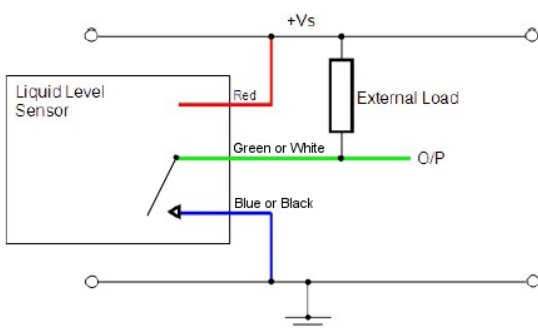


Digital Output Low in Air

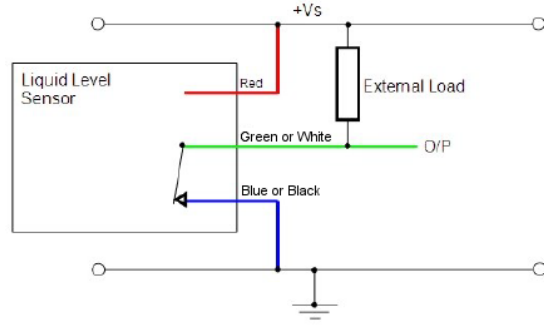


10V—45V<sub>DC</sub>

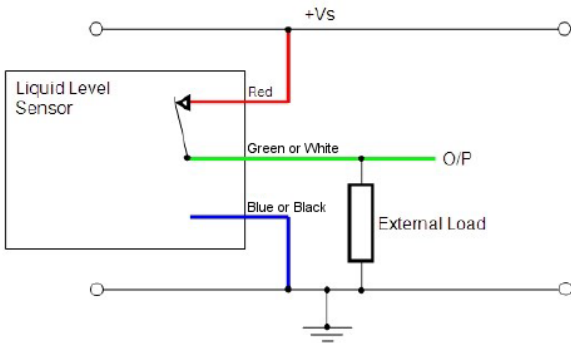
N-Type High in Air



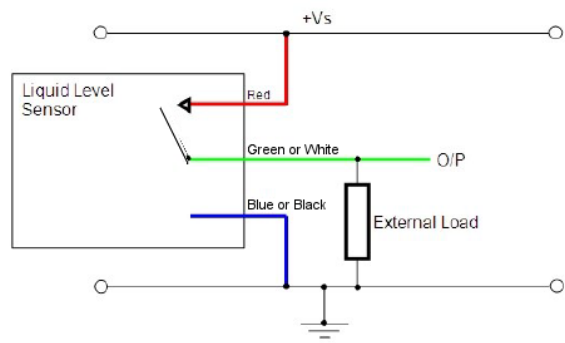
N-Type Low in Air



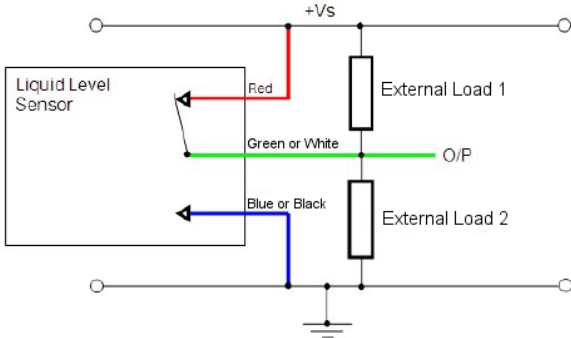
P-Type High in Air



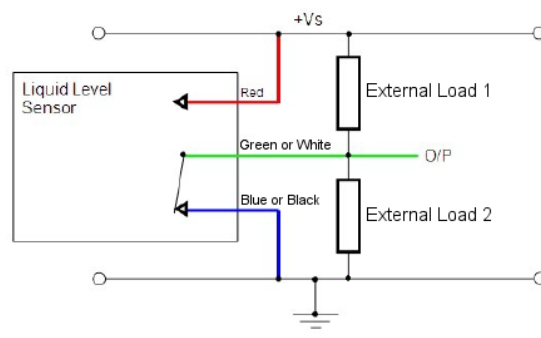
P-Type Low in Air



Push Pull High in Air



Push Pull Low in Air



**CAUTION:** Take care when connecting loads.

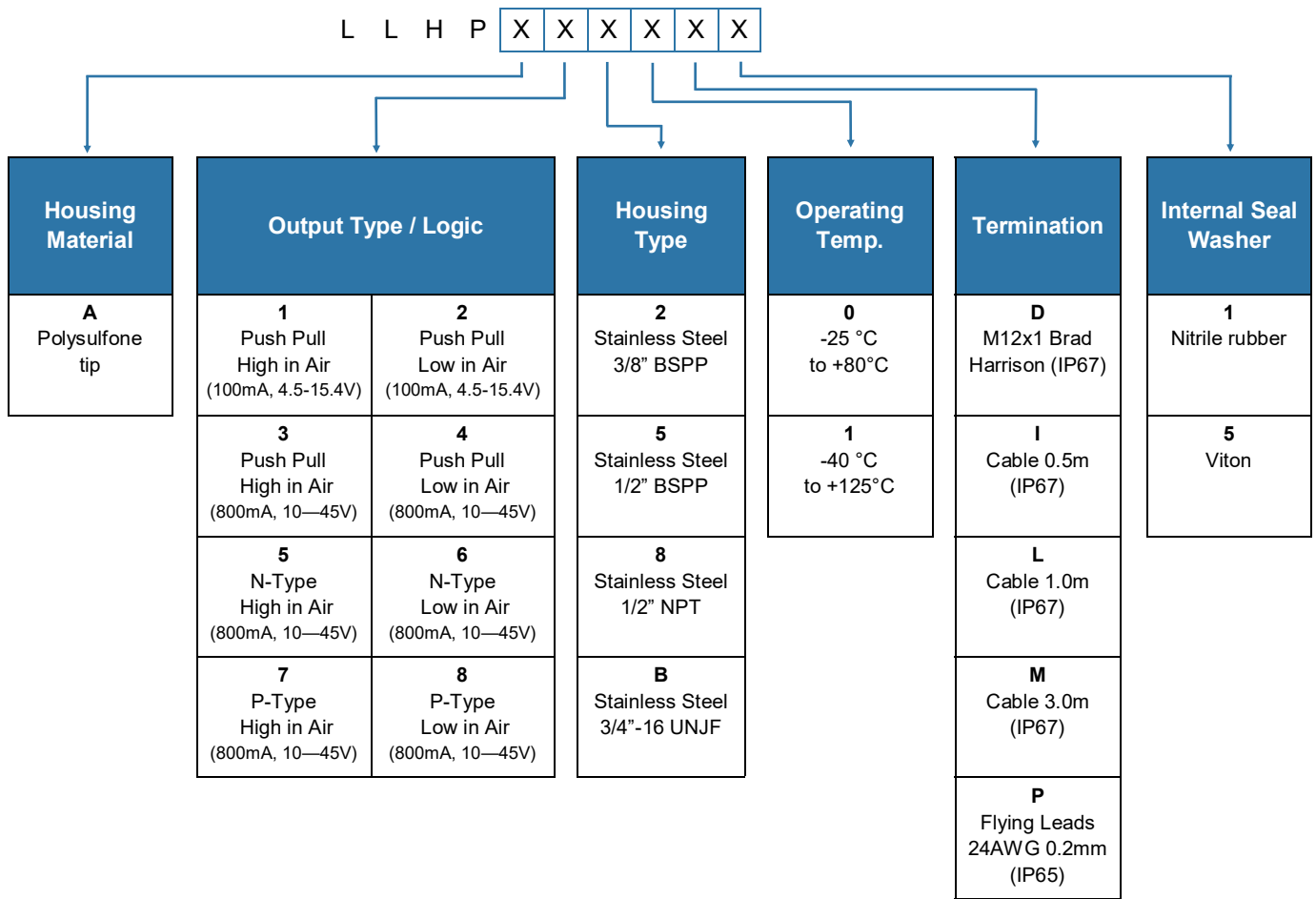
The minimum load impedance should not exceed  $V_s/\text{max output current}$ .

**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.



**Note:** Not all combinations are configurable and minimum order quantities (MOQs) may apply in some cases. Please contact SST Sensing for details; email: [technical@sstsensing.com](mailto:technical@sstsensing.com)

### ! 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.

SST 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.**

### i INFORMATION

As customer applications are outside of SST 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 Polysulfone.

**For technical assistance or advice, please email:**  
[technical@sstsensing.com](mailto:technical@sstsensing.com)

**General Note:** SST Sensing Ltd. reserves the right to make changes to product specifications without notice or liability. All information is subject to SST Sensing Ltd.'s own data and considered accurate at time of going to print.