DATA SHEET
Liquid Level Switches
High Performance Series

SST
DESIGN · MANUFACTURE · CUSTOMISE · CONFIGURE

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
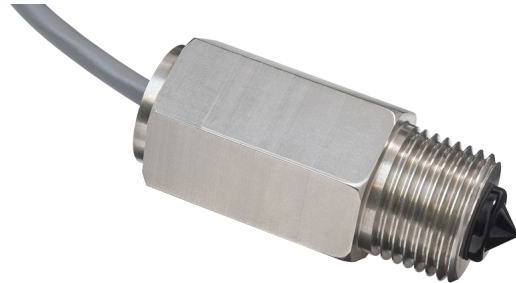
Housing/ Mounting	Output Type / Logic			Supply Voltage	Output Current	Temp
3/8" BSP	N-TYPE	P-TYPE	PUSH PULL	4.5 - 15.4 V VOLTAGE	UP TO 100mA CURRENT	-25°C to +80°C TEMPERATURE
1/2" BSP						
1/2" NPT	1 / 0 HIGH IN AIR	0 / 1 LOW IN AIR		10 - 45 V VOLTAGE	UP TO 800mA CURRENT	-40°C to +125°C TEMPERATURE
3/4"-16 UNJF						

BENEFITS

- Robust stainless steel housing

- Suitable for use within aggressive environments

- Larger mounting threads; standard or custom

TECHNICAL SPECIFICATIONS

Supply voltage (Vs)	$4.5V_{DC}$ to $15.4V_{DC}$ (±5%)
or	$10V_{DC}$ to $45V_{DC}$ (±5%)
Supply current (Is)	15mA max. (Vs = $12V_{DC}$)
or	35mA max. (Vs = $45V_{DC}$)
Output sink and source	100mA max. ($15.4V_{DC}$)
current (Iout) or	800mA max. ($45V_{DC}$)
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[1]
Sensor termination	Various; refer to page 2

OUTPUT VALUES

Output Voltage[2] (Vout): **Iout = 100mA**
Vs = 4.5—15.4V_{DC}

Output High	Vout = Vs - 1.5V max
Output Low	Vout = 0V + 0.5V max

Output Voltage[2] (Vout): **Iout = 800mA**
Vs = 10—45V_{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
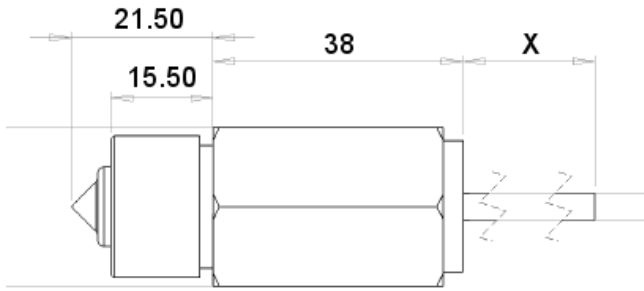**Tel: + 44 (0)1236 459 020**
and ask for "Technical"

NOTES

1) Before use check that the fluid in which you wish to use these devices is compatible with Stainless Steel and Polysulfone.
2) Voltages applicable to output value stated.

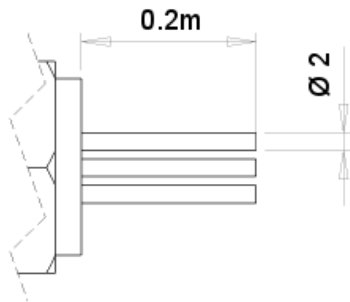# OUTLINE DRAWING

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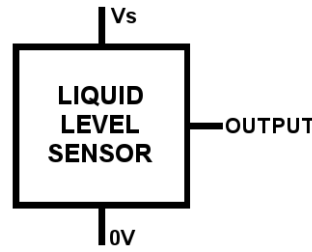
Cable

Brad Harrison micro

Flying Leads

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

HOUSING SPECIFICATIONS

	Housing			
Thread	1/2" BSP	3/8" BSP	1/2" NPT	3/4"-16 UNJF
Pressure[1]	25 bar 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
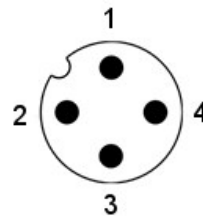
Pin	Designation
1	Vs
2	Not connected
3	0V
4	Output

Flying Leads
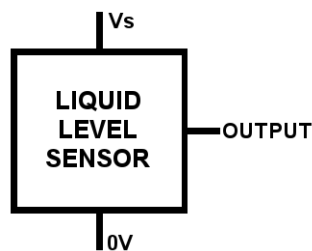
Wire	Designation
Red	Vs
Green	Output
Blue	0V

1) Using sealing washer/O-ring.

⚒ CIRCUIT DIAGRAMS

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

N-Type High in Air
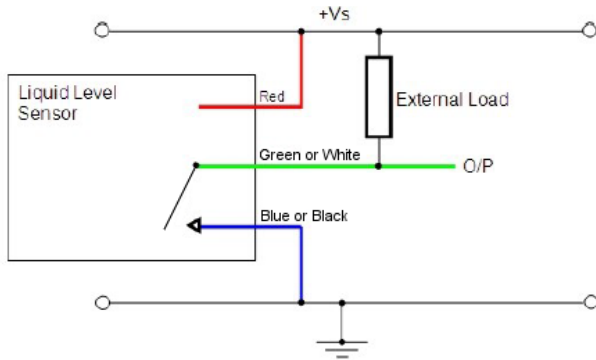
N-Type Low in Air
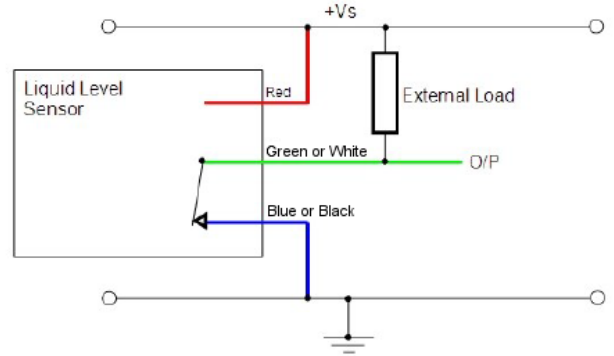
P-Type High in Air

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 Vs/max output current.

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

🛒 ORDER INFORMATION

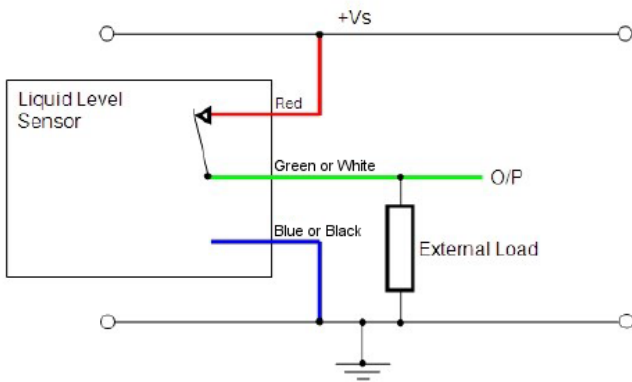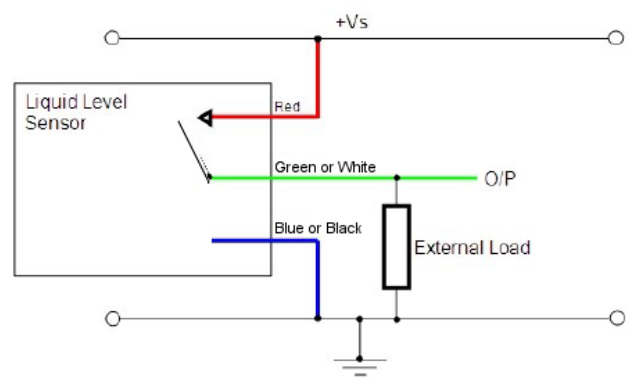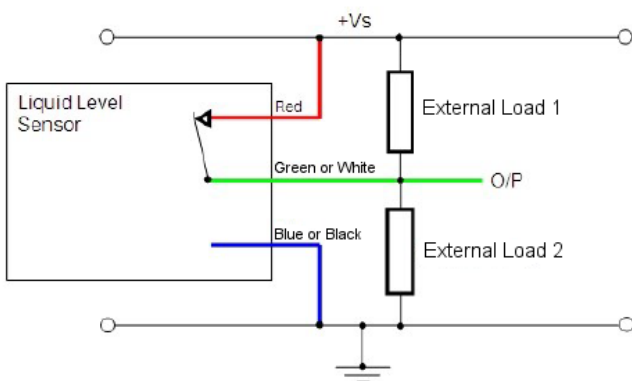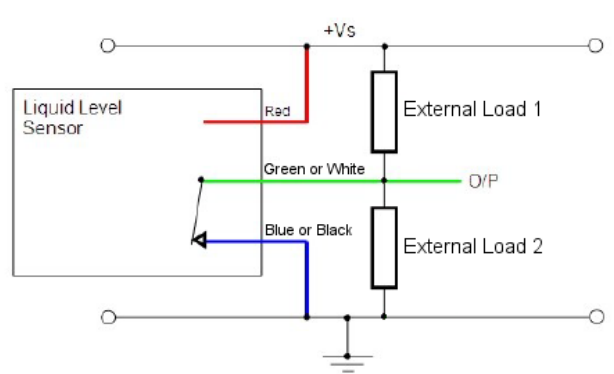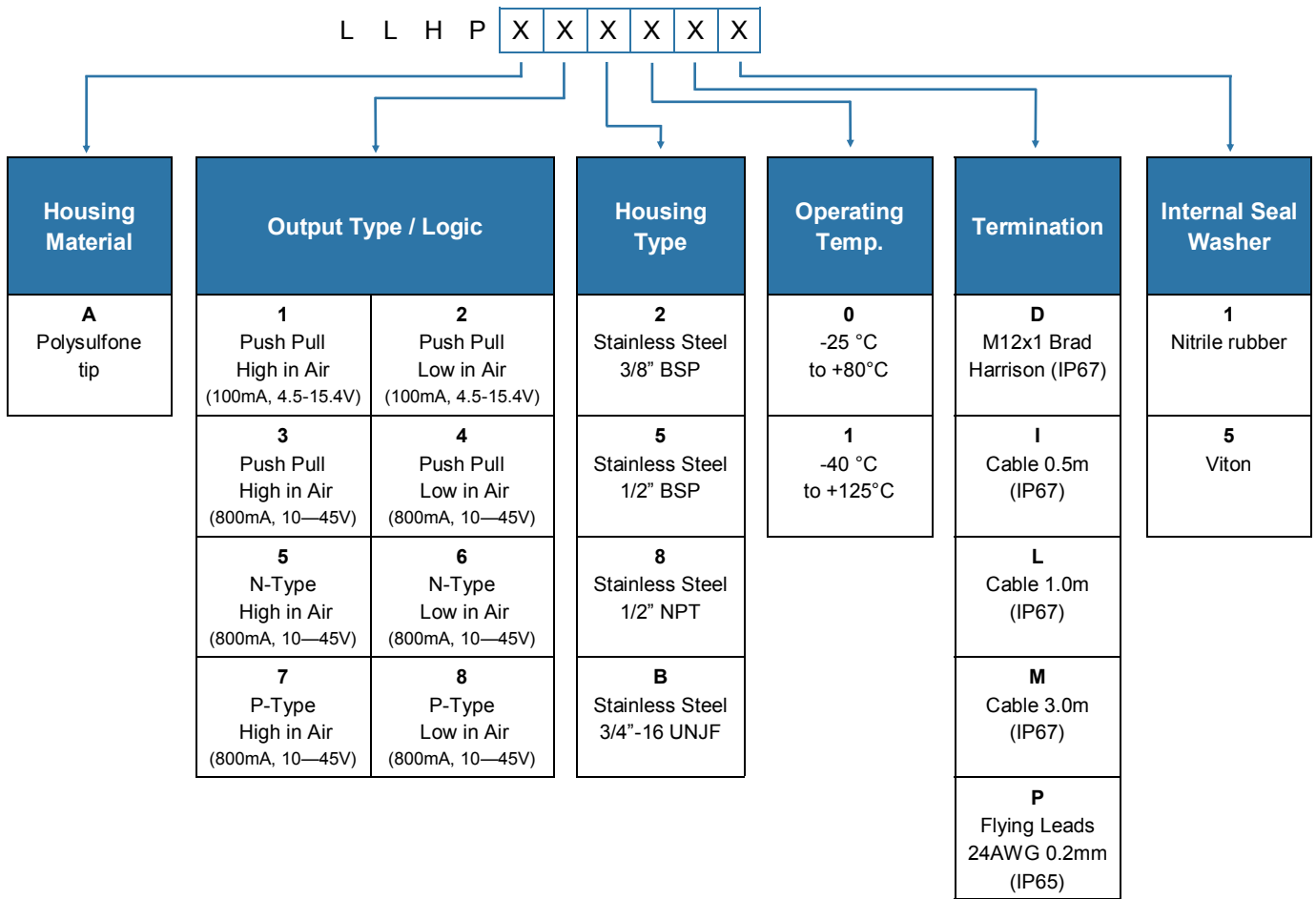Generate your specific part number using the convention shown below. Use only those letters and numbers that correspond to the sensor and output options you require — omit those you do not.

L L H P [X] [X] [X] [X] [X] [X]

Housing Material	Output Type / Logic		Housing Type	Operating Temp.	Termination	Internal Seal Washer
A Polysulfone tip	**1** Push Pull High in Air (100mA, 4.5-15.4V)	**2** Push Pull Low in Air (100mA, 4.5-15.4V)	**2** Stainless Steel 3/8" BSP	**0** -25 °C to +80°C	**D** M12x1 Brad Harrison (IP67)	**1** Nitrile rubber
	3 Push Pull High in Air (800mA, 10—45V)	**4** Push Pull Low in Air (800mA, 10—45V)	**5** Stainless Steel 1/2" BSP	**1** -40 °C to +125°C	**I** Cable 0.5m (IP67)	**5** Viton
	5 N-Type High in Air (800mA, 10—45V)	**6** N-Type Low in Air (800mA, 10—45V)	**8** Stainless Steel 1/2" NPT		**L** Cable 1.0m (IP67)	
	7 P-Type High in Air (800mA, 10—45V)	**8** P-Type Low in Air (800mA, 10—45V)	**B** Stainless Steel 3/4"-16 UNJF		**M** Cable 3.0m (IP67)	
					P Flying Leads 24AWG 0.2mm (IP65)	

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

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⚠ 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 tricholerthane 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

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.

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