

DATA SHEET

Liquid Level Switches



POS 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 crystal glass tip
- Choice of terminal connections



Housing/ Mounting <p>1/2" BSPP</p>	Output Type / Logic <p>N-TYPE P-TYPE</p>	Supply Voltage <p>12 - 30 V VOLTAGE</p>	Output Current <p>UP TO 200mA CURRENT</p>	Temp <p>-25°C to +100°C TEMPERATURE</p> <p>-25°C to +140°C TEMPERATURE</p>
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BENEFITS

- Suitable for use within aggressive environments
- Extreme temperatures
- LED output indication

OUTPUT VALUES

Output Voltage^b (Vout): $I_{out} = 200mA$
Vs = 12—30V_{DC}
 Output High $V_{out} = V_s - 1.5V \text{ max}$
 Output Low $V_{out} = 0V + 0.5V \text{ max}$

TECHNICAL SPECIFICATIONS

Supply voltage (Vs)	12V _{DC} to 30V _{DC}
Supply current (Is)	25mA max.
Output sink and source current (Iout)	200mA max.
Operating temperatures	POS187: -25°C to +100°C POS287: -25°C to +140°C
Storage temperatures	-25°C to +80°C
Housing material	Stainless Steel with Simax crystal glass tip ^a
Sensor termination	M12 Brad Harrison connector or PUR 3x0.25mm ² , 2m cable

Other sensor options available on request



a) Before use check that the fluid in which you wish to use these devices is compatible with Simax crystal glass.
 b) Voltages applicable to output value stated.

OUTLINE DRAWING

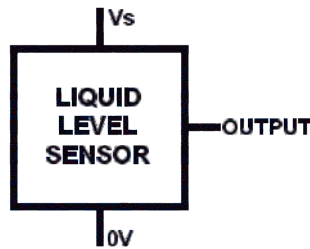
All dimensions shown in mm. Tolerances = ±1mm.

HOUSING SPECIFICATIONS

		Housing	
		POS187	POS287
Thread		G1/2" (1/2" BSPP)	
Pressure ^c		80 bar / 1160 psi maximum	
Sensor Termination		Cable: PUR 3 x 0.25mm ² , 2m long (IP68)	
		M12x1 Brad Harrison micro (IP67)	

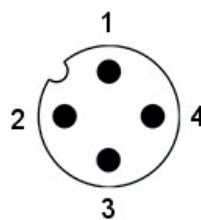
ELECTRICAL INTERFACE

Cable



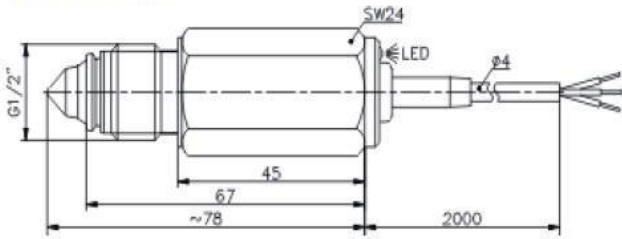
Wire	Designation
Brown	Vs
Black	Output
Blue	0V

Brad Harrison micro

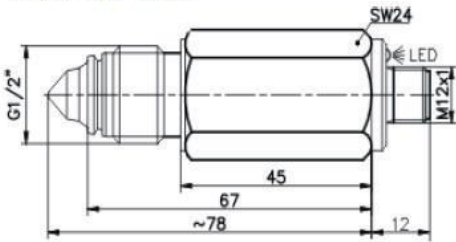


Pin	Designation
1	Vs
2	Output: N-Type Low in Air P-Type High in Air
3	0V
4	Output: N-Type High in Air P-Type Low in Air

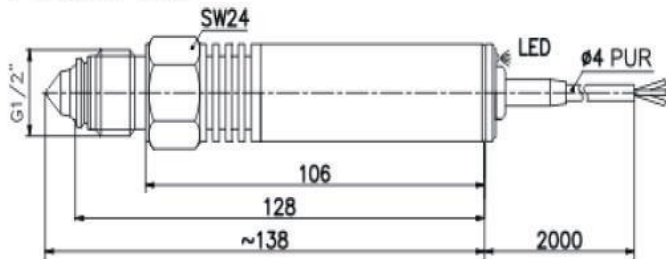
POS187-3XX



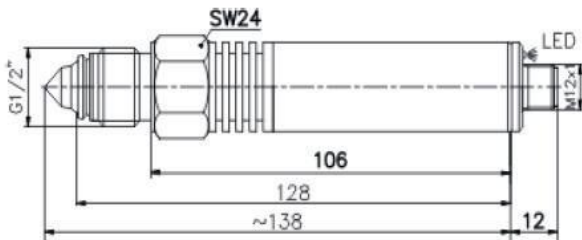
POS187-4XX



POS287-3XX



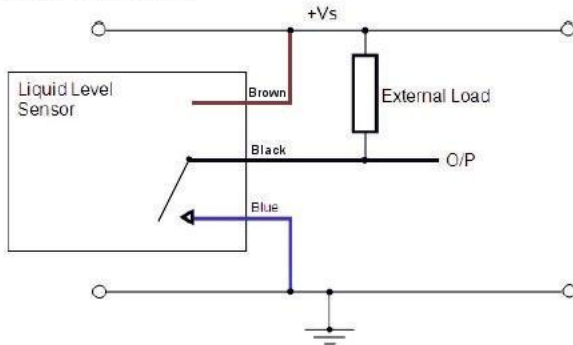
POS287-4XX



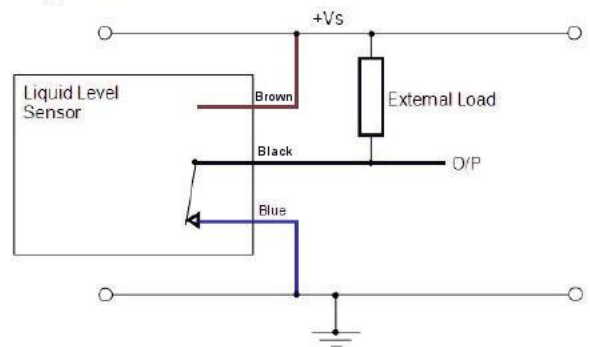
CIRCUIT DIAGRAMS

In order to suit any application, these sensors have been designed with various output circuit configurations. They are identified by the 2-digit code at the end of the part number as shown in [Order Information](#).

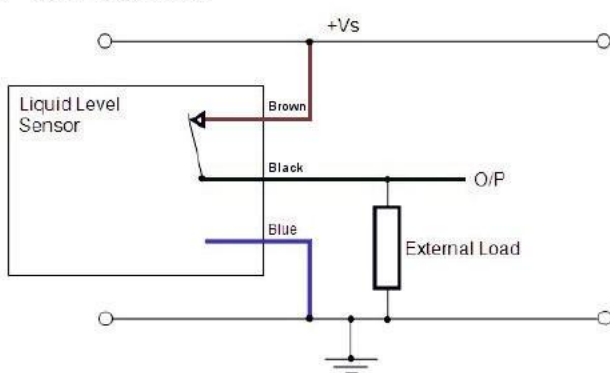
N-Type High in Air



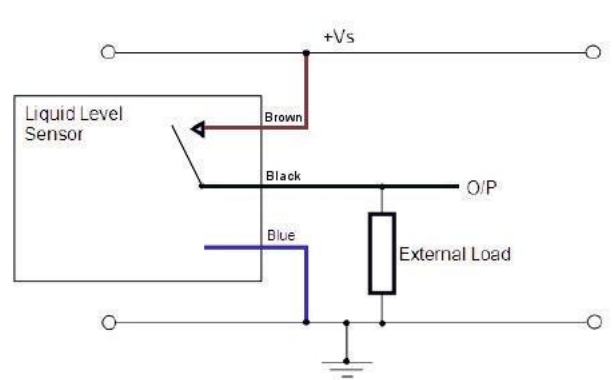
N-Type Low in Air



P-Type High in Air



P-Type Low in Air



CAUTION: Take care when connecting loads.

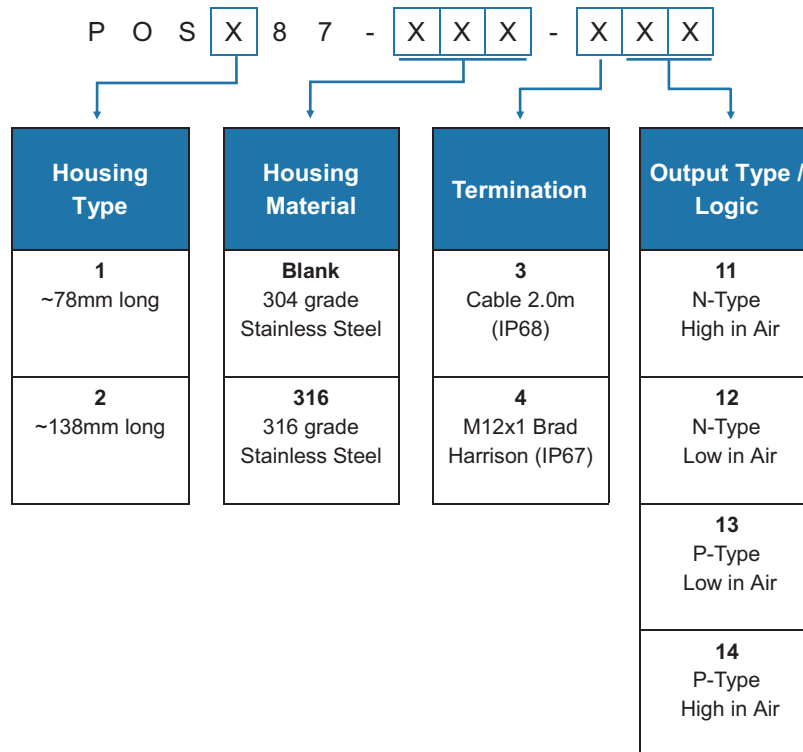
The minimum load impedance should not exceed $V_s/\text{max output current}$.

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.

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.

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 Simax crystal glass.

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.