

OL series and SH10, Miniature Liquid Level Sensor

Simple and Low Cost Solution for Liquid Level Measurement

Product Overview



These miniature liquid sensors are designed for reliable operation in small tanks and containers. Their rugged design and careful engineering make them the perfect solution for OEM and build in sensor for mass-produced products.

These sensors contain hermetically sealed reed switch in the stem and a permanent magnet in the float. As the float rises or falls with the level of liquid, the reed switch is activated by the magnet in the float. The operation of the switch, normally open or normally close, is easily changed by inverting the float.

Model OLV-2P, OLV-2F, OLV-5 and OLH-3 are certified in conformity with standard of Food, Additives, etc. by Japan Food Research Laboratories, authorized by the Japan Ministry of Health and Welfare.

Some of sensors conform to RoHS directive. Six materials such as Lead, Mercury, Hexavalent Chromium, Polybrominated Biphenyls, Polybrominated Diphenyl Ethers, and Cadmium are not contained.

Features

- **Compact, Low cost, Variety of standard products**

Many types of standard products by compact size and low cost are suitable for diversified liquid detection.

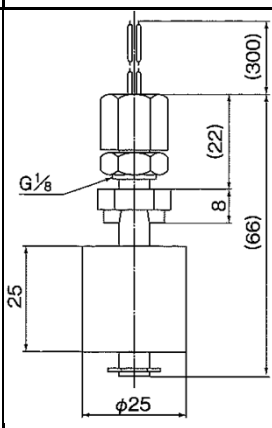
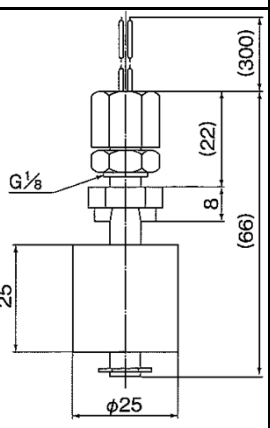
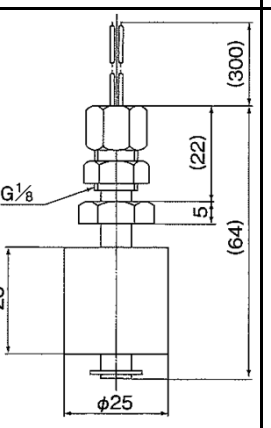
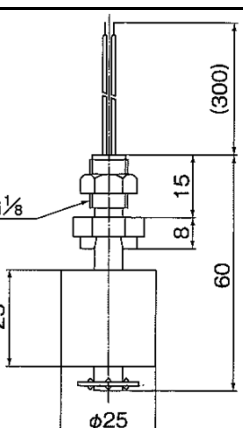
- **Not affected by the condition inside of tank**

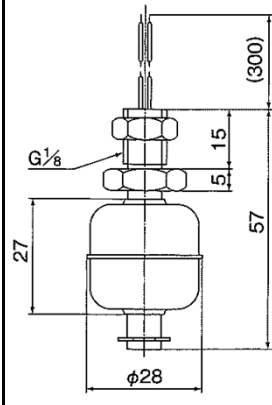
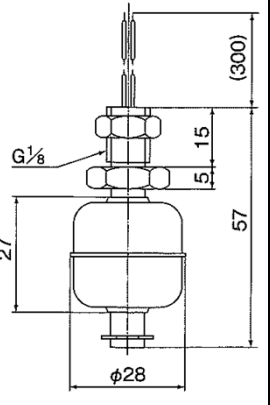
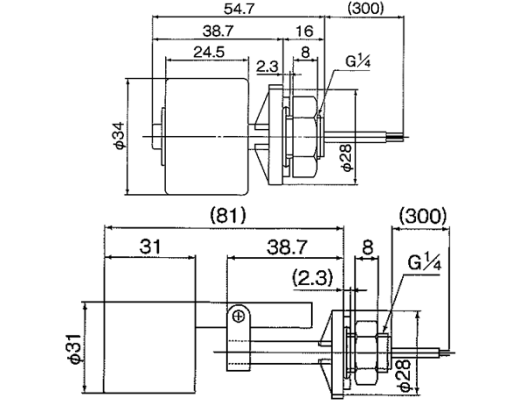
These sensors are not affected by the condition inside of tank as temperature and pressure change, capacitance and conductivity of liquid, and etc.

- **Perfect solution for built-in sensor of mass-produced products**

Many of standard products can make the sensor to fit the requested specification for built-in sensor of mass-produced products. The combination of sensor body and float can be selected to fit your application.

Specification

Model	OLV-2A	OLV-2P	OLV-2B	OLV-2F
Approval	CE, RoHS, NK	CE, RoHS, NK	CE, RoHS, NK	CE, RoHS, NK
Drawing				
Material	Stem	Polyacetal	PP	Brass (Nickel Plating)
	Float	BUNA	Foamed PP	BUNA
	Retainer	316SS	PP	316SS
Operating Temperature	-10 to 90°C		-10 100°C	
Maximum Pressure	1 MPa			2 MPa
Mounting Type	Vertical			
Switch Rating	50VA, 0.5A, 300V AC			
Lead Wire	UL1430 AWG 22, 300mm or 1000mm			
Minimum SG	0.6	0.85	0.9	0.8

Model	OLV-5	OLV-5UN	OLH-3, OLH-10
Approval	CE, RoHS, NK	UL	CE, RoHS
Drawing			
Material	Stem	316SS	
	Float	316LSS	
	Retainer	316SS	
Operating Temperature	-10 to 100°C		-10 90°C
Maximum Pressure	2 MPa		1 MPa
Mounting Type	Vertical		Horizontal
Switch Rating	50VA, 0.5A, 300V AC		
Lead Wire	UL1430 AWG22	UL3266 AWG22	UL1430 AWG22
Minimum SG	0.8		0.8

*1 The special material of PPS is available for Model OLH-11.

*2 Magnet is exposed and in direct contact with liquids for OLH-3, but not for OLH-10.

Specifications

Model	SH10		OLV25S/90	
Approval	CE, RoHS		RoHS	
Drawing				
Material	Stem	316SS	304SS	
	Float	316LSS	316LSS	
	Retainer	316SS	304SS	
Operating Temperature	-10 to 120°C		-10 to 100°C	
Maximum Pressure	1 MPa		2 MPa	
Mounting Type	Horizontal			
Switch Rating	50VA, 0.5A, 300V AC			
Lead Wire	UL1430 AWG22			
Minimum SG	0.6		0.8	

Technical notes

- 1 The sealing compound over the lead wire egress prevents moisture penetration, but is insufficient to prevent water penetration. Please apply suitable sealant to protect against water penetration.
- 2 If there is surface wave motion, use a timer relay to dampen the switch action.
- 3 The level sensor should be located away from strong magnetic fields generated by motors, solenoid valves, etc.
- 4 To protect the reed switch from electrical surge, Model RE7000 relay unit is an ideal solution.

Model RE7000



Features

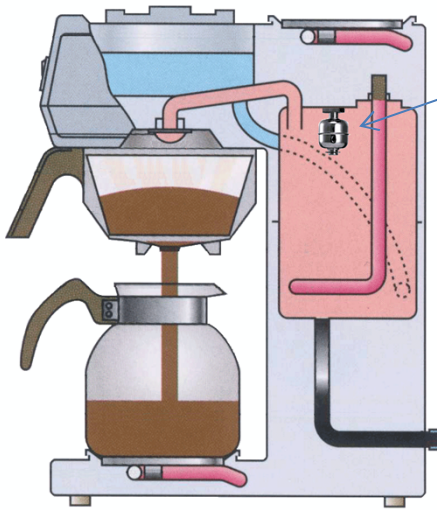
- Low cost relay for convert large loads and alternating pumps
- Power source for level sensor of 8V 5mA AC Max.
- Separation distance between sensor and relay is 1km Max.

Main Specifications

Supply Power	90 to 132 / 180 to 264V AC, 50/60Hz
Power Consumption	Approx. 1.5VA Max.
Relay Contact	1 SPDT, 240V 5A AC, 30V 5A DC (Resistive)
Operating Resistance	4k Ω or less
Release Resistance	15k Ω or more
Operating Temperature	0 to 50 °C
Operating Humidity	85%RH Max.

● Coffee Maker

OLV-5T has been supplied to coffee maker manufacturer. This sensor is ideal for controlling the hot water level of the inner storage tank.



OLV-5T is installed at the top of water heating tank to prevent overflow.

Main Specifications

- The material of wetted parts are 316SS and 316LSS.
- The surface of stem is equivalent with #320 buffing, and the float is electric polished.
- The operating temperature is 120 °C Max.

● Electrolyzed Water Produce Machine

The special sensor of OLH-11 has been supplied to the manufacturer of Electrolyzed Water Produce Machine. This sensor is especially designed to the application of strong alkaline water and acid electrolyzed water, which the material of PP can not withstand in this application.



Main specification

- The wetted parts of sensor is PPS.
- Operating temperature is 100 °C Max.
- Maximum pressure is 1MPa.

What is PPS (Poly Phenylene Sulfide Resin)?

PPS is a high temperature semi-crystalline material, which has good mechanical properties and excellent chemical resistance at elevated temperature. Heat resistance is 240°C in normal condition and 350°C in short duration.

NOHKEN INC.

Overseas Dept. Export sales section

15-32, Hiroshiba-cyo, Suita-city, Osaka, 564-0052, Japan

Tel:06-6386-8149 / Fax:06-6386-8307

E-mail:overseas.dept@nohken.co.jp

URL:<http://www.nohken.com>

