



M12*1 Aviation plug

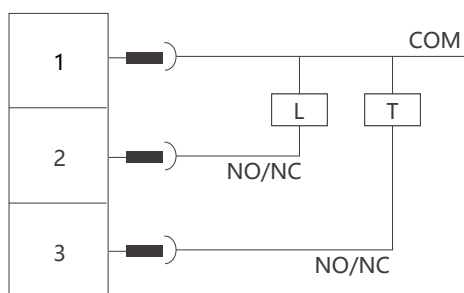
Principles characteristics

Standard type liquid level switch, has many kinds of standard length control rod length. It can be used in small oil and water tank to detect the height and temperature of liquid level.

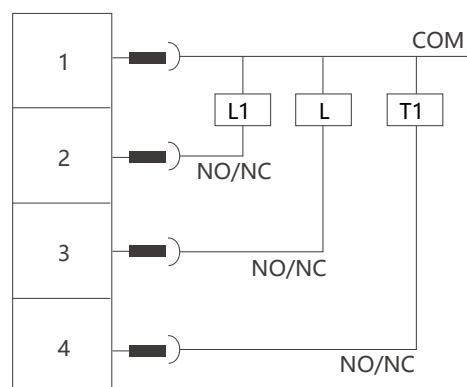
- all-in-one detection of temperature of optional liquid
 - flange or threaded connection
 - high temperature 105°C
 - protection level IP65
 - 70 - v / 0.75 A
 - brass 20bar, stainless steel 60bar DIN43650
- Electrical connection, M12 air plug optional

wiring diagram

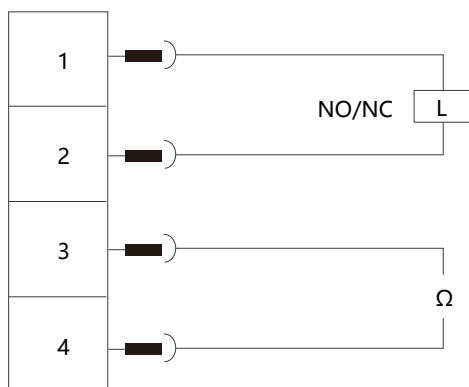
1 way liquid level switch +1 way temperature switch



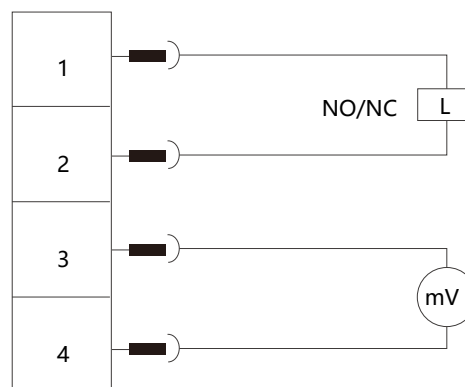
2 way liquid level switch +1 way temperature switch



1 way liquid level switch + temperature PT100

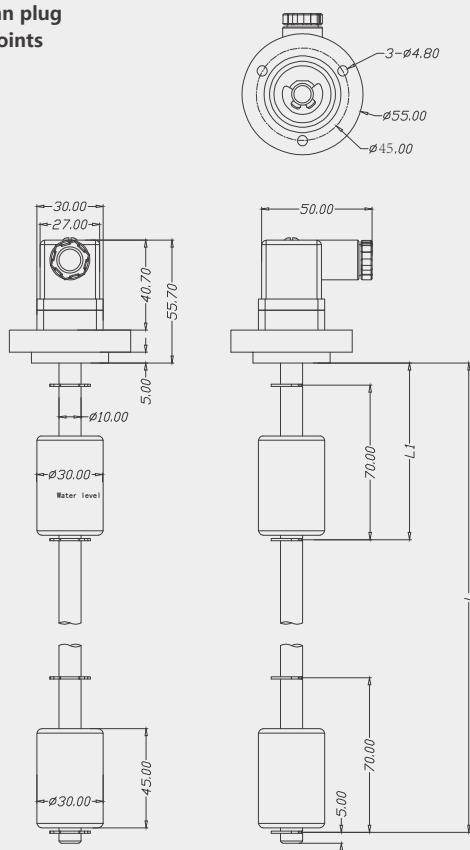


1 way liquid level switch +K thermocouple

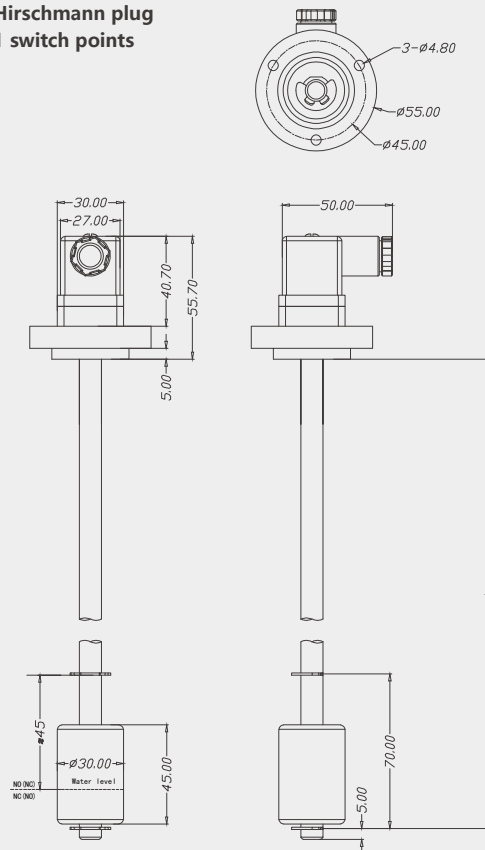


Size chart (mm)

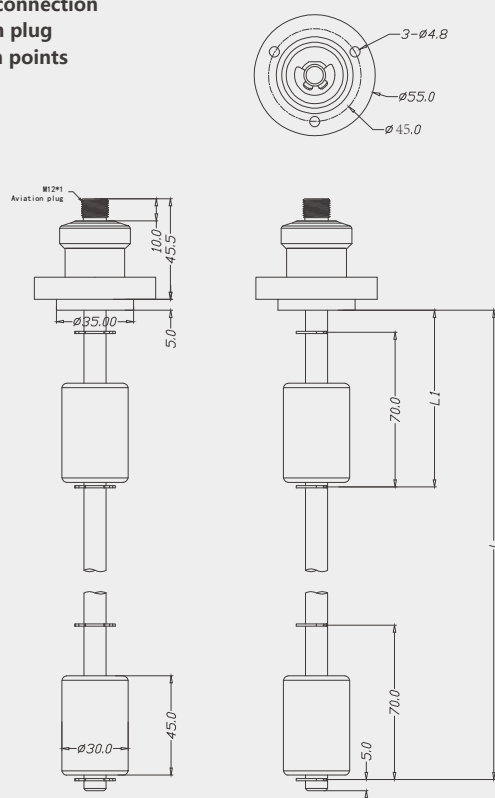
Flange connection
Hirschmann plug
2 switch points



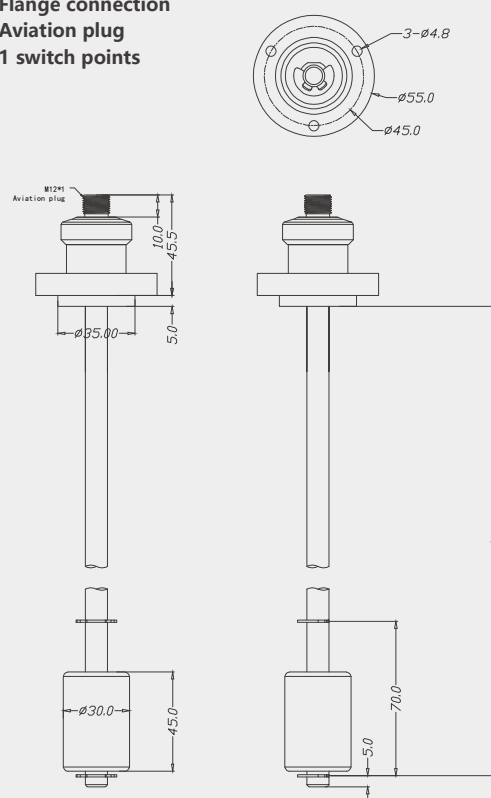
Flange connection
Hirschmann plug
1 switch points



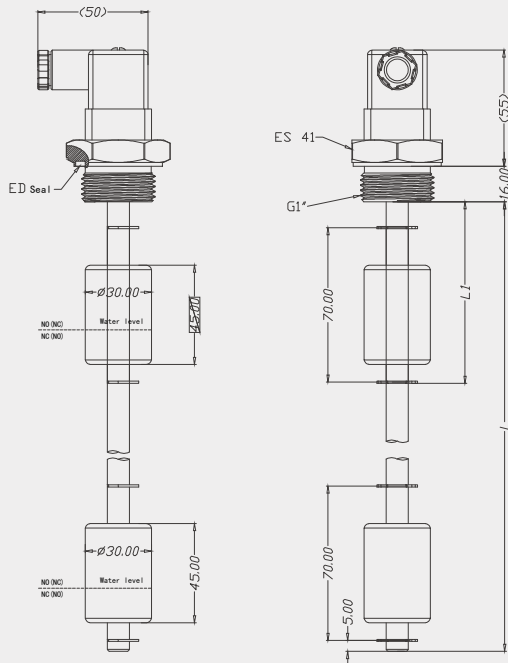
Flange connection
Aviation plug
2 switch points



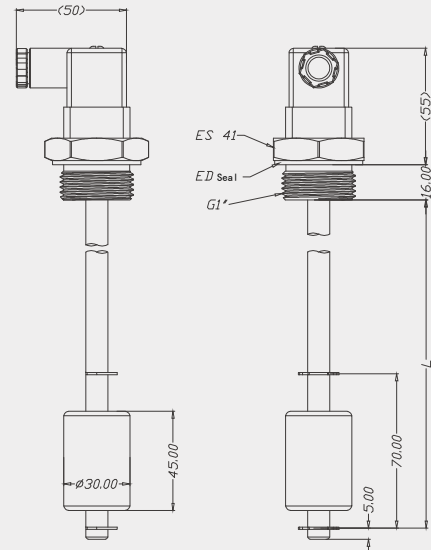
Flange connection
Aviation plug
1 switch points



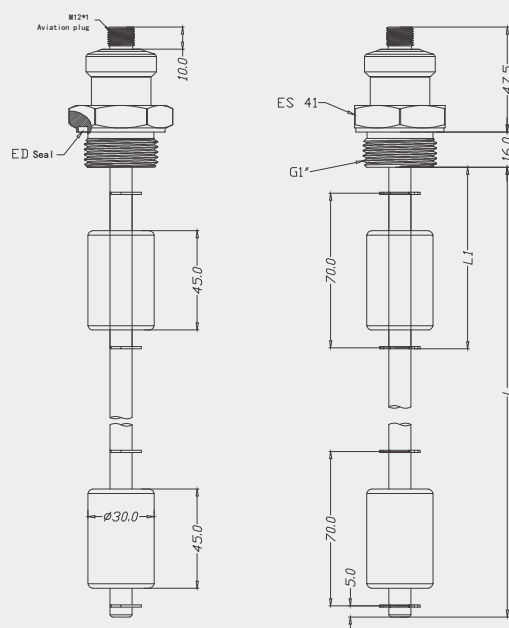
**Threaded connection
Hirschmann plug
2 switch points**



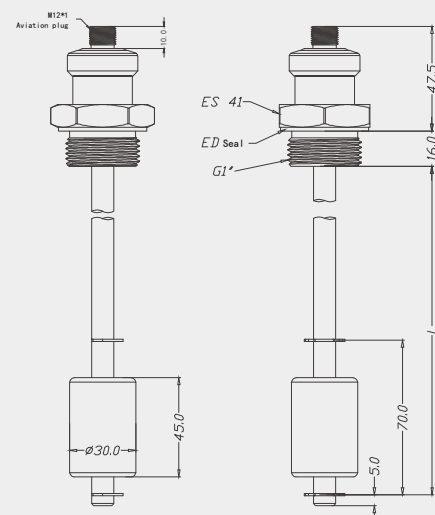
**Threaded connection
Hirschmann plug
1 switch point**



**Threaded connection
Aviation plug
2 switch points**



**Threaded connection
Aviation plug
1 switch point**



Selection Table

LC100-	XX	NO	XX	NO	S	F	B	P	NO	-	detailed		
LC100											Float type liquid temperature switch		
	XX										First switching point L=XX (unit mm)		
		NO									L Normally open output (High closure)		
		NC									L Normally closed output (High disconnect)		
		R									Normally open + normally closed (single switching point only)		
			XX								Second switch point L1=XX(unit mm)		If there are no two switch points, you do not need to select this function
				NO							L1 Normally open output (High closure)		
				NC							L2 Normally closed output (High disconnect)		
					S						Stainless steel 304		
						G					Install G1 with thread		
						F					Flange installation		
							B				Hersman plug DIN43650		
							M				M12*1 aviation plug		
								60			Temperature switch value XX(unit °C)		If there is no temperature protection, you can leave this function unselected
											NO	Normally open (high temperature closed)	
											NC	Normally closed (high temperature disconnect)	
								P		Two-wire PT100 output			
								K		Type K thermocouple output			
									NO	Temperature normally open output (PT100 and thermocouples do not need to select this option.)			
									NC	Temperature normally closed output (PT100 and thermocouples do not need to select this option.)			
										-	Switch through voltage 24VDC		
										AC	Switch through voltage 220VAC		

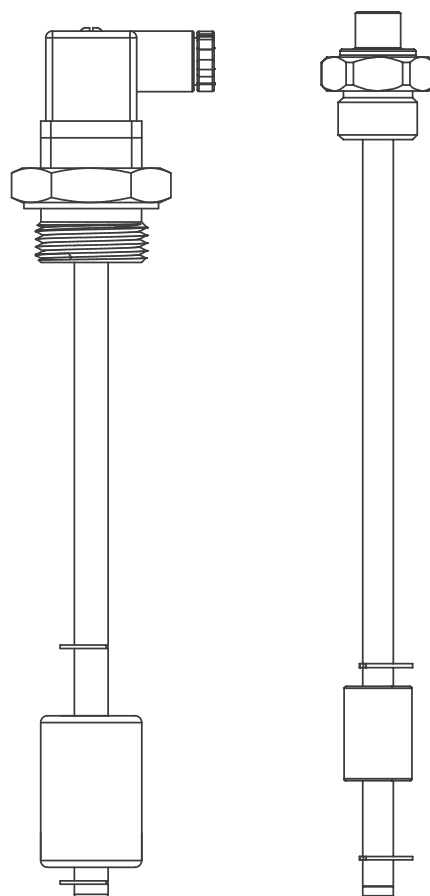
—— Sensor and controller ——
■ Flow ■ pressure ■ temperature ■ level ■ position

KATU 卡图

Operation instruction

Float liquid temperature switch

LC Series



Safety statement

Before installing this device, please read this document to ensure that the product is suitable for your application and is not limited in any way;

Failure to follow operating instructions or technical documentation may result in personal injury or property damage;

Check compatibility of the product material with the medium under test in all application ranges;

The equipment is only used as the tested medium, and it must only be ensured that the equipment is correctly used to ensure long-term stable operation and that the tested medium will not cause damage to the tested part of the product;

! The responsibility for determining whether the measurement sensor is suitable for the application lies with the operator, and the manufacturer accepts no responsibility for the consequences of improper use by the operator. Improper installation and use of the sensor results in invalid claims under warranty.

Flow sensors monitor the medium flow of fluids

Precautions: Beware of personal injury, overpressure danger!

wiring

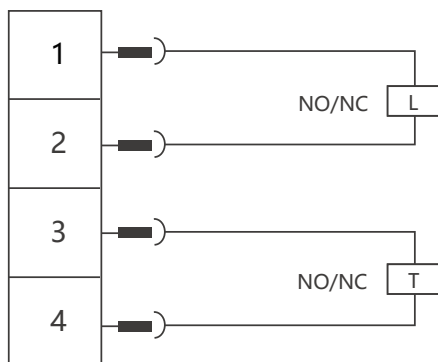
Disconnect the power supply: Before connecting cables, disconnect all power supplies related to the temperature switch to ensure personal safety and avoid electric shock.

Confirm the model specifications: Carefully check the temperature switch model, rated voltage, rated current and other parameters to ensure that they match the actual circuit and device to prevent the temperature switch from working properly or even damaging the device due to parameter mismatch.

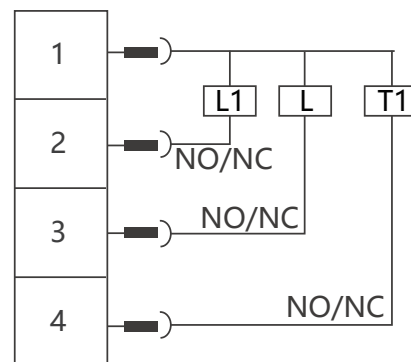
Check the circuit: Check whether the wire connecting to the temperature switch is damaged, aging, short circuit and other problems. If there is a problem, replace the wire in time to ensure good electrical performance of the line.

LC100/LC100A/LC100B: Wiring diagram

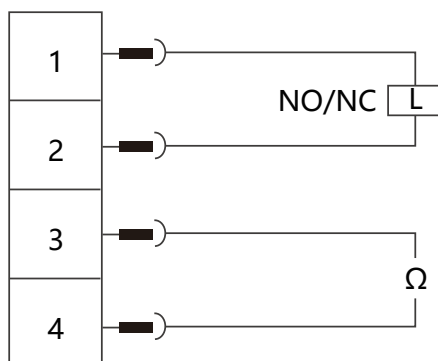
1 level switch + 1 temperature switch



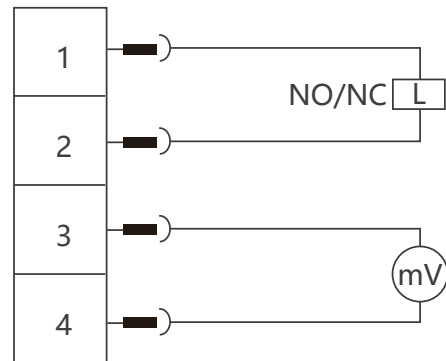
2 level switch + 1 temperature switch



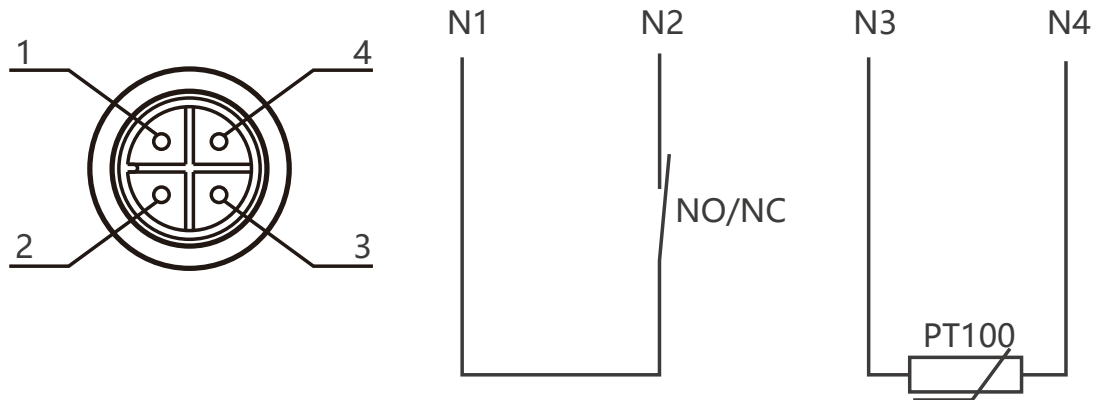
1 level switch + temperature PT100



1 level switch + Type K thermocouple

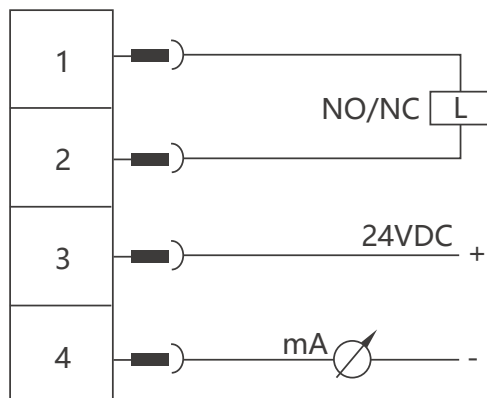


LC101: Wiring diagram

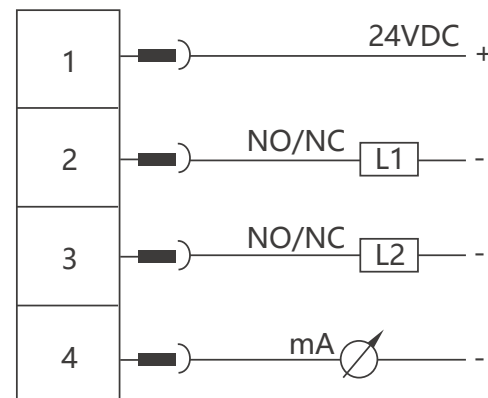


LC102: Wiring diagram

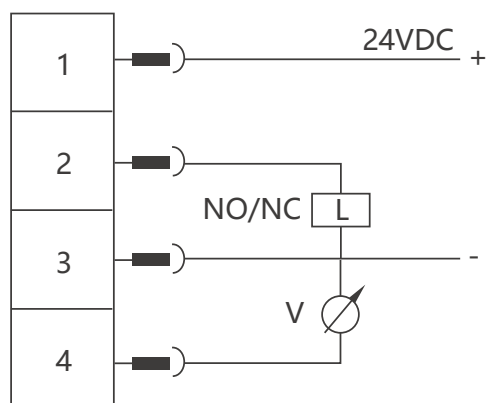
1 level alarm + temperature two-wire current signal



2 level alarms + temperature two-wire current signals



1 level alarm + temperature and voltage output



Installation location selection

Liquid level measurement requirements: The installation position of the float should ensure that it can float freely up and down within the range of liquid level change, to avoid collision or interference with the container wall, stirrer and other components. In general, the distance between the float and the container wall should be no less than 1.5 times the diameter of the float, and for containers with stirring devices, the float should be installed outside the mixing area.

Temperature measurement requirements: The temperature sensor part should be installed in a position that can accurately reflect the temperature of the measured medium, and avoid installation near the heating source, cooling source or area with obvious temperature gradient. At the same time, it is necessary to ensure that the temperature sensor has good thermal contact with the measured medium to ensure the accuracy of temperature measurement.

Easy maintenance and operation: choose a location that is easy to install, debug, maintain and overhaul, and there should be enough space around it for the operator to operate and overhaul, generally requiring at least 0.5 meters of space around.

Installation Angle and direction

Float Angle: The float connecting rod should be kept perpendicular to the liquid level to ensure that the float can accurately transmit the level signal when the level changes. If the float rod is tilted, it may lead to increased error in liquid level measurement and even make the switch misoperate.

Temperature sensor direction: The temperature sensing element of the temperature sensor should be perpendicular to the flow direction of the measured medium or at a certain Angle to fully feel the temperature change of the medium. For liquid media, the temperature sensor should generally be vertically inserted into the liquid; For the gas medium, the installation Angle should be reasonably selected according to the gas flow situation to ensure that the temperature sensing element can fully contact the gas.

Connect and fix

Pipe connection: If it is installed on the pipe, make sure that the pipe connection is firm and there is no leakage.

When using flange connection, ensure that the flange surface is smooth and the gasket is installed correctly;

When using thread connection, pay attention to the specification matching and tightening strength of the thread to avoid leakage or damage to the thread.

Container wall fixing: When installed on the container wall, use appropriate fixing devices, such as clamps, bolts, etc., to fix the switch firmly to prevent the switch from loosening or shifting due to vibration, impact and other reasons during the operation of the equipment. At the same time, it should be noted that the fixed device should not affect the floating of the float and the normal operation of the temperature sensor.

post-installation

Debugging and calibration: After installation, it is necessary to debug and calibrate the float type liquid level temperature integrated switch. By changing the liquid level and temperature, check whether the output signal of the switch is normal, and whether the display value of the liquid level and temperature is accurate.

Seal check: Comprehensively check the sealing of the installation parts, including pipe joints, container wall installation, junction boxes, etc., to ensure that there is no leakage.

Operation monitoring: After the equipment is put into operation, it is necessary to regularly monitor the float type liquid level temperature integrated switch to observe whether its working status is normal, whether the liquid level and temperature display is stable and accurate, and whether the output signal is reliable.

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