

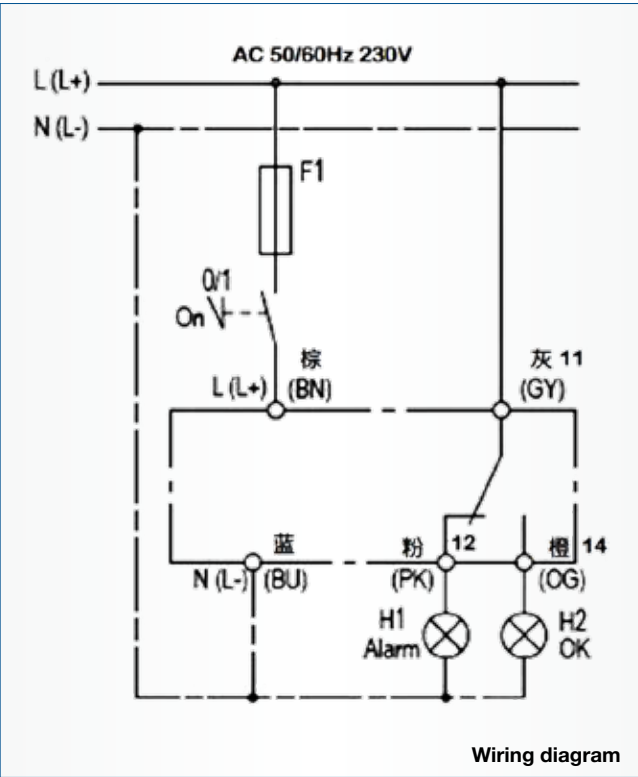
Optical Level Monitor - ILM-D series

光电式液位监视器 - ILM-D 系列



ORDER CODE:

- * ILM-D1 is installed on the lower side of the vessel to monitor the low level alarm.
- * ILM-D2 is installed on the upper side of the vessel to monitor the high level alarm.



APPLICATION:

The ILM-D series optical level monitors are used for contactless monitoring of the liquid levels. This is accomplished by a screw-in optical prism installed at the measuring point for optical level scanning as we as an electronic, removable evaluation unit.

The evaluation unit can be replaced without opening the reservoir of the monitored liquid.

FEATURES:

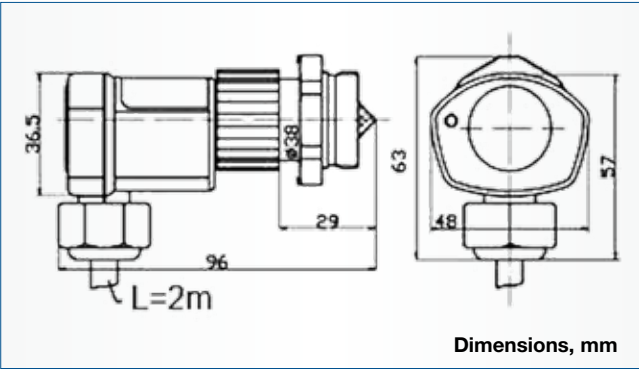
- * Evaluation unit (electronic head) and screw-in optical prism (glass head) feature a detachable design, with unconnected glass head protection, not affected by direct light, level detection anti-jitter delay processing.
- * Glass head can withstand -55°C till 125°C liquid (see technical specifications).

FUNCTIONAL DESCRIPTION:

- * The level monitoring starts to monitor the level after it is powered on.
- * When the level is OK, the relay is turned ON after a 5S delay, and the LED is bright green; when the level is in the fault area, the LED is bright orange, the relay is turned OFF after a delay of 6S, and the LED is bright red.
- * When the evaluation unit is not connected with the screed- in optical prism, the LED red light flashes and the relay is turned OFF after a delay of 6S.

SPECIFICATIONS FOR ELECTRONIC HEAD:

Item	Description
Voltage	AC 230V -15% ... +10% 3VA AC/DC 24V -5% ... +6% 3VA
Ambient temperature	-30°C ... +70°C
Humidity	Max. 95%, without condensation and frosting
Type wet	With liquid: relay on, green LED on
Type dry	Without liquid: relay on, green LED on
Output relay	Max. AC 240V 2.5A, C300 Min. AC/DC > 24V > 20mA
Service life	Approx. 1 million switching cycles
Connection type	Cable 5 x AWG-18#, L = 2m, color coded
Protection class (EN 60529)	IP54, in mounted condition
Mounting	Union nut
Weight	Approx. 220gr.



LED signals the current status:

- * Red flashing (10Hz): the evaluation unit is not connected with the screed-in optical prism.
- * Red LED on: the level is in the fault area.
- * Green LED on: level is ok, relay is turned on, no error.
- * Orange LED on: the level is in the fault area for delay.

Screw-in Optical Prism (Glass Head)

旋入式光学棱镜 (玻璃头)



INSTALLATION INSTRUCTIONS:

The max. torque of the glass head is 75Nm and needs to be ensured by a ring spanner or a socket key. After installation, check for leaks.

Clean the inside of the glass head. Fit the electronic head in the glass head and tighten the coupling ring (torque approx. 6Nm). Pay attention to the position of the lead (cable exit downwards). Complete the electrical wiring according to the attached circuit suggestions. After filling the tank, check the tightness of all joints.

SPECIFICATIONS FOR SCREW-IN PRISM:

Model	Description
118XP 118XP-C with foam shield	Thread: 1-1/8" – 18UNEF-2A. Operating pressure: 140 bar. Medium temp.: -10°C ... +125°C For CO ₂ transcriticality: Operating pressure: 105 bar. Medium temp.: -55°C ... -10°C
118A	Thread: 1-1/8" – 18UNEF-2A. Operating pressure: 60 bar. Medium temp.: -40°C ... +125°C
M20A	Thread: M20 x 1.5 Operating pressure: 60 bar. Medium temp.: -40°C ... +125°C
1/2NPT	Thread: 1/2" – 14NPT Operating pressure: 60 bar. Medium temp.: -40°C ... +125°C
Weight	Approx. 110gr.

Note:

- 1) 118A, 118XP and M20A glass heads are enclosed with ø32xø28.5x2 and ø24xø20x1.1 Aluminum gasket.
- 2) 118A, 118XP glass head is tested at low temperature under no pressure -60°C.
- 3) All glass heads are suitable for ammonia.

