

Features

- Unmodulated infrared sensor for liquid level detection.
- Built-in amplifier, Ga-As diode.
- Output : Transistor NPN/PNP.
- High chemical resistance to most acids and bases.
- No electrical or thermal connection between liquid and electrical circuit.
- LED-indication for output ON.



Specifications

Type	PL-03N	PL-03P
Output mode	NPN / NO	PNP / NO
Rated operational voltage	10 - 40 VDC	
Rated operational current	200 mA	
Voltage drop	1.0 VDC	
No-load supply current	12 mA	
Frequency of operating cycles (f)	30 Hz	
Sensing accuracy	Horizontal mounting : ± 5 mm Vertical mounting : ± 2.5 mm	
Ambient light	0 - 100 lux	
Degree of protection	IP 67	
Operating temperature	-20 ~ +80	
Storage temperature	-40 ~ +100	
Indication for output status	LED, yellow	
Weight	90 g	
Connection	Cable (PVC), 2 m	
Pressure	10 bar at +60	
Pipe thread	3/8 " PT	

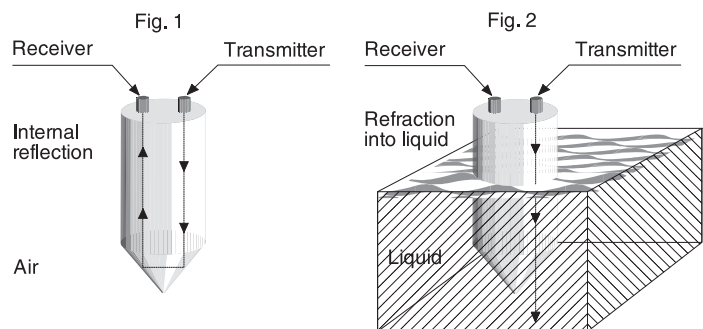
Operation

The sensor contains IR transmitter, receiver and amplifier with transistor or SCR output. The light source is a Ga-As diode emitting infrared light.

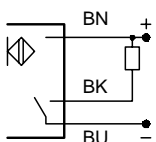
The conical tip of the sensor forms an angle of 90°C. This angle acts as a prism, i.e. the beam, emitted from the Ga-As diode placed in one side of the sensor head, is reflected internally to the phototransistor placed in the other side of the sensor head, provided

that the tip of the sensor is situated in free air. If the sensor tip is immersed in a liquid, always having a refractive index different from air, the beam will not be refracted by the prism and the photo transistor will not receive any signal.

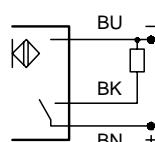
The sensor types can operate in oil, waste water, aqueous solutions such as beer, wine, alcohol etc. without any kind of accessory.



Wiring Diagrams

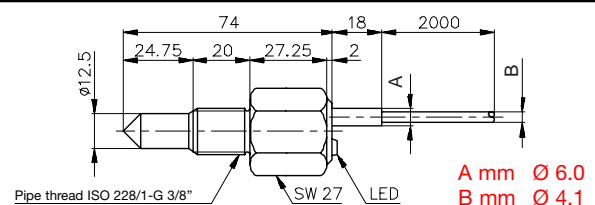


PL-03N



PL-03P

Dimensions (Unit:mm)



A mm $\varnothing 6.0$
B mm $\varnothing 4.1$