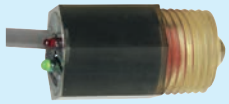
Series
OLS

Optical Level Switch

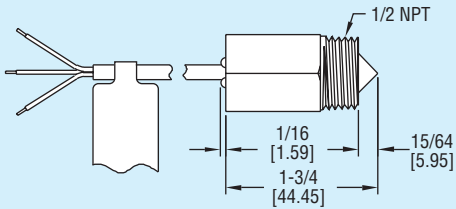
Low Cost, Compact, LED Indication, No Moving Parts

OLS-10



OLS-11

OLS-12



Low cost, rugged optical level switch provides rapid response while employing no moving parts for stable process control. The bright red and green LED's indicate the presence or absence of liquid for true, local indication. Three optional materials, 316 SS, polysulfone and PFA provide application flexibility. Compact switch can be quickly mounted horizontally or vertically for each installation.

Principles of Operation

The optical level switch employs an LED, which transmits infrared light. This light is sent through a prism and reflected back to a photo-transistor utilizing two 90° light reflections. With the prism surrounded by a gas, the light source is cast back to the photo transistor. When a translucent liquid is introduced to the prism at or above the point where the light source makes contract with the prism, the light is reflected into the liquid, not allowing the photo-transistor to energize.

APPLICATIONS

- Food and beverage systems
- Liquid holding tanks
- Hydraulic reservoirs
- Sumps
- Pharmaceutical systems
- Air conditioning systems

SPECIFICATIONS

Service: Noncoating compatible liquids.
Wetted Materials: See model chart.
Temperature Limit: Process: OLS-10, 11: 200°F (93.3°C), OLS-12: 120°F (48.9°C); Ambient: OLS-10, 11: 175°F (79.4°C), OLS-12: 120°F (48.9°C).
Pressure Limit: OLS-11, 12: 200 psig (13.8 bar); OLS-10: 1000 psig (69 bar).
Repeatability: ±0.02″ (0.5 mm).
Switch Type: NPN open collector.

Model	Wetted Materials
OLS-10	316 SS/Polysulfone
OLS-11	Polysulfone
OLS-12	PFA

Power Requirements: 10 to 28 VDC.
Output Signal: Vout (max) = 28 VDC, Isink (max) = 100 mA.
Current Consumption: 35 mA maximum.
Electrical Connections: 38″ (965.2 mm) 3 conductor cable, 22 AWG wire.
Process Connection: 1/2″ male NPT.
Mounting Orientation: Can be mounted in any position.
Weight: 3 oz (0.085 kg).
Specific Gravity: No minimum.