

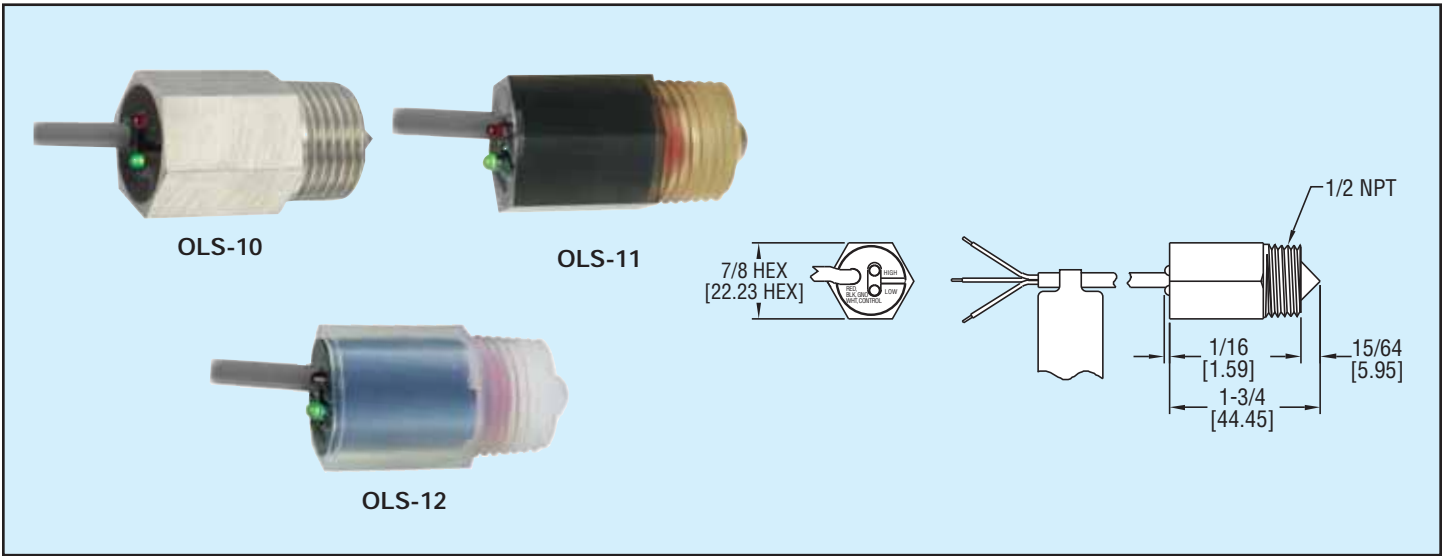


Series  
OLS

# Optical Level Switch

Low Cost, Compact, LED Indication

Level



**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 contact with the prism, the light is reflected into the liquid, not allowing the photo-transistor to energize.

**FEATURES**

- Compact Size
- LED Switch Indication
- No Moving Parts

Model No.	Wetted Materials
Model OLS-10	316 SS/Polysulfone
Model OLS-11	Polysulfone
Model OLS-12	PFA

**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.
- 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.

**Suggested Specifications**

Optical level switch shall be PFA, 316 SS and Polysulfone or Polysulfone construction. Unit shall provide an NPN open collector output signal. Switch shall be capable of mounting in horizontal or vertical position. Switch shall incorporate LED switch status.

**APPLICATIONS**

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