

## Sepra-Lite® Integral Optic Level Switches

**Sepra-Lite®**

**self-contained level switches with removable electronics**

Sepra-Lite® operates by sensing the difference between liquid and air (or other gas) using an infrared light source and detector. When the sensor is wetted, the transmitted light is lost into the liquid. When dry, the transmitted light is reflected by the prism back to the photo detector. This approach does not rely on any electrical interaction with the liquid. It has no moving parts and provides two main advantages: a wide variety of applications and the ability to separate the electronics for safety and troubleshooting.

Separability of the electronics module and sensor body is a key advantage. Since the sensor body is a passive part of the system, there is no need to shut down a machine or process when troubleshooting the Sepra-Lite® assembly. To verify operation, simply remove the electronics module and look into the “window”. If it is dark, liquid is present; if it is light, sensor is dry. By comparing this with the unit’s output or LED indicator, operation is easily and safely verified. Sepra-Lite® eliminates the need to open tanks or remove sensors to troubleshoot or repair.

When applying Sepra-Lite®, specific gravity, conductivity, vibration, and tight mounting constraints are not a problem. Dark, foggy, or colored liquids, such as: oils (light and heavy), glycols, detergents, heavy syrups, or caustics perform well. Sepra-Lite® is available in Brass and Teflon® (PFA). Two different mounting types provide a leak proof and/or high-pressure seal. To make using it even easier, the small overall size and minimal insertion are perfect where “in-pipe” use or “tight quarters” are encountered.

### General Specifications

- No external controller required
- Synchronous refractive detection system
- 10.8 to 26.4 VDC operating voltage (30mA consumption)
- NPN open collector output, includes selectable wet or dry sinking
- 100 mA output current (maximum) and adjustable sensitivity
- Easy to see red LED alarm indicator
- EMI, overcurrent and reverse polarity protected.
- NEMA 4X (IP 66) electronics module.

### A Popular Industry Choice for...

- Detecting liquid/gas phase change in air conditioners
- Oil levels in gear boxes
- Detecting dangerous leaks in laboratory and analytical machines
- Monitoring leakage in dual containment systems
- Precision control of chemical dispensing equipment

### Brass Sepra-Lite® with Quartz Window

Ideal for high pressure applications. The brass body withstands some of the most abusive applications.

- Use as sight glass for level verification when electronics are removed
- Adjustable sensitivity
- 600 psig (42kg/cm<sup>2</sup>) at -40° F to 185° F (-40° C to 85° C)
- PVC jacketed cable, 4 conductor (user extendable)



**GLL100501E**

#### Description

- 1/2" NPT, 15' (4.6m) cable
- 3/4" UNF-16 with Viton® O-ring seal, 15' (4.6m) cable
- 3/4" NPT with Neoprene O-ring seal, 15' (4.6m) cable
- 3/4" NPT with Neoprene O-ring seal, 30' (9.1m) cable

#### Part Number

- GLL100501A
- GLL100501C
- GLL100501E
- GLL100501G

# Sepra-Lite® Integral Optic Level Switches (continued)

## GLL100504A ▼ PFA Teflon Sepra-Lite®

- Compatible with all acids, bases and solvents
- All PFA wetted parts
- Adjustable sensitivity
- 100 psig (7kg/cm<sup>2</sup>) at -40° F to 185° F (-40° C to 85° C)
- 1/2" NPT mounting
- 15' (4.6m) PVC jacketed cable, 4 conductor (user extendable)



GLL100504A

## GLL100501F ▼ Polysulfone Sepra-Lite®

Food grade polysulfone housing

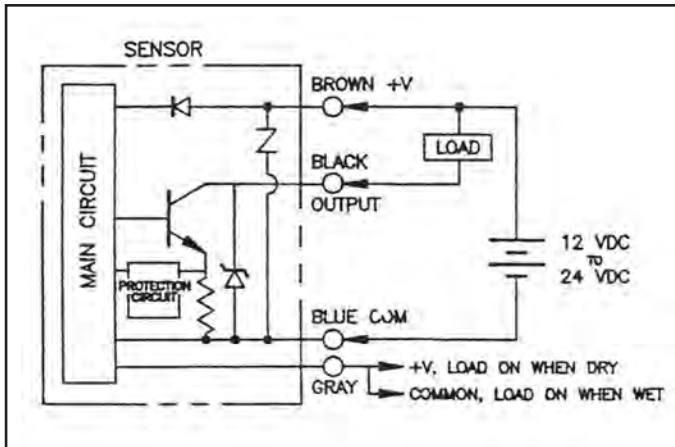
- Mounts on top or side of vessel. 3/4" NPT rear connection is ideal for pipe extension or conduit
- Adjustable sensitivity
- 100 psig (7kg/cm<sup>2</sup>) at -40° F to 185° F (-40° C to 85° C)
- 1/2" NPT mounting
- 15' (4.6m) PVC jacketed cable, 4 conductor (user extendable)



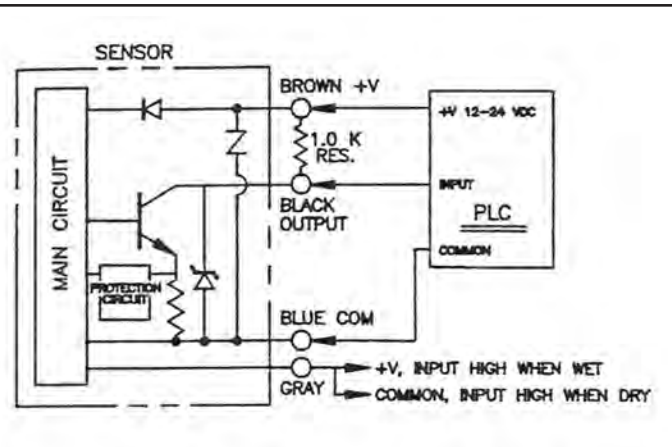
GLL100501F

## Typical Wiring

### Open Collector Output Hook-Up



### PLC Connections Hook-Up



Note: Common wire (gray) must be connected to common (-) or V+(+) supply of power supply.

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