



ELS-1150 Series Electro-Optic Level Switch (Carbon Steel & Stainless Steel)

Installation

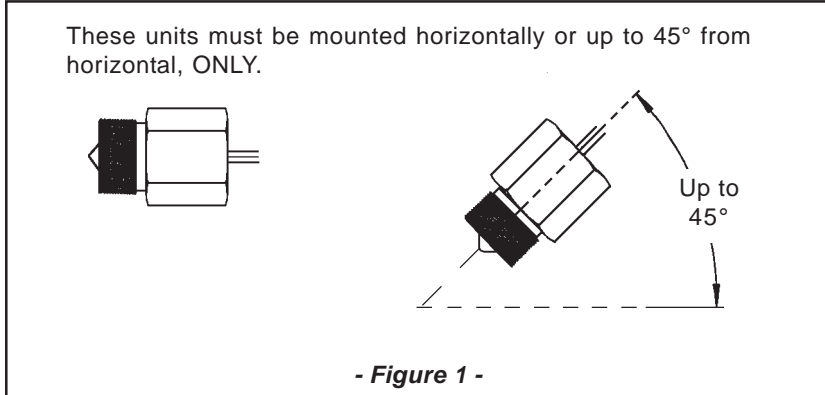
- 1a. **3/4" Straight Thread Switch:** Thread sensor into tank wall and tighten by hand. Tighten to a maximum torque of 15 ft-lbs.
- 1b. **1/2" NPT Switch:** Apply a curing type thread sealant (such as Loctite #565 with primer "N"), which is compatible with the liquid media. We do not recommend pipe tape. For Carbon Steel units torque one to two turns (maximum) past the hand-tight engagement. For Stainless Steel units torque one turn (maximum) past the hand-tight engagement. **Over Torque of sensor can permanently damage sensor.**
2. Sensor may be installed **horizontally** or **up to 45° from horizontal**, only. (See Figure 1)
3. Do not install sensor close to infrared sources.
4. Prism surface must be at least 2" from any reflective surfaces.
5. Inductive loads must be diode-suppressed.

Specifications

<u>Materials</u>	
Housing	Nickel-Plated Carbon Steel or 316SS
Prism	Fused Glass
Operating Pressure	0 to 2500 psig, Max.
Operating Temperature	-40°F to 257°F (-40°C to 125°C)
Current Consumption	Approx. 1 mA
Output	Sinking or sourcing, depending on model, 200mA at 30 VDC max.
Electrical Termination	22 AWG, Polymeric, 12" to 14" Extended Lead Wires
Repeatability	±1 mm
Supply Voltage	5 - 28 VDC ±5%, 30 VDC Absolute max.

Note: Not for use in freezing liquids

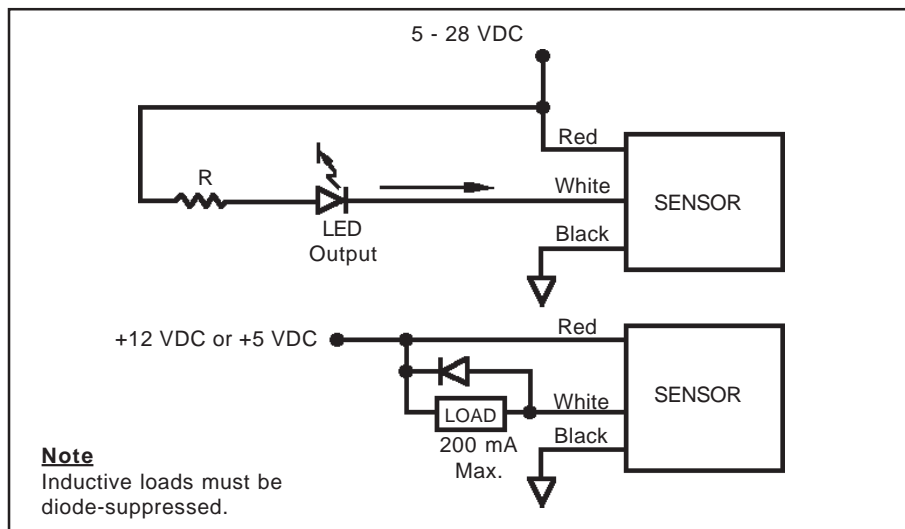
Mounting Attitude



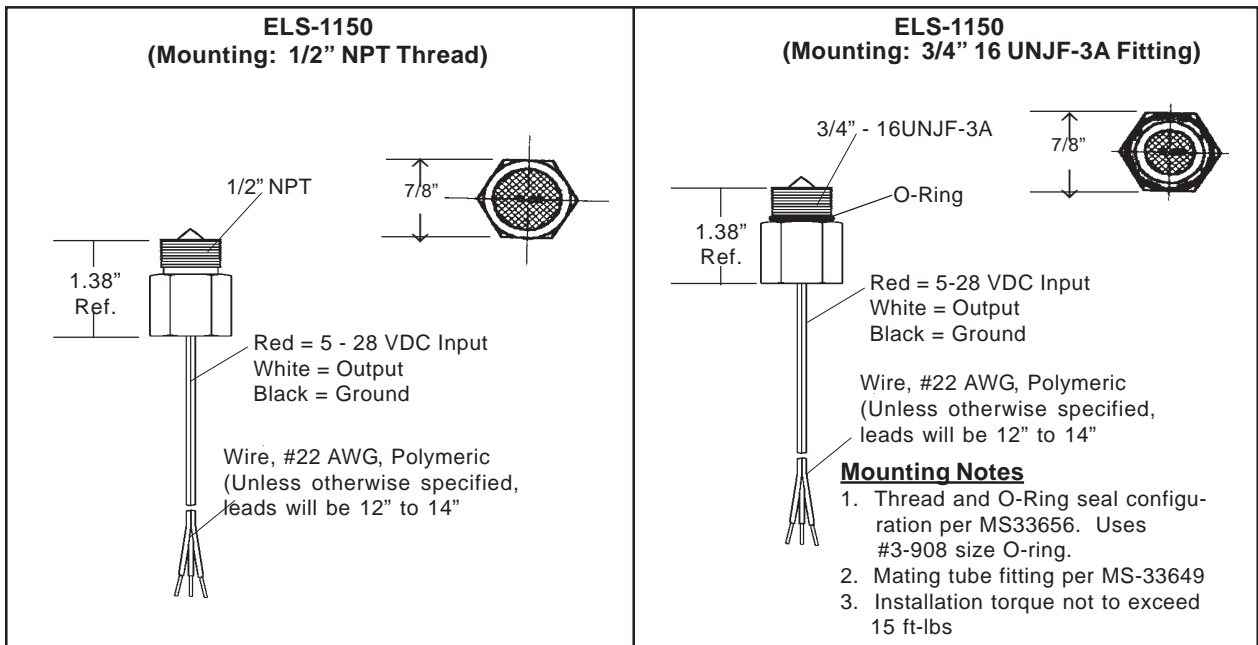
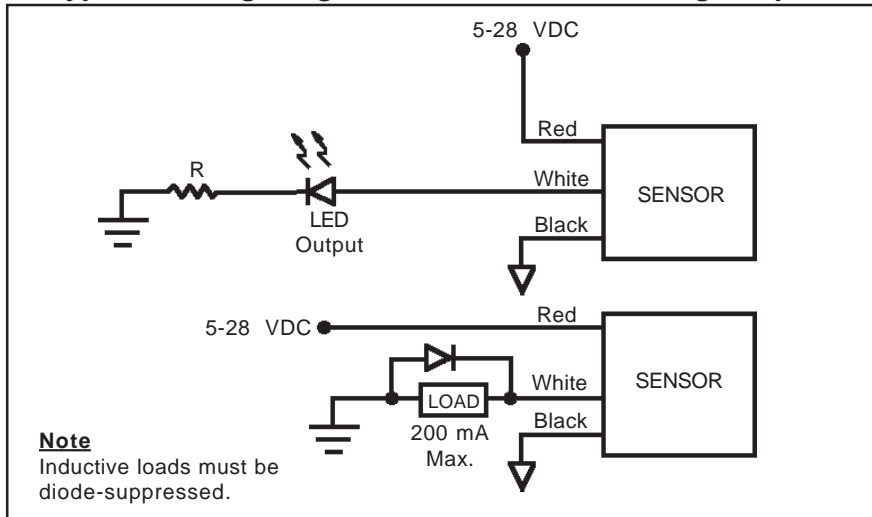
Maintenance

Sensor may require a periodic cleaning of prism surface. A mild detergent may be used to clean prism surface.

Typical Wiring Diagram - For Current Sink Output



Typical Wiring Diagram For Current Sourcing Output



Return Policy

Returns are accepted on stock items up to 30 days from date of order. You must contact our Returns Department for a Return Authorization (RA) number. Return the goods - freight prepaid - in the original container and include original packing slip. C. O. D. returns are not accepted. Gems reserves the right to apply restocking charges.

Tel: 860-793-4357 Fax: 860-793-4563

Important Points:

- Gems products must be maintained and installed in strict accordance with the National Electrical Code and the applicable Gems Product Instruction Bulletin that covers installation, operation and proper maintenance. Failure to observe this information may result in serious injury or damages.
- For hazardous area applications involving such things as, but not limited to, ignitable mixtures, combustible dust and flammable materials, use an appropriate explosionproof enclosure or intrinsically safe interface device.
- Please adhere to the pressure and temperature limitations shown throughout this catalog for our level and flow sensors. These limitations must not be exceeded. These pressures and temperatures take into consideration possible system surge pressures, temperatures and their frequencies.
- Selection of materials for compatibility with the media is critical to the life and operation of Gems products. Take care in the proper selection of materials of construction, testing is required.
- NSF-approved sensors are made of materials approved for potable water applications according to Standard 61.
- Stainless steel is generally regarded as safe by NSF and FDA.
- Life expectancy of switch contacts varies with application. Contact Gems if life cycle testing is required.
- Ambient temperature changes do affect switch set points, since the gravity of a liquid can vary with temperature.
- Our sensors have been designed to resist shock and vibration. However, shock and vibration should be minimized.
- Filter liquid media containing particulate and/or debris to ensure the proper operation of our products.
- Electrical entries and mounting points in an enclosed tank may require liquid/vapor-sealing.
- Our sensors must not be field-repaired.
- Physical damage sustained by product may render it unserviceable.



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