

ELS-1200 RE (Removable Electronics) Electro-Optic Level Switch

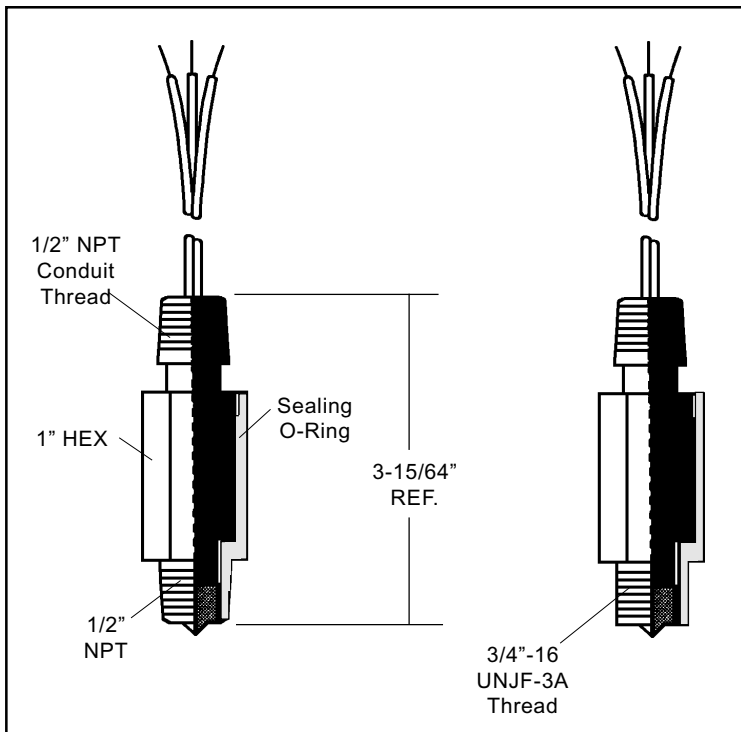
Specifications

Mounting	1/2" NPT, 3/4"-16 UNJF-3A Thread	Output 5/12 VDC	TTL/CMOS Compatible. Transistor output with 10K pull-up. Resistor may sink 18 mA
Materials Housing	Zinc/Nickel-Plated Carbon Steel	24/120 VAC	Switch rating 225 mA @ rated voltage @ 77°F (25°C); 60 mA @ rated voltage @ 161°F (72°C)
Prism	Fused Glass	Electrical Termination** 5/12 VDC	22 AWG, Polymeric, 12" to 14" extended lead wires
Operating Pressure	0 to 2500 PSI, Maximum*	24/120 VAC	20 AWG, Polyester, 12" to 14" extended lead wires
Operating Temperature 5/12 VDC	-40°F to +212°F (-40°C to +100°C)	Repeatability	±1 mm
24/120 VAC Prism Tip	-20°F to +240°F (-29°C to +116°C)	Approvals	U.L. Approved - File No. E180359
Electronics	-20°F to +162°F (-29°C to +72°C)		
Current Consumption 5/12 VDC	Approximately 45 mA		
24/120 VAC	Approximately 6 mA		

* For straight thread mounting units when installed with tube fitting per MS 33649

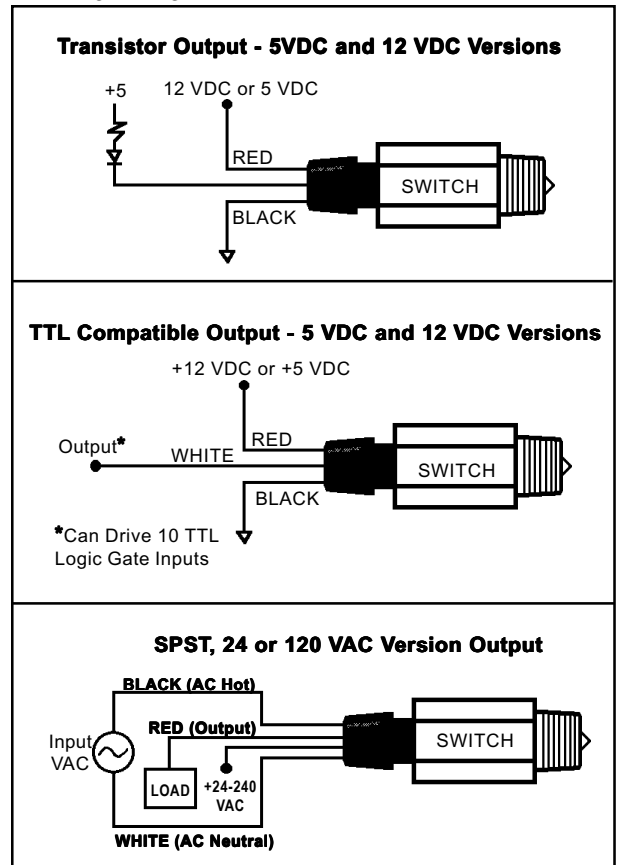
** Consult GEMS for cable options

Dimensions



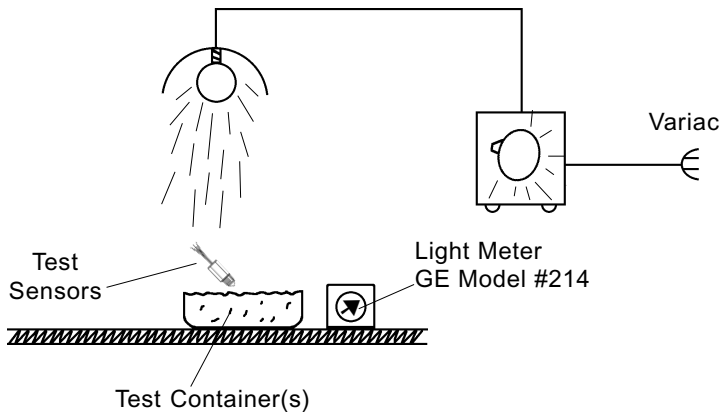
Note: To replace electronics module, simply unthread the 1/2" NPT conduit connection.

Wiring Diagrams



Sensor Immunity Level to Ambient Light

The test depicted below was performed to determine the sensor immunity level to ambient light. The recorded ambient is the maximum level at which the sensor performs/detects normally.



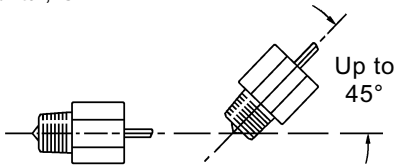
Sensor Type	Black Container	Opaque Container
ELS-1100 Polysulfone	300 Ft-Cd	45 Ft-Cd
ELS-1100 TFE	100 Ft-Cd	25 Ft-Cd
ELS-1100HT Isoplast	500 Ft-Cd	250 Ft-Cd
ELS-1200 RE	250 Ft-Cd	25 Ft-Cd
ELS-1200	>1,000 Ft-Cd	700 Ft-Cd
ELS-1200CR	400 Ft-Cd	25 Ft-Cd
ELS-1100 Nylon	65 Ft-Cd	25 Ft-Cd

Note: 1 Ft-Cd = 10.7 Lux

Above testing is based on minimum readings of at least two (2) samples.

Mounting Attitude

These units must be mounted horizontally or up to 45° from horizontal, ONLY.



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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