



WIF-1250

Water in Fuel Sensor

Instruction Bulletin No. 241882

Operating Principle: WIF-1250 liquid level sensors are solid-state devices designed to detect the presence or absence of water in fuel. Each sensor contains integral, high-temperature-rated electronics that generate an alternating voltage to a probe tip. The presence of water completes the circuit which, in turn, changes the condition of the transistor output. Output options vary and can be used to actuate relays, indicator lights or LEDs, as well as to interface with CMOS/TTL logic, PLCs or microprocessors.

Installation: Sensors may be top, bottom, or side mounted in plastic or metal vessels, depending on application. Do not tighten more than 1 1/2 turns past handtight. Use of a thread sealant or Teflon tape is recommended. To ensure proper contact is maintained between the sensor and a metal vessel, care should be taken not to over-insulate the sensor threads with sealant or tape.

Maintenance: These compact, solid-state sensors have no moving parts, and therefore require no maintenance or calibration.

Specifications

Operating & Storage Temperature (Process Fluid & Electronics)	-40°F to 257°F (-40°C to 125°C)
Input Voltage	8-32 VDC Current Consumption <20 mA
Signal Output Options	A: Wet Sink (Open Collector Output ON in Liquid) B: Dry Sink (Open Collector Output ON in Air)
Maximum Load Capability	250 mA sinking
Maximum Pressure	750 psi (52 bar)
Slosh Dampening	5 seconds
Sensitivity*	10,000 Ohms (Fluid Resistance)
Wetted Materials Housing: Sensor Pin:	Nickel Plated Steel and Fused Glass Nickel Alloy
Moisture Entry Protection Rating	IP68
Mounting	1/4" NPT or M12 x 1.5
Electrical Termination	Cable, Conductor 20 AWG
Approvals	CE
Additional Circuit Protection	Reverse Voltage: (-45 VDC for 1 Hr) Over-Voltage: (80 VDC for 2 Min.) Load Dump: (123 VDC Pulse Every 15 Sec for 2 Hrs.)

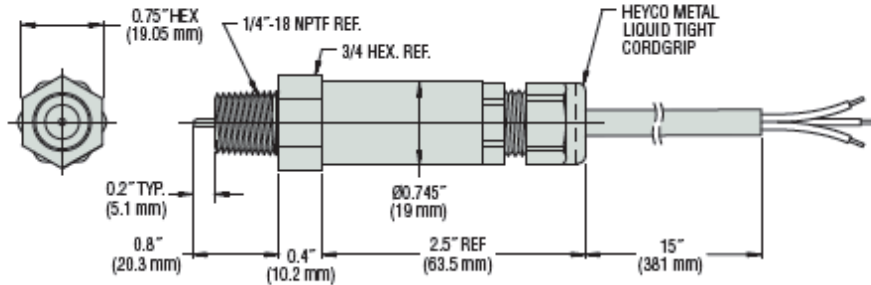
*Applicable across entire operating temperature range. Designed for use only in electrically conductive liquids having a resistance of 10,000 ohms or less.

Note

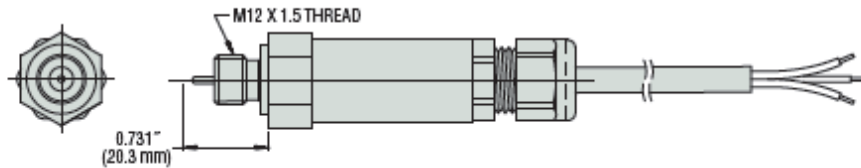
Contact the Factory with any questions concerning the resistance of the fluid in your application:
800-378-1600.

Dimensional Drawings

1/4" NPT Mounting



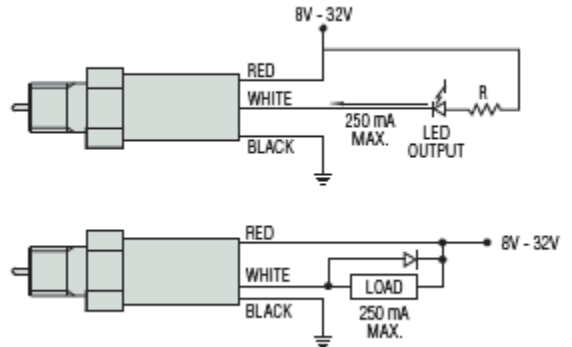
M12x1.5 Mounting



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 explosion proof 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.
- 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.

Wiring Diagrams



Notes

1. Sensor housing is internally grounded, black (negative) to case.
2. Inductive loads must be diode suppressed.
3. External load supply (40 VDC, Max.) may be used as long as it is using the same system ground.
4. Use of in-line fuse (SLO-BLOW, 100 mA Max.) is recommended.

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. COD returns are not accepted. Gems reserves the right to apply restocking charges.



Gems Sensors & Controls

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