



## Greyline **LIT25**

Level indicating transmitter with a non-contacting, ultrasonic sensor for tank inventory, level monitoring, and control.

### **Non-Contacting Sensor**

The LIT25's ultrasonic, echo-ranging sensor mounts at the top of the tank to continuously monitor level.

A built-in temperature sensor is included to automatically compensate for changes in speed of sound due to temperature. Level and temperature signals share a single coaxial cable that can be run up to 152.4 m (500 ft) to the electronics enclosure. The standard sensor is rated for tank sizes up to 9.7 m (32 ft) high, and is made with PVC and Teflon (an optional all-Teflon model is also available). The sensor and cable are rated intrinsically safe (with an optional intrinsic safety barrier) for installation in hazardous rated tanks.

### **Low-Cost, Non-Contacting Level Transmitter**

#### **Transmits**

The Greyline LIT25 Level Indicating Transmitter features a 4-20mA output rated up to 1000 ohms. This output is isolated and ready for direct connection to your PLC or controller.



### **THE RIGHT METER FOR**

- Chemical Storage Tanks
- Reservoirs
- Lagoons
- Sumps

#### **Displays**

Mount the watertight display enclosure at a convenient location where the large, 4-digit LCD display is visible to operators. Use the built-in keypad for calibration without climbing the tank.

#### **Controls**

Use the LIT25 signal relay output to control pumps and alarms. Calibrate for level, echo loss, or temperature alarm.

## Easy Calibration Without Climbing Tanks

Calibration is quick and easy, using the 2-button keypad built into the unit to directly enter the measurement span and relay set points in centimeters or inches. There are no calibration targets or level simulations required, the values are stored in the unit through power interruptions, requiring no battery.

## Designed for Operator Convenience

Mount the LIT25 enclosure at a convenient location for operators. The large LIT25 digital display indicates that it is calibrated in percentage, centimeters, or inches, and in Range or Level mode. Relay status is also displayed and the Echo symbol flashes to indicate that echos are being received normally.

Special LIT25 features like Output Simulation allow operators to test calibration, loop wiring, and relay set points directly from the LIT25 keypad. Simplify calibration or tank measurement with the LIT25's Range display – instantly display distance in centimeters or inches from the sensor to the target or liquid surface.

Use the LIT25 keypad to increase or decrease damping and control the instrument's response to turbulence, wave action, or agitators. Increase damping to completely reject agitator blades or other moving obstructions even when they travel through the sensor sound path.



## Level or Temperature Control

Calibrate the versatile LIT25 relay for your choice of level alarm, pump control, temperature alarm, or echo loss alarm. Relay On and Off set points are independently adjustable through the LIT25 calibration keypad. You can even control the LIT25's response to an echo loss condition – hold the last reading, output 20mA, or output 4mA.

## Display, Transmit, & Control Level for Chemical Tank Inventory, Sumps, Pump Stations, or Lagoons

### *Simple, Reliable, & Accurate*

- Non-contacting, temperature compensated, ultrasonic sensor
- Remote display enclosure for keypad-calibration without climbing the tank
- 4-20mA output is isolated, ready for connection to PLC's or process computers
- Level and temperature signals share a single cable up to 152.4 m (500 ft) length
- Optional Intrinsically Safe sensor and cable
- Optional pressure sensors
- Signal relay is programmable for On / Off pump control, level, temperature, or echo-loss alarm
- 115 V AC, 230 V AC, or 24 V DC power input

# Technical Specifications

## GENERAL SPECIFICATIONS

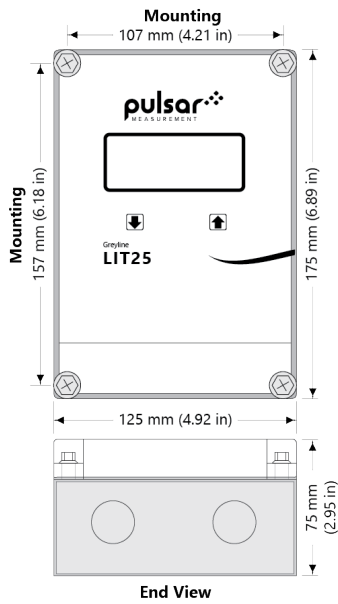
<b>Programming:</b>	Built-in, 2-button keypad with menu selection. Calibration parameters are permanent when stored (even through a power interruption)
<b>Electronics Enclosure:</b>	NEMA4X (IP66) polycarbonate with clear, shatterproof cover
<b>Accuracy:</b>	±0.25% of Range or 2 mm (0.08 in), whichever is greater
<b>Display:</b>	Large (20.3 mm (0.8 in) high) 4-digit LCD
<b>Power Input:</b>	100-130 V AC 50/60 Hz, 5 W maximum
<b>Analog Output:</b>	Isolated 4-20mA, 1 kΩ load maximum
<b>Signal Relays:</b>	Qty 1, rated 120/240 V AC or 24 V DC, 1 ampere, programmable for level alarm, echo loss alarm, pump control, or temperature alarm
<b>Temperature Compensation:</b>	Temperature probe inside the level sensor for high accuracy in changing temperatures
<b>Operating Temp. (Electronics):</b>	-25 °C to +60 °C (-13 °F to +140 °F)
<b>Approximate Shipping Weight:</b>	2.7 kg (6 lb)

## TRANSDUCER SPECIFICATIONS

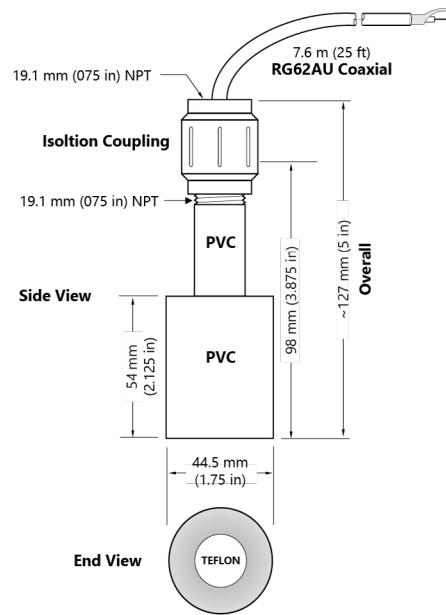
<b>Maximum Range:</b>	9.7 m (32 ft)
<b>Deadband (Blanking):</b>	Programmable, Minimum 305 mm (12 in)
<b>Beam Angle:</b>	8° Locate 304.8 mm (12 in) from tank sidewall for every 3 m (10 ft) depth
<b>Operating Frequency:</b>	42 kHz
<b>Exposed Materials:</b>	PVC and Teflon
<b>Operating Temperature:</b>	-40 °C to 65 °C (-40 °F to 150 °F)
<b>Operating Pressure:</b>	1.4 bar (20 psi) maximum
<b>Sensor Cable:</b>	RG62AU coaxial, 7.6 m (25 ft) standard length (See Options)

## POPULAR OPTIONS

<b>Sensors:</b>	All Teflon construction / flange mount / 15.2 m (50 ft) range
<b>Hazardous Locations:</b>	Intrinsically safe Sensors CSA rated Class I, Div 1, Groups C, D; Class II, Groups E, F, G; Class III; Encl. Type 4
<b>Sensor Cable:</b>	15.2 m (50 ft) RG62AU coaxial continuous from Sensor, or splice up to 152.4 m (500 ft)
<b>Sensor Cable Junction Box:</b>	Watertight NEMA4 steel with connection terminal strip
<b>Power Input:</b>	200-250 V AC 50/60 Hz, 12 V DC or 24 V DC
<b>Enclosure Panel Mount:</b>	Flange assembly mounts standard enclosure



Greyline LIT25 electronics enclosure dimensions



PZ32T sensor

## Delivering the Measure of Possibility

Pulsar Measurement offers worldwide professional support for all of our products, and our network of global partners all offer full support and training. Our facilities in Malvern, UK and Largo, USA are home to technical support teams who are always available to answer your call or attend your site when required. Our global presence, with direct offices in the UK, USA, Canada, and Malaysia, allows us to create close relationships with our customers and provide service, support, training, and information throughout the lifetime of your product.

By taking a step forward in echo processing technology, Pulsar Measurement addresses applications previously thought to be beyond the scope of ultrasonic measurement. This technology improves signal processing at the transducer head which has made it possible to increase resistance to electrical noise, enabling the transducer to 'zone in' on the true echo.

For more information, please visit our website:

[www.pulsarmeasurement.com](http://www.pulsarmeasurement.com)



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