Non-Contacting Level & Flow Meter

for Tank Inventory, Pump Control and Open Channel Flow

New!

Level & Flow Monitor

Model SLT 5.0

For Chemical Tank Level
Sumps and Pump Stations
Flow through Flumes and Weirs

Simple 5-key Calibration
Isolated 4-20mA Output
Programmable Control Relays

SLT 5.0 – Accurate, Simple and Reliable

Use it for Level

Specify SLT 5.0 for inventory monitoring and level control of chemicals, wastewater, viscous or corrosive liquids. Built-in control relays are programmable for pump control, pump alternation and level alarms.

Use it for Flow

Displays, transmits and totalizes wastewater flow through any flume or weir. Features a simple, password protected calibration system, automatic totalizer and flow proportionate control relays.

No maintenance Sensor

Each SLT 5.0 includes a non-contacting ultrasonic sensor which mounts above the material being measured. There is no contact and no moving parts. The sensor is sealed to withstand accidental submersion and rated for hazardous locations with optional intrinsic safety barrier.

GREYLINE
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RELIABLE MEASUREMENT AND CONTROL

Greyline SLT 5.0 Level & Flow Monitor

Simple Installation and Calibration

Mount the SLT 5.0 non-contacting ultrasonic sensor above the liquid to continuously monitor level or flow. The Sensor self-tunes to extended cable lengths so the electronics enclosure/display can be mounted at a convenient location.

Select LEVEL mode for Tank Inventory and Level Control

Set-up is fast and easy through the SLT 5.0 calibration menu. Use the built-in keypad to scroll through the menu prompts and configure the SLT 5.0 to display level in your choice of measurement units (ft, inches, meters, mm, gallons, liters, percent etc.) for vertical and horizontal round tanks. Connect external devices through the SLT 5.0's isolated 4-20mA output or control relays.

Select FLOW mode for Open Channel applications

Calibration is easy with menu selection of common flumes including Parshall, Palmer Bowlus, Trapezoid and Weirs including V-Notch and Rectangular. Use Greyline's PC software 'Find K&n' (included) to calibrate to non-standard or custom flumes and weirs.

Displays, Totalizes, Transmits & Controls

The SLT 5.0 large backlit digital display shows the flow rate, relay status and totalizer. Use the isolated 4-20mA output to transmit to chart recorders, and program the built in control relays for flow proportionate control (for samplers, chlorinators or external totalizers), and for flow/level alarms.

No Contact Sensor = No Maintenance

The SLT 5.0 Sensor mounts over the flume or weir, so there is no sensor fouling or maintenance required. With built-in temperature compensation, the SLT 5.0 maintains high accuracy (±0.25% of full scale) to meet environmental monitoring requirements.

Pump Control and Alarms

Program separate On and Off set-points for the SLT 5.0's two built-in control relays. Use them for pump control, pump alternation, high or low level alarms, air temperature alarms, actuated valves or annunciators.

Plug and Play Options

Need extra relays or a data logger? Just plug-in options like this 4-relay circuit board to expand the functions of your SLT 5.0. The instrument auto-detects the new circuit and automatically adds it to the calibration menu. With the original two relays plus an additional four, the SLT 5.0 can handle complex level control applications.

Advanced Operating System

You can control the SLT 5.0's response to conditions like turbulence or splashing and to reject tank agitators. The SLT 5.0 automatically adjusts itself to obtain the best signal. False echoes are suppressed and filtered to accurately display the correct level.

Isolated 4-20mA Output

Ready for direct connection to PLC's or computers and rated for 1000 ohm resistive load. Programmable offsets allow 4 and 20mA to be offset from the instrument calibration for special control applications.

SLT 5.0 Specifications

General Specifications

Greyline SLT 5.0 Level & Flow Monitor

Electronics Enclosure: Watertight and dust tight NEMA4X (IP 66) polycarbonate with clear, shatterproof cover

Accuracy: ±0.25% of Range or 2 mm (0.08") whichever is greater, Repeatability and Linearity: ±0.1%

Display: White, backlit matrix - displays flow rate, totalizer, relay status, operating mode and calibration menu

Operating Modes: Level, Range or Open Channel Flow

Programming: built-in 5-key calibrator with English, French or Spanish language selection

Power Input: 100-240VAC 50-60Hz (see Options), 3.5 Watts maximum (with standard features)

Output: Isolated 4-20mA, 1000 ohm load maximum, programmable offset

Control Relays: 2 Relays, form 'C' dry contacts rated 5 amp SPDT; programmable level alarm, pump control, pump alternation, failsafe/echo-loss, air temperature alarm

Electrical Surge Protection: Sensor, 4-20mA and AC power input

Operating Temp. (electronics): -5° to 140°F (-20° to 60°C)

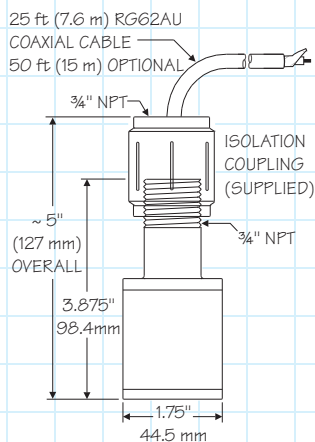**Approximate Shipping Weight:** 10 lbs. (4.5 kg)

Sensor Specifications

Maximum Range: 32 ft (10 m) with standard PZ32T sensor (Optional sensors for longer ranges)

Deadband (Blanking): Programmable, Minimum 12 in (305 mm)

Beam Angle: 8°, Locate sensor 1 ft (300 mm) from tank sidewall for every 10 ft (3 m) depth

Operating Frequency: 42 KHz

Exposed Materials: PVC and Teflon

Operating Temperature: -40° to 150°F (-40° to 65°C) with automatic temperature compensation

Operating Pressure: 20 psi (1.35 bar) maximum

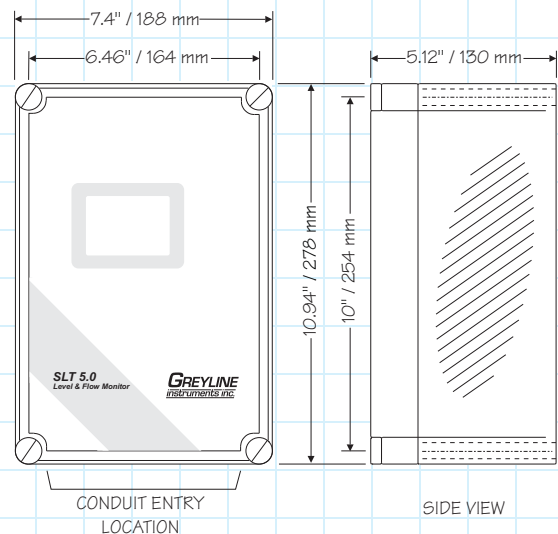**Sensor Cable:** RG62AU coaxial, 25 ft (7.6 m) standard length (See Options)

Popular Options

Sensors: Long range models / all Teflon construction / intrinsically safe / flange mount

Sensor Cable: 50 ft. (15 m) continuous or 100 ft. (30 m) continuous RG62AU coaxial from Sensor, or splice up to 500 ft (150 m) with Junction Box

Intrinsic Safety Barriers: For Sensor mounting in Class I,II,III, Div. I,II, Groups C,D,E,F,G hazardous locations

Power Input: 9-32 VDC

Control Relays: 4 additional (6 total), rated 5 amp SPDT

Enclosure Heater: Thermostatically controlled - recommended for temperatures below 32°F (0°C)

Data Logger: 2 million point logger with USB output to Flash memory sticks, Windows software

Sensor Mounting Stand: For Open Channel Flow applications
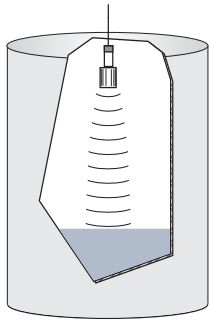
Dimensions

25 ft (7.6 m) RG62AU COAXIAL CABLE
50 ft (15 m) OPTIONAL

¾" NPT

ISOLATION COUPLING (SUPPLIED)

¾" NPT

~ 5" (127 mm) OVERALL

3.875" 98.4mm

1.75" 44.5 mm

PZ32T SENSOR

7.4" / 188 mm

6.46" / 164 mm

5.12" / 130 mm

SLT 5.0 Level & Flow Monitor

GREYLINE instruments inc.

10.94" / 278 mm

10" / 254 mm

CONDUIT ENTRY LOCATION

SIDE VIEW

ENCLOSURE

User-Friendly, Non-Contacting SLT 5.0 Level & Flow Monitor

Level

- ◆ Displays Continuous Level
- ◆ Controls Pumps and Alarms
- ◆ Transmits 4-20mA

Flow

- ◆ Works with any Flume or Weir
- ◆ Built-in Totalizer
- ◆ Password protected
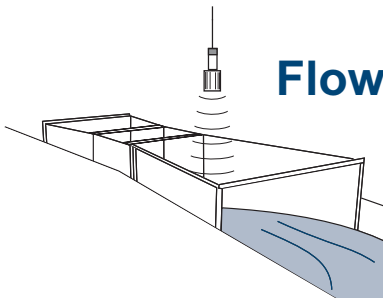
Tank Inventory and Pump Control

Mount the non-contacting ultrasonic sensor above the liquid being measured to monitor liquid level or volume in storage tanks, or to control pumps and level alarms in wet wells and pump stations.

Open Channel Flow Monitoring

The SLT 5.0 measures open channel flow through flumes and weirs. Select the flume type from the calibration menu. Flow rate and total are displayed on the backlit LCD display.

Built-in 5-Key Calibrator – No Special Programming Codes

Scroll through the SLT 5.0 set-up menu to control the instrument's operating features and calibration. Forget about Parameter codes and complex calculations! The SLT 5.0 automatically calculates, converts and displays common engineering units (metric, English, US). Program it for tank level...horizontal round tank volume...range or tape measure mode...or open channel flow.

Use output simulation mode to take manual control of the SLT 5.0 display, 4-20mA and control relays. You can test operation of equipment connected to the SLT 5.0 and confirm correct calibration.

The standard sensor is constructed of PVC with a Teflon face and is designed to withstand accidental submersion. Built-in temperature compensation maintains ±0.25% accuracy over the operating temperature range. Options include Intrinsic Safety for hazardous locations and all-Teflon or flange-mount construction for harsh, corrosive applications.

How to Order

Contact a Greyline sales representative in your area or phone one of our sales engineers. Describe your requirements and receive our prompt quotation.

Applications Support

Take advantage of Greyline's applications experience. Phone toll free 1-888-473-9546 for advice or information on applications, installation or service for Greyline products.

No Risk Appraisal

The Greyline SLT 5.0 Level & Flow Monitor must meet your requirements. Discuss your application with a Greyline representative to arrange a 30-day trial.

The Greyline Guarantee

Quality of Materials and Workmanship - Each instrument manufactured by Greyline is warranted against defects in materials and workmanship for a period of one year from date of purchase. Refer to our limited warranty included with each product.

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