



Greyline
DLT 2.0

Differential level and control plus open channel flow monitoring with two non-contacting, ultrasonic sensors.

Differential Level Transmitter with Non-Contacting Sensors

One Instrument Does the Work of Three

The DLT 2.0 is a simple solution for bar screen level control at wastewater treatment plant headworks, pump stations, and combined sewer systems. It includes two non-contacting ultrasonic sensors to measure level. Sensors are positioned above a channel, up and downstream from the bar screen, the DLT 2.0 can display and transmit differential level. The downstream sensor can also be installed above a flume or weir to measure and totalize open channel flow.

Three 4-20mA outputs are configured to transmit upstream level, downstream level (or flow), and differential level. Built-in relays can be calibrated for level control, differential level control, or open channel flow.

Versatile, Easy to Use

One sensor can be installed on each side of a bar screen to continuously monitor, transmit, and control level. The built-in control relays or 4-20mA outputs can be used to automatically activate the bar screen rake at preset levels.



THE RIGHT METER FOR

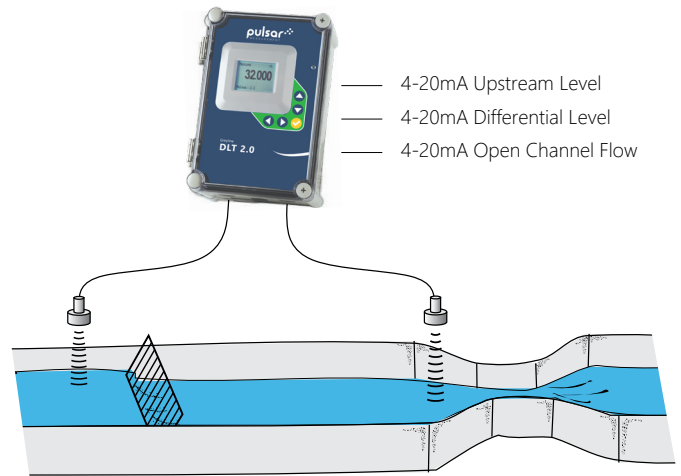
- Bar screen Level
- Pump Stations
- Combined Sewer Systems
- Level Control
- Differential Level Control
- Open Channel Flow

Multi-function Level Transmitter

Bar Screen Differential Plus Open Channel Flow

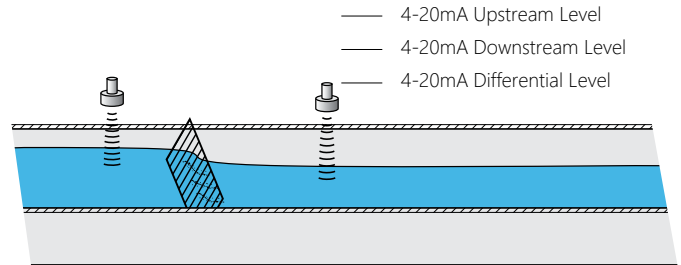
Reduce costs and simplify instrumentation at treatment plant headworks. With a bar screen upstream from a flume, the Greyline DLT 2.0 can measure both differential level and flow through the flume with just two ultrasonic sensors and one electronics enclosure.

The Greyline DLT 2.0 includes three 4-20mA outputs and displays flow rate and total flow through the flume, plus upstream level and differential level.



Bar Screen Differential

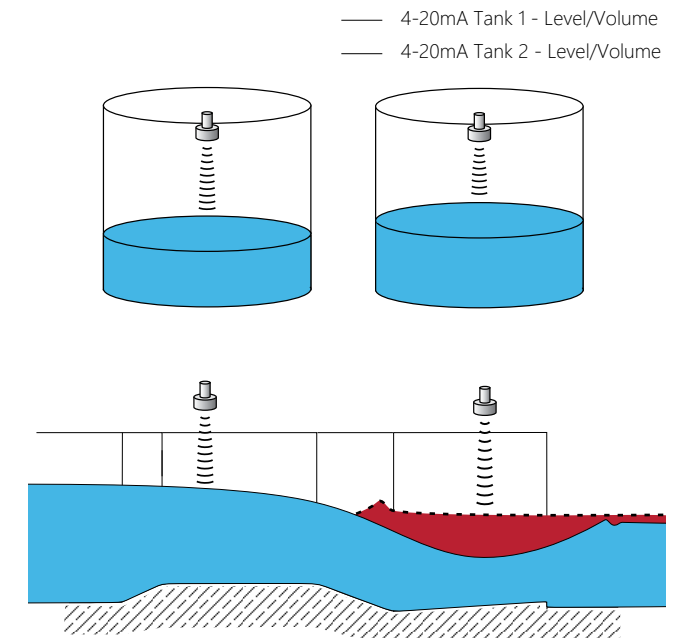
Monitor, transmit, and control bar screen level with one instrument. Mount the ultrasonic systems upstream and downstream and use the 4-20mA outputs or control relays to activate the screen's cleaning rake at preset levels or differential level.



Two-Tank Inventory

The Greyline DLT 2.0 allows the user to monitor two tanks with one instrument, the unit will display level in both tanks plus transmit 4-20mA outputs. The built-in relays allow the user to activate high- or low-level alarms and level controls.

The built-in keypad and menu system make calibration of the Greyline DLT 2.0 simple and easy.



Submerged Flow Alarm

Parshall flumes can provide accurate flow measurement with the discharge submerged up to 70% (depending on flume size). Use the DLT 2.0 to measure flow through the flume and to activate an alarm when the discharge level reaches critical submergence level.

Technical Specifications

GENERAL SPECIFICATIONS

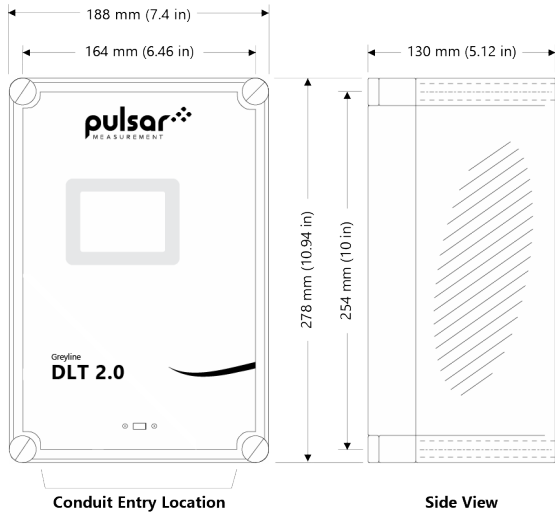
Electronics Enclosure:	NEMA4X (IP66) polycarbonate with clear, shatterproof cover
Accuracy:	<ul style="list-style-type: none">• $\pm 0.25\%$ of Range or 2 mm (0.08 in) whichever is greater• Repeatability and Linearity: $\pm 0.1\%$
Display:	White, backlit matrix - displays upstream, downstream, and differential level, open channel flow and totalizer, relay states, operating mode, and calibration menu
Programming:	Built-in 5-key calibrator with English, French, or Spanish language selection
Power Input:	100-240 V AC 50/60 Hz (see Options), 3 W maximum (with standard features)
Analog Output:	Three Isolated 4-20mA (upstream and downstream level (or open channel flow) and differential level, 1 k Ω load maximum.
Control Relays:	Qty 2, rated 5 A SPDT, programmable for level control, differential control, or flow proportional pulse
Operating Temp. (Electronics):	-20 °C to +60 °C (-5 °F to +140 °F)
Approximate Shipping Weight:	6.8 kg (15 lb)

TRANSDUCER SPECIFICATIONS

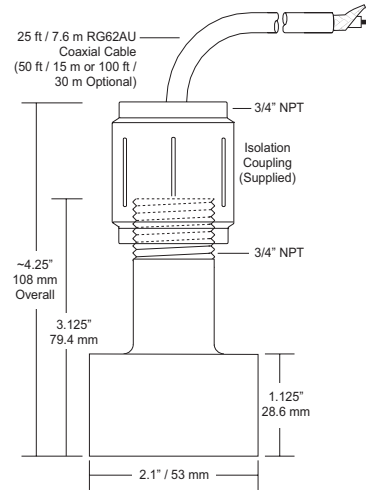
Standard Sensor:	Includes two PZ15 ultrasonic sensor
Maximum Range:	4.6 m (15 ft) with standard PZ15 sensor
Deadband (Blanking):	Programmable, Minimum 203.2 mm (8 in)
Beam Angle:	8°
Operating Frequency:	92 kHz
Exposed Materials:	PVC
Operating Temperature:	-40 °C to 65 °C (-40 °F to 150°F)
Temperature Compensation:	Temperature probe inside the level sensor for high accuracy in changing temperatures
Sensor Cable:	RG62AU coaxial, 7.6 m (25 ft) standard length (See Options)

POPULAR OPTIONS

Sensors:	9.7 m (32 ft) measurement range / Intrinsically Safe models
Sensor Cable:	15.2 m (50 ft) or 30.5 m (100 ft) RG62AU coaxial continuous from the sensor, or splice up to 152.4 m (500 ft) with optional JB Watertight NEMA4 steel with connection terminal strip
Power Input:	9-32 V DC
Extra Control Relays:	4 additional (6 total) rated 5 A SPDT
Data Logger:	2 million point logger with USB output and Windows software – 3 channel logging (A & B sensors plus Differential or Open Channel flow)
Enclosure Heater:	Thermostatically controlled - recommended for temperatures below 0 °C (32 °F)
Intrinsic Safety Barriers:	For Sensor mounting in Class I, II, III, Div. 1, 2, Groups C, D, E, F, G hazardous locations
Sensor Mounting Stand:	Adjustable, includes galvanized steel pipe, flanges, fittings, and hardware
Sunscreens:	Sensor sunscreen and enclosure sunscreen for outdoor installations



DLT 2.0 Front & Side View



PZ15 Sensor

Transmits 4-20mA output in proportion to Level Differential plus Open Channel Flow

Bar screen control applications and sewage treatment plant headworks that previously required several instruments can all be monitored now by one ultrasonic level indicating transmitter.

Install one sensor on each side of a bar screen (or any other flow obstruction) to continuously monitor and transmit differential level or mount the downstream sensor in a flume to measure differential level plus open channel flow.

The Greyline DLT 2.0 differential level transmitter uses non-contacting, ultrasonic sensors to monitor two independent levels. It can be programmed to display and transmit 4-20mA output including differential level, upstream level, downstream level, or open channel flow. Two programmable relays are included for level alarm, differential control, flow control, flow pulse, flume submergence alarm, pump control, or echo loss alarm; with four additional relays (six total) as an optional addition.

The Greyline DLT 2.0 is ideal for automated bar screen monitoring and control, the unit is accurate and easy to operate with its built-in keypad calibration system. It includes a large, backlit LCD display that displays level and flow readings.

Both sensors are non-contacting so require no maintenance once installed in the field.

Options include Intrinsically Safe sensors for hazardous rated locations, extra control relays, enclosure heater, data logger, and sensor cable up to 152.4 m (500 ft) length.



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