



# PRECISE, RELIABLE, TRUSTED FLOW & LEVEL MEASUREMENT

- WATER & WASTEWATER
- INDUSTRIAL
- OIL & GAS
- IRRIGATION

**Greyline**  
Precision Flow Measurement  
An ONICON Brand



## Clamp-On Ultrasonic Flow Meters

- Measures flow from outside the pipe
- No shutdown or downtime to install
- Easy to install and configure
- No contact with process fluids
- No wear and tear
- Price of meter is independent of pipe size
- Certificate of calibration included
- Permanent or portable versions available

### TTFM 6.1 TRANSIT TIME ULTRASONIC FLOW METER

- **Great for clean fluids like raw water, treated water, process water, chemicals, and oils**
- **26 million point data logger**
- **Optional Modbus® RTU or HART**

Accurately measure the flow of relatively clean liquids like potable water, raw water, cooling water, de-ionized and reverse-osmosis water, oils, and chemicals. Transducers clamp-on the outside of the pipe and work on a large variety of pipe materials and sizes. Installation and programming takes just a couple minutes with the user-friendly installation hardware and programming menu. Flow rate, total, relay status, and diagnostic values are shown on the large, backlit LCD display. Use the isolated 4-20mA and relay outputs to connect to SCADA systems. The non-contacting sensors are rated intrinsically safe with optional safety barriers. Other popular options include Modbus® RTU output via RS-485 or HART, DC input power, and additional control relays.

### PTFM 1.0 PORTABLE TRANSIT TIME FLOW METER

- **Great for clean fluids like raw water, treated water, process water, chemicals, and oils**
- **Continuous or battery power**
- **300,000 point data logger**

Ideal for flow studies, balancing, and checking permanent flow meters. Measure flow of relatively clean fluids like raw water, treated water, cooling water, de-ionized and reverse-osmosis water, oils, and chemicals. Transducers can be mounted without shutting down flow, and there is no obstruction or pressure drop. Programming is fast and easy with the onscreen menu systems. The flow meters totalize and display flow in both directions. PTFM 1.0 includes a built-in data logger with USB output. A rugged polycarbonate carry case is included.



## DFM 6.1 DOPPLER FLOW METER

- **Great for “difficult” fluids like sludge, slurries, grit, sewage, and wastewater**
- **No wear and tear**
- **Little to no maintenance**

Continuously monitor flow from outside the pipe. Use the isolated 4-20mA and relay outputs, or optional Modbus® or HART serial communications, to connect to SCADA systems. Ideal for fluids with suspended solids or undissolved gasses like wastewater, sludge, viscous liquids, and slurries. No obstruction and no contact with the moving liquid. The standard sensor mounts on any pipe ½” (12.7 mm) ID or larger. The large, backlit LCD displays and totalizes bi-directional flow in gallons, liters, or any unit of measure. The non-contacting sensor is rated intrinsically safe with optional safety barriers. Built-in 26 million point data logger with direct output to USB Flash drives is standard.

## PDFM 5.1 PORTABLE DOPPLER FLOW METER

- **Great for “difficult” fluids like sludge, slurries, sewage, and wastewater**
- **Continuous or battery power**
- **300,000 point data logger**

Ideal for flow studies, balancing, and checking permanent flow meters. Measure flow of fluids with suspended solids or undissolved gases like wastewater, sludge, viscous liquids, and slurries. Mount the PDFM 5.1 sensor on the outside of a pipe to transmit, display, and totalize flow in gallons, liters, or any other unit of measure. It takes just a few seconds to install and calibrate. AC/DC powered with built-in rechargeable battery. The standard sensor fits any pipe ID ½” (12.7 mm) or larger. Includes 4-20mA output, programmable totalizer, and adjustable sensitivity and damping. Built-in 300,000 point data logger is standard.

## DFS 5.1 DOPPLER FLOW SWITCH

- **Great for “difficult” fluids like wastewater, sludge, slurries, grit, sewage, and wastewater**
- **Cost-effective**
- **Protect expensive pumps from running dry**

Ideal for pump protection or to activate flow/no flow alarms. Sensor mounts on any pipe ½” (12.7 mm) ID or larger without shutting down flow. Includes one 5 amp DPDT control relay with adjustable time delay, and electronics housed in a watertight, dust-tight enclosure. Includes bright LED indicators for relay status and velocity bargraph.



## Ultrasonic Partially Filled Pipe and Open Channel Meters

- Accurately measure flow through flumes and weirs, or directly in partially filled pipes and channels without a flume or weir
- Price is independent of pipe or channel shape and size
- Easy to install and configure
- Permanent or portable versions available

### OCF 5.0 OPEN CHANNEL FLOW MONITOR

- **Non-invasive and accurate open channel flow measurement with a flume or weir**
- **Fast response time**
- **2 million point data logger**
- **Non-contacting**

Measure, display, totalize, and log flow through any flume or weir. The automatic flow reporting system prepares and stores daily reports including total, minimum, and maximum flow rates. It logs up to 2 million time and date stamped data points and downloads to USB Flash Drive. The OCF 5.0 includes isolated 4-20mA and 0-5V outputs. Two control relays are programmable for flow proportional pulse output and/or level alarm. Features a password protected keypad system for easy calibration. The non-contacting sensor is rated intrinsically safe with optional safety barriers. Sensor is temperature compensated for continuous high accuracy.

### AVFM 6.1 AREA-VELOCITY FLOW METER

- **Directly measure open channel flow without a flume or weir**
- **Ultrasonic sensor – no fouling or maintenance**
- **Multiple sensor configurations available**

Measure flow through open channels of any shape, partially full pipes, and surcharged pipes without a flume or weir. Ideal for sewers, stormwater, combined effluent, industrial wastewater, and irrigation water. Uses a submerged ultrasonic sensor to continuously measure both velocity and level in the channel or pipe. Can be configured with the standard submerged velocity/level sensor, or with submerged velocity and a separate non-contacting, ultrasonic level sensor for fluids with high solids or air content. A built-in 26 million point data logger is standard. The sensor is intrinsically safe with optional safety barriers.



## MANTARAY PORTABLE AREA-VELOCITY FLOW METER

- **Measure open channel flow without a flume or weir**
- **Continuous or battery power**
- **2 million point data logger**
- **Rugged, weathertight enclosure**

Measures flow in open channels, sewers, partially filled, and surcharged pipes without a flume or weir. MantaRay is easy to calibrate with its built-in keypad and simple menu system. Mount the sensor on the bottom of a pipe or open channel and hang the electronics enclosure above the high water level. It displays and datalogs flow rate and total flow, and connects to samplers, SCADA, and telemetry systems. Built-in, rechargeable battery allows for continuous use, or for logging up to 3.5 months at a time. 2 million point data logger with output to USB drive and PC software for evaluation of data is standard. Applications for the MantaRay include environmental monitoring and I&I studies.

## STINGRAY 2.0 PORTABLE LEVEL-VELOCITY LOGGER

- **Operates up to 4 years on alkaline batteries**
- **Logs level, velocity, and temperature**
- **Convert level and velocity to flow in Greyline logger software**
- **Rugged, weathertight enclosure**

For flow surveys in open channels and partially filled pipes without a flume or weir. Stingray operates on standard Alkaline D-cell batteries for up to four years! The built-in 130,000 point data logger stores water level, velocity, and temperature readings at programmable intervals from 10 seconds to 60 minutes. Use Greyline Logger software (included) to monitor readings in real-time and to retrieve log files, calculate flow, or export data to other spreadsheet or database programs. Stingray includes an LCD bargraph display and USB output.



## Ultrasonic Level Measurement

- Easy to install and configure
- Non-contacting - no fouling and no cleaning is required
- Certificate of calibration included
- Accuracy better than other commonly used level technologies
- Application flexibility – single location, differential level, lift station control

### SLT 5.0 LEVEL & FLOW MONITOR

- **Fast response time**
- **Non-invasive water and chemical tank level measurement**
- **4-20mA and two relay outputs**

Use this powerful instrument to continuously measure, display, transmit, and control level in tanks and pumping stations. Features a user-friendly keypad calibration system, backlit LCD display, an isolated 4-20mA output, and a watertight electronics enclosure. Includes a non-contacting ultrasonic sensor which is rated intrinsically safe with optional safety barrier, and built-in temperature compensation for high accuracy. Plug and Play options include extra control relays and a 2 million point data logger.

### PSL 5.0 HYBRID PUMP STATION LEVEL CONTROLLER

- **Redundant sensor input - no down time**
- **6 control relays – programmable for pump alternation**
- **Fast response time**
- **Relay 'run-time' reports**

Designed for pump station control, wet wells, and as a tank level controller. The PSL 5.0 includes 6 control relays for pump control (with programmable alternation), level alarms, dialers, or fault alarms. It features a non-contacting, ultrasonic sensor plus redundant sensing with connection of any 4-20mA level sensor. Monitor level, display reports, and calibrate through the large, backlit, digital display and connect the isolated 4-20mA output to SCADA systems or PLC's. The PSL 5.0 automatically stores relay run time reports for pump performance analysis. A Plug and Play data logger and intrinsically safe sensors are optional.





## DLT 2.0 DIFFERENTIAL LEVEL TRANSMITTER

- **Use for barscreen control or differential tank level**
- **Can measure open channel flow simultaneously**
- **(3) 4-20mA outputs and 2 relay outputs**
- **Intrinsically safe sensor option**

A simple solution for barscreen level control at water and wastewater treatment plants, pump stations, and combined sewer systems. Install one sensor on each side of a mechanical barscreen to continuously monitor, transmit, and control level. Use the built-in control relays or 4-20mA outputs to automatically activate the barscreen rake at preset levels. The downstream sensor can also be installed above a flume to measure and totalize open channel flow. Intrinsically safe sensors and built-in data logger are optional.

## LIT25 LEVEL INDICATING TRANSMITTER

- **Low-cost**
- **Fast response time**
- **Tank inventory or control**

This compact meter displays, controls, and transmits level. Mount the noncontacting, ultrasonic sensor at the top of your tank and the compact, watertight electronics/display enclosure at a convenient location nearby. Use the built-in signal relay or isolated 4-20mA to transmit level to a PLC, and the display as a local indicator. Features a simple, built-in menu/calibration system, temperature compensation, fast response time, and self-tunes to extended sensor cable lengths. Intrinsically safe sensor is optional.

## ULTRASONIC LEVEL SENSORS

- **Optional measurement ranges**
- **Optional materials of construction for chemical compatibility**
- **Optional cable lengths**

Each instrument includes a standard ultrasonic sensor, or you can choose from a wide range of optional models for chemical compatibility, measurement range, mounting configuration, and intrinsic safety. Ultrasonic sensors are non-contacting and there are no moving parts. They are installed above the liquid being measured. Greyline sensors auto-tune to the cable length. Cables can be field-extended with a junction box for sensor installation up to 500 ft (152 m) from the instrument electronics.



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