



PRESSURE SENSING SOLUTIONS

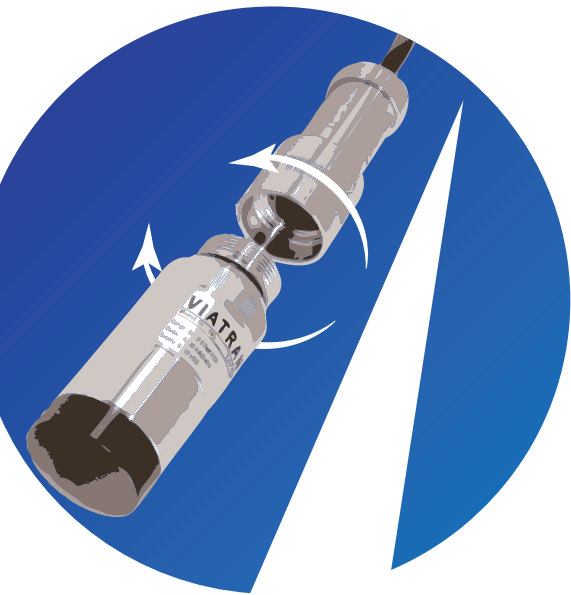
**Depth & Level
Applications**



solutions for

Depth & Level

with a twist...



Detachable Level Transmitters Add Value to Your Operation

- 💧 **REPLACEMENT IS QUICK & EASY**
Simply switch out the sensor head, no need to pull an entire cable run
- 💧 **RELIABLE**
Proven technology performs in harsh water and wastewater environments
- 💧 **REDUCED COSTS**
Slash maintenance time and associated costs
- 💧 **TECHNICAL SUPPORT**
Expert problem solvers to assist in your unique applications

**Save time...
Save resources...
with quality products
from Viatran.**

For half a century, Viatran has been providing pressure and level measurement solutions in some of the world's toughest application environments. With a long-standing reputation of rugged construction and superior performance, Viatran pressure and level transmitters have been meeting the demands of the water and wastewater industry in the collection, distribution, treatment and return of water to the environment.

Viatran submersible level transmitters measure the hydrostatic pressures created at the bottom of a liquid body to indicate the level. This level transmitter technology provides users with a reliable method of measurement and control in environments where other technologies fail.

Viatran's new Detachable Level Transmitters are often paired with Data Loggers, SCADA, PLC and compatible display/control systems to provide continuous monitoring and enhancement of the pump controller.



Wastewater collection and treatment systems must provide reliable service and avoid equipment breakdowns 24 hours a day, 365 days a year for years to come.

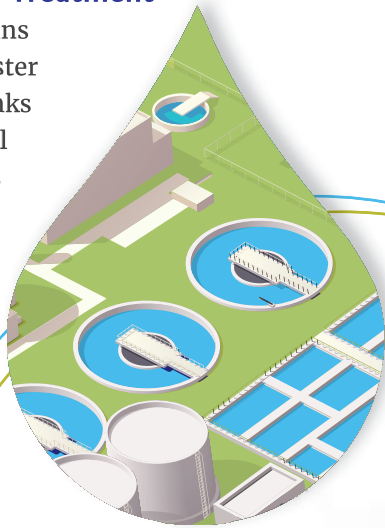


Water storage tanks, reservoirs and treatment plants are an important part of the water distribution infrastructure. Pressure and level measurements are critical to keep the water flowing throughout the system.

VIATRAN PRESSURE SENSORS IN SUBMERSIBLE APPLICATIONS

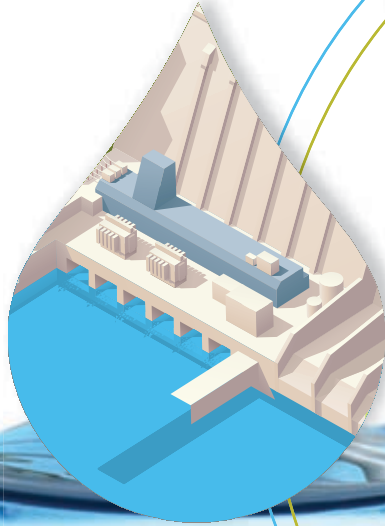
Wastewater Treatment

Aeration Basins
Aerobic Digester
Chemical Tanks
Pump Control
Sludge Tanks



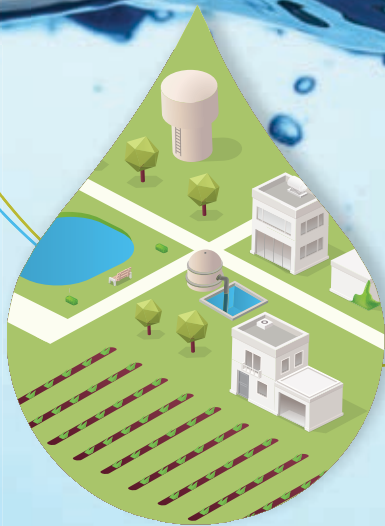
Collection Systems

Leachate
Lift Stations
Retention Ponds
Storm Overflow Tanks
Wet Wells



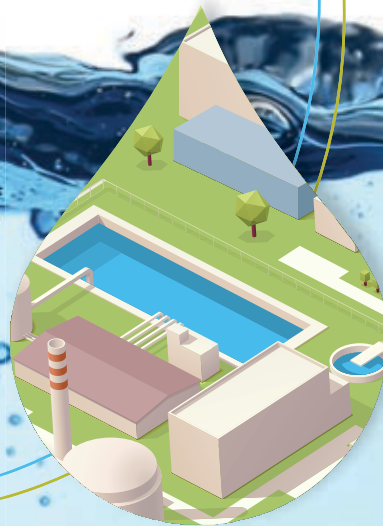
Surface Water

Canals
Dams
Flood Control
Lakes
Reservoirs
Rivers
Trash Gates



Water Supply

Desalination
Irrigation
Reservoirs
Water Towers



Industrial

Cooling Systems
Deep Wells
Fluid Storage
Marine Ballast
Mining
Oil & Gas
Process Tanks
Quarries
Retention Ponds



DEPTH AND LEVEL MANAGEMENT

with submersible transmitters

Submersible pressure transmitters are used for level measurement throughout the water and wastewater industry and in the storage of fuel or oil at terminals and transfer stations.

New detachable designs allow users to avoid costly removal and re-installation of existing cable and conduit runs whenever transmitter replacement or calibration is required. We offer a wide range of products that can be adapted to the specific needs of your application.



Models 590/591 Detachable GENERAL PURPOSE

Designed for the continuous level measurement of water and thin fluids.

Min Range: 0-40" W.C.

Max Range: 0-835 FT

Output: 4-20 mA

Accuracy: 0.50/0.35%

Improved Accuracy
Model 591: 0.15%

Sensor Material: 316L SS

Technology: Piezoresistive

Body Material: 316L SS

Diameter: 1.38"

Cable Jacket Material:
Polyurethane (Standard)
PVC or FEP (Optional)

Seals:
FKM (Standard)
EPDM (Optional)

Model 592 Detachable COST-EFFECTIVE

PVC transmitter designed for level measurement of water, waste water as well as fuels and oils.

Min Range: 0-40" W.C.

Max Range: 0-335 FT

Output: 4-20 mA

Accuracy: 0.50/0.35%

Improved Accuracy
N/A

Sensor Material: 316L SS

Technology: Piezoresistive

Body Material: PVC

Diameter: 1.38"

Cable Jacket Material:
Polyurethane (Standard)
PVC, FEP or TPE (Optional)

Seals:
FKM (Standard)
EPDM (Optional)

Model 593 Detachable VERSATILE

Stainless Steel transmitter designed for level measurement of water, waste water and higher viscosity media.

Min Range: 0-16" W.C.

Max Range: 0-335 FT

Output: 4-20 mA

Accuracy: 0.35%

Improved Accuracy
(Optional): 0.25%

Sensor Material: Ceramic

Technology: Capacitive

Body Material: 316L SS

Diameter: 1.56"

Cable Jacket Material:
Polyurethane (Standard)
PVC, FEP or TPE (Optional)

Seals:
FKM (Standard)
EPDM (Optional)

Model 595 Detachable AGGRESSIVE RESISTANT

Plastic transmitter designed for level measurement in most aggressive media. Usage in more viscous media such as sludge is possible because of semi-flush ceramic sensor.

Min Range: 0-16" W.C.

Max Range: 0-335 FT

Output: 4-20 mA

Accuracy: 0.35%

Improved Accuracy
(Optional): 0.25%

Sensor Material: Ceramic

Technology: Capacitive

Body Material: PVC

Diameter: 1.77"

Cable Jacket Material:
Polyurethane (Standard)
PVC or FEP (Optional)

Seals:
FKM (Standard)
EPDM (Optional)

Shop online today
at www.viatran.com
or call 1.800.688.0030



Model 596
Detachable
VERSATILE



Stainless Steel transmitter designed for level measurement of water, waste water and higher viscosity media.

Min Range: 0-32" W.C.

Max Range: 0-335 FT

Output: 4-20 mA

Accuracy: 0.10%

Improved Accuracy
N/A

Sensor Material: Ceramic

Technology: Capacitive

Body Material: 316L SS

Diameter: 1.56"

Cable Jacket Material:
Polyurethane (Standard)
PVC, FEP or TPE (Optional)

Seals:
FKM (Standard)
EPDM (Optional)

Model 59C
Non-Detachable
CHEMICAL RESISTANT

PP or PVDF transmitter designed for continuous level measurement in aggressive media. Cleaning is easier because of flush mounted ceramic sensor.

Min Range: 0-16" W.C.

Max Range: 0-335 FT

Output: 4-20 mA

Accuracy: 0.35%

Improved Accuracy
N/A

Sensor Material: Ceramic

Technology: Capacitive

Body Material: PP or PVDF

Diameter: 1.77"

Cable Jacket Material:
Polyurethane (Standard)
FEP or TPE (Optional)

Seals:
FKM (Standard)
EPDM (Optional)

Model 59G
Non-Detachable
GENERAL PURPOSE

Stainless Steel transmitter designed for the continuous level measurement in water and clean or waste fluids.

Min Range: 0-16" W.C.

Max Range: 0-835 FT

Output: 4-20 mA

Accuracy: 0.50/0.35%

Improved Accuracy
(Optional): 0.10%

Sensor Material: 316L SS

Technology: Piezoresistive

Body Material: 316L SS

Diameter: 1.00"

Cable Jacket Material:
Polyurethane (Standard)
PVC or FEP (Optional)

Seals:
FKM (Standard)

Model 59P/59K
Non-Detachable
PP-HT BODY

PVC transmitter designed for continuous level measurement in waste water or aggressive media. Removable protective cap allows usage in more viscous media.

Min Range: 0-13.3 FT

Max Range: 0-335 FT

Output: 4-20 mA

Accuracy: 0.50%

Improved Accuracy
N/A

Sensor Material: Ceramic

Technology: Capacitive

Body Material: PP-HT

Diameter: 1.38"/.083"

Cable Jacket Material:
Polyurethane (Standard)
PVC or FEP (Optional)

Seals:
FKM (Standard)

Models identified as *RapidShip* offer specific configurations which are available within 48 hours, check with your Viatran rep for details.



Model 59S
Non-Detachable
SLIM DESIGN

Narrow body transmitter designed for the continuous level measurement of water and thin fluids in areas with limited access.

Min Range: 0-40" W.C.

Max Range: 0-835 FT

Output: 4-20 mA

Accuracy: 0.50/0.35%

Improved Accuracy (Optional): 0.25% >=15 FT

Sensor Material:
316L SS

Technology: Piezoresistive

Body Material: 316L SS

Diameter: 0.75"

Cable Jacket Material:
Polyurethane (Standard)
PVC or FEP (Optional)

Seals:
FKM (Standard)
EPDM (Optional)



Model 59T
Non-Detachable
LEVEL & TEMPERATURE

Stainless Steel transmitter designed for continuous level and temperature measurements in water and clean or waste fluids.

Min Range: 0-40" W.C.

Max Range: 0-835 FT

Output: 4-20 mA / 4-20 mA

Accuracy: 0.50%

Improved Accuracy
N/A

Sensor Material:
Ceramic

Technology: Capacitive

Body Material: PVC

Diameter: 1.38"

Cable Jacket Material:
Polyurethane (Standard)
PVC or FEP (Optional)

Seals:
FKM (Standard)



Model 517
Non-Detachable
HAZARDOUS LOCATIONS

All-welded Stainless Steel transmitter designed for level measurement in Water and Corrosive media up to 1,200 foot deep.

Min Range: 0-30" W.C.

Max Range: 0-1200 FT

Output: 4-20 mA

Accuracy: 0.25%

Improved Accuracy (Optional): 0.10%

Sensor Material:
316L SS

Technology: Piezoresistive

Body Material: 316L SS

Diameter: 0.87"

Cable Jacket Material:
Polyurethane (Standard)
FEP (Optional)

Intrinsic Safety Approvals:



Model WW517
Non-Detachable
NON-CLOGGING DESIGN

All-welded Stainless Steel transmitter designed for level measurement in Water and Waste Water where clogging is an issue.

Min Range: 0-30" W.C.

Max Range: 0-461 FT

Output: 4-20 mA

Accuracy: 0.25%

Improved Accuracy
N/A

Sensor Material:
Teflon Coated 316L SS

Technology: Piezoresistive

Body Material: 316 SST

Diameter: 4.00"

Cable Jacket Material:
Polyurethane (Standard)
FEP (Optional)

Intrinsic Safety Approvals:



ACCESSORIES

for Model 517

Protective End Cap with Eyebolt: P/N: 004376.001

- For model 517 only
- Provides an anchoring point
- Add your own weights
- Attach to tank base



Protective End Cap and Weighted Body P/N 005205.002

- For model 517 only
- 316 Stainless Steel
- 1/2 lb weight



Pressure Test Fitting P/N: 004399.012

- Threads onto probe and provides a 1/4" female NPT Tap
- For model 517 only



ACCESSORIES

Shark Cages

Shark Cage P/N: 005885.012

- Protective cage add-on for model 593 only
- Extra sensor protection
- Standoff to keep sensor up off the floor
- Easy to add on or swap to a new sensor
- Can also be factory installed, "DV" option



Shark Cage P/N: 005885.032

- Protective cage add-on for model 595 only
- Extra sensor protection
- Standoff to keep sensor up off the floor
- Easy to add on or swap to a new sensor
- Can also be factory installed, "DV" option



Shark Cage P/N: 005885.052

- Protective cage add-on for model 596 only
- Extra sensor protection
- Standoff to keep sensor up off the floor
- Easy to add on or swap to a new sensor
- Can also be factory installed, "DV" option



ACCESSORIES

for Dryness and Barometric Compensation

Vent Compensator P/N: 005883.003

- Allows gauge pressure sensors to freely adjust to barometric pressure changes
- Closed loop system
- No adverse effect to accuracy
- Provides a true moisture/humidity barrier



Breather Vent Tube Filter P/N: 11Z5017681

- Field replaceable breather tube filter assembly
- Easy toolless installation
- Porex element blocks moisture
- Required when cutting vent tube
- Field replaceable



Aneroid Bellows Kit P/N: 005528.002

- Easy add on
- Prevents moisture from entering vent tube
- Not recommended for ranges below 10 psig unless for pump control



Desiccant Tube Kit P/N: 005527.002

- Helps prevent moisture buildup inside the vent tube
- Changes from blue to pink when replacement is required
- Extends life of the transmitter
- Easy installation



Spare Desiccant Tube P/N: 11DRY26930

- Replacement for kit above



ACCESSORIES

Protectors

Lightning Surge Protector P/N: 005871.001

- Protects sensitive circuits and components
- Shunts off voltage surges
- Sub-nanosecond response
- Resets automatically



Polycarbonate Cable Junction Enclosure with Lightning Surge Protector P/N: 005880.003

- Similar features as Junction Enclosure P/N 005879.003 plus:
- Lightning surge protector (P/N 005871.001)
- Protects sensitive circuits and components
- Shunts off voltage surges



Polycarbonate Cable Junction Enclosure P/N: 005879.003

- Easy cable transition
- NEMA 4X/IP 67 rating
- Vent equalizing filter
- Liquid tight cable grips
- Screw-in electrical terminals



ACCESSORIES

for Cable Routing

Cable Clamp Hanger (Stainless Steel)

P/N: 35AKL801VA

- Corrosion resistant Stainless Steel
- No crush contoured jaws
- Will not damage internal vent tube
- Supports 560+ lbs
- Secure cable w/o kinks or bends
- Can be added after connections are made



Cable Clamp Hanger (Galvanized)

P/N: 35AKL801XS

- Rust resistant galvanized steel
- No crush contoured jaws
- Will not damage internal vent tube
- Supports 560+ lbs
- Secure cable w/o kinks or bends
- Can be added after connections are made



Rodent Cable Shield (Poly Braid)

P/N: 310RRNo.25

- Extra protection for cables against rodents
- Can be installed at factory or DIY
- Highly repulsive to critters



Rodent Cable Shield (Stainless Steel)

P/N: 310SSL0.25

- Extra protection for cables against rodents or abrasion
- Can be installed at factory or DIY
- Strong 304 SS braided design



Cable Weight

P/N 3500000C10

- Helps stabilize transmitter in turbulent media
- 1.22 lbs zinc plated cast iron
- Split weight design for easy installation
- Designed for secure and permanent attachment to cable



Submersible

DETACHABLE

LEVEL Transmitters

Wastewater

Accurate **TREATMENT**

CHEMICAL Economical

VERSATILE

INDUSTRIAL

Reliable

Water

Quick

EASY

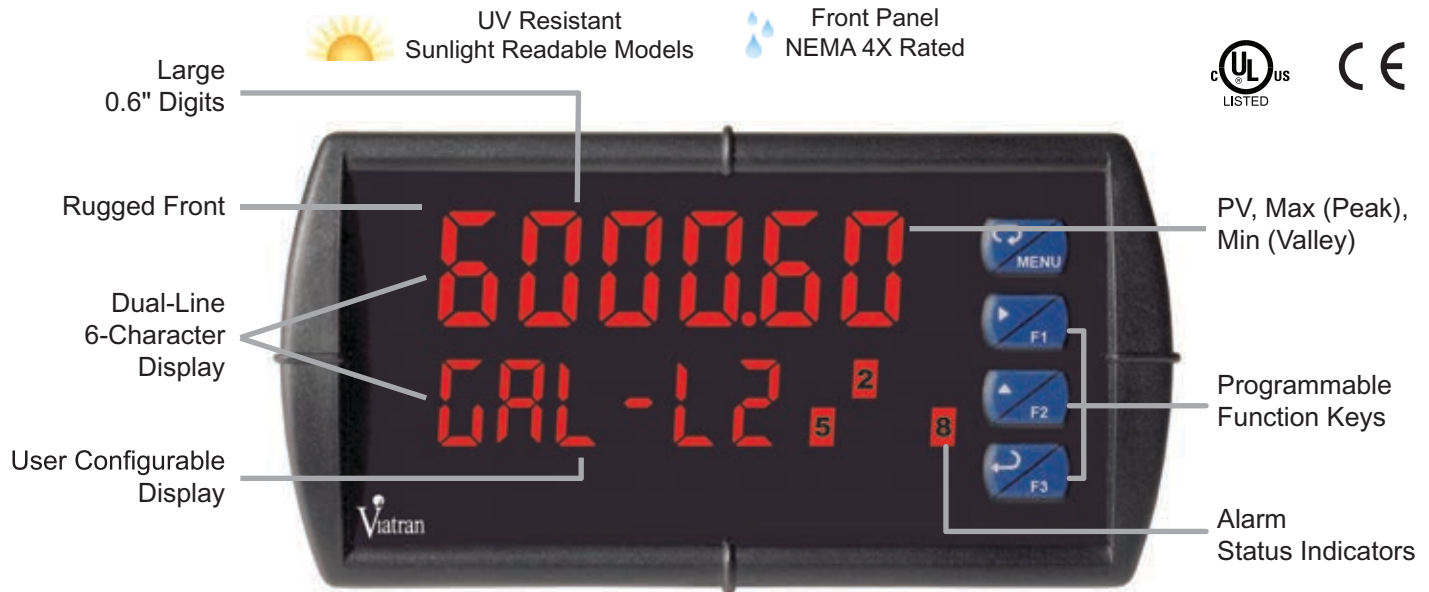
RapidShip

FAST



ACCESSORIES

DL Series Dual-Line 6-Digit Analog Input Process Meter



FEATURE RICH AND FLEXIBLE

The Viatran DL meter boasts specifications and functionality that make it one of the most advanced process meters available. Its dual-line 6-digit display (999,999), advanced signal conditioning, function keys, Modbus RTU serial communications, and optional expansion modules are only a few of the features found on the Viatran DL series analog input meter.

Precise, Accurate, and More Informative

The DL's large 0.6" upper display provides a highly accurate and precise 6-digit view of the process measurement. Its 24-bit A/D is accurate to $\pm 0.03\%$ of calibrated span ± 1 count.

Configurable

The upper display can be programmed to indicate PV, maximum (peak), minimum (valley), alternating maximum/minimum, one of eight alarm set points, or Modbus input. The lower display can also be configured to display engineering units, set points, user defined legends, or simply turned off.

Easy to Use

The user friendly dual-line display makes the meter easy to set up & program. No jumpers to set for input selection. All setup & programming are done via the front panel. Three levels of password protection help maintain the reliability of the programming.

- 0-20 mA, 4-20 mA, 0-5 V, 1-5 V, and ± 10 V Inputs
- Universal 85-265 VAC or 12/24 VDC Input Power
- Dual-Scale for Level Applications – Single Input
- Sunlight Readable Display Models
- Isolated 24 VDC @ 200 mA Transmitter PowerSupply
- Signal Input Conditioning for Flow & Round Horizontal Tanks
- Programmable Displays & Function Keys
- 32-Point, Square Root, or Exponential Linearization
- Multi-Pump Alternation Control
- 2 or 4 Relays + Isolated 4-20 mA output options
- External 4-Relay & Digital I/o Expansion Modules
- USB, RS-232, & RS-485 Serial Communication options
- Tare Function
- Modbus® RTU Communication Protocol Standard
- On-Board Digital Input
- Configure, Monitor, and Datalog from a PC with Free MeterView® Pro Software

Contact Viatran for configuration options **1.800.688.0030**

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Contact Viatran directly or
your local applications specialist



THE CHALLENGES

FOG [Fats, Oils & Greases]

Large accumulations of FOG [Fats, Oils & Greases] on float switches can result in failures such as SSOs (Sewer System Overflows) not to mention burnt out pumps and costly clean ups.

Ragging

With the increased use of “flushable” materials, the issue of ragging has increased such that float switch damage, pump destruction and the resulting downtime are draining municipal resources at an alarming rate.

Turbulence

Float switches can also be affected by turbulence which can cause the float switch to cycle on and off rapidly (chatter) causing the premature failure of the float switch and the relay or device the float switch is controlling.

THE SOLUTION

Viatran's Submersible Level Transmitters are now replacing traditional float switch systems and are an economical alternative to ultrasonic instruments that need unobstructed and calm environments.

For more information on how our Submersible Level Transmitters can help you reduce costs, call us today at **1-800-688-0030**.



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Contact Viatran directly or
your local applications specialist