



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.

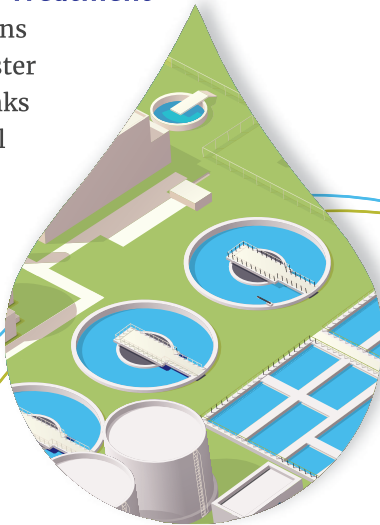


Water storage tanks, reservoirs and treatment plants are an important part of the water distribution infrastructure. Pressure and level measurements are critical to keep the water flowing throughout the system.

VIATRAN PRESSURE SENSORS IN SUBMERSIBLE APPLICATIONS

Wastewater Treatment

Aeration Basins
Aerobic Digester
Chemical Tanks
Pump Control
Sludge Tanks



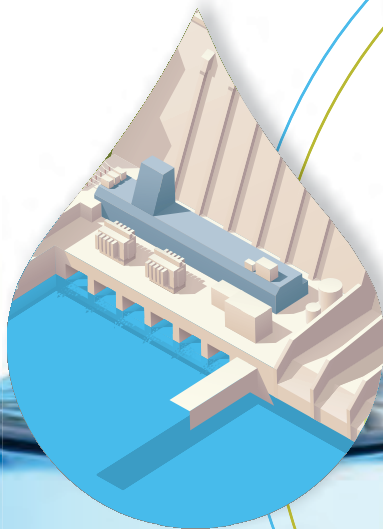
Collection Systems

Leachate
Lift Stations
Retention Ponds
Storm Overflow Tanks
Wet Wells



Surface Water

Canals
Dams
Flood Control
Lakes
Reservoirs
Rivers
Trash Gates



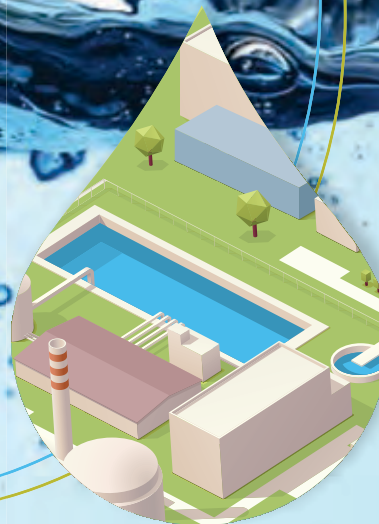
Water Supply

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 594 Detachable HART-COMMUNICATION

Stainless Steel transmitter designed for level measurement of water, waste water and higher viscosity media. HART® allows setting of offset, span and damping.

Min Range: 0–8" W.C.

Max Range: 0–335 FT

Output: 4–20 mA/HART

Accuracy: 0.15%

*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 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)



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
Non-Detachable
PVC 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: PVC

Diameter: 1.38"

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

Seals: FKM (Standard)



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 HIGH ACCURACY

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: FM & CSA



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: FM & CSA

ACCESSORIES

for cable routing and installation

Cable Strain Relief Clamps / Hangers

- Easy to use, can support up to 562 lbs.
- Can be added after connections have been made
- “No Crush” contoured jaws securely hold cable without damage to internal breather tube.
- Galvanized Model: P/N 35AKL801XS
- Stainless Steel Model: P/N 35AKL801VA



Cable Weight

- 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
- P/N 3500000C10



Model 517 Protective Cap Options

- Standard Protective Cap (included)
- Protective Cap with Eyebolt: P/N 004376.001
- Protective Cap with Sink Weight: P/N 005205.002



Desiccant Tube Kit

Includes

- Tubing
- Adapter
- Desiccant Tube
- P/N 005527.002



Desiccant Tube

- Keeps moisture out
- Blue desiccant turns pink to indicate it's time to replace
- P/N 11DRY26930



Lightning Surge Protector

- Ability to repeatedly protect against surge currents in excess of 10,000 amperes
- Flat surface or DIN-3 rail mounting
- P/N 005871.001



Application	Detachable Level Transmitters						Non-Detachable Level Transmitters						
	590	591	592	593	594	595	59C	59G	59P	59S	59T	517	WW517
Aquaculture					⬆								
Dam Operations	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Flood Warning/Storm Surge	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Groundwater Monitoring	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Landfill Leachate Level						⬆	⬆		⬆				
Line Pressure Monitoring*													
Oceanographic Research	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Pump and Lift Stations	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Pump Control*	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Remediation Monitoring	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Slug Testing/Aquifer Characterization	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Stormwater Monitoring	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Stream Gauging	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Tank Level Monitoring*	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Tide Gauging	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆
Wet Wells	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆		⬆	⬆	⬆

*CONSULT
FACTORY



WHY OTHERS FAIL

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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