

A submersible level transmitter with a twist!

- The DLT series allows for a quick sensor swap without the removal of your installed cable. No special tools are required. Simply pull up sensor, hold the sensor head, then twist the sensor coupling sleeve till it is no longer engaged and just separate the two halves!
- The Viatran Model 590 DLT is a submersible transmitter specifically designed to meet the challenging demands of liquid measurement. The ability to detach the sensor can be an enormous time saver when or if it's ever needed.
- Available in ranges from 0-40 inches W.C. to 0-835 feet W.C. or equivalent in Meters or PSI.
- Polyurethane (PUR) cable is the most popular, Polyvinyl Chloride (PVC) & Fluorinated Ethylene-Propylene (FEP) cables are also offered.
- Liquid Level & Depth, Water & Wastewater, Lift Stations, Reservoirs & Dams, Rivers, Holding Ponds, Wells, In-ground/Above Ground Tanks, and Inventory Tank Gauging.



Performance

Pressure Ranges From	0-40 Inches Water Column up to 0-835 Feet Water Column or equivalent in Meters or PSI.
Accuracy	≤ +/- 0.35% FSO for ranges ≥ 15 Ft. W.C.
[Combined Non-Linearity (BFSL), Hysteresis & Repeatability]	≤ +/- 0.50% FSO for ranges < 15 Ft. W.C.
Compensated Temperature Range	32° to 158° F (0 to 70° C)
Operating Temperature Range	-4° to 158° F (-20 to 70° C) Note: Medium must not freeze near sensor
Storage Temperature Range	-13° to 158° F (-25 to 70° C)
Long Term Stability (%FSO)	≤ +/- 0.1% FSO / year at reference conditions
Thermal Effect on Zero	≤ +/- 0.8% FSO per 100° F
Thermal Effect on Span	≤ +/- 0.8% FSO per 100° F

Electrical

Output Signal	4-20 mA
Supply Voltage	8-32 Vdc
Power Supply Regulation	< +/- .005% FSO per volt
Circuit Protection	Reverse polarity protected, CE marked
RFI/EMI	CE EMC compliant as per IEC EN 61326
Voltage Spike Protection	Withstand 1000 volt spike per EN 61000
Response Time	<10mSec

Mechanical

Pressure Connection	Protective POM cap
Ingress Protection	IP 68
Overpressure Limit	4x Minimum (>525 Ft. range = 3.2x)
Burst Pressure	5x Minimum (> 525 Ft. range = 4.8x)
Weight	0.9 lbs. (without cable)

Materials of Construction

Housing	316L stainless steel
Sensor Diaphragm	316L stainless steel
O-ring Seals	FKM or EPDM (customer specified)
Protective Cap	POM (Polyoxymethylene)

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Model 590

Detachable Level Transmitter

How to Order

MODEL	UNITS OF PRESSURE	PRESSURE RANGE	SEALS	CABLE FORMAT	ACCURACY	CABLE LENGTH	OPTIONS
590	(1 digit)	(4 digits)	(2 digits)	(2 digits)	(1 digit)	(3 digits)	(2 digits)

Units of Pressure

F	Feet of Water Column
I	Inches of Water Column
M	Meters of Water Column
P	PSI (Whole numbers only)

Pressure Range

Any Range from 0-40 Inches Water Column up to 0-835 Feet Water Column or equivalent, can be specified at no additional cost.

*Consult factory for range code

**Please advise if specific gravity is other than 1

Example of Four Digit Codes:

Range		Four Digit Codes for Range
5	= 5	0 0 0 Insert Range Code 5000
10	= 1	0 0 1 Insert Range Code 1001
15	= 1	5 0 1 Insert Range Code 1501
50	= 5	0 0 1 Insert Range Code 5001
100	= 1	0 0 2 Insert Range Code 1002
250	= 2	5 0 2 Insert Range Code 2502
835	= 8	3 5 2 Insert Range Code 8352

Seals

GK	Fluoroelastomer (FKM)
GD	Ethylene Propylene (EPDM)

Cable Format

PC	Polyvinyl Chloride (PVC)
TL	Polyurethane Cable (PUR) *Stocked in select lengths for fast delivery
PA	Fluorinated Ethylene-Propylene (FEP)

Accuracy

5	Ranges < 15 Ft. = +/- 0.50% FSO (BFSL)
3	Ranges ≥ 15 Ft. = +/- 0.35% FSO (BFSL)

Cable Length

XXX	Listed in Whole Meters Only (must be 3 digits - ex. 012 = 12 Meters)
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Options

EA	Special Calibration Run
FA	Russian Metrology Certificate
PW	Calibrate item with meter/display
ZB	1/2" NPT Conduit Adapter



"ZB" Option

Information is accurate to the best of Viatran's knowledge. We reserve the right to change specifications at any time. Please contact Viatran for specific order inquiries.

98DS590 Rev G



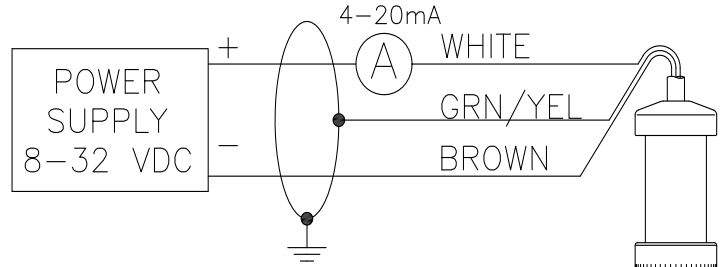
Model 590

Detachable Level Transmitter

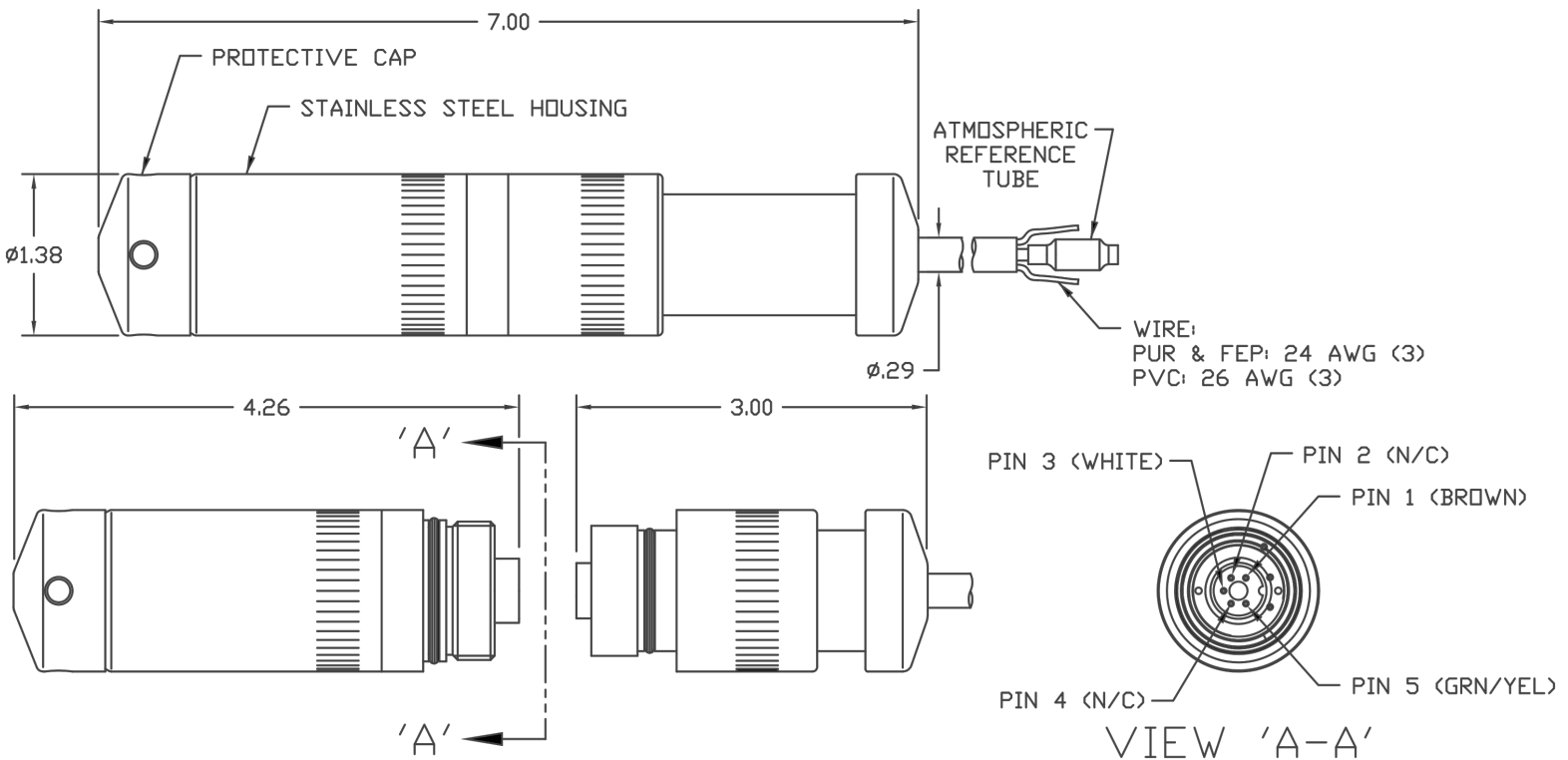
Connection Diagrams & Wiring

The standard wiring of your Viatran detachable level transmitter is outlined below. The wiring information is also marked on your unit.

The 590 detachable level transmitter can be powered by a DC power supply ranging from 8 to 32 volts. See installation manual for more details.



WIRING		
WHITE	+SUPPLY	PIN 3
BROWN	-SUPPLY	PIN 1
GRN/YEL	SHIELD	PIN 5



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