

Model 590

Detachable Level Transmitter



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, twist the sensor coupling sleeve till it is no longer engaged and then 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.
- 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
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 (>335 Ft. range = 3.2x)
Burst Pressure	5x Minimum (> 335 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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How to Order

MODEL
590

UNITS OF
PRESSURE
(1 digit)

PRESSURE
RANGE
(4 digits)

SEALS
(2 digits)

CABLE
FORMAT
(2 digits)

ACCURACY
(1 digit)

CABLE LENGTH
(3 digits)

OPTIONS
(2 digits)

Units of Pressure

F Feet of Water Column
I Inches of Water Column

Pressure Range

Any Range from 0-40 Inches Water Column up to 0-835 Feet Water Column can be specified at no additional cost. (Ranges must be in Inches WC or Feet WC)

*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

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

Cable Length

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

Options

EA Special Calibration Run
PW Calibrate item with meter/display



Information is accurate to the best of Viatran's knowledge. We reserve the right to change specifications at any time.

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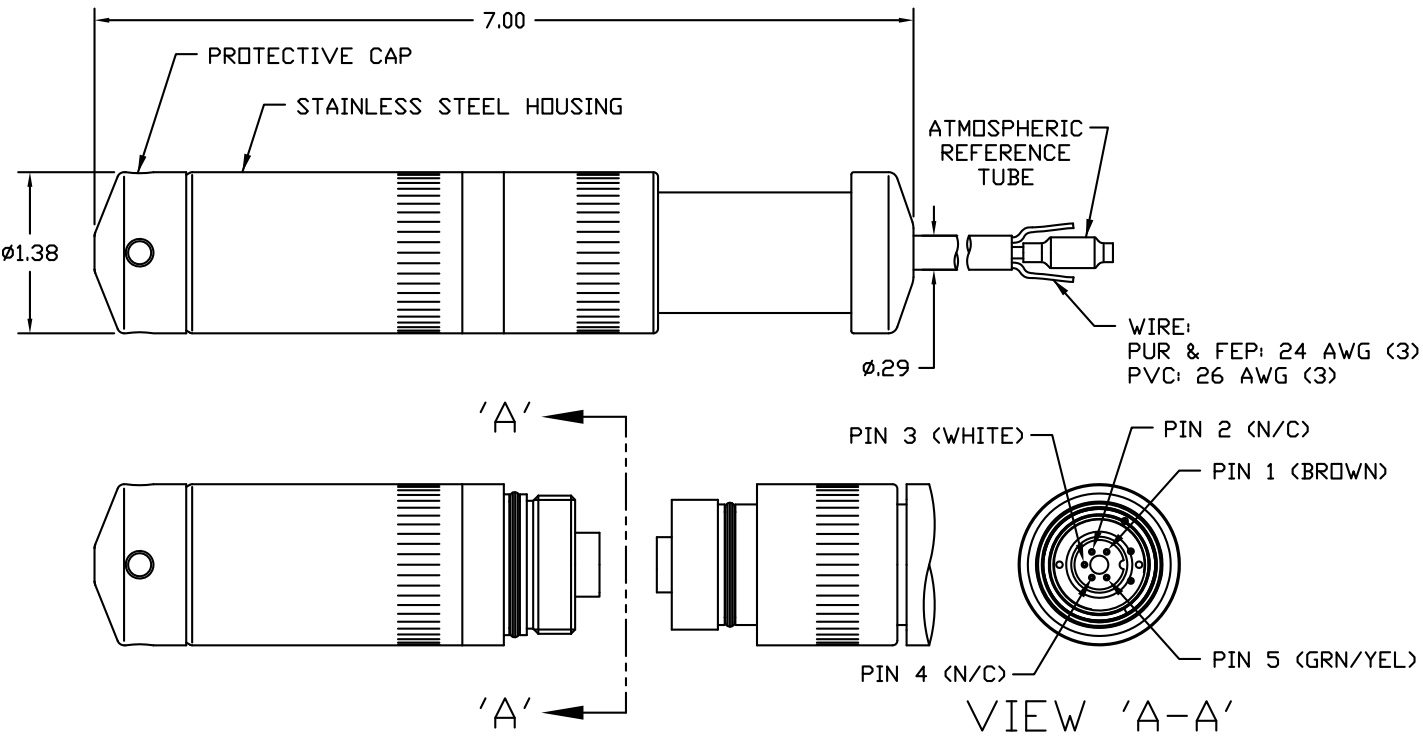
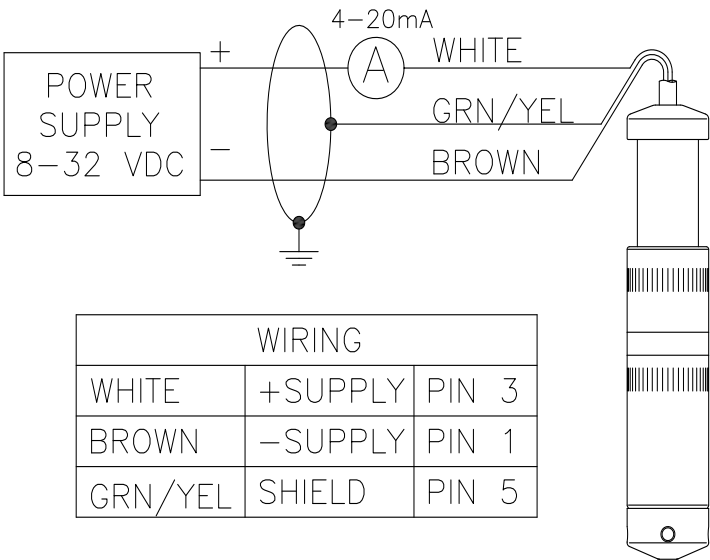
Viatran

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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.



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