

Model 591

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 591 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 40 Inches W.C. to 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 W.C up to 0-835 Feet W.C.
	Accuracy	≤ +/-0.1% FSO [Combined Non-Linearity (BFSL), Hysteresis & Repeatability]
	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	< 200mSec	
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 591	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)
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Units of Pressure

- F Feet of Water Column
- I Inches of Water Column

Pressure Range

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

*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

- 1 = $\pm 0.1\%$ 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.

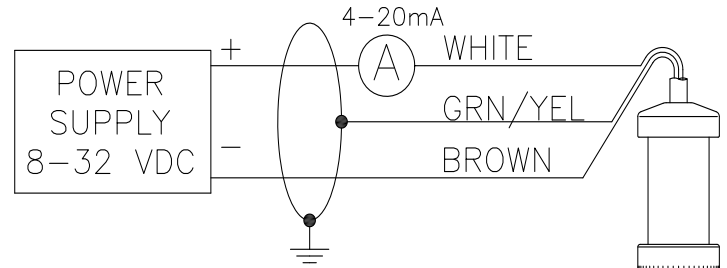


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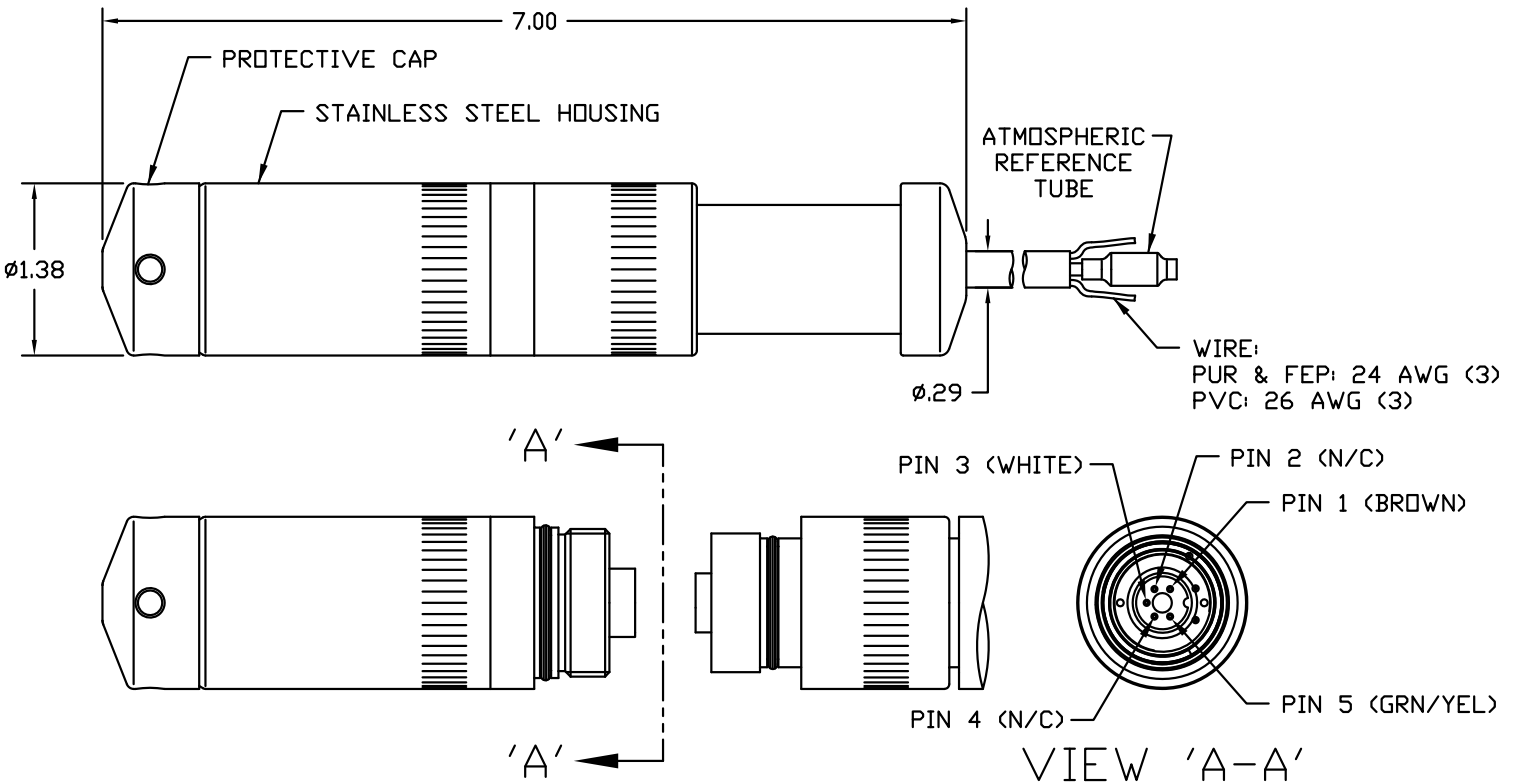
Connection Diagrams & Wiring

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

The 591 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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