

## 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 593 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 0-16 Inches W.C. to 335 Feet W.C. or equivalent in Meters or PSI
- Polyurethane (PUR) cable is the most popular, Polyvinyl Chloride (PVC), Fluorinated Ethylene-Propylene (FEP) & Thermoplastic Elastomer (TPE) cables are also offered.
- Rugged, Clog-Free Ceramic Sensor can be used with or without Protective Cap.
- Well suited for Wastewater, Lift Stations and Holding Pond applications.



### Performance

Pressure Ranges From .....	0-16 Inches W.C. to 335 Feet W.C. or equivalent in Meters or PSI.
Accuracy .....	≤ +/- 0.35% FSO standard (+/- 0.25% FSO optional)
[Combined Non-Linearity (BFSL), Hysteresis & Repeatability]	
Compensated Temperature Range .....	32° to 158° F (0 to 70° C)
Operating Temperature Range .....	-13° to 257° F (-25 to 125° C) Note: Medium must not freeze near sensor
Storage Temperature Range .....	-40° to 257° F (-40 to 125° 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 .....	9-32 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 .....	<380mSec

### Mechanical

Pressure Connection .....	Removable Protective POM cap
Ingress Protection .....	IP 68
Overpressure Limit .....	.6x Minimum (≥ 134 Ft. range = 3.5x)
Weight .....	1.4 lbs. (without cable)

### Materials of Construction

Housing .....	316L stainless steel
Sensor Diaphragm .....	Ceramic Al <sub>2</sub> O <sub>3</sub> 96%
O-ring Seals .....	FKM or EPDM (customer specified)
Removable Protective Cap .....	POM (Polyoxymethylene)

### Viatran

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# Model 593

Detachable Level Transmitter

## How to Order

MODEL  
593

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
M	Meters of Water Column
P	PSI (Whole numbers only)

### Pressure Range

Any Range from 0-16 Inches W.C. up to 335 Feet W.C. or equivalent can be specified at no additional cost.

**Quick Ship Stocked Ranges:** 0- 139" W.C. (0-5 PSI)  
0- 277" W.C. (0-10 PSI)  
0- 416" W.C. (0-15 PSI)

\* Consult factory for range codes

\*\* Please advise if specific gravity is other than 1

### Examples of Four Digit Codes:

Range		Four Digit Codes for Range
5	= 5	0 0 0 0 Insert Range Code 5000
10	= 1	0 0 0 1 Insert Range Code 1001
15	= 1	5 0 0 1 Insert Range Code 1501
50	= 5	0 0 0 1 Insert Range Code 5001
100	= 1	0 0 0 2 Insert Range Code 1002
250	= 2	5 0 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)
PB	Thermoplastic Elastomer (TPE)

### Accuracy

3	Standard Accuracy +/- 0.35% FSO (BFSL)
2	Improved Accuracy +/- 0.25% FSO (BFSL)

### Cable Length

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

### Options

DV	SharkCage™ Removable Protective Cage
EA	Special Calibration Run
FA	Russian Metrology Certificate
PW	Calibrate item with meter/display
ZB	1/2" NPT Conduit Adapter



Shown with "ZB" Option and Protective Cap

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.

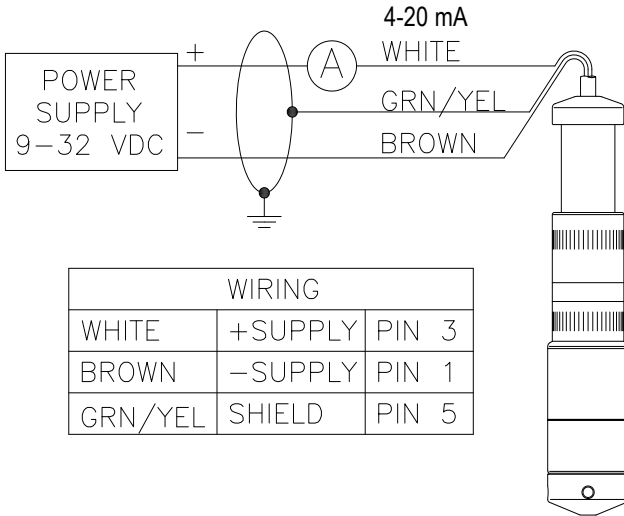
98DS593 Rev E



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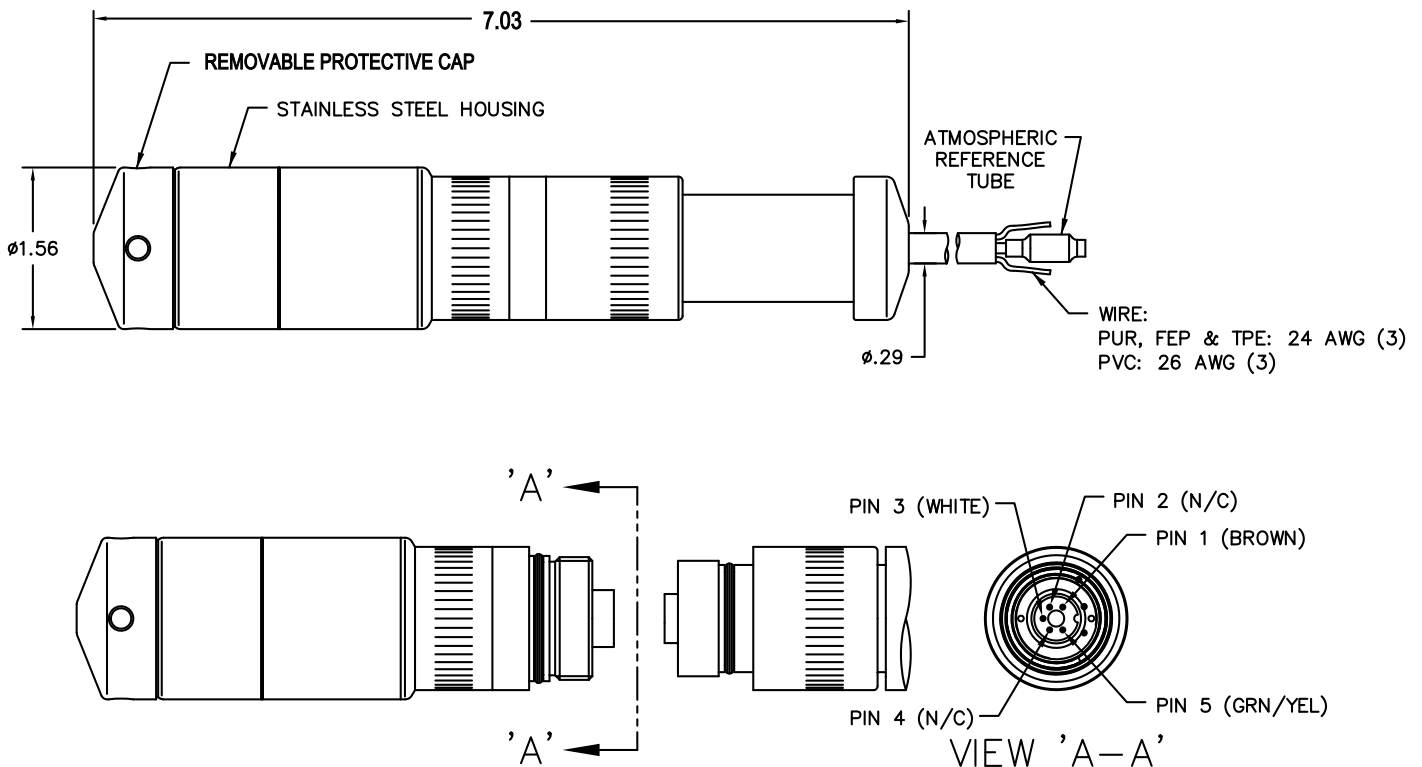
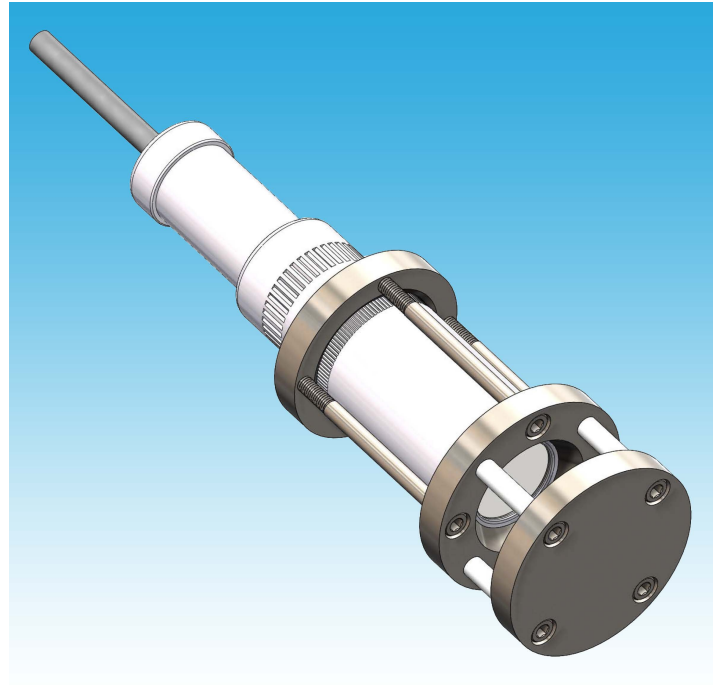
## Connection Diagrams & Wiring

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



The 593 detachable level transmitter can be powered by a DC power supply ranging from 9 to 32 volts. See installation manual for more details.

## SHARKCAGE™ (Option "DV" illustrated below)



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