

Liquid Level Transmitter

MODEL 817



An all-welded, submersible unit designed to give accurate readings down to 1200 feet of water. Stainless steel or Titanium housing allows the Model 817 to be used in a variety of corrosive applications.

FEATURES

- ▶ Submersible
- ▶ Less than 7/8" diameter
- ▶ 316L SS wetted parts or Titanium
- ▶ Ranges from 80" to 1200 feet of water/500 PSI
- ▶ Intrinsically Safe design available

TYPICAL APPLICATIONS

- ▶ Methane gas wells
- ▶ Down hole water wells
- ▶ Inground and underground tanks
- ▶ Water and sewage treatment plants
- ▶ Reservoirs/Dams
- ▶ Marine/Shipboard
- ▶ Chemical waste ponds

Approval Options Available

SUBMERSIBLE. DEPENDABLE. ACCURATE

ALL-WELDED SENSOR DESIGN

The Model 817 has several features that maximize its performance and ensure that it operates without leaking. The all-welded sensor design eliminates the need for an O-Ring seal, thereby eliminating potential leak paths.

The silicon piezoresistive sensor in the Model 817 provides high accuracy and stability in many different corrosive media types.

UNIQUE CABLE SEAL

Our unique cable seal ensures the water-tight integrity of the unit, up to 500 PSI. The Model 817 provides a millivolt signal that is ratiometric to the input voltage. Additional features include a removable end cap and an optional end cap for use when weights are required. An end cap with a 1/4" NPT pressure port is also available for checking calibration of the unit against a known pressure source.

Viatran offers a complete line of liquid level transmitters.

For product availability, or to order please call 1-800-688-0030, ext 506.

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An ISO 9001:2001 Certified Company

SPECIFICATIONS

PERFORMANCE

Performance	0-3, 5, 10, 15, 30, 50, 100, 300, 500 PSI
Full Scale Pressure Range (FSPR)	(0-80, 140, 275, 415, 555, 690, 830 "WC)
Accuracy (combined linearity, hysteresis and repeatability)	$\leq \pm 0.1\%$ FSO typical ($\pm 0.25\%$ FSO max.)
Full Scale Output	
817 (3 to 5 PSI)	50 mV \pm 2 mV @ 10V supply
817 (10 PSI and above)	100 mV \pm 2 mV @ 10V supply
Long Term Stability	$\leq \pm 0.25\%$ FSO per year
Zero Balance	0 mV \pm 2 mV
Response Time	≤ 1 mSec
Temperature Effect on Zero	$\leq \pm 1.0\%$ FSO per 100° F
Temperature Effect on Span	$\leq \pm 1.0\%$ FSO per 100° F
Compensated Temperature Range	32° F to +180° F
Operating Temperature	-40° F to +185° F
Storage Temperature Range	-40° F to +250° F

ELECTRICAL

Supply Voltage	5 to 15V
Power Supply Regulation Effect	$\leq \pm 0.0001\%$ FSO per volt
Output Signal	50 to 100 mV (range & voltage dependent)
Span	16 mA \pm 0.25% FSO for Model 517
Load Resistance	500K Ohms minimum
Circuit Protection	Output may be short circuited indefinitely. Input polarity may be reversed. Intrinsically Safe Design.

Electrical Connections	5 Wire, 22 AWG
Red	+ Power
Black	+ Signal
Green	- Power
White	- Signal
Bare	Case Ground

MECHANICAL

Pressure Connection	5/8"-18UN female thread with protective end cap installed
Proof Pressure	3 times rated range or 1200 PSI, whichever is less
Burst Pressure	5 times rated range or 2400 PSI, whichever is less
Diameter	0.875 inches
Weight - Pressure Capsule	10 oz.
Weight - Cable	7 lbs. per 100 feet (Polyurethane)

Materials of Construction

Housing	316 Stainless Steel
Pressure Connection	316 Stainless Steel
Sensor	316 Stainless Steel
Cable Options	Polyurethane, Tefzel
Mounting	Suspended by the cable
Identification	Laser etched onto body

CERTIFICATIONS

FM	TG Option Code <u>Intrinsic Safety</u> Class I, Groups A thru D, Class I, Zone 0, AEx ia IIC T4 at Ta = 80°C
CSA	<u>Intrinsic Safety</u> Class I, Div. 1, Groups A, B, C, D, T3 at Ta = 94°C, T3 at Ta = 54°C

OPTIONS

Codes	Descriptions
EA	Special calibration
NH	Customer specified identification
NR	Alternate protective baffle with weight hook (maximum weight: 2 lbs.)
PW	1/8 DIN digital indicator
QX	All Titanium parts
TG	FM & CSA Intrinsically Safe label
ZB	1/2" NPT conduit connection (molded)

Note: Application of some available options may affect standard performance. Consult your Viatran representative for details.

Accessories

Breather Tube Filters
Panel Mount Digital Display
Pressure Test Fitting
[1/4" NPT (F), screws into end cap threads]

NOTE:

- ALL DIMENSIONS ARE NOMINAL, IN INCHES AND FOR REFERENCE PURPOSES ONLY

