Liquid Level Transmitter

MODEL 359



FEATURES

- * All welded construction
- ★ Ranges down to 20"

TYPICAL APPLICATIONS

- ★ Chemical tank level
- ★ Chemical processing

Approval Options Available



RELIABLE LIQUID LEVEL MEASUREMENT

SLOWS GREASE & GRIME BUILD UP

When tanks are cleaned using liquids at temperatures exceeding 200° F, sensors generally require five to ten minutes to recover before maintaining accurate readings. The Model 359 recovers in less than one minute, minimizing costly down time and wasted process media due to inaccurate readings.

The Model 359 fits tank receivers or fittings in use on most sanitary equipment. The transmitter also comes in three different lengths for varying tank wall thickness.

CORROSION PROTECTION

The 359 utilizes Hastelloy C-276 wetted parts to provide excellent protection against corrosion.

With a flush diaphragm, it is specifically designed for CIP systems and is 3-A Compliant as being suitable for use with milk or milk products.

3-A COMPLIANT SANITARY TRANSMITTER

The 359 meets USDA guidelines for meat and poultry processing equipment. This hermetically sealed enclosure has internal and external magnets that function as adjustments for zero, span, calibration, and a fine-tuning zero adjustment not found in other transmitters. The 359 also features an internal calibration circuit with 3 to 1 span ranging for easy field set-up.

Viatran manufactures a complete line of pressure transmitters for all your sanitary applications.





SPECIFICATIONS

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Full Scale Pressure Range (FSPR) 0-100", 300", 750", 900" WC Non-linearity (best fit straight line) ≤±0.15% FSO Hysteresis and repeatability ≤±0.10% FSO Resolution Infinite

Long Term Stability ≤±0.25% FSO per 6 months

Response Time

(mechanical and electrical combined) . . ≤10 mSec to reach 90% FSO Temperature Effect on Zero $\leq \pm 1.5\%$ FSO per 100°F Temperature Effect on Span $\leq \pm 1.5\%$ FSO per 100°F

Temperature Effect on

 Calibration Signal
 ≤±2.0% FSO per 100°F

 Compensated Temperature Range
 35°F to +170°F

 Process Temperature Limits
 -20°F to +220°F

High Temperature Option.

-20°F to +300°F at 70° ambient temperature Ambient Temperature Limits

-40°F to +250°F
Storage Temperature Limits.

-40°F to +250°F

ELECTRICAL

Sensor Technology Silicon Piezorestictive Supply Voltage 9 to 30 VDC

Power Supply Regulation ≤±0.01% FSO per volt Output Signal 4 to 20 mA
 Load Impedance
 1500 Ohms max at 40 VDC

 Zero Balance
 4 mA ±1% FSO

Zero Adjustment -100% FSPR (elevation) to 80% FSPR (suppression). Coarse and fine adjustments standard.

Span 20 mA ±1% FSO

Span Adjustment 3:1 Ranging

Range Calibration Signal 30% of FSPR , externally switched

Calibration Signal Accuracy. ≤±0.2% FSO. The exact signal to pressure correlation is

provided with each unit.

above 55V and currents to 250 Amps peak with a pulse

width of 8 to 20 µsec. Reverse polarity protected.

≥ 200 MegOhms to case ground

Insulation Resistance Negligible effect to 500 Mhz at 5 watts direct contact

Red +Signal -Signal Green..... Case Ground

MECHANICAL

Pressure Connection Flush mount sensor mates with

King Engineering tank shell #1777

2x rated range Burst Pressure 3x rated range

Oil Fill Less than 0.66 ml of DC 200 silicone oil

Measured Fluids Any gas or liquid compatible with Hastelloy C-276 steel

and silicone O-Ring

Wetted Materials Hastelloy C-276 Identification Laser etched onto body

CERTIFICATIONS

Enclosure Classification Consult Factory for Availability

NEMA 4X, 5, 6, 12

Authorized to display the 3A symbol for conformi-Sanitary Standards Council ty to sanitary standards for sensor, sensor fittings

and connections used on milk and milk product

equipment (#74-00)

OPTIONS

Codes Descriptions NSDR Non Standard Ranging

HD. Short length for single wall tanks

HE..... Extra long length for King Receiver #1777-3

GA..... Viton O-Rina GB..... Teflon O-Ring Buna-N O-Ring GE.....

ADAPTERS

Codes	
HB	2" Tri Clover
HC	2 1/2" Tri Clover
HG	3" Tri Clover
HI*	2" NPT

HJ Cherry-Burrell (standard shell) Tank Mate (long shell) HK..... 2" Cherry-Burrell I-Line HL..... 2 1/2" Cherry-Burrell I-Line HN.... Anderson (standard shell)

HP..... Anderson (long shell) HS* 1/4" NPT

Cherry-Burrell (short shell) HT..... HU* 1/2" NPT HV..... Taylor

ACCESSORIES

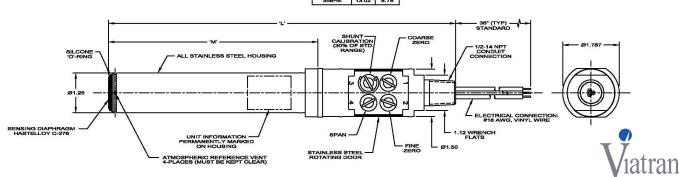
Mounting Bracket Conduit Connection Box Loop Powered Digital Indicator Protective Cover

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

Model	"L" ± 10	"M" ± 10
359 STD (AA)	10.86	6.53
359 (HD)	6.46	2.13
358 (HE)	13.11	8.78



MODEL	'L' ±10	'M'±.03
359AA (STD)	10.77	6.63
359HD	6.37	2.13
350UE	12.02	P 70



^{*} Not 3A compliant