



The Model 359 tank level transmitter has been designed to dramatically improve CIP/SIP recovery time. Using hydrostatic pressure to determine liquid level, the 359 ensures accurate and reliable measurement in ranges from 33" WC to 750" WC.

### FEATURES

- All welded construction
- 316L SS wetted parts
- Ranges down to 20"
- WC full scale
- High accuracy

### TYPICAL APPLICATIONS

- Fuel tank level
- Chemical tank level
- Gas compressors
- Chemical processing

Approval Options Available

## A SMART, CLEAN FREAK TANK LEVEL TRANSMITTER

### 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 comes in different mods to provide excellent protection against corrosion.

With a flush diaphragm, it is specifically designed for CIP and SIP systems and is approved by 3A as suitable for use with milk or milk products.

### 3A APPROVED 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

### PERFORMANCE

Full Scale Pressure Range (FSPR)	0-100", 300", 750", 900" WC
Non-linearity (best fit straight line)	$\leq \pm 0.15\%$ FSO
Hysteresis and repeatability	$\leq \pm 0.10\%$ FSO
Full Scale Output (FSO)	16 mA
Resolution	Infinite
Long Term Stability	$\leq \pm 0.25\%$ FSO per 6 months
Response Time	
(mechanical and electrical combined)	$\leq 10$ mSec to reach 90% FSO
Thermal recovery time	50 Sec 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	$\leq \pm 2.0\%$ FSO per 100°F
Compensated Temperature Range	35°F to +170°F
Process Temperature Limits	-20°F to +220°F
Ambient Temperature Limits	-40°F to +190°F
Storage Temperature Limits	-40°F to +250°F

### ELECTRICAL

Sensor Technology	Silicon Piezoresistive
Supply Voltage	12 to 40 VDC
Power Supply Regulation	$\leq \pm 0.01\%$ FSO per volt
Output Signal	4 to 20 mA
Load Impedance	1500 Ohms max at 40 VDC
Zero Balance	4 mA $\pm 1\%$ FSO
Zero Adjustment	-100% FSPR (elevation) to 80% FSPR (suppression). Coarse and fine adjustments standard.
Span	20 mA $\pm 1\%$ FSO
Span Adjustment	3:1 Ranging
Range Calibration Signal	30% of FSPR, externally switched
Calibration Signal Accuracy	$\leq \pm 0.2\%$ FSO. The exact signal to pressure correlation is provided with each unit.
Circuit Protection	Varistor protected across the input leads for surges above 55V and currents to 250 Amps peak with a pulse width of 8 to 20 $\mu$ sec. Reverse polarity protected.
Insulation Resistance	$\geq 200$ MegOhms to case ground
RFI/EMI Suppression	Negligible effect to 500 Mhz at 5 watts direct contact
Electrical Connection	1/2" NPT (M), 3 wires, 18 AWG, 36" Length
Red	+Power/Signal
Black	-Power/Signal
Green	Case Ground

### MECHANICAL

Pressure Connection	Flush mount sensor mates with King Engineer tank shell #1777
Proof Pressure	3x rated range
Burst Pressure	5x rated range
Oil Fill	Less than 0.66 ml of DC 200 silicone oil
Measured Fluids	Any gas or liquid compatible with 316 stainless steel and silicone O-Ring
Weight	4 lbs. nominal
Enclosure Materials	316L stainless steel
Wetted Materials	316L stainless steel
Identification	Laser etched onto body

### CERTIFICATIONS

Enclosure Classification	
Sanitary Standards	
Council	

Consult Factory for Availability

NEMA 4X, 5, 6, 12  
Authorized to display the 3A symbol for conformity to sanitary standards for sensor, sensor fittings and connections used on milk and milk product equipment (#74-00)

### OPTIONS

Codes	
NSR	
HD	
HE	
GA	
GB	
GE	

### Descriptions

Non Standard Ranging  
Short length for single wall tanks  
Extra long length for King Receiver #1777-3  
Viton O-Ring  
Teflon O-Ring  
Buna-N O-Ring

### ADAPTERS

Codes	
HB	
HC	
HG	
HI	
HJ	
HK	
HL	
HM	
HN	
HP	
HS	
HT	
HU	
HV	

2" Tri Clover  
2 1/2" Tri Clover  
3" Tri Clover  
2" NPT  
Cherry-Burrell (standard shell)  
Tank Mate (long shell)  
2" Cherry-Burrell I-Line  
2 1/2" Cherry-Burrell I-Line  
Anderson (standard shell)  
Anderson (long shell)  
1/4" NPT  
Cherry-Burrell (short shell)  
1/2" NPT  
Taylor

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

### ACCESSORIES

Mounting Bracket  
Conduit Connection Box  
Loop Powered Digital Indicator  
Protective Cover

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

