

Pressure Transmitter

Model #559

Pulp & Paper

Features

- Flush 316 SST diaphragm
- 33" WC to 750" WC
- Magnetically coupled zero and span
- Hermetically sealed enclosure
- Internal calibration circuit

Typical Applications

- Paper production tank level
- Pulp slurries
- Paper dye flow
- Paper coating
- Black liquor flow
- Digesters



The Model 559 provides a low range, reliable transmitter designed specifically for the Pulp and Paper industry. The Model 559, with a standard M44 X 1.25 flush pressure fitting (1-1/2" NPT available) and 316 SST diaphragm is ideal for corrosive media that accumulates and clogs standard fittings. Compact and hermetically sealed, it is built for the harsh environments encountered in pulp and paper measurement.

Using hydrostatic pressure to determine liquid level, the 559 ensures accurate and reliable measurement from 33" WC to 750" WC, gage and absolute formats.

Constructed of 316 stainless steel, the 559 provides excellent protection against corrosion. For extreme applications, a Hastelloy C-276 wetted parts option is available.

The Model 559 employs a unique, magnetically coupled external control system. 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 559 also features an internal calibration circuit for easy field setup without the need for a calibrated pressure source. The span control allows 3:1 ranging.

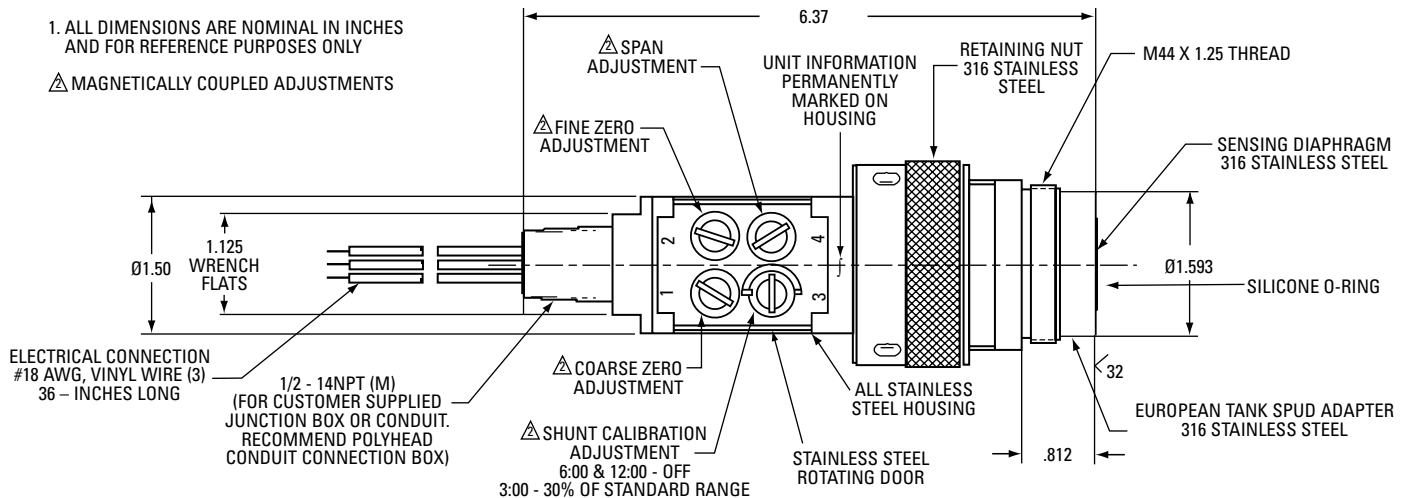
Additional products for the pulp and paper industry include the Models 550 and 551, which provide an ultra-rugged flush sensor for the most demanding applications. Viatran Models 553 and 554, also with rugged flush sensor, are a direct replacement for 1" flush mount PMC fittings.

Call Viatran today for more information on our full line of pressure measurement products for the pulp and paper industry.

NOTE:

1. ALL DIMENSIONS ARE NOMINAL IN INCHES AND FOR REFERENCE PURPOSES ONLY

△ MAGNETICALLY COUPLED ADJUSTMENTS



Viatran Model 559 Specifications

Performance

Full Scale Pressure Range (FSPR)	0-100", 300", 750" WC
Accuracy (combined linearity, hysteresis and repeatability)	≤ ±0.10% FSO
Full Scale Output (FSO)	16 mA
Resolution	Infinite
Long Term Stability	≤ ±0.25% FSO per 6 months
Response Time (Mechanical and Electrical Combined)	10% to 90% of FSO in 5-15 mSec. Dependent on range.
Temperature Effect on Zero	≤ ±1.0% FSO per 100° F
Temperature Effect on Span	≤ ±1.0% FSO per 100° F
Compensated Temperature Range	+35° F to +170° F
Operating Temperature Range	-40° F to +250° F Process -40° F to +185° F Ambient
Non-Operating Temperature Range	-40° F to +250° F

Electrical

Sensor Technology	Silicon Piezoresistive
Supply Voltage	12 to 40 VDC
Power Supply Regulation	≤ ±0.01% FSO per Volt
Output Signal	4 to 20 mA
Load Impedance	1400 Ohms maximum at 40 VDC
Zero Balance	4 mA ±1.0% FSO
Zero Adjustment	-100% FSPR (elevation) to 80% FSPR (suppression). Coarse and fine adjustments standard.
Span Adjustment	3:1 Ranging
Range Calibration Signal	30% of FSPR, externally switched
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 µsec. Reverse polarity protected.
Insulation Resistance	≥ 200 MegOhms to case ground
RFI/EMI Suppression	Negligible effect to 500 Mhz at 5 watts direct contact.
Electrical Connection	1/2" NPT Male, 3 Wires, 18AWG, 36"L
Red	+ Signal
Black	- Signal
Green	Case Ground

Mechanical

Pressure Connection	M44 X 1.25 fitting
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, Silicone O-Ring
Identification	Laser etched onto body
Enclosure Classification	NEMA 4X, 5, 6, 12

Options

Codes	Descriptions
GA	Viton® O-Ring
GB	Teflon® O-Ring
GE	Buna-N O-Ring
JJ	Direct mount indicator with explosion proof housing
JS	Direct mount indicator
NH	Customer specified identification
NSR	Non-standard ranging
PW	1/8 DIN digital

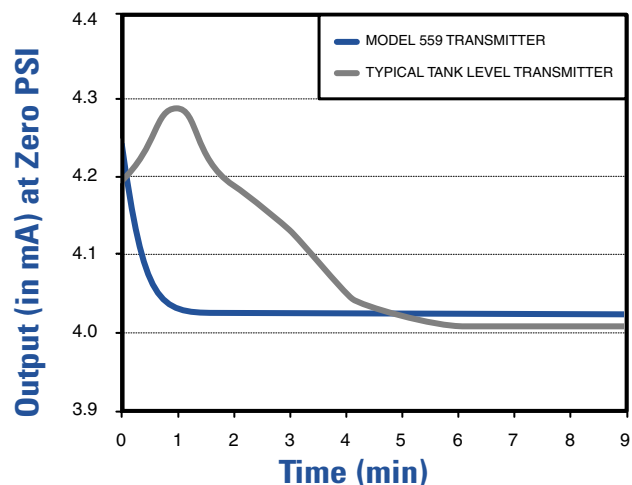
Accessories

Digital Indicators
Electrical Connection Box
Spare Silicone O-Ring
Spare Teflon O-Ring
Tank Fittings
Spanner Wrench

Other pressure fittings available consult factory.

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

Thermal Recovery Time



*Graph represents recovery time of transmitters subjected to CIP conditions (instantaneous 200°F liquid temperatures).

This information is accurate to the best of the manufacturer's knowledge, however, we reserve the right to change specifications at any time. Please contact your sales representative for specific order inquiries.
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