PressureTransmitter

MODEL 572



Viatran continues to meet the needs of the oil and gas production industries with the Model 572. The secondary containment vessel provides maximum protection without jeopardizing performance, accuracy or stability.

FEATURES

- All Hastelloy wetted parts
- Secondary containment rating to 40K PSI
- Magnetically coupled external controls
- Built-in field calibration signal

TYPICAL APPLICATIONS

- Natural gas wells
- Sour gas wells
- Oil production platforms
- Offshore oil rigs

Approval Options Available.

SECONDARY CONTAINMENT TO 40K PSI

COMPACT AND COMPLETELY SEALED

A sealed gage (PSIS) or absolute (PSIA) pressure reference is available for medium to very high pressures, with a containment pressure rating of 40K PSI. The Model 572 withstands harsh atmospheres and is built to be submersed in up to 100 feet of water.

INCONEL CONTAINMENT CHAMBER

A unique pressure sensing system incorporates a Hastelloy isolation diaphragm to displace the process media. Two sensors are embedded inside an Inconel secondary containment chamber that withstands 40K PSI pressure spikes. Viatran's unique secondary containment design with corrosion resistant materials ensures safe operation in hostile environments found in Oil and Gas recovery.

FULL APPROVALS

The Model 572 is FM approved Intrinsically Safe and fully approved Suitable for use in hazardous locations. It is also designed to meet CSA and ATEX approvals for Intrinsic Safety certification.

External zero, span, and calibration controls are hermetically sealed, yet easily adjusted with Viatran's unique magnetically-coupled adjustments. The signal conditioner in the 572 allows for 5:1 ranging of the transmitter's standard pressure range (FSPR). A field calibration circuit can be used for calibration without an external pressure source.

Viatran offers a complete family of pressure transmitters for the oil and gas production industry.

Viatran
A DYNISCO COMPANY

An ISO 9001:2001 Certified Company

MECO MEASUREMENTS & CONTROLS
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Viatran Model 572 PRESSURE TRANSMITTER

SPECIFICATIONS

PERFORMANCE

Full Scale Pressure Range (FSPR)	0-100, 150, 300, 500, 1K, 2K, 3K, 5K, 7500, 10K, 15K, 20K PSIA, PSIS, PSIG
Linearity	
0-100 PSI	<±0.5% BFSL
150 - 20K PSI	<±0.25% BFSL
Hysteresis & Repeatability	≤ ±0.10% FSO
Full Scale Output (FSO)	16 mA at 70°F
Resolution	Infinite
Long Term Stability	≤±0.25% FSO per 6 months
Response Time (mechanical and electrical combined)	≤20mSec to reach 90% of FSO
Temperature Effect on Zero	<±1% FSO per 100°F
Temperature Effect on Span	≤±1% FSO per 100°F
Operating Temperature Range	0°F to +180°F
Non-operating Temperature Range	–65°F to +250°F

ELECTRICAL

Supply Voltage	10 to 40 VDC
Power Supply Regulation	≤±0.02% FSO per volt
Output Signal	4-20 mA at 70°F
Load Impedance	1500 Ohms maximum at 40 VDC
Zero Adjustment	
Elevation	–100% of FSO
Suppression	+50% of FSO
Span Adjustment	Rangeable down 5:1 from standard range
Range Calibration Signal	20% ±0.1% of FSPR, externally switched. Exact signal-pressure correlation provided with each unit.
Circuit Protection	Varistor protected across the input leads for surges above 40V and currents to 250A peak with a pulse width of 8x20 µSec. Reverse polarity protected.
Bridge Resistance	5K Ohms nominal
Insulation Resistance	≥200 MegOhms to case ground
RFI/EMI Suppression	Negligible effect to 500MHz at 5W direct contact
Electrical Connection	1/2" NPT Male (conduit connection) 3 Wires, 18 AWG, 36" long
Red	+Power/Signal
Black	-Power/Signal
Green	Case Ground

MECHANICAL

Pressure Connections	
Ranges <10K PSI	1/4" NPT female
Ranges ≤10K PSI	Autoclave F-250–C
Proof Pressure	1.5 times FSPR or 25K PSI, whichever is less
Burst Pressure Sensor	
0-100 thru 0-3K PSI	≥5 times FSPR
Up to 0-5K PSI	≥4 times FSPR
Up to 0-10K PSI	≥2.7 times FSPR
Up to 0-20K PSI	≥2 times FSPR
Secondary Containment Vessel	≥40K PSI
Shock Limitation	100 G's
Weight	4 lbs. 8 oz.
Materials of Construction	
Wetted Materials	Hastelloy C-276
Secondary Containment Vessel	Hastelloy C-276, Molybdenum wire, and glass; Inconel X-750
Housing	Hastelloy C-276 and 316 SS; Inconel X-750

CODES — Consult factory for available Certification *Options*

TF	FM:	Intrinsic Safety: Class I, II, III, Division 1, Groups A-G, and AEx ia IIC, T4 at Ta=80ºC, T5 at Ta=40ºC, Indoor and Outdoor NEMA/Type 4X Hazardous Locations
NY	FM:	Explosion Proof: for use in Class I, Division 1, Groups A-D, Class II, Groups E,F,G, Class III, AEx d IIC, T5 at Ta=88ºC, NEMA/Type 4X, Hazardous Locations
NZ	FM:	Nonincendive: Class I,II,III Div. 2, Groups A-G and Class I, Zone 2, Group IIC, T4 at Ta=80ºC, T5 at Ta=40ºC
NX	CSA:	Intrinsic Safety: Class I, Div. 1, A-D Class II, E-G, Class III, Ex ia IIC T4 at Ta=80ºC, T5 at Ta=40ºC
ME	CSA:	Explosion Proof: Class I, A-D, Class II, E-G Class III Hazardous Locations.
NK	ATEX:	Intrinsic Safety: Ⓔx II 1 G EEx ia IIC, -20ºC T4, Ta ≤50ºC
NG	ATEX:	Flameproof: Ⓔx II 2 G EEx d IIC, T5 (-20ºC ≤ Ta ≤ 80ºC)
NJ	CE:	EMC Directive 89/336/EEC and Low Voltage Directive 72/23/EEC EN 61010-101993/A2:1995: Low Voltage Standard EN 61326: EMC Conformity Standard PED Directive 97/23/EC

CODES — Alternate Connectors

BB	Mini change electrical connector
BP	Micro change electrical connector

Alternate Pressure Ports

YI	1/8" NPT (F)
YM	9/16"-18 gland thread, pressure relieved. 1/4" OD high pressure tube, 60° cone. Conforms to Autoclave type F-250-C
YS	3/4"-16 gland thread, pressure relieved. 3/8" OD high pressure tube, 60° cone. Conforms to Autoclave type F-375-C

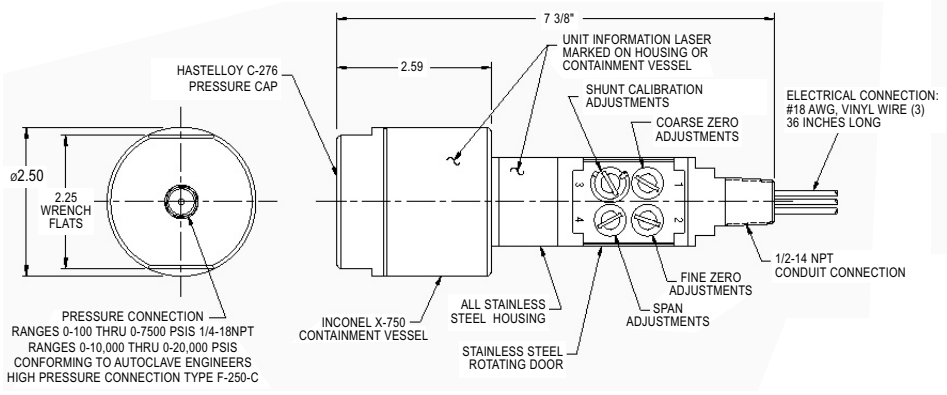
Performance Options

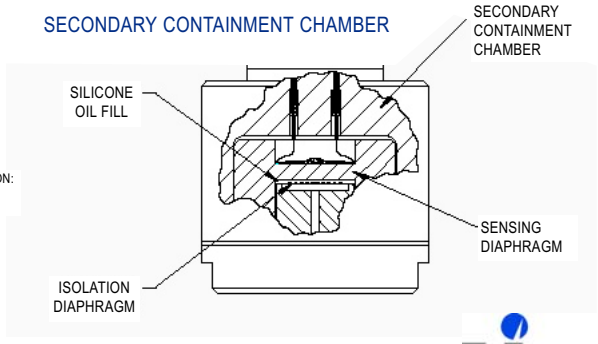
DG	Improved temperature performance
DK	Special calibration shunt ___%
DQ	Cleaning for Oxygen service
EA	Special calibration
NH	Customer specified identification
NSR	Non-standard range
PW	1/8 DIN digital indicator

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

ACCESSORIES

Mounting bracket
Conduit connection box





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