PressureTransmitter

MODEL 571

Viatran's small and rugged Model 571 pressure transmitter is built to provide accurate and stable measurement in medium to high pressures. Choose between sealed gage (PSIS) or absolute (PSIA) pressure.

FEATURES

- Hermetically sealed external controls
- Built-in field calibration signal
- All welded, watertight construction Submersible
- FM, CSA, ATEX (Optional)
- 4-20 mA

TYPICAL APPLICATIONS

- Offshore oil rigs
- Shipboard/Marine
- Pulp and paper
- Chemical processing
- Water treatment

Approval Options Available.



GAGE. ABSOLUTE. ACCURATE.

COMPACT AND COMPLETELY SEALED

The 571 is designed to withstand harsh atmospheres and submersion to 100 feet. All welded construction combined with 316 stainless steel makes the 571 air-tight, watertight, and ideal for corrosive environments. An O-Ring free design ensures reliability.

APPROVAL OPTIONS

Model 571 qualifies for FM, CSA, and ATEX ratings. External zero, span, and calibration controls are hermetically sealed, yet easily adjusted by means of Viatran's unique magnetically coupled adjustments. The signal conditioner in the 571 allows for 5:1 ranging of the transmitter's standard pressure range.

IN-FIELD SETUP AND RANGING

A calibration circuit permits ranging and setup without a calibrated pressure source. When the cal switch is activated, an electronic signal is sent through the unit, simulating the level or pressure. The optional non-interactive zero and span circuit allows taring of the zero without effecting the span.

JUST ONE PART OF A COMPLETE LINE OF SOLUTIONS FROM VIATRAN

The 571 represents one transmitter in a family of sensors designed for the process control industry. For more information on our complete line of solutions, call the number below to speak to a member of the Viatran process team.

Viatran
A DYNISCO COMPANY

An ISO 9001:2001 Certified Company

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Viatran Model 571 PRESSURE TRANSMITTER

SPECIFICATIONS

PERFORMANCE

Full Scale Pressure Range (FSPR)	0-50 thru 0-100K PSIA/PSIS
Non-linearity (Best fit straight line)	100-150 PSI typical at 0.2% FSO 300-10K PSI typical at 0.1% FSO >10K PSI typical at 0.25% FSO
Hysteresis & Repeatability	≤ ±0.1% FSO
Full Scale Output (FSO)	16 mA at 70°F
Resolution	Infinite
Long Term Stability	≤±0.25% FSO per 6 months
Response time (mechanical & electrical combined)	≤20mSec to reach 90% of FSO
Temperature effect on zero	≤±0.5% FSO per 100°F
Temperature effect on Span	≤±0.5% FSO per 100°F
Temperature effect on Zero and Span	
Combined at 5:1 range down	≤±4.0% FSO per 100°F
Compensated Temperature Range	0°F to +180°F
Maximum operating temperature	+190°F
Minimum operating temperature	-10°F
Non-operating temperature range	-65°F to 250°F

ELECTRICAL

Supply Voltage	12 to 30 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% of FSPR externally switched
Calibration Signal Accuracy	±1.0% FSO. The exact signal to pressure correlation is 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 20 µSec. Reverse polarity protected.
Bridge Resistance	5K Ohms nominal
Insulation Resistance	≥200 MegOhms to case ground
RFI/EMI Suppression	Negligible to 500 MHz at 5 Watts direct contact
Electrical Connection	1/2" NPT Male, 18 AWG, 72"
Red	+Signal
Black	-Signal
Green	Case Ground

MECHANICAL

Pressure Connections	
50 thru 15K PSI	1/4" NPT female
20K thru 50K PSI	Autoclave Engineers F250-C 1/4" High Pressure Tube
60K thru 100K PSI	Autoclave Engineers F312-C 5/16" High Pressure Tube
Proof Pressure	
50 thru 0-15K PSI	1.5 times FSPR or 20K PSI, whichever is less
20K thru 0-100K PSI	1.2 times FSPR
Burst Pressure	
50 thru 0-3K PSI	≥5 times FSPR
Up to 5K PSI	≥4 times FSPR
7.5K thru 10K PSI	≥2.7 times FSPR
15K PSI	≥2.3 times FSPR
20K PSI	≥1.5 times FSPR or 125K PSI, whichever is less
Shock Limitation	100G's
Weight	24oz.
Enclosure Materials	
50 thru 15K PSI	15-5 PH and 316 stainless steel
20K thru 100K PSI	PH 13-8 Mo SST and 300 Series SST
Wetted Materials	
50 thru 15K PSI	15-5 PH stainless steel
20K thru 100K PSI	PH 13-8 Mo SST
Enclosure Classification	NEMA/Type 4x

Note: Application of some available options may affect standard performance.

CERTIFICATIONS

Consult factory for available *Options*

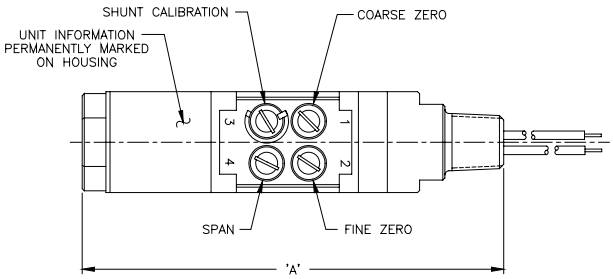
FM	Intrinsic Safety: Class I, II, III, Division 1, Groups A-G, and AEx ia IIC, T4 at Ta=80ºC, T5 at Ta=40ºC, Indoor and Outdoor NEMA/Type 4X Hazardous Locations Explosion Proof: for use in Class I, Division 1, Groups A-D, Class II, Groups E,F,G, Class III, AEx d IIC, T5 at Ta=88ºC, NEMA/Type 4X, Hazardous Locations 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
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 Explosion Proof: Class I, A-D, Class II, E-G Class III Hazardous Locations.
ATEX	Intrinsic Safety: Ex II 1 G EEx ia IIC, T4 (-20ºC ≤ Ta ≤40ºC) Flameproof: Ex II 2 G EEx d IIC, T6 (-20ºC ≤ Ta ≤ 40ºC)
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

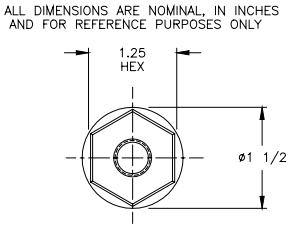
OPTIONS (Codes)

BB	Mini change electrical connector
BP	Micro change electrical connector
DF	Bleed port (10K PSI and below)
DG	Improved temperature and compensation
DK	Special shunt calibration
DQ	Cleaning for oxygen service
DZ	Noninteractive module
EA	Special calibration run
ME	CSA Explosion Proof label
NG	ATEX Flameproof label
NH	Customer specified identification
NJ	CE label
NK	ATEX Intrinsic Safety label
NSR	Non standard range
NT	Secondary containment
NX	CSA Intrinsic Safety label
NY	FM Explosion Proof label
NZ	FM Nonincendive label
TF	FM Intrinsic Safety label
Q ( )	Hastelloy, Inconel or 316 SST wetted parts
W ( )	Alternate pressure ports
Y ( )	Alternate ports
Z ( )	Alternate electrical connection
ZU	Direct coupled cable

ACCESSORIES

Mounting Bracket
Conduit Connection Box
Loop Powered Digital Indicator





STD. UNIT LENGTHS BY RANGE (Options may change length, consult factory)	A
0-50 THRU 0-15,000 PSI	6.35
0-20,000 THRU 0-50,000 PSI	6.72
0-60,000 THRU 0-100,000 PSI	7.47

This information is accurate to the best of the manufacturer's knowledge, however, we reserve the right to change specifications at any time.

98PB000571 03/09

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