

PRESSURE TRANSMITTER

Model 571



GAGE. ABSOLUTE. ACCURATE.



FEATURES

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

TYPICAL APPLICATIONS

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

COMPACT AND COMPLETELY SEALED

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

APPROVAL OPTIONS

Model 571 qualifies for FM, CSA, CRN, ATEX and GOST 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.



PERFORMANCE

	Full Scale Pressure Range (FSPR)	0-50 thru 0-100K PSIA/PSIS
	Nonlinearity (Best fit straight line).....	50 & 100 PSI typical at 0.50% FSO
	150-10K PSI typical at 0.20% 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	70°F to +170°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	900 Ohms maximum at 30 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	≥5 nS 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	+Power/Signal
	Black.....	-Power/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
	5K PSI.....	4 times FSPR
	7.5K thru 10K PSI.....	2.7 times FSPR
	15K PSI.....	2.3 times FSPR
	20K thru 100K 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

CERTIFICATIONS (Consult Factory for Available Options)

US	Intrinsic Safety: Class I, II, III, Division 1, Groups A-G, Class 1, Zone 0, AEx ia IIC, T4 at Ta≤80°C, T5 at Ta≤40°C, Indoor and Outdoor NEMA/Type 4X Hazardous Locations Explosion Proof: for use in Class I, Division 1, Groups A-D, Class II/III, Div 1, Groups E,F,G,CL1, ZN 1, AEx d IIC, T5 at Ta≤88°C, NEMA/Type 4X, Hazardous Locations Nonincendive: CL I, DIV 2, GPS A-D, CL II DIV 2 GPS F, G, CL III, DIV 2 and CL I, ZN 2, GPS IIC, T4 at Ta≤80°C, T5 at Ta≤40°C, NEMA/Type 4X, Hazardous Locations
Canada	Intrinsic Safety: CL I, DIV 1, GPS A-D, CL II, DIV 1, GPS E-G, Class III, DIV 1, Ex ia IIC T4 at Ta≤80°C, T5 at Ta≤40°C, Per drawing CD0627 Explosion Proof: Class I, Division 1, Groups A-D, Class II, Division 1, Groups E-G, Class III, Enclosure Type 4, Dual Seal, Hazardous Locations
Europe	Intrinsic Safety: II 1 G Ex ia IIC Ga, T3 (-20°C≤Ta≤88°C), T4 (-20°C≤Ta≤75°C), T5 (-20°C≤Ta≤40°C) Flameproof: II 2 G Ex db IIC, T6...T4 Gb (-20°C≤Ta≤+60°C) Nonincendive: II 3 G EX nA IIC Gc T4 (-20°C<Ta<80°C) EMC Directive 2004/108/EC PED 97/23/EC

OPTIONS

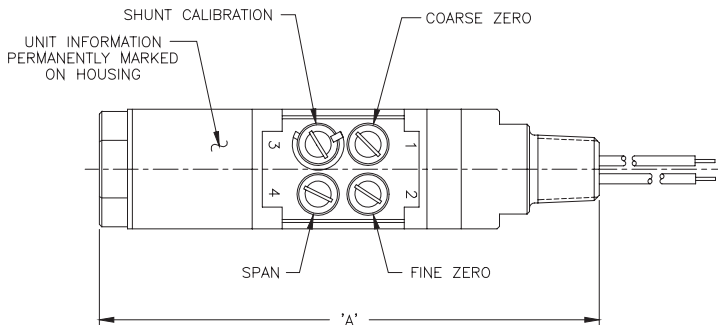
BB	Mini change electrical connector
BP	Micro change electrical connector
DF	Bleed port (6K PSI and below)
DK	Special shunt calibration
DQ	Cleaning for oxygen service
DZ	Noninteractive module
EA	Special calibration run
ME	CSA Explosion Proof label
NG	ATEX Flameproof label
NH	Customer specified identification
NJ	CE label
NK	ATEX Intrinsic Safety label
NT	Secondary containment
NX	CSA Intrinsic Safety label
NY	FM Explosion Proof label
NZ	FM Nonincendive label
TF	FM Intrinsic Safety label
TW	GOST-R
Q ()	Hastelloy, Inconel or 316 SST wetted parts
W ()	Alternate pressure ports
Y ()	Alternate ports
Z ()	Alternate electrical connection
ZU	Direct coupled cable

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

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



ALL DIMENSIONS ARE NOMINAL, IN INCHES AND FOR REFERENCE PURPOSES ONLY

