

Pressure Transmitter

Low Power

MODEL #LP770



This Viatran family of low power products brings the same rugged design you have come to expect from Viatran solutions. In the middle of the desert. In the arctic. Wherever power is in short supply, but accuracy and reliability can't be, a Viatran Model LP770 will be there.

FEATURES

- <1.5 mA current consumption
- Exotic wetted materials available
- All stainless steel construction
- Small size - 1.5" diameter
- Watertight/submersible design
- 1-5 Volt output

TYPICAL APPLICATIONS

- Natural Gas Pipelines
- Solar Power, Battery Power
- Gas Compressors
- RTUs
- Offshore Oil Rigs

DURABLE. DEPENDABLE. ACCURATE. PROTECTED.

LOW POWER CONSUMPTION

Oil needs a pipeline. When Oil is being produced in remote areas, the pipeline becomes even more critical. The Viatran Low Power Pressure Transmitter is the result of 40 years in the Oil and Gas arena.

VIATRAN DEPENDABILITY

All welded construction and stainless steel surfaces make the LP770 ideal for corrosive, remote environments. The O-Ring free design ensures reliability in corrosive media. Viatran's X70 FM approved labeled units meet NEC/API Dual Seal requirements. For the most corrosive environments, Hastelloy, Inconel, and 316 SS wetted parts are also available.

OVERPRESSURE PROTECTION

The Model LP770 features bonded foil strain gage sensors. The overpressure protection in this technology helps to eliminate damage to the sensors when they are exposed to transient pressure spikes. Viatran also offers isolation diaphragms and oil fills for specific application requirements.

LOW POWER SOLUTIONS

Viatran has a family of low power solutions. There's a submersible unit, a general industrial unit, and of course the LP770.

For more information, contact Viatran today at 1-800-688-0030, ext 518.



For product availability, or to order please call 1-800-688-0030, ext 518.

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An ISO 9001: 2001 Certified Company

SPECIFICATIONS

PERFORMANCE

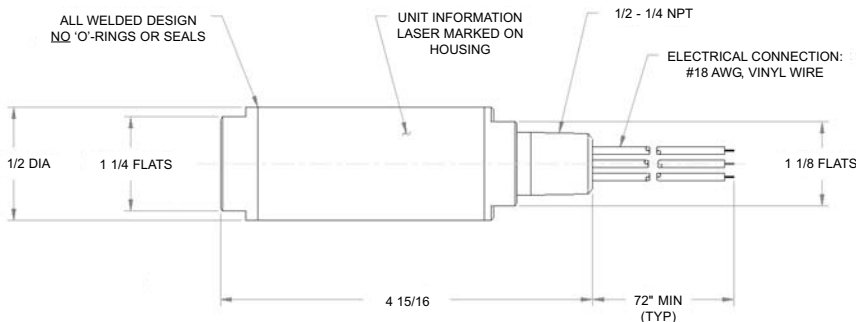
Full Scale Pressure Range (FSPR)	0-100 thru 0-100K PSIS, PSIA, PSIG
Linearity (Best Fit Straight Line)	0-150 PSI typical @ 0.2% FSO 300-10K PSI typical @ 0.2% FSO 15K-100K PSI typical @ 0.25% FSO
Hysteresis & Repeatability	≤0.15% FSO
Full Scale Output (FSO)	4 VDC
Zero and Span Balance	±1% FSO
Resolution	Infinite
Long Term Stability	≤±0.25% FSO per 6 months
Response Time	
(Mechanical and Electrical Combined)	≤5mSec to reach 90% of FSO
Temperature Effect on Zero	≤±1% FSO per 100°F
Temperature Effect on Span	≤±1% FSO per 100°F
Compensated Temperature	+70°F to +170°F
Operating Temperature	-40°F to +185°F
Non-Operating Temperature	-65°F to +250°F

ELECTRICAL

Supply Voltage	7 to 24 VDC
Power Supply Regulation Effect	≤±0.003% FSO per Volt
Output Signal	1 to 5 VDC
Current Consumption	<1.5mA
Load Impedance	50K Ohms minimum
Circuit Protection	Varistor protected across the input leads for surges above 40V and currents to 250 Amps peak with a pulse width of 20 μSecs. 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, 18AWG wire
Red	+Power
Black	-Power/-Signal
Green	Case Ground
White	+Signal

MECHANICAL

Pressure Connection	
0-100 thru 0-15K PSI	1/4" - 18 NPT Female
0-20K thru 0-50K PSI	1/4" F250-C High Pressure Tube
0-60K thru 0-100K PSI	5/16" F312-C150 High Pressure Tube
Proof Pressure	
0-100 thru 0-15K PSI	1.5 times FSPR or 20K PSI, whichever is less
0-20K thru 0-100K PSI	1.2 times FSR
Burst Pressure	
0-100 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
0-20K thru 0-100K PSI	≥1.5 times FSPR or 125K PSI, whichever is less
Mounting	May be supported by process piping or by optional mounting bracket.



ELECTRICAL CONNECTIONS	
WIRE COLOR	FUNCTION
RED	+ INPUT/ SIGNAL
BLACK	- INPUT/ SIGNAL
GREEN	CASE GROUND

STANDARD PRESSURE CONNECTION: 1/4-NPT (FEMALE)
STANDARD WETTED PARTS MATERIAL: 15-5PH SST

Materials of Construction

Housing

0-100 thru 0-15K PSI	15-5 PH and 316 stainless steel
0-20K thru 100K PSI	PH 13-8 Mo SST and 300 Series SST

Wetted Parts

0-100 thru 0-15K PSI	15-5 PH stainless steel
0-20K thru 0-100K PSI	PH 13-8 Mo SST
Shock Limitation	100 Gs
Weight	24 oz.
Identification	Laser etched onto body
Enclosure Classification	NEMA 4X

CERTIFICATIONS

FM	Consult factory for available Options (Specifications dependant on product configuration) Intrinsic Safety: Class I, II, III, Division 1, Groups A-G, AEx ia IIC T4, dual seal, NEMA/Type 4X hazardous locations Explosion Proof: Class I, Division 1, Groups A, B, C, D, Class II/III, Div 1. Groups E, F, G, and AEx d IIC T5 NEMA / Type 4X hazardous locations Nonincendive: Class I Division 2, Groups A thru G and Class I, Zone 2, Group IIC, T4
CSA	Intrinsic Safety: Class I, Groups A-D, Class II, Groups E-G, Class III, AEx ia IIC Explosion Proof: Class I, Groups A-D, Class II, Groups E-G, Class III, AEx ia IIC, T4 Division 2: Class I, II, III, Division 2, Groups A-E Intrinsic Safety: II 1G EEx ia IIC, -20°C, Ta <40°C Flameproof: II 2 G EEx d IIC, T6 (-20°C ≤ Ta < 40°C)
ATEX	EMC Directive 89/336/EEC and Low Voltage Directive 72/23/EEC EN 61010-1 (1993)/ Safety Requirements EN 61326-(2001) - EMC Requirements PED Directive 97/23/EC
CE	

OPTIONS

Y ()	Alternate Pressure Ports Performance Options
DF	Bleed Port (10K PSI and below)
DG	Improved temperature compensation (<0.5%/100°F for Zero/Span)
DH	Special Range
DM	Modified output (0-10 VDC)
DQ	Cleaning for Oxygen Service
EA	Special Calibration Run
JJ	Direct Mount Indicator with explosion proof housing
JS	Direct Mount Indicator
ME	CSA Explosion Proof label
MR	Modified electrical damping
NG	ATEX Flameproof label
NH	Customer specified identification
NJ	CE label
NK	ATEX Intrinsic Safety label
NX	CSA Intrinsic Safety label
NY	FM Explosion Proof label
NZ	FM nonincendive label
PW	1/8 DIN digital indicator (consult factory)
QA	316 stainless steel wetted parts
QB	Inconel (X-750) wetted parts
QC	Hastelloy (C-276) wetted parts
TF	FM Intrinsic Safety label

ACCESSORIES

Mounting Bracket
Conduit Connection Box
Loop Powered Digital Indicator

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