PressureTransmitter

MODEL 948



The Model 948 pressure transmitter is a low-range, SMART, small pressure transducer. As you can see from the picture, it can be direct mounted, or it can be used as a submersible unit. Either way, the Model 948 offers you excellent options for ranges from 0-5,000 PSI.

FEATURES

- HART Communication
- Small size and weight
- Pressure down to 10” WC

TYPICAL APPLICATIONS

- Chemical Processing
- Tank Level
- Oil & Gas Refineries
- Well Production Processes

Approval Options Available.

SMART. RANGEABLE. ACCURATE.

Each Viatran Model 948 is digitally calibrated in the factory. This ensures unsurpassed accuracy and rangeablity down to 10” WC. HART communications allows for easier system commissioning, especially at start up. All of this in a small package ideal for the most rugged process applications.

REMOTE CALIBRATION

The HART communication system allows for simultaneous analog and digital communication. This means the Model 948 is fully compatible with existing analog systems while still offering the benefits of digital/remote calibration and communications. Communicating with the 948 can be accomplished with a handheld device or using a PC and available software.

OPTIONAL APPROVALS

The Model 948 is all welded stainless steel which makes it perfect for corrosive environments. It can also be marked with FM, CSA and ATEX hazardous location markings.

FOR BETTER RIG REAL ESTATE

When Rig Real Estate is at a premium, the Model 948 is an excellent solution. Its small size (1.5" diameter) and all-welded 316 stainless steel construction offers durability both on and off the rig.

Viatran CORPORATION

An ISO 9001:2000 Certified Company

MECO MEASUREMENTS & CONTROLS
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Viatran Model 948 ACCURATE PRESSURE TRANSMITTER

SPECIFICATIONS

PERFORMANCE

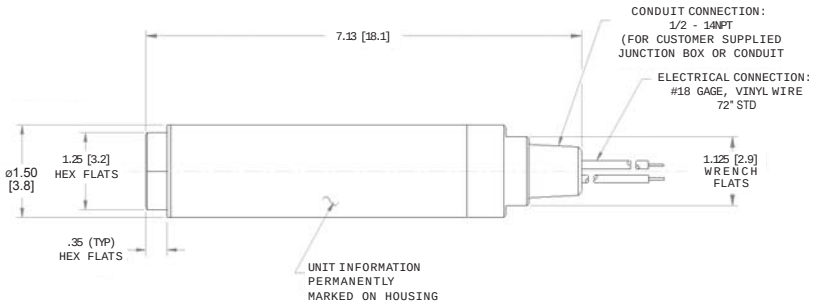
Full Scale Pressure Range (FSPR)	0-3 thru 0-5K PSIA, PSIG, PSIS
Turndown	10:1 with no degradation on static accuracy or thermal effect
Static Accuracy	≤ ±0.1% FSO (combined linearity, hysteresis and repeatability at ambient temperature)
Total Performance	≤±0.1% /span/±50°F <relative to 75°F at 1:1 range>
Thermal Effect	over operating range: ≤0.35% at 1:1 -30°F to 185°F
Full Scale Output (FSO)	16 mA ± 0.1% FSO
Dynamic Response Time	≤ 300 mSec to reach 63% FSO
Operating Temperature Range	-40° F to 185° F
Non-Operating Temperature Range	-65° F to 250° F
Digitally compensated at 6 points from	-30° F to 185° F

ELECTRICAL

Supply Voltage	11.5 VDC min with 230 Ohms load 30.0 VDC max with 1,100 Ohms
Power Supply Regulation	±0.02% FSO per Volt
Output Signal	Two wire 4 to 20 mA. Digital process signal superimposed on a 4-20 mA signal, available to any host computer system conforming to HART protocol.
Load Impedance	230 Ohms to 1,100 Ohms for HART communication
Circuit Protection	Reverse polarity protected.
Insulation Resistance	≥ 200 MegOhms between all terminals in parallel and at the transmitter case.
RFI/EMI Suppression	Negligible effect to 500 Mhz at 5 watts direct contact.
Electrical Connection	1/2" NPT Male, 3 Wires, 18AWG, 72"L
Red	+ Signal
Black	- Signal
Green	Case Ground

MECHANICAL

Pressure Connection	1/4" NPT(F)
Proof Pressure	
0-3 thru 0-500	3 times or 1,200 PSI, whichever is less
0-750 thru 0-5000	3 times or 10,000 PSI, whichever is less
Burst Pressure	
0-3 thru 0-500	5 times or 2,400 PSI, whichever is less
0-750 thru 0-5000	5 times or 10,000 PSI, whichever is less
Materials of Construction	
Wetted Materials	316 stainless steel
Housing	316 stainless steel
Shock Limitation	100 G's
Weight	24 oz. ±3 oz.
Identification	Laser etched into body
Mounting	May be mounted by process piping, electrical conduit, or optional mounting bracket to 2" pipe.



CERTIFICATIONS

Consult factory for available *Options*

FM	Intrinsic Safety: Class I, II, III, Division 1, Groups A-G, Class I, Zone 0, AEx ia IIC, T4 at Ta=80ºC, T5 at Ta=40ºC Entity, Type 4X hazardous locations Explosion Proof: Class I, II, III, Division 1, Groups A-G, AEx d IIC, T5 at Ta=88ºC NEMA 4X hazardous locations Nonincendive: Class I,II,III Division 2, Groups A,B,C,D,F,G, Class I, Zone 2, Group IIC, T4 at Ta=80ºC T5 at Ta=40ºC, Type 4X hazardous locations
CSA	Intrinsic Safety: Ex ia IIC; Class I, Zone 0; Class I, II, III, Groups A-G; Type 4, T4 at Ta=80ºC, T5 at Ta=40ºC Explosion Proof: [Ex d IIC; Class 1, Zone 1] Class I, II, III, Groups A-G, Type 4, T5 at Ta=80ºC Hazardous Locations. Nonincendive: Ex nA IIC; Class I, Zone 2, Class I, Div 2, Groups A,B,C,D, Class II, Div 2, Groups F, G, Class III, Div 2, T4 at Ta=60ºC, Type 4 Enclosures.
ATEX	Intrinsic Safety: Ex II 1G EEx ia IIC, -20ºC T4, Ta ≤50ºC Flameproof: Ex II 2 G EEx d IIC, T5 (-20ºC ≤ Ta ≤ 80ºC) Type N: Ex II 3 G EEx nL IIC T4 (-20ºC ≤ Ta ≤ 60ºC)
CE	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 *Consult factory for details

OPTIONS

Codes

CL	Extra lead length
DF	Bleed port (10K PSI and below)
DQ	Oxygen cleaning
EA	Special calibration
NG	ATEX Flameproof label
NH	Customer specified CE label
NK	ATEX Intrinsic Safety/Nonincendive label
NX	CSA Intrinsic Safety label
NY	FM Explosion Proof /Dust Ignition Proof label
NZ	FM Nonincendive label
TF	FM Intrinsic Safety label
TJ	CSA Div/Zone 2 label
TK	ATEX Type N Label
YI	1/8" NPT(F)
YM	1/4" high pressure tube F250-C
YN	3/8" NPT(F)
YR	1/2" NPT(F)
YS	3/8" high pressure tube F375-C
ZC	Cable gland connection
ZU	Direct coupled cable

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

ACCESSORIES

Mounting bracket
Polyhead conduit connection box
HART communicator
In-line remote seals

Viatran CORPORATION

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

98PBMOD948

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