Pressure Transducers

Models #140/240/340

Gage & Absolute

Features

- Durable strain gage technology
- Resistant to pressure spikes
- Small size and weight
- Many options available
- All welded stainless steel construction
- mV/V, 0 to 5 VDC, 4 to 20 mA outputs

Typical Applications

- Hydraulic systems
- Injection molding
- Die casting
- Off road vehicles
- Stamping presses
- Pumps and compressors

Viatran's "40" Series transducers are specifically designed for applications that demand the most reliable and rugged components. Field failures can shutdown operations, costing equipment manufacturers time and money. Using the right technology and materials helps reduce that risk.

The simple design and proven technology of the "40" Series makes it a low cost alternative to other less reliable transmitters. Development of this product line has been influenced by the diverse application needs of OEM customers. For example, an injection molding application demands high cycle life while die casting equipment needs high overpressure protection. Viatran employs different sensing technologies to meet these different application requirements.

The "40" Series has standard pressure ranges from 5 to 15K PSI. Standard output options include mV/V, 0-5 VDC, and 4 to 20 mA, with additional outputs available.

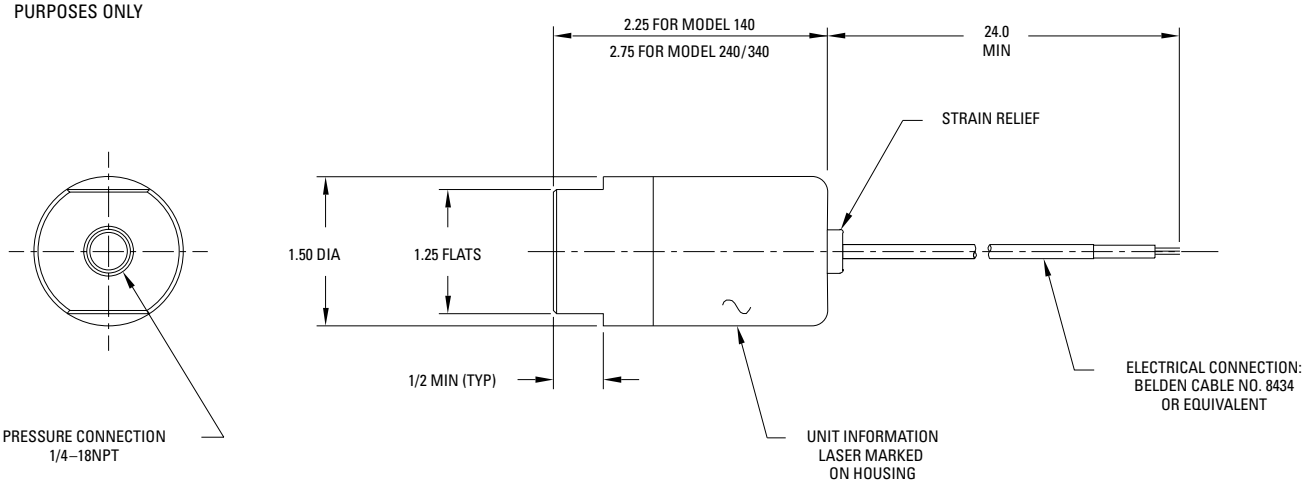
The "40" Series sensors have no oil fill or isolation diaphragms that can fail. The all welded construction enhances the durability with shock and vibration resistance to 1500 G's. External and wetted surfaces in most ranges are corrosion resistant stainless steel.

Viatran's ability to customize products provides extreme flexibility. Options include alternate pressure ports, electrical connectors and various electrical outputs.

Call us today for more information about our complete product line for industrial equipment manufacturers.

Dimensions

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



Viatran CORPORATION
An Invensys company

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Viatran Model 140/240/340 Specifications

Performance

Full Scale Pressure Range (FSPR)	0-5, 10, 15 PSIG, PSIV. 0-20, 25, 30, 50, 75, 100, 150, PSIG, PSIA. 0-200, 300, 400, 500, 750, 1K, 1500, 2K, 3K, 5K, 7500, 10K, 15K, PSIG
Non-Linearity (Best Fit Straight Line)	≤ ±0.5% FSO
Hysteresis & Repeatability	≤ ±0.25% FSO
Full Scale Output (FSO)	
Model 140	mV/V output, dependent on range
Model 240	5 VDC
Model 340	16 mA
Resolution	Infinite
Long Term Stability	≤ ±0.5% FSO per 6 months
Operating Temperature Range	–20° F to +190° F (150° units with cable)
Storage Temperature Range	–65° F to +250° F (150° units with cable)
Temperature Effect on Zero	≤ ± 2.0% FSO per 100° F typical
Temperature Effect on Span	≤ ± 2.0% FSO per 100° F typical

Electrical

Supply Voltage	
140: 0 to 250 PSI	3.5 V to 30 V (AC or DC)
≥300 PSI	10 V to 15 V (AC or DC)
240	10 to 32 VDC
340	10 to 36 VDC
Power Supply Regulation	≤ ±0.05% FSO Volt over the supply voltage range (240/340 only)
Output Signal	
140: 0-10 to 0-250 PSI	1.6 to 5.5 mV/V
300 to 20K PSI	2.7 to 3.7 mV/V
240	0 to 5 VDC
340	4 to 20 mA
Output Impedance	
140	15,000 Ohms nominal
240	≤ 10 Ohms
Load Impedance	
340	1000 Ohms maximum at 30 VDC
Circuit Protection	Reverse polarity protected
Insulation Resistance	>1000 MegOhms at 50 VDC
Response Time	≤ 5 mSec for 90% of FSO
Electrical Connections	24" direct coupled cable, 4 conductor, shielded with PVC jacket.

	Model 140/240	*Model 340*
Red	+ Power	+ Power / Signal
Green	– Power	– Power / Signal
Black	+ Signal	No connection
White	– Signal	No connection

NOTE: Model 240—Green and white are internally connected.

Mechanical

Pressure Connections	1/4" NPT Female
Proof Pressure	1.5 times FSPR or 20K PSI, whichever is less
Burst Pressure	
0 to 250 PSI	2.5 times FSPR
>300 PSI	5 times FSPR or 80K PSI, whichever is less
Pressure Cavity Volume	0.07 cubic inches
Mounting	May be supported by process connection
Materials of Construction	
Wetted Parts	
0-10 thru 250 PSI	316 stainless steel, Buna-N O-Ring, Alumina ceramic
0-300 PSI and above	15-5PH stainless steel
Housing	316/304 stainless steel, polyvinylchloride jacketed cable and foil shield with nylon strain relief
Weight	10 Oz
Identification	Laser etched onto body

Options Descriptions

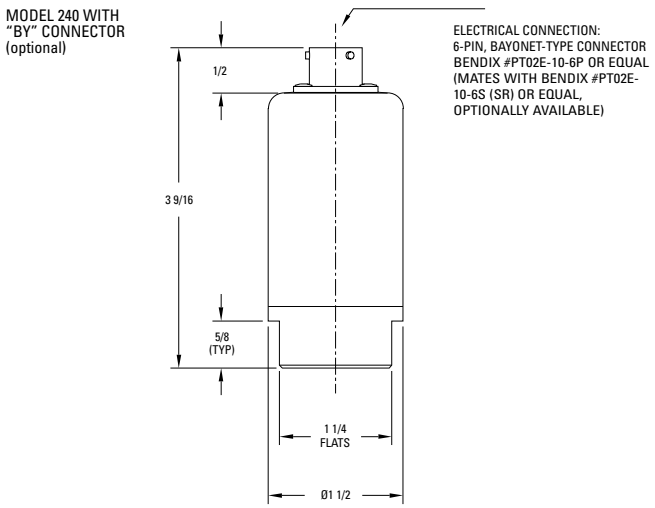
Codes	Alternate Electrical Connectors
BA	(K)PT1H-12-8P
BF	(K)PT1H-10-6P
BG	DIN43650
BH	C21-10-6PN-20-0PI (weld mount)
BI	CF3102E-14S-2P
BK	WK4-32S
BL	WK6-32S
BM	WKA7-32S
BN	(K)PTIH-8-4P
BQ	(K)PT02H-10-6P
BR	CF3102E-14S-6P
BS	CF3102E-14S-5P
BU	WK5-32S
BY	(K)PT02E-10-6P
ZD	(K)PT02A-8-4P
ZS	CF3102E-14S-6S
ZW	(K)PT02H-8-4P
	Alternate Pressure Ports
YA	MS33649-04
YG	MS16142-04
YK	1/4 NPT (M) (<300PSI)
	Performance Options
CL	Additional Cable (2 feet standard)
DE	Internal calibration
DG	Improved temperature compensation
DH	Special ranging
DL	Inconel pressure cavity
DM	Modified full scale output
DQ	Cleaning for Oxygen service
EA	Special calibration run
GA	Viton® O-Ring
GD	Ethylene Propylene O-Ring
NH	Customer specified ID
NS	Noise Reduction
NW	External zero adjust
PW	1/8 DIN Digital indicator

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

Accessories Digital indicators
Mating electrical connector/assembly
Mounting bracket

Dimensions

All Dimensions are nominal, in inches and for reference purposes only



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