Model 28M

Barometric Pressure Transducer

MODEL 28M BAROMETRIC PRESSURE TRANSDUCER

0-5 VDC, HIGH ACCURACY, 850 TO 1080 MBAR ABSOLUTE

Viatran's Model 28M pressure sensor is among our most accurate pressure transducers for industrial test and research applications. The 28M measures barometric pressure from 85 to 108 kPa with standard accuracy of ≤±0.21% FSO.

AS9100D ISO 9001:2015

PERFORMANCE

Full Scale Pressure Ranges (FSPR)	850 to 1080 mBar Absolute (Optional ranges can be factory set from 0 to 1080 mBarA with a minimum 240 mBarA span)
Accuracy (RSS*)	≤±0.21% FSO
Nonlinearity (Best Fit Straight Line)	≤±0.1% FSO (≤±0.06% FSO with DN option)
Hysteresis & Repeatability	≤±0.13% FSO each
Full Scale Output (FSO)	5 Vdc ≤±0.5% FSO at 21°C (70°F) Standard 10 Vdc ≤±0.5% FSO at 70°F (21°C) Optional
Resolution	Infinite
Long Term Stability	≤±0.5% FSO per 6 months (typical)
Compensated Temperature Range	0° to 77° C (32°F to 170°F)
Process Media Temperature Range	-40°C to 121°C (-40°F to 250°F)
Ambient Operating Temperature Range	-40°C to 85°C (-40°F to 185°F)
Storage Temperature Limits	-40°C to 85°C (-40°F to 185°F)
Temperature Effect on Zero	≤±0.018% FSO per 1°C (1.8°F)
Temperature Effect on Span	≤±0.018% FSO per 1°C (1.8°F)

ELECTRICAL

Supply Voltage	8 to 30 Vdc at 3.5 mA nominal, 5 mA max (12 to 30 Vdc for 10 Vdc output option)
Power Supply Regulation	≤±0.01% FSO per volt change over the supply voltage range
Output Signal	0 - 5 Vdc (Standard) 0 - 10 Vdc (Optional)
Load Resistance	100K Ohms minimum
Circuit Protection	Input polarity may be reversed. Output may be short-circuited indefinitely Over voltage protection to 1000 volts according to EN61000-4-5
Insulation Resistance	<5 nS to case ground
Response Time	<2 mSec to reach 90% of full scale
RFI / EMI Suppression	CE EMC compliant per IEC EN 61326-1 & 61326-2-3 Annex BB, CE marked
Electrical Connection	Bendix / Amphenol PT02E-10-6P, mates PT06E-10-6S (SR)
Pin Outs	Pin A + Power Pin B - Power Pin C + Signal Pin D - Signal Pin E No Connection Pin F No Connection
Shell	Ground

199 Fire Tower Drive, Tonawanda, New York 14150 USA Phone: 716.629.3800 Toll Free: 800.688.0030 Fax: 716.693.9162 Email: solutions@viatran.com

Model 28M Barometric Pressure Transducer

- High Accuracy
- Many Options available
- All Stainless Steel construction
- Low Pressure Applications

MATERIALS OF CONSTRUCTION

Wetted Parts	316 stainless steel
Housing	304 SS with an Aluminum alloy, black zinc-cobalt plated electrical connector
Weight	283 g (10 oz)

MECHANICAL

Pressure Connection	G-1/4 female
Proof Pressure	3100 mBar (45 PSI)
Burst Pressure	5170 mBar (75PSI)
Pressure Cavity Volume	1.5 mL
Mounting	May be supported by process piping
Identification	Laser etched onto body

OPTIONS

BF	(K)PTIH-10-6P
BG	DIN 43650
BL	WK6-32S
BN	(K)PTIH-8-4P
BQ	(K)PT02H-10-6P
BR	CF3102E-14S-6P
ZU	Direct Cable: 79°C (175°F) max temperature
Y( )	Multiple pressure ports available. Consult factory
DC	Extended temperature operation: -40°C to 77°C (-40°F to 170°F)
DG	Improved temperature compensation (± 0.5% FSO per 55.6°C (100°F) zero and span shift)
DH	Special ranging
DM	Modified full scale output
DN	Improved Accuracy (Non Linearity) ≤±0.06% FSO
DQ	Cleaning for oxygen service
EA	Special calibration run
NH	Customer specified identification
PW	Scaled with Process Meter
VU	1/8" Barbed (Male) Port

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

199 Fire Tower Drive, Tonawanda, New York 14150 USA Phone: 716.629.3800 Toll Free: 800.688.0030 Fax: 716.693.9162 Email: solutions@viatran.com

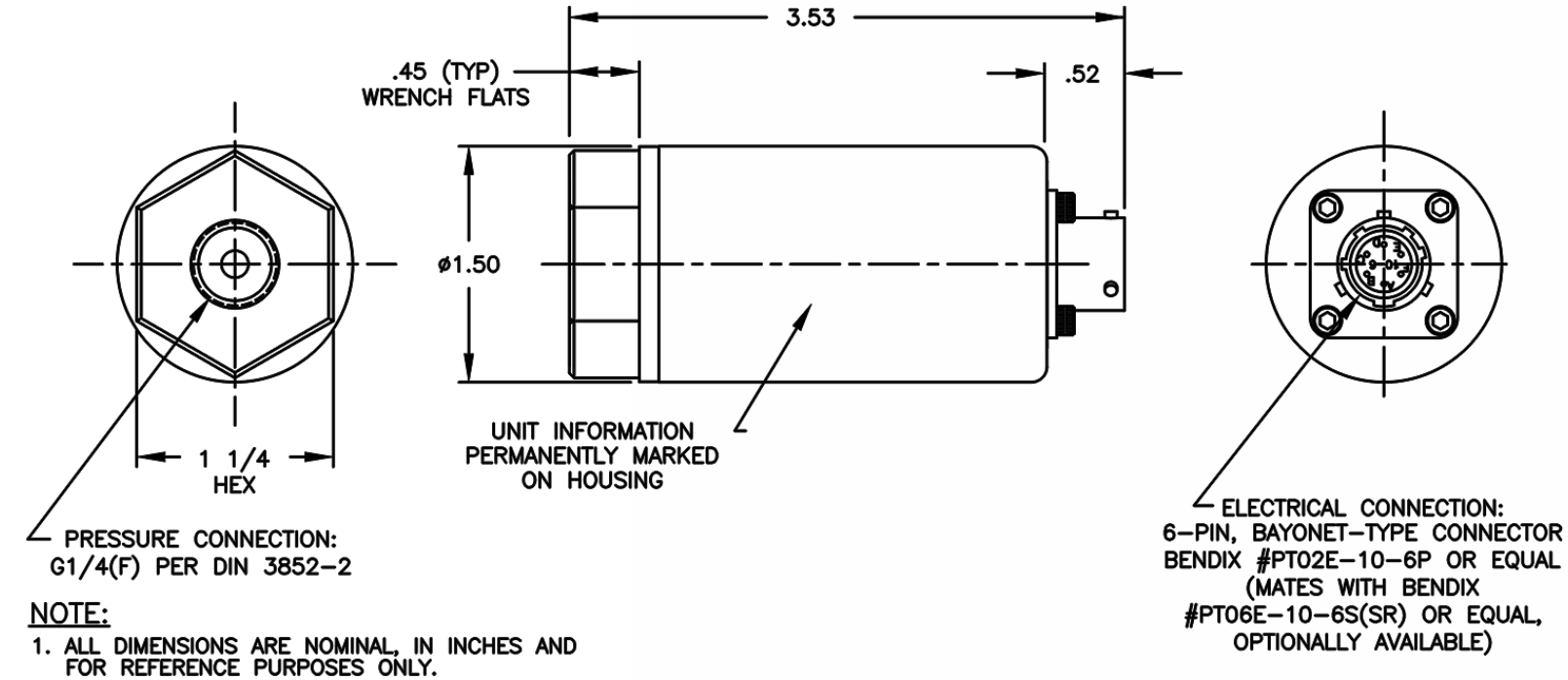
Model 28M Barometric Pressure Transducer

NOTES

Note:	Application of some available options may affect standard performance. Consult Viatran for details.
*RSS	Root Sum Squared for Non-Linearity, Hysteresis, Repeatability
**FSO	The algebraic difference between full scale pressure output value and the minimum pressure output value.
***Calibration	Calibration is performed at ambient temperature of 21°C (70°F). Maximum thermal error was calculated from this datum.

Pressure reference temperature = 0°C (32°F)

DIMENSIONAL DATA:



199 Fire Tower Drive, Tonawanda, New York 14150 USA Phone: 716.629.3800 Toll Free: 800.688.0030 Fax: 716.693.9162 Email: solutions@viatran.com

Notes:

199 Fire Tower Drive, Tonawanda, New York 14150 USA Phone: 716.629.3800 Toll Free: 800.688.0030 Fax: 716.693.9162 Email: solutions@viatran.com