



## MODELS

28H & 38H / 28K & 38K / 28M & 38M

(25" to 32" HgA)

(85 to 108 kPaA)

(850 to 1080 mBarA)

# BAROMETRIC PRESSURE TRANSDUCER INSTALLATION DATA MANUAL

38 Forge Parkway,  
Franklin, MA 02038  
Toll Free: 1-800-688-0030  
International: 716-629-3800  
Fax: 716-693-9162  
[www.viatran.com](http://www.viatran.com)  
[solutions@viatran.com](mailto:solutions@viatran.com)

## PRODUCT OVERVIEW

The Viatran Models 28H & 38H / 28K & 38K / 28M & 38M will here out be collectively known as the Models 28x & 38x. All information contained in this document is representative of a standard Model 28x/38x. If the product you ordered has special requirements or modifications, refer to the Laser Marked information on the product and your purchase order for possible alteration to the product's configuration. Failure to verify product configuration before installation may cause permanent product damage and in most cases, void the manufacturer's product warranty. If you are unsure or have questions about your product, please contact our Application Engineers for assistance.

Remove and retain all instruction manuals and performance certificates that are shipped with the product. These documents provide important information on the product's calibration, operation, safety precautions, recommended maintenance, re-calibration requirements, repair service instructions and warranty information. These documents are updated from time to time as changes to the product occur and should be reviewed at receipt so that proper and safe installation can occur.

## GENERAL REQUIREMENTS & CAUTIONS

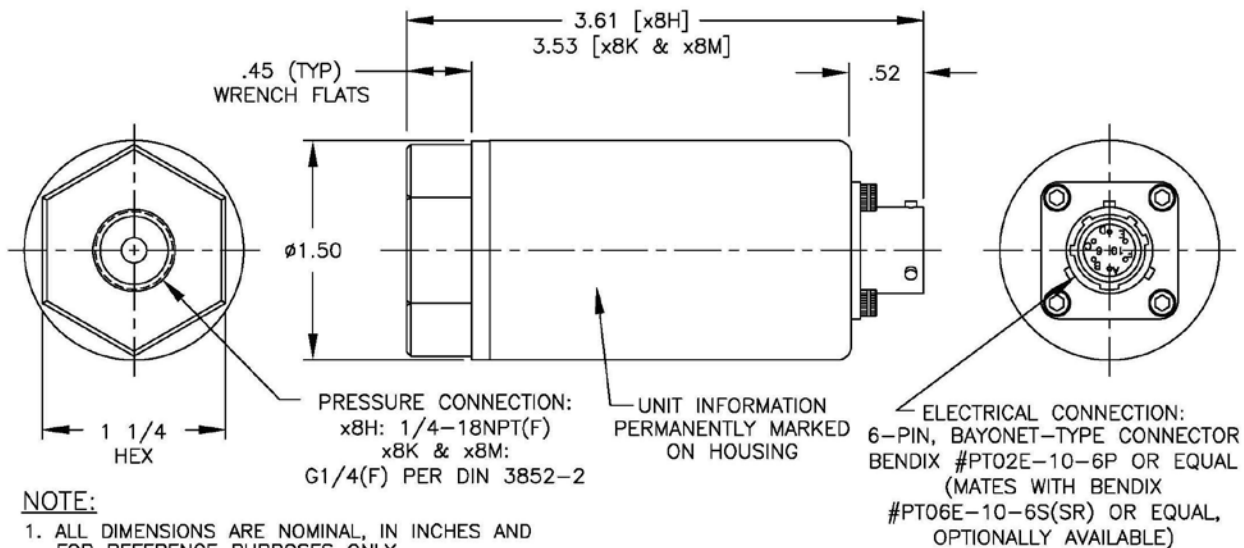
1. All electrical & pressure connections should be compatible with the model specifications as outlined below.
2. Installation should occur only after electrical (input power) and line pressure is verified as being off and at zero.
3. At no time should an object be inserted into the pressure port to deflect the sensor (to test or simulate pressure) as permanent fill loss and damage to the sensing diaphragm will likely occur and void the warranty.
4. The product's internal electrical circuitry is isolated from case ground. It is not recommended that the case or ground of the unit be connected to the input, output or calibrate pins of the product or wiring system. Ground loops and line noise will affect the product's performance and will in most cases cause internal electrical failure.
5. All products should be protected from direct or continued exposure to fluids at the electrical connection. It is recommended that for products installed in areas where the potential for contamination at the electrical connection is possible a "boot" or other protective measure be taken to eliminate possible deterioration of the product's electrical connection and corrosion that will impede product performance.
6. Whenever shipped in quantities, units should be packaged individually to eliminate possible damage.

## BASIC OPERATION

The Models 28x & 38x have been designed for accurate barometric pressure measurements and are pre-set at the factory for the specified pressure range and required output. Once factory set, the product should perform as indicated by the performance certificate and product labeling. In all cases there is no customer access to zero or span adjustments, therefore any deviation from the factory settings would indicate damage to the sensor, electronics, or both. The Models 28x & 38x senses absolute pressure and converts this pressure to a proportional Voltage (28x) or MilliAmp (38x) output signal.

## INSTALLATION DATA - VIATRAN MODELS 28H & 38H / 28K & 38K / 28M & 38M

*Note: The drawing below is for informational purposes only and is not to scale. All dimensions are nominal, in inches and for reference purposes only.*



**NOTE:**

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

**Model 28x**

**Input:**  
8\* to 30 VDC

**Output:**  
0 to 5 VDC

**Model 38x**

**Input:**  
8 to 30 VDC

**Output:**  
4 to 20 mA

**Sensor Construction and Wetted Materials:**  
Oil Filled - Silicon - 316 SST

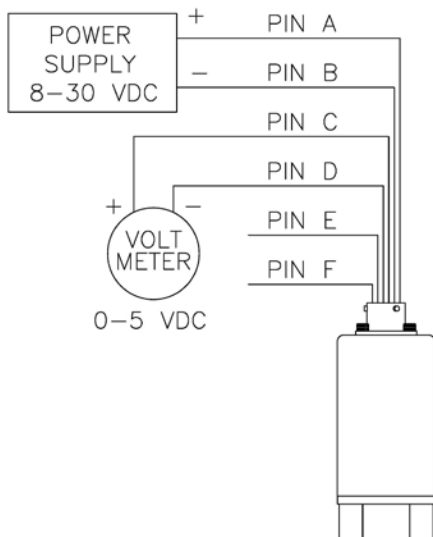
**Pressure Connection:**  
28H & 38H: 1/4" NPT Female  
28K, 28M, 38K & 38M:  
G1/4" Female

\* = 12 VDC Minimum Input for 0-10 VDC Output Option (DM)

**Electrical Mating Connector:**  
Bendix P/N: PT06E-10-6S(SR) or equal

**CONNECTION DIAGRAMS**

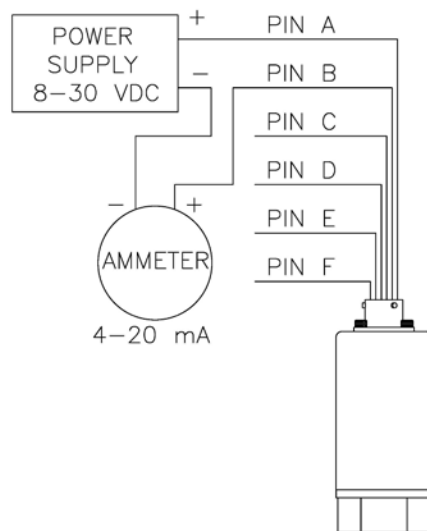
**Model 28x**



**Wiring**

- Pin A: +Power
- Pin B: -Power
- Pin C: +Signal
- Pin D: -Signal
- Pin E: No Connection
- Pin F: No Connection
- Shell: Ground

**Model 38x**



**Wiring**

- Pin A: +Signal
- Pin B: -Signal
- Pin C: No Connection
- Pin D: No Connection
- Pin E: No Connection
- Pin F: No Connection
- Shell: Ground

*For best noise immunity,  
Viatran recommends  
connecting the shield of the  
cable to the housing and  
grounding the housing.*

**ACCESSORIES - OPTIONAL EQUIPMENT**

Mating Connector.....	10MSPT1106
Mating Electrical Cable Assembly .....	230002.002
Mating Cable Assembly (Improved Shielding) .....	230043.012
Mounting Bracket .....	004102.013
Protective Cover .....	230425.002
Digital Meter – Voltage Measurement.....	Consult Factory
Digital Meter - Current Measurement .....	Consult Factory

**MAINTENANCE AND REPAIR**

All Viatran transmitters have been designed to function free from routine or scheduled maintenance. Simple cleaning of the electrical connector, pressure port threads and pressure cavity on an as needed basis will provide many years of satisfactory performance. Protecting the product from continued exposure to moisture or fluids at the electrical connection, breather area (model dependent) will eliminate premature internal failure of the product. Generally any time the product is removed from service the connector and pressure port threads should be cleaned and the pressure cavity flushed with a cleaner compatible to the specified wetted parts to prevent media buildup. During the cleaning process only a soft, lint-free cloth is recommended. Never use a coarse or stiff bristle brush to clean media from the diaphragm surface.

It is suggested that the calibration be verified on a usage dependent schedule. If the product is in continuous service 7 days a week, then calibration verification may be necessary every 6 to 8 months. If the product is in a lab test environment a more lenient verification schedule would be appropriate. In all instances the performance of the product will depend on the individual application or process in which it is installed. More continued usage would require a shorter period between calibration verification and product maintenance.

If a product is perceived to be exhibiting problems, it can be returned to Viatran for analysis and/or repair. It is suggested that only Viatran personnel attempt repair of the product. Any damage resulting from customer disassembly would result in a loss of coverage under the warranty policy. All Viatran products are able to be repaired at minimal cost if simple cleaning and precautions are taken in the handling and application of the product. Older products returned for repair are updated to current specifications unless the repair cost would outweigh the cost of a new replacement model. Products returned for repair should include information on the person to contact for repair quote approval, the individual to contact if Viatran’s technical staff requires additional information during analysis, and a brief description of the problem associated with the product’s failure.

**WARRANTY**

Viatran Corporation warrants that its products shall be free from defective workmanship and/or material for a period of twelve (12) months from the date of shipment, provided that Viatran’s obligation hereunder shall be limited to correcting any defective workmanship and/or replacing any defective material f.o.b. factory. No allowance will be made for any expense incurred for correcting any defective workmanship and/or material without written consent by Viatran. This warranty is in lieu of all other warranties expressed or implied.

**REPAIR INSTRUCTIONS**

Viatran’s Transmitters are designed to be easily repaired and recalibrated if necessary. If a failure occurs, the transmitter should be returned to the factory for inspection and testing. Please contact the Customer Support Department at 1-800-688-0030, for a return tracking number and/or a repair cost estimate. A nominal inspection fee is charged on all units returned to the factory which are not subsequently repaired.

38 Forge Parkway,  
Franklin, MA 02038  
Toll Free: 1-800-688-0030  
International: 716-629-3800  
Fax: 716-693-9162  
[www.viatran.com](http://www.viatran.com)  
[solutions@viatran.com](mailto:solutions@viatran.com)