Series 6000

Measurement

mensor®

Digital Pressure Transducer
Series 6000

ISO 9001 BSI REGISTERED FM59031

ACCREDITED

With a precision to 0.006% FS and an accuracy to 0.020% FS, the Series 6000 Digital Pressure Transducer provides exceptional performance.

The Series 6000 Digital Pressure Transducer is a high-accuracy pressure measurement component that uses either RS-232 or RS-485 to communicate with a host computer over long distances. Any MS-DOS compatible PC with an available serial output port can serve as the host controller.

The Series 6000 Transducer is characterized over the full pressure and temperature range to achieve 0.020% FS accuracy. This accuracy specification includes linearity, hysteresis, repeatability and temperature errors. Also featured is an output which is updated at a rate of 50 readings per second.

System designers will appreciate the flexibility offered by having highly accurate pressure transducers that are not tied to a front panel and which may be located remotely. For remote operation the transducer can be located up to 4,000 feet from the host. A simple cable can accommodate both the power and the two-way communications requirements.

Features

- Low Cost/High accuracy
- 0.020% FS accuracy @ 15 – 45°C
- Ranges from 0 – 15 psi up to 0 – 6000 psi
- Resolution to 1 ppm
- Absolute or Gauge
- Pneumatic or Hydraulic
- Customer Assigned Pressure Units
- RS-232 or RS-485 Communication
- Multi-drop Capability
- Fast Response (20ms)
- 316L Stainless Steel Housing
- CE Compliant

Options

- Dual Range
- Relief Valves
- Custom Ranges

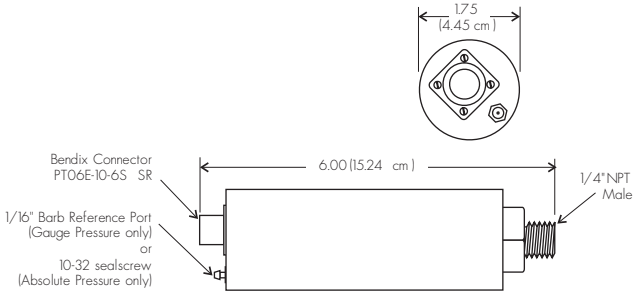
Digital Pressure Transducers Specific Data Series 6000

General Specifications

Accuracy	0.020% FS
Precision	0.006% FS
Calibration Stability	Less than 0.02% FS for six months
Calibration	
Cal Interval:	180 Days
Uncertainties:	0.020% FS
Adjustments:	Zero and Span. (Zero and Span may be reset via the serial interface without affecting the Linearity)
Series Ranges	15 psi to 6000 psi
Special Ranges	Vacuum, bidirectional, or intermediate ranges. Metric pressure unit ranges also available.
Pressure Units	Selected from a list of 35: psi, inHg @ 0°C and 60°F, inH_2O @ 4°C, 20°C and 60°F, ftH_2O @ 4°C, 20°C and 60°F, mTorr, inSW @ 0°C, ftSW @ 0°C, ATM, bars, mbars, mmH_2O @ 4°C, cm H_2O @ 4°C, MH_2O @ 4°C, mmHg @ 0°C, cmHg @ 0°C, Torr, hPa, mPa, kPa, Pa, D/cmsq, G/cmsq, Kg/cmsq, mSW @ 0°C, OSI, PSF, TSF, TSI, μHg @ 0°C, %fs. All seawater units are 3.5% salinity.
Resolution	Up to 1 ppm, depending on measurement units and range.
Over Pressure Ratings	150% FS or greater, depending on range
Compensated Temperature Range	15 to 45°C
Warm-up	10 minutes to rated accuracy
Reading Update	50 per second
Response Time	<0.2 for a full scale pressure step
Communications	RS-232 or RS-485. LabVIEW®[1] drivers are available.
Max Transmission	4000 feet (RS-485)
Multi-drop Capacity	The maximum number of RS-485 Series 6000 transducers which can be connected to a single host computer is 31.
Mechanical Shock	5g max
Case Size	1.75" wide x 6.0" long (4.45 x 15.24 cm), not including pneumatic and electrical connectors
Weight	Approximately 12 ounces (28.3 grams)
Pressure Media	All media compatible with 316L stainless steel
Fittings	
Pressure Port:	1/4 inch male NPT
Reference Port:	1/16 inch barb (gauge instruments only)
Power Required	6-20 VDC, 45mA @ 12VDC 6 pin Bendix connector #PT02E-10-6P
Compliance	Conforms to CE standards
Options	Relief Valves—up to 1000 psig

[1] LabVIEW® is a trademark of National Instruments Corporation

Dimensions



Accuracy includes the following uncertainties in the pressure reading: repeatability, pressure hysteresis, creep, linearity, and temperature effects over the compensated range.

Precision is the closeness of agreement between independent test results obtained under stipulated conditions.

Per ANSI/NCSL Z540-2-1997 (U.S Guide to the Expression of Uncertainty in Measurement) "the term *precision* should not be used for *accuracy*".

These models are calibrated with primary standards traceable to NIST. The calibration program at Mensor is compliant to ANSI/NCSL Z540-1-1994.

For more details on calibration of Mensor products see Technical Note entitled "Accuracy Specifications for Mensor Products" (available on our web site www.mensor.com).

Since product improvement is a continuous process at Mensor, we reserve the right to change specifications without notice.

Represented by:

Mensor Corporation
201 Barnes Drive, San Marcos, Texas 78666
Phone: 512.396.4200 Toll free: 800.984.4200 Fax: 512.396.1820
Web site: www.mensor.com E-mail: sales@mensor.com

ISO 9001 BSI REGISTERED FM59031

ACCREDITED