

NEW FROM MENSOR

DATA SHEET T-350

QUARTZ PRESSURE TRANSDUCER - MODEL 11603

DESCRIPTION

The development of the force-balance quartz pressure transducer now allows time proven fused quartz bourdon tubes to achieve high accuracy under adverse environmental conditions. The result of the force-balance design is fast response with negligible hysteresis and nonlinearity. Null is sensed by a special rugged variable reluctance detector. The quartz pressure sensitive element does not move, temperature effects are small, and heaters are not required.

The current through the torque motor produces the transducer output. The transducer output is an extremely stable voltage proportional to pressure. An optional (4 to 20 ma) current output is also available.

The electronics of the transducer is located on a printed circuit board which is protected by a removable sheet metal cover.

SPECIFICATIONS

1. Electrical

Accuracy:	Total accuracy after rezeroing at the operating temperature = $\pm 0.04\%$ F.S.
Voltage Input:	10-15 VDC at 100 MA (150 MA for current output)
Input Voltage Regulation:	Effect on span and zero = $\pm .002\%$ F.S. for 15% change in input voltage (12V DC nominal)
Voltage Output:	<5 psi F.S. : 0 to 1 VDC/psi >5 psi F.S. : 0 to +5 VDC F.S. <u>NOTES:</u> a. Above with 1 MA max. load current. b. Other output voltages available.
Current Output: (Optional)	4-20 MA into zero to 1000 ohms load <u>NOTE:</u> (25 volt internal supply)
Linearity: (Dependent)	$\pm .008\%$ F.S. for 90 days
Hysteresis:	$\pm .005\%$ F.S.
Repeatability:	$\pm .002\%$ F.S. (100 μ V DC Calibration performed)
Resolution:	Infinite
Zero Drift:	
Temp	$\pm .002\%/^{\circ}\text{C}$
Time	$\pm .04\%$ F.S. for 90 days
	<u>NOTE:</u> Zero may be reset without effecting span or linearity.

Span Drift:
 Temp .001%/°C
 Time .02% F.S. for 90 days

Amount of Span Adjustment: \pm 0.5%

Amount of Zero Adjustment: \pm 4%

Zero Suppression or Tare Capability (Optional): Approx. 20% (Consult factory on specific application.)

Response Time: .01 seconds for 99% F.S. for a full scale step pressure input.

2. Physical

Pressure media: Clean dry non-corrosive gasses. DO NOT use Helium on absolute models. (Consult factory for hydraulic applications.)

Operating Temperature: 0-50°C

Storage Temperature: -30° to 80°C

Mechanical Shock: 12G maximum

Mounting: May be mounted in any orientation.

Weight: 2.5 lbs. (1.13 kg)

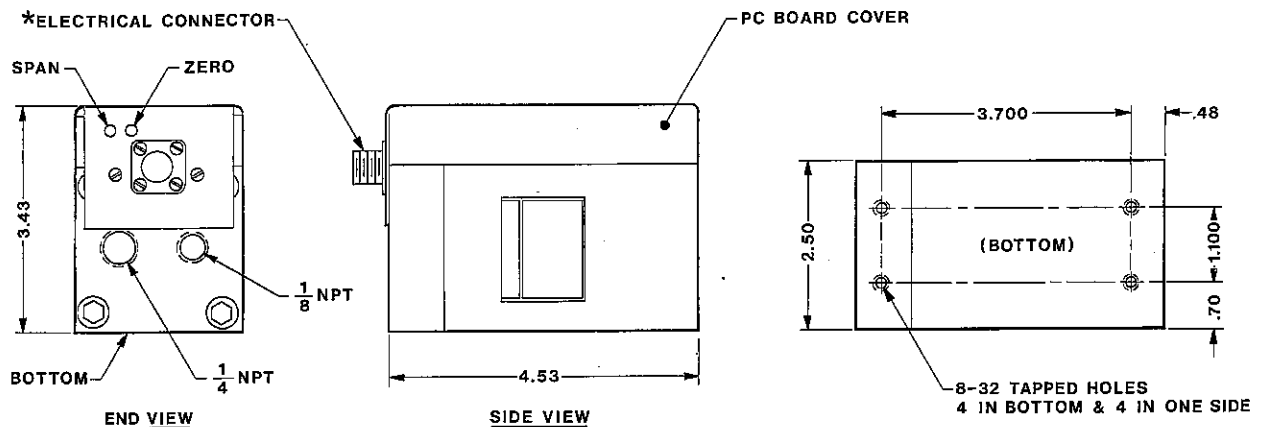
3. Pressure

Differential or gauge:
 Minimum 0-1 PSI
 Maximum 0-2500 PSI

Overpressure ratings:
 1-200 PSI 100% F.S.
 201-1000 PSI 50% F.S.
 1001-2500 PSI 25% F.S.

Absolute:
 Minimum 0-4 PSIA
 Maximum 0-500 PSIA

4. Dimensions

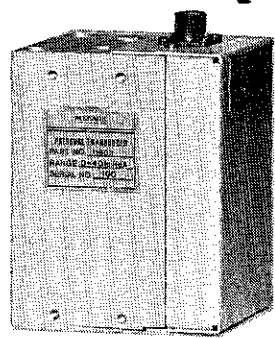


*Electrical connector: Bendix PT02H-8-4P
 Mating connector: Bendix PT06A(SR)-8-4S

Rev. 11/11/80
El. 7/1/80
Geo. Thompson Co.
214-357-9603
Bull 500
ESP 72.570 2

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Model 11603 **Quartz Pressure Transducer**

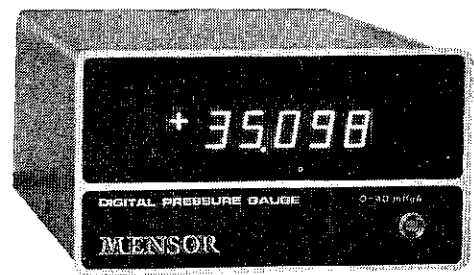


- Force-Balance Design
- Spans from 1 to 2500 PSI F.S.
- Fast Response
- 0.04% Accuracy
- Absolute or Differential

Ask for data sheet 350

THE QUARTZ PRESSURE TRANSDUCER IS A HIGH ACCURACY FUSED QUARTZ TRANSDUCER

Model 11600 **Digital Pressure Gauge**



- 0.04% Accuracy
- Direct Reading
- Digital Display
- Ranges from 1 to 2500 PSI F.S.
- High Resolution
- Analog & BCD Outputs

Ask for data sheet 300

THE DIGITAL PRESSURE GAUGE IS A HIGH ACCURACY PRESSURE MEASURING INSTRUMENT

These and other fine precision pressure measuring and controlling instruments are available from MENSOR-"The Pressure People".

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