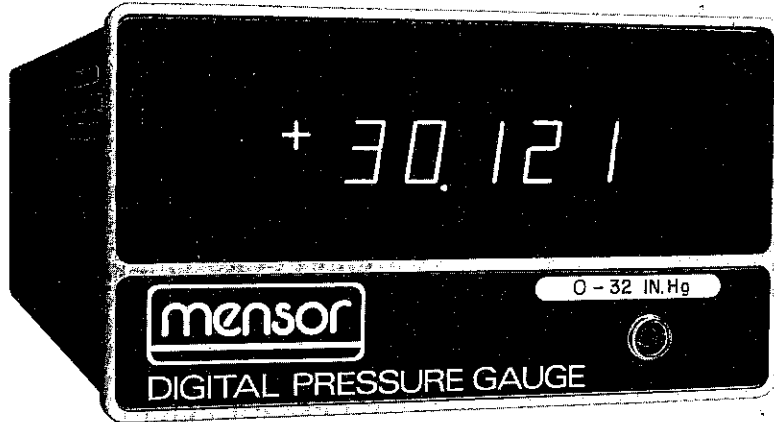




**DIGITAL PRESSURE GAUGE
MODEL 11900**

DATA SHEET NO. 300B



FEATURES:

- DIRECT READING IN PRESSURE UNITS
- SPANS BETWEEN 0 TO 1 AND 0 TO 2500 PSI
- ABSOLUTE, DIFFERENTIAL AND GAUGE PRESSURE
- 0.04% F.S. TOTAL INSTRUMENT ACCURACY
- UP TO 0.0025% F.S. RESOLUTION
- ELECTRONIC DIGITAL DISPLAY
- SMALL PANEL SPACE REQUIREMENTS
- ANALOG AND BCD OUTPUT STANDARD
- FORCE BALANCE QUARTZ TRANSDUCER
- UNAFFECTED BY GAS DIELECTRIC OR COMPOSITION
- FAST RESPONSE
- LOW SENSITIVITY TO TILT AND TEMPERATURE
- SPAN AND LINEARITY UNAFFECTED BY ZERO AND TILT
- MINIMUM TEMPERATURE EFFECT FROM 0-50°C
- RUGGED ENOUGH FOR PORTABLE OPERATION
- OPTIONAL BATTERY PACK AVAILABLE

DESCRIPTION:

The MENSOR DIGITAL PRESSURE GAUGE precisely measures and displays pressure. The development of the force-balance quartz pressure transducer now allows time-proven quartz pressure sensitive elements 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 is restrained by a torque motor. Since the 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. This voltage is conditioned and digitized to display any pressure units directly. The 0.55 inch readout displays a maximum count of 39999 and is bright enough to be read in full daylight.

Standard outputs are analog and parallel BCD representing the displayed pressure.

OPTIONS:

Fittings
Current Output
BCD Remote Controls
High Resolution Display

Rack Adapters
Relief Valves
Vacuum Gauge
Handle

Power other than 110V, 60 Hz
Set Point Comparator with relays
Pressure Units Switch
Weight Readout with Tare Adjust

SPECIFICATIONS: (NOTE: Percentages expressed are in terms of FULL SCALE

Accuracy and Stability: and based on 5 volt output)

- Zero-Drift: Temperature 0.002%/°C
Time ± 0.04% in 90 days
Zero may be reset without affecting span or linearity
- Span: Temperature 0.001%/°C
Time 0.02% in 90 days
Span may be reset without affecting zero or linearity
- Non Linearity: + 0.008% + 1 least significant digit over operating temperature range for 90 days
- Hysteresis: Less than least significant digit
- Total Instrument Accuracy after rezeroing at the operating temperature - 0.04% for 90 days
- Calibration Adjustments - Zero and Span

- Pressure Media: Clean, dry non-corrosive gases
- Fittings: Pressure - 1/8 inch female NPT, Reference - 1/4 inch female NPT
Optional fittings are available
- Temperature: Operating range 0 to 50 °C (32 to 122°F)
Storage range -30 to 80°C (-22 to 176°F)
- Response Time for full scale step pressure input:
Display & BCD output time constant-1.5 sec for 99% F.S.
Analog time constant -0.1 sec for 99% F.S.
- Gravity/Orientation Effect:
Zero: 0.03% max. in any orientation. May be removed by resetting zero
Span: No effect
Linearity: No Effect
- Display: 0.55 inch electronic numerals with plus, minus indicator.
- Mechanical Shock: 3 G. max
- Outputs: Analog - <5psi F.S.: 0.1 mv D.C./Least significant digit
>5psi F.S.: 0- +5 Volts DC F.S.
Above with 1 ma max load current
Optional - 4-20 ma (24V); 0-10V D.C.
BCD Outputs - 5 digit parallel BCD, 5 TTL Loads
Connector - 24 pin; mating connector is furnished
- BCD Remote Control: Standard - BCD and display Hold, polarity, and data ready
Optional - BCD enable, programmable 30 readings per second, and over-pressure indication
- Power: Standard - 115 volts AC, 50/60 Hz
Line Voltage Variation - No accuracy effect for ± 10% voltage variation
Watts - 10 max
Optional Power - 240 Volts AC, 50/60 Hz; 100V AC, 50/60 Hz
Battery for 4 hours operation
- Mounting: Standard - Table model
Optional - Rack adapter or handle
- Weight: 6.5 pounds

PRESSURE UNITS	MIN SPAN	MAX SPAN
Pounds Per Square Inch (PSI)	0-1	0-2500
Inches of Mercury (In-Hg)	0-2	0-5000
Torr (mmHg)	0-100	0-50,000
Millibars (Mb)	0-100	0-50,000
Bars	0-1	0-170
Kilo Pascals (KPa)	0-10	0-15,000
Feet of Seawater	0-10	0-5000
Inches of Water (In. H ₂ O)	0-100	0-50,000

Notes:

- *Specify absolute, gauge or differential pressure
- *Minimum absolute pressure span is 0-4 psia
- *Maximum absolute pressure span is 0-500 psia
- *Over pressure ratings: 1 to 200 psi spans: 100% f.s.
200 to 1000 psi spans: 50% f.s.
1000 to 2500 psi spans: 25% f.s.

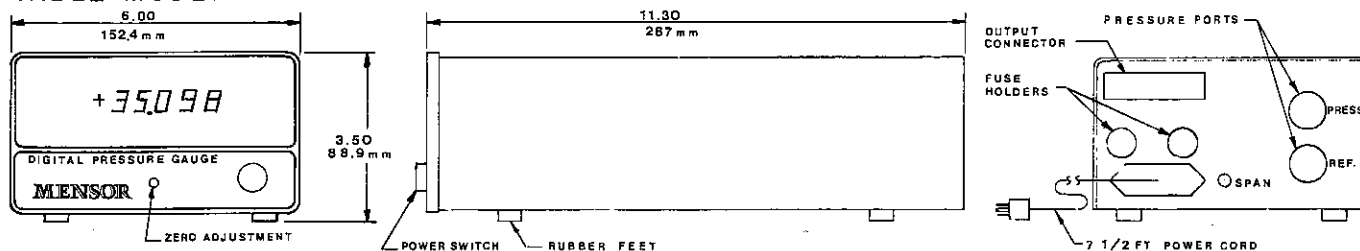
SPAN	FULL SPAN DISPLAY	LEAST SIGNIFICANT DIGIT
0-1	1.0000	0.0001
0-2	2.0000	0.0001
0-3	3.0000	0.0001
0-4	3.9999	0.0001
0-5	5.000	0.001*
0-6	6.000	0.001
0-8	8.000	0.001
0-10	10.000	0.001
0-20	20.000	0.001
0-30	30.000	0.001
0-40	39.999	0.001
0-50	50.00	0.01*
0-60	60.00	0.01
0-80	80.00	0.01
0-100	100.00	0.01
0-200	200.00	0.01
0-300	300.00	0.01
0-400	399.99	0.01
0-600	600.0	0.1
0-800	800.0	0.1
0-1000	1000.0	0.1
0-2000	2000.0	0.1
0-3000	3000.0	0.1
0-4000	3999.9	0.1
0-5000	5000	1 *
0-6000	6000	1
0-8000	8000	1
0-10000	10000	1

* High Resolution (X10) Available

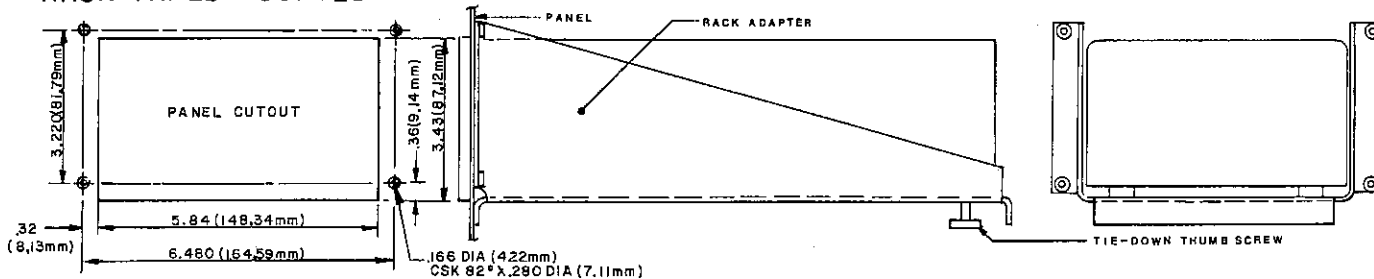
CONVERSIONS:

- PSI x 2.0360 = In. Hg
- PSI x 51.715 = TORR
- PSI x 68.947 = MB
- PSI x 0.068947 = BARS
- PSI x 0.0703 = Kg/cm²
- PSI x 2.2472 = FT. SEAWATER
- PSI x 27.680 = In. H₂O
- PSI x 6.8947 = KPa

TABLE MODEL



RACK PANEL MOUNTED



P.O. BOX 925
2230 IH-35, SOUTH
SAN MARCOS, TEXAS 78667
TELEPHONE: (512) 396-4200
TELEX: 776487 SMOS