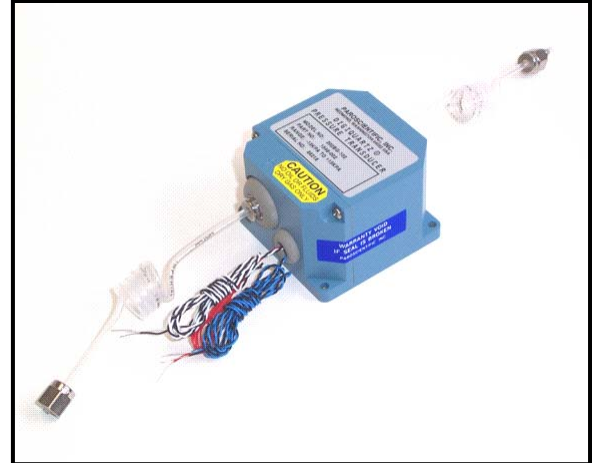


Absolute and Gauge Pressure Transducers Series 2000



Series 2000 Absolute Pressure Transducer



Series 2000 Gauge Pressure Transducer

RANGES

10 Absolute Ranges

0-15 psia to 0-500 psia

7 Gauge Ranges

0-2 psig to 0-200 psig

APPLICATION AREAS

Metrology
Hydrology
Aerospace
Meteorology
Oceanography
Laboratory Standards

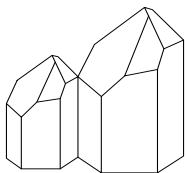
FEATURES

0.01% Accuracy
0.0001% Resolution
Frequency Outputs
Low Power Consumption
ISO 9001 Quality System
NIST Traceable Calibration
High Stability and Reliability
On-Board Application Memory
Fully Calibrated and Characterized
On-Board Coefficient Storage (DDS)

Paroscientific manufactures and sells a complete line of high precision pressure instrumentation. Resolution of better than 0.0001% and typical accuracy of 0.01% are achieved even under harsh environmental conditions. Superior resolution and accuracy comparable to the primary standards make the Digiquartz® Transducers essential for a variety of application areas where **high resolution, accuracy, reliability, ruggedness, long-term stability, low power consumption** and **low cost of ownership** are important requirements.

The performance of these transducers is achieved through the use of a precision quartz crystal resonator whose frequency of oscillation varies with pressure induced stress. A quartz crystal temperature signal is provided to thermally compensate the calculated pressure and achieve high accuracy over a broad range of temperatures. The transducers include integral shock protection to withstand extremely high acceleration, shock and vibrational loads.

A Quality Management System that is certified to the requirements of the ISO 9001 International Quality Management System provides consistency in our products and processes from design and development through production, calibration, test, and servicing. Our quality system and commitment to excellence ensure customers of outstanding products and services. As a result, we offer a **market-leading** five year limited **warranty** on all Digiquartz® Transducers with the first two years covered at 100%.



Paroscientific, Inc.
Digiquartz® Pressure Instrumentation

Series 2000 Absolute and Gauge Pressure Transducers

PERFORMANCE

Repeatability - Better than $\pm 0.005\%$ Full Scale
 Hysteresis - Better than $\pm 0.005\%$ Full Scale
 Acceleration Sensitivity - $\pm 0.0038\%$ Full Scale /g

CHARACTERISTICS

Pressure signal is a frequency output with a 10% frequency change within the frequency band 30 KHz to 42 KHz.

Temperature signal is a frequency output with a 45 ppm/°C sensitivity within the band 168 KHz to 176 KHz.

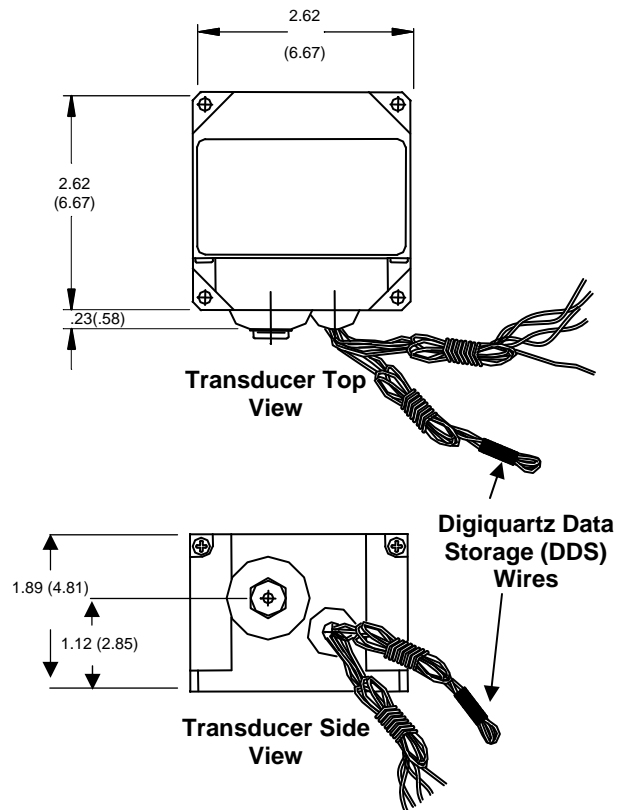
Both pressure and temperature output signals are nominally square waves of 4 volts amplitude peak to peak.

Conformance and temperature compensation equations and calibration coefficients are provided with each transducer.

Weight 15 ounces (430 grams) Max
 Power Requirements +5 to 16V DC at 1.3 mA Max

ENVIRONMENTAL

Overpressure 1.2 times Full Scale
 Model 2500A-101 1.0 times Full Scale
 Operating Temperature Range ... -54 °C to +107 °C (-65 °F to 225 °F)



Dimensions are in inches - centimeters in parentheses

Absolute Pressure Ranges		Model No	Part Number
psia	MPa		
0-15	0-0.10	215A-10X ⁽¹⁾	1200-00X ⁽¹⁾
11-16*	0.08-0.11*	216B-10X ⁽¹⁾⁽³⁾	1141-00X ⁽¹⁾
0-23	0-0.16	223A-10X ⁽¹⁾	1201-00X ⁽¹⁾
0-30	0-0.21	230A-10X ⁽¹⁾	1202-00X ⁽¹⁾⁽²⁾
0-45	0-0.31	245A-10X ⁽¹⁾	1203-00X ⁽¹⁾⁽²⁾
0-100	0-0.69	2100A-10X ⁽¹⁾	1204-00X ⁽¹⁾⁽²⁾
0-200	0-1.38	2200A-10X ⁽¹⁾	1205-00X ⁽¹⁾⁽²⁾
0-300	0-2.07	2300A-10X ⁽¹⁾	1206-00X ⁽¹⁾⁽²⁾
0-400	0-2.76	2400A-10X ⁽¹⁾	1207-00X ⁽¹⁾⁽²⁾
0-500	0-3.45	2500A-101	1208-001 ⁽²⁾⁽⁵⁾

Digiquartz Data Storage (DDS) is an onboard serial EEPROM chip that contains calibration and transducer information. This information can be accessed electronically to provide plug and play pressure transducer interchangeability. See product SCD for details.

Gauge Pressure Ranges		Model No	Part Number
psig	MPa		
0-2	0-0.01	202BG-102 ⁽⁴⁾	1546-002
0-15	0-0.10	215G-10X ⁽¹⁾	1210-00X ⁽¹⁾
0-22	0-0.15	222G-10X ⁽¹⁾	1215-00X ⁽¹⁾
0-30	0-0.21	230G-10X ⁽¹⁾	1211-00X ⁽¹⁾
0-100	0-0.69	2100G-10X ⁽¹⁾	1212-00X ⁽¹⁾⁽²⁾
0-150	0-1.03	2150G-10X ⁽¹⁾	1214-00X ⁽¹⁾⁽²⁾
0-200	0-1.38	2200G-10X ⁽¹⁾	1213-00X ⁽¹⁾⁽²⁾

*Stability better than 0.1 hPa per year. Consult factory for extended pressure range.

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- (1) Replace X with 1 for stainless steel buffer tube, with 2 for nylon buffer tube.
- (2) Add -0 to the part number to order oil-filled units.
- (3) Barometer (216B) accuracy is ± 0.08 hPa. Operating temperature range is -54°C to +60°C (-65°F to +140°F).
- (4) Model 202BG accuracy is better than 0.01% full scale.
- (5) Overpressure is 1.0 times full scale.