



FEATURES

- 0.01% Accuracy
- 1×10^{-8} Resolution
- Low Power Consumption
- High Stability and Reliability
- Quartz Crystal Frequency Outputs
- Fully Calibrated and Characterized
- ISO 9001 Certified / NIST Traceable

APPLICATION AREAS

- Hydrology
- Meteorology
- Oceanography
- Air Data Computers
- Laboratory Standards
- Windtunnel Instrumentation
- Propulsion Control Systems
- Pressure Calibration Systems

DIGIQUARTZ[®] PRESSURE TRANSDUCERS provide the ultimate in precision pressure measurements. Typical application accuracy of 0.01% is achieved even under difficult environmental conditions. Desirable characteristics include 1×10^{-8} resolution, low power consumption, and high reliability. The transducers are easy to interface with counters and digital computer systems.

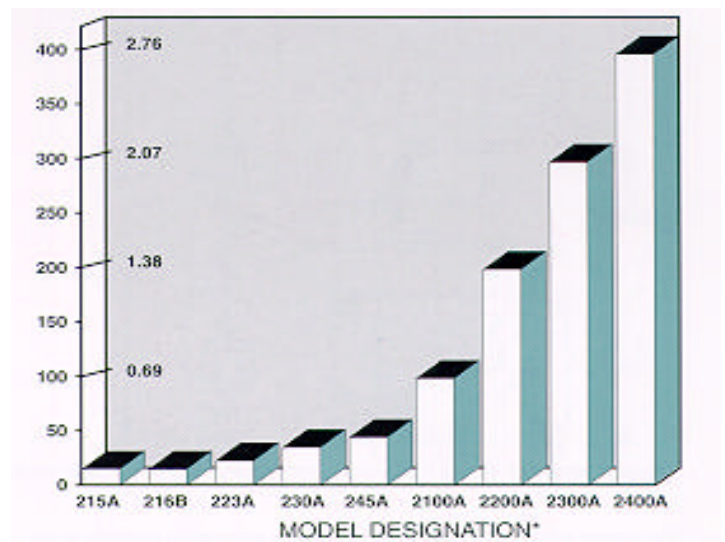
The remarkable performance of these transducers is achieved through the use of a precision quartz crystal resonator whose frequency of oscillation varies with pressure induced stress. A quartz crystal temperature signal is provided to thermally compensate the calculated pressure and achieve high accuracy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

Excellent stability and low power consumption are mandatory for applications such as long term monitoring of barometric pressure. Superior resolution and accuracy comparable to the primary standards make DIGIQUARTZ[®] TRANSDUCERS ideal for high performance laboratory and calibration test systems.

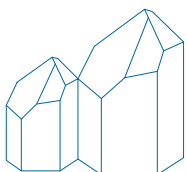
All DIGIQUARTZ[®] products come with a limited five year warranty with the first two years covered at 100%.

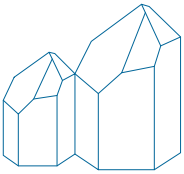
SERIES 2000 PRESSURE RANGES

PSIA MPa



*See Series 3000 and Series 4000 absolute transducers for pressure ranges to 40,000 psia.





Digiquartz® Pressure Instrumentation

PERFORMANCE

Repeatability	±0.005% of Full Scale
Hysteresis	±0.005% of Full Scale
Acceleration Sensitivity	±0.0038% of Full Scale / g
Max. Temp. Sensitivity Using Compensation Equation Provided	± 0.0008% of Full Scale/ °C

ENVIRONMENTAL

Overpressure	1.2 x Full Scale
Calibrated Temperature Range	-54°C to +107°C
Power requirements	+6 Volts DC @ 1.3mA (Operates from +25 V max to +6 min V.)
Weight	15 ounces (430 grams)

CHARACTERISTICS

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

Temperature signal is a nominal 45 ppm / °C sensitivity within the band 168KHz to 172KHz.

Output signal is a nominal square wave of 4 volts amplitude peak to peak, capacitively coupled with source impedance less than 1000 ohms.

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

ORDERING INFORMATION

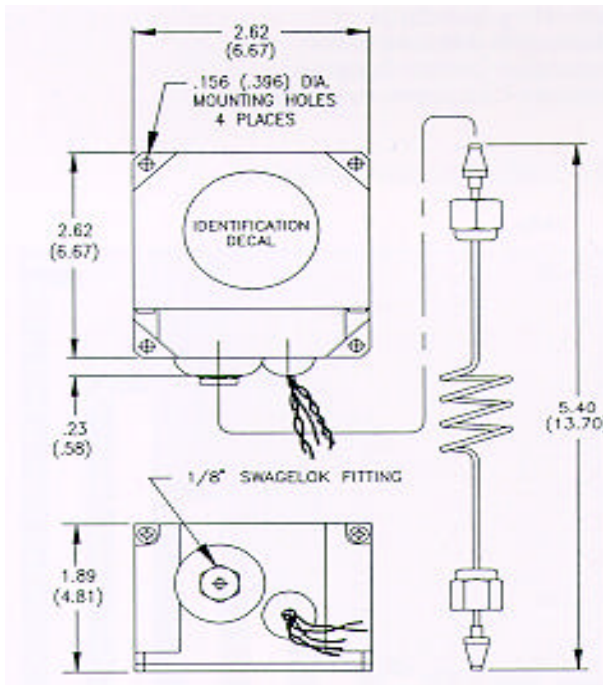
Listed below are standard model and part numbers. Please consult the factory for special configurations.

PRESSURE RANGE	MODEL NO.	PART NO.
<u>PSIA</u>	<u>MPa</u>	
0-15	0-0.10	215A 1200-00X
11.5-16	0.08-0.11	216B* 1141-00X
0-23	0-0.16	223A 1201-00X
0-30	0-0.21	230A 1202-00X
0-45	0-0.31	245A 1203-00X
0-100	0-0.69	2100A 1204-00X
0-200	0-1.38	2200A 1205-00X
0-300	0-2.07	2300A 1206-00X
0-400	0-2.76	2400A 1207-00X

X = 1 For Stainless Steel Buffer Tube
 X = 2 For Nylon Buffer Tube

Add -0 to the Part Number for Oil Filling (Liquid Applications)

* Barometer - 3 Year Stability Warranty
 0.01% of Reading Accuracy
 Temperature Range -54°C to +55°C



Dimensions are in inches - parenthesized dimensions are in

For more information on Paroscientific products, contact your local Digiquartz® representative or the application engineers at:

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