Digiquartz[®] Intelligent Barometers and Barometric Standards



Model 6016B Intelligent Barometer



Model 740-16B Laboratory Barometric Standard



Model 760-16B Field Barometric Standard

FEATURES

1 x 10⁻⁸ Resolution 0.01% of Reading Accuracy Selectable Engineering Units RS-232 Bi-Directional Interface Fully Calibrated and Characterized 3 Year Long-term Stability Warranty ISO 9001 Quality System - NIST Traceable

APPLICATION AREAS

Aerospace
Meteorology
Process Control
Altimeter Setting Indicators
Reference and Transfer Standards
Laboratory and Field Instrumentation

DIGIQUARTZ® INTELLIGENT BAROMETERS and BAROMETRIC STANDARDS provide the ultimate in precision pressure measurements. Typical application accuracy of 0.01% of reading is achieved in both field and laboratory conditions. Desirable characteristics include 1×10⁻⁸ resolution, no warm-up time, and high reliability and stability. The standards are easy to interface with computer systems for remote data acquisition and instrument control.

All Intelligent Barometers and Barometric Standards use the DIGIQUARTZ® Model 216B pressure transducer as the pressure sensor. Microprocessor-based electronics provide fully temperature-compensated, linearized outputs via a two-way RS-232 interface. The serial bus allows complete remote configuration and control of all operating parameters including resolution, sample rate, choice of engineering units, integration time, and sampling commands.

The compact Model 6016B Intelligent Barometer provides fully temperature-compensated, linearized digital outputs in either RS-232 or SDI-12 interfaces. The optional Model 710 six digit display is plug-in compatible. The Model 740-16B Laboratory Barometric Standard includes a six digit display, RS-232 interface and is powered either continuously from its AC adapter or for up to 72 hours from four AA cells. The Model 760-16B Field Barometric Standard includes a six digit display, a rugged environmental enclosure, RS-232 interface, front panel tare switch and an internal, rechargeable battery capable of over 200 hours of continuous operation.

All DIGIQUARTZ® products come with a limited five year warranty including a 3 year warranty on stability of better than 0.1 hPa per year.



Paroscientific, Inc.
Digiquartz[®] Pressure Instrumentation



Digiquartz® Pressure Instrumentation

CHARACTERISTICS

Performance - 0.01% of Reading Accuracy Stability - Better than 0.1 hPa per year

Range - 800 -1100 hPa (11.5-16 psia)

Display - 6 Digit LCD (Optional with Model 6016B)

Engineering Units - 8 Standard Units or User Defined Units

Sampling Modes - Single sample, synchronized sample and hold, continuous sample, and special burst sample modes are supported.

RS-232 Bus - A baud rate of 150 to 19,200 baud and data framing are user selectable.

Sample Rate / Resolution - Sample rates and resolution are determined by user selectable integration time. Rates up to 135 samples per second are supported. Resolution corresponds to sample rate and typically ranges from 0.1 ppm to 100 ppm.

Conformance and temperature compensation equations and calibration coefficients are factory installed and provided with each standard.

The Model 6016B-S is available with an SDI-12 interface.

ENVIRONMENTAL

Overpressure 1.2 × Full Scale

Calibrated Temperature Range

Model 740-16B / 760-16B -10°C to +50°C Model 6016B -54°C to +70°C

Power Requirements

Model 6016B 6 to 16VDC Model 740-16B 115 VAC Adapter

(Up to 72 hours on 4 AA batteries.)

Model 760-16B 115 or 220 VAC (Up to 200 hours on internal rechargeable battery)

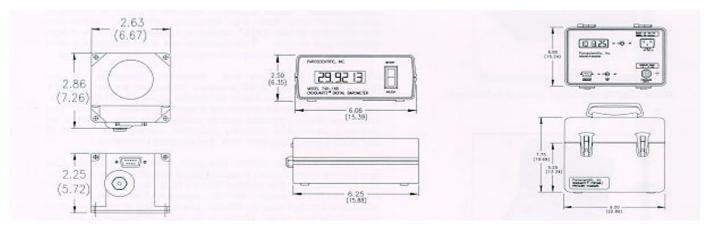
Model 760-16B

Weight Model 6016B 0.9 lb (0.4 Kg.) Model 740-16B 2.0 lb. (0.9 Kg.) Model 760-16B 7.5 lb. (3.4 Kg.)

ORDERING INFORMATION

MODEL NO. PART NO.

6016B 1313-001 (RS-232) 6016B-S 1431-001 (SDI-12)



Model 6016B Model 740-16B

Dimensions are in inches - centimeters in parentheses.

740-16B 1111-101

760-16B 1107-101 (115/120 VAC)

Paroscientific, Inc.

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Product defined by Specification Control Drawing. Specifications subject to change without prior notice. Manufactured under one or more of the following U.S. Patents: 4,089,058 4,215,570 - 4,321,500 - 4,372,173 - 4,382,385 - 4,384,495 - 4,406,966 -4,454,770 - 4,455,874 - 4,479,391 - 4,526,247 - 4,531,073 - 4,592,663 - 4,596,925 - 4,651,569 - 4,669,316 - 4,706,259 - 4,713,540 - 4,717,240 - 4,724,351 - 4,727,752 - 4,733,561 - 4,743,752 - 4,751,849 - 4,757,228 - 4,764,244 - 4,831,252 - 4,872,343 - 4,912,990 - 4,929,860 - 5,113,698.

Other patents pending.

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