DIGITAL PRESSURE SENSOR

FEATURES:

- High Accuracy
- Excellent Long-Term Stability
- Low Power Consumption
- Instant Warm-Up
- Fast Response

The Digital Pressure Sensor (P/N 102661) provides high accuracy absolute pressure readings in digital form. The heart of the digital pressure sensor is a silicon piezoresistive sensor, which contains both pressure and temperature-sensitive elements. Digital signals representing temperature and pressure are processed by a microprocessor to produce fully temperature compensated and calibrated pressure readings over the entire –40° to 85°C temperature range.

The digital pressure sensor offers outstanding value to instrument builders requiring accurate and stable barometric measurements in real-world conditions. The digital pressure sensor uses proven silicon sensor technology with microprocessor-based signal compensation, eliminating the need to insulate or temperature-regulate the barometer. The digital pressure sensor has a pressure range of 500 to 1200 hPa.

The digital pressure sensor is a low power device. It can be configured to enter a micropower shut down mode with a simple command or by switching the state of power control line.
**SPECIFICATIONS**

**Performance Data**
- **Accuracy:** <±0.4 hPa
- **Operating Temperature:** -40° to 85°C (-40° to +185°F)
- **Storage Temperature:** -55° to 90°C (-67° to 194°F)
- **Sample Rate:** 8.33ms to 51.2 min
- **Resolution:** 0.01 hPa
- **Response Delay:** (1000/update rate) + 1 ms, maximum 17 ms
- **Long Term Stability:** ±0.25 hPa per year

**Mechanical Data**
- **Pressure Range:** 500 – 1200 hPa
- **Pressure Units:** atm, bar, cmwc, ftwc, hPa, inHg, inwc, kg/cm2, KPa, mBar, mmHg, MPa, mwc, psi, user, lcom, pfs (user assignable)
- **Weight:** 5 oz (142 gm), without fittings
- **Dimensions:** See Diagram

**Electrical Data**
- **Output:** TTL
- **Excitation Power:** 6 to 26 VDC; 30 – 225 mW
- **Baud Rate:** 1200, 2400, 4800, 9600, 14400, 19200, 28800

**Environmental Data**
- **Humidity Sensitivity:** Negligible
- **Acceleration Sensitivity:** Negligible
- **Mechanical Shock:** 1500 g, 0.5 ms half sine
- **Temperature Shock:** 24 1-hour cycles, -40° to +85°C
- **Vibration:** 0.5 in or 20 G’s, 20 hz – 2 kHz

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**Climatronics Corporation**  
140 Wilbur Place  
Bohemia, NY 11716-2404  
TEL: 631-567-7300  
FAX: 631-567-7585  
E-Mail: sales@climatronics.com

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