



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

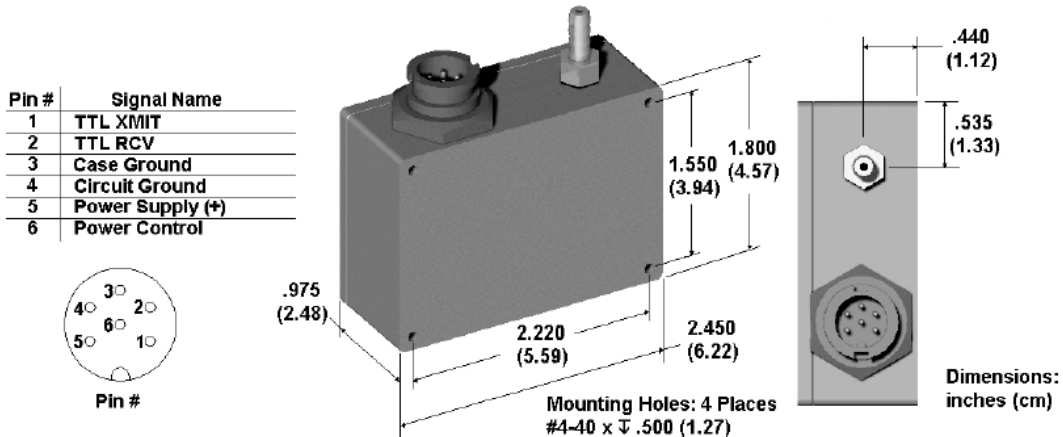
Pressure Range:	500 – 1200 hPa
Pressure Units:	atm, bar, cmwc, ftwc, hPa, inHg, inwc, kg/cm ² , KPa, mBar, mmHg, MPa, mwc, psi, user, lcom, pfs (user assignable)
Weight:	5 oz (142 gm), without fittings
Dimensions:	See Diagram

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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