

ANALOG BAROMETRIC PRESSURE SENSOR

FEATURES

- **Inexpensive**
- **Excellent Long-Term Stability**
- **Wide Operating Temperature**
- **Analog Voltage Output**
- **Compact Size**

Climatronics' analog barometric pressure sensor, P/N 102270 is designed for applications, which require accurate pressure measurements at a modest cost. It is a stable transducer based upon a proven design, yielding a linear and repeatable sensor with low hysteresis. The high level output signal is directly useable without additional signal conditioning.

This sensor features the use of a built-in Application Specific Integrated Circuit (ASIC), which works hand-in-hand with a capacitive transducer to achieve long-term stability and high accuracy. The analog pressure sensor's small size and wide operating temperature range further enhance its compatibility with all of Climatronics' signal conditioning and data acquisition products.

Two measurement ranges (600 - 1100 hPa and 800 - 1100 hPa) and two accuracy specifications (0.1% and 0.25%) are available.

All versions of the P/N 102270 sensor are also available mounted in a small, vented environmental enclosure (NEMA-4X) for applications where another suitable shelter is not available. This assembly is provided under P/N 102272. Specifications for P/N 102270 and P/N 102272 are the same. The companion cable assembly for P/N 102272 is P/N101797-XX.



SPECIFICATIONS

PERFORMANCE

Accuracy:	-G1 & -G3 =	<±0.1% FS RSS of non-linearity, hysteresis and non-repeatability
	-G0 & -G2 =	<±0.25% FS RSS of non-linearity, hysteresis and non-repeatability
Resolution:		Infinite, limited only by output noise level (0.0005% FS)
Operating Range:	-G0 & -G1 =	600 to 1,100hPa (17.72 to 32.48" of Hg)
	-G2 & -G3 =	800 to 1,100hPa (23.62 to 32.48" of Hg)
Storage Temperature Range:		-65° to 250°F (-55° to 120°C)
Over Pressure:		30 psia
Operating Temperature Range:		0° to +175°F (-20° to +80°C)
Time Constant:		Less than 10 milliseconds to reach 90% final output with step function pressure input
Long Term Stability:		±0.25% FS over 6 months @ 70°F

ELECTRICAL

Excitation Power:	12V dc standard, 20 to 32V dc or 5V dc optional <0.2 watts
Signal Output:	0.1 to 5.1V dc (0.5V to 4.5V dc with 5V dc power)
Output Impedance:	<5 Ohms
Output Noise:	<200 microvolts RMS (0 to 100Hz)

PHYSICAL SPECIFICATIONS

	P/N 102270	P/N 102272
Height:	2.250" (57mm)	4" (101.6mm)
Length:	2.295" (59mm)	6" (152.4mm)
Width:	0.97" (26mm)	6" (152.4mm)
Weight:	6 ounces (0.17Kg)	4 lbs (1.82 kg)
Mounting:	Panel mount (bracket supplied)	Vented enclosure



Climatronics Corporation
140 Wilbur Place
Bohemia, NY 11716-2404

TEL: 631-567-7300
FAX: 631-567-7585
E-Mail: sales @climatronics.com

Rev. 9 April 2004