

# BX-597A

## Temperature, Relative Humidity, & Pressure Sensor

The BX-597A is an integrated Temperature, Relative Humidity, and Pressure measurement sensor.

All sensing elements are of the highest quality and are specifically designed for continuous duty in hostile environments.



### Description

The temperature sensor in the BX-597A utilizes platinum RTD class 1/3B. Relative Humidity is based on our very accurate solid-state sensor design for continuous exposure to adverse climates. The Barometric Pressure sensor is a piezoresistive device designed for robustness, high accuracy and longterm stability.

All components are housed in a Multi-Plate naturally aspirated Radiation shield to reduce solar radiation heating errors. The shield consists of a series of white concentric plates, which allow air flow to pass through the shield, while blocking direct solar rays.

The BX-597A has both analog and digital outputs for maximum flexibility with additional connectivity options are available with the optional 10600 Interface. Analog outputs provide conventional connections to data loggers and systems utilizing a voltage proportional to each of the three measurements.

Digital outputs are available as a serial data stream every second, or upon command by the data system. The digital outputs offer higher resolution and immunity to analog offset problems.

## Features

- Temperature, Humidity, Pressure.
- Compact Design.
- Powder Coated Anodized Aluminum Construction.
- Digital and Analog Outputs.
- Easy Installation.

## Applications

- Ambient Air Monitoring.
- Environmental Surveys.
- Government.



## Specifications

### Temperature

<b>Range:</b>	-50 °C to +70 °C (-58 °F to +158 °F)
<b>Accuracy*:</b>	Digital: ±0.2 °C Analog: ±0.2 °C, +/-1 mV
<b>Resolution:</b>	0.01 °C

### Relative Humidity

<b>Range:</b>	0 to 100 %
<b>Accuracy*:</b>	Digital: ±2 % Analog: ±2 %, +/-1 mV
<b>Resolution:</b>	0.1 %

### Pressure

<b>Range:</b>	500 to 1100 mbar (14.8 inHg to 32.5 inHg)
<b>Accuracy*:</b>	Digital: ±0.5 mbar Analog: ±0.5 mbar, +/-1 mV
<b>Resolution:</b>	0.01 mbar

### Electrical

<b>Measurement Rate:</b>	1 Hz
<b>Data Storage:</b>	None
<b>Standard Signal Output:</b>	RS-232C, SDI-12 , RS-485, 0-2.5 VDC
<b>Optional Signal Output:</b>	0-1 VDC, 0-5 V
<b>Power Supply:</b>	9-36 VDC, 25 mA typical @ 12 V

### Environmental

<b>Temperature:</b>	-50 °C to +70 °
<b>Humidity:</b>	0 to 100 %

### Physical

<b>Diameter:</b>	7 in (178 mm)
<b>Length:</b>	8 in (203 mm)
<b>Weight:</b>	5 lb (2.3 kg)

\*At 25°C



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