597 Temperature/Relative Humidity Pressure Sensor

The **597 is a complete 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. The temperature sensor utilizes platinum RTD class 1/3B. Relative Humidity is a based on our very accurate solid state sensor design for continuous exposure to adverse climates. And the Barometric Pressure sensor is a piezo-resistive device designed for robustness, high accuracy as well as long term stability.

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

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

Digital outputs are present as a data stream every second, or upon command by the data system. The digital outputs have the advantage of higher resolution and immunity to analog offset problems.

597 Temperature/Relative Humidity/Pressure Sensor

Features

- Temperature, Humidity, Pressure
- Compact Design
- Powder Coated Anodized Aluminum Construction
- Digital and Analog Outputs
- Easy installation
- IP65 Weather Proof Rated

Specifications

Temperature

Range:	50°C to +70°C
Accuracy:	Digital: ±0.1°C Analog: ±0.12°C, 0-5 V output
Resolution:	Digital: 0.01°C Analog: 0.01°C, 0-5 V output

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Specifications (continued)

Relative Humidity

Range:	0 to 100%
Accuracy:	Digital: ±0.8%
	Analog: ±1%, 0-5 V output
Resolution:	Digital: 0.1%
	Analog: 0.1%

Pressure

Range:	500 to 1100 hPa
Accuracy (1):	Digital: ±0.30 hPa
	Analog: ±0.45 hPa, 0-5 V output
Resolution:	Digital: 0.01 hPa
	Analog: 0.01 hPa, 0-5 V output

Pressure

Range:	500 to 1100 hPa
Accuracy (1):	Digital: ±0.30 hPa
	Analog: ±0.45 hPa, 0-5 V output
Resolution:	Digital: 0.01 hPa
	Analog: 0.01 hPa, 0-5 V output

Electrical

Measurement Rate Output:	1 Hz
Data Storage	None
Analog Signal	Output 0-5V (options 0-1V or 0-2.5V, select at time of purchase)
Digital Signal Output	RS-232C and SDI-12 or RS-485 and SDI-12 (select at time of purchase
Power supply	9-36VDC, 25mA @ 12VDC

Mechanical

Temperature	-50°C to +70°C
Humidity	0 to 100%
Dimensions	Diameter: 7 in (178 mm)
	Length: 8 in (203 mm)9-36VDC, 25mA @ 12VDC
	Weight: 5 lb (2.3 kg)

(1) At 25°C

10600 Interface Option

Adds USB connectivity and convenience to Met One Instruments 597 Sensor and provides a power supply module for both module and sensor power.

REV AUGUST 2013

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