



**Met One Instruments, Inc.**

# GENERAL PURPOSE WEATHER STATION

## Overview

Met One Instruments, Inc.'s General Purpose Weather Station is specifically designed for monitoring ambient meteorological conditions. It is available in pre-packaged configurations for fastest delivery, and is easily customized with additional sensors and accessories to suit many measurement applications.

The General Purpose Weather Station includes high quality meteorological sensors, all required signal cables and mounting hardware, an expandable tripod, and a data acquisition system or signal translator. The system is can be powered by AC or DC power, or an optional solar panel power system.

## Measurements

- Wind speed
- Wind direction
- Ambient temperature
- Relative humidity
- Barometric pressure
- Rain (optional)
- Solar radiation (optional)

## Benefits and Features

- Pre-configured systems for quick shipment
- Fully customizable upon request
- Low power draw from AC, DC or solar supply
- WMO and EPA compliant sensors
- Quick deployment tripod with extendable 10FT mast
- Quick and easy installation by one person
- Ethernet, serial RS-232/RS-485/MODBUS and analog 0-1V/0-5V/4-20mA outputs options.





## PERFORMANCE SPECIFICATIONS WITH TYPICAL SENSORS:

### 034B Wind sensor (speed and direction):

- Wind speed range: 0 to 75 m/s (0 to 167 mph)
- Wind speed accuracy:
  - $\pm 0.1$  m/s or  $\pm 1.1\%$  of reading whichever is greater.
- Wind direction range:
  - 0° to 360° mechanical
  - 0° to 356° electrical
- Wind direction accuracy:  $\pm 4^\circ$
- Starting threshold: 0.4 m/s (0.9 mph)

### 597 Temperature/humidity/pressure sensor

#### Temperature

- Element: platinum RTD class 1/3B
- Range: -50°C to +70°C (-58°F to 158°F)
- Accuracy:  $\pm 0.10^\circ\text{C}$  (0.18°F) @25°C
- Resolution: 0.01°C

#### Relative humidity

- Element: thin film polymer capacitor
- Range: 0 to 100% RH
- Accuracy:  $\pm 0.8\%$  from 0 to 100% RH
- Resolution: 0.1%

#### Barometric pressure

- Element: solid state transducer
- Range: 500 to 1100 hPa
- Accuracy:  $\pm 0.30$  hPa (+25°C)

### 370 Rain gauge (option)

- Element: magnetic reed switch
- Orifice: 8.0-in (20.3 cm) diameter
- Accuracy:  $\pm 1\%$  @ 3.0-in per hr
- Resolution: 0.01-in standard (0.2 mm or 0.25 mm optional)

### 096 Solar radiation sensor (option)

- Element: silicon solar cell
- Range: 400-1100 nanometers
- Error: less than  $\pm 5\%$
- Response time: 10 microseconds

### 580 AutoMet data logger:

- Simple user interface
- Flexible I/O built in:
  - USB serial
  - RS-232 serial
  - MODBUS RS-485
  - Ethernet
  - 12 CH analog outputs
- Real time cloud data viewing and retrieval when paired with optional cell modem.

## COMMUNICATIONS AND POWER OPTIONS:

- AX-911 cellular digital modem kit for GPRS or CDMA.
- AX-991 spread spectrum radio kit (900 MHz, requires line of site).
- AX-140 solar power system Includes 40W panel and 36Ahr battery in NEMA enclosure.

## SOFTWARE:

- WeatherView archiving and display software.
- AIR PLUS data logger support software provides simple remote data retrieval, viewing, and exporting.