



Met One Instruments, Inc.

# AIR QUALITY WEATHER STATION

## Overview

Met One Instruments, Inc.'s Air Quality Weather Stations are specifically designed to comply with Environmental Protection Agency (EPA) and Nuclear Regulatory Commission (NRC) guidelines for air quality and regulatory meteorological monitoring. Stations are available in pre-packaged configurations for fastest delivery, and easily customized with additional sensors and accessories to suit the requirements of any specific application.

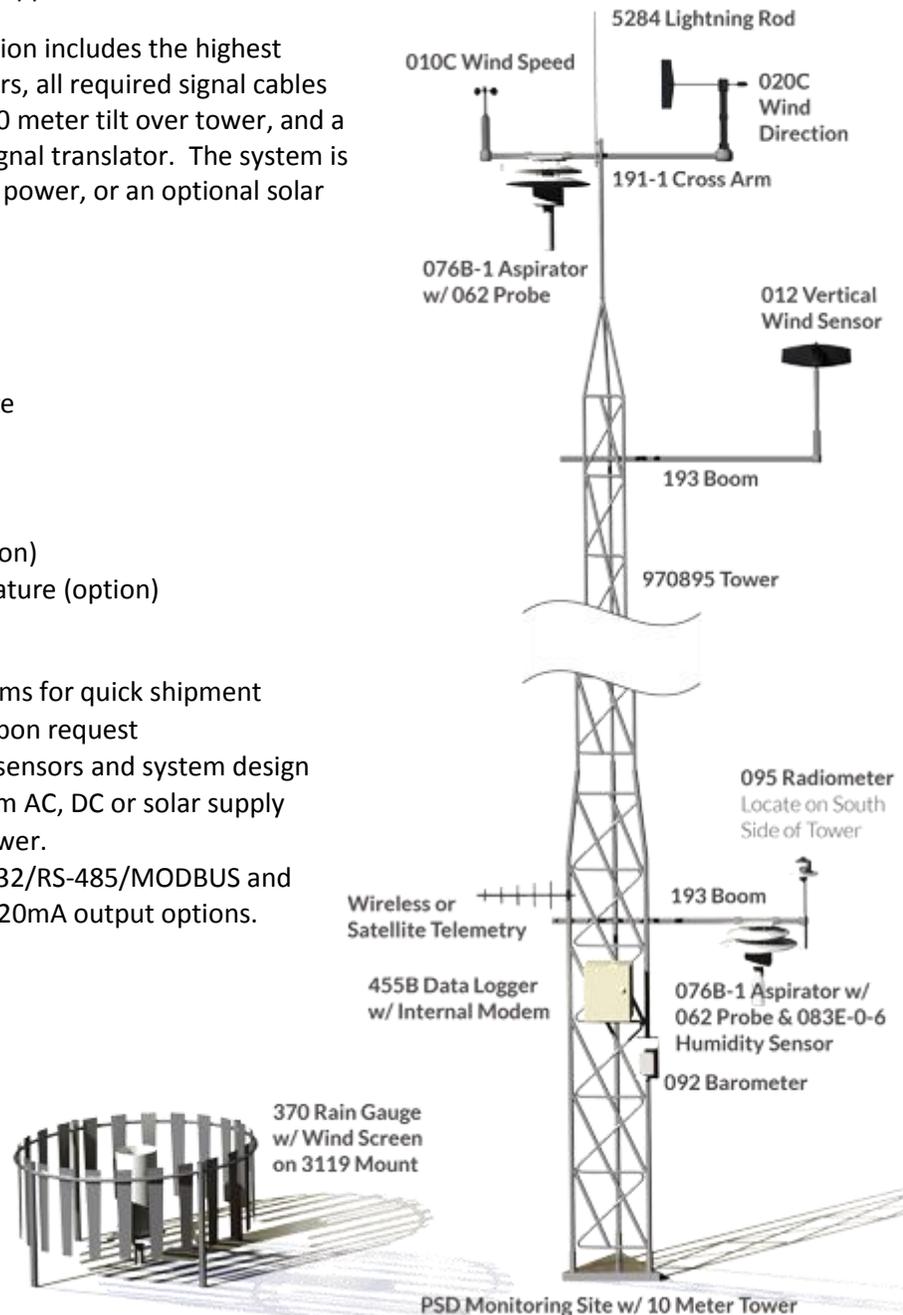
The Air Quality Weather Station includes the highest quality meteorological sensors, all required signal cables and mounting hardware, a 10 meter tilt over tower, and a data acquisition system or signal translator. The system can be powered by AC or DC power, or an optional solar panel power system.

## Measurements

- Wind speed
- Wind direction
- Ambient temperature
- Relative humidity
- Barometric pressure
- Rain (option)
- Solar radiation (option)
- 2 level delta temperature (option)

## Benefits and features

- Pre-configured systems for quick shipment
- Fully customizable upon request
- EPA/NRC compliant sensors and system design
- Low power draw from AC, DC or solar supply
- 10 meter tilt over tower.
- Ethernet, serial RS-232/RS-485/MODBUS and analog 0-1V/0-5V/4-20mA output options.





## PERFORMANCE SPECIFICATIONS:

### 010C/020C wind speed and direction sensors:

- Wind speed range: 0 to 125 mph
- Wind speed accuracy:  $\pm 1\%$  of reading, or  $\pm 0.15$  mph whichever is greater.
- Wind direction range:  $0^\circ$  to  $360^\circ$
- Wind direction accuracy:  $\pm 3^\circ$
- Starting threshold: 0.4 m/s (0.9 mph)

### 597 temperature/humidity/pressure sensor

#### Temperature

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

#### 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 ( $+25^\circ\text{C}$ )

### 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)

- Response: 400-1100 nanometers
- Sensitivity: 8mV/KWatt/m<sup>2</sup> with 100ohm load, approx.
- Linearity: 1% from 0-3000 W/m<sup>2</sup>

### 970895 10M Tower

- 10M EPA compliant measurement height.
- Tilt over design for easy sensor access.
- Rated for 110mph winds
- Includes in ground base. Roof mount base available.

### 131WP MultiMet Translator:

- Provides 0-1V or 0-5V outputs for easy connection to industry standard air quality monitors or data loggers.

### 580 AutoMet Data Logger (Option):

- Simple user interface
- 16 recorded channels of measured and calculated values.
- 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.
- AIR PLUS data logger support software provides simple remote data retrieval, viewing, and exporting.