

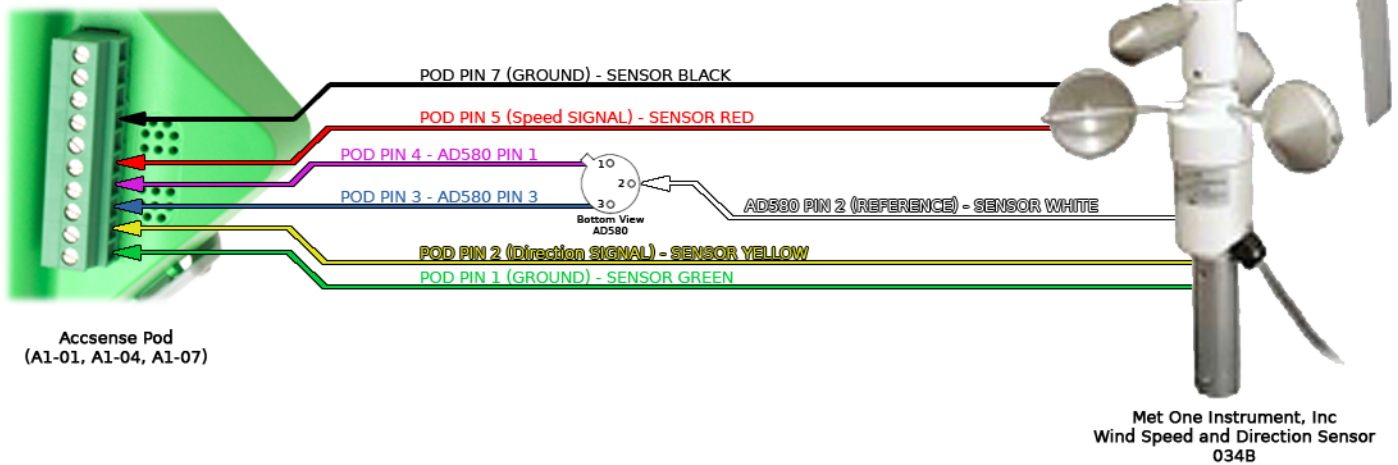
**Overview:**

The purpose of this document is to illustrate the proper connection and configuration of a Met One Instruments, Inc. 034B Wind Speed and Direction Sensor. The sensor can connect to any pod with an Event Counter, and 0-5v Input. To connect properly, an additional reference device - an AD580 current limiter. The connection of this device is detailed below.

Pod Choices: **A1-01 A1-04 A1-07**

Connects to Pod Input: **Event Counter, 0-5v**

**Connection Diagram:**



**Coefficient Calculation:**

This sensor utilizes two inputs, the contact closure for wind speed, and the 0-5v input for direction. The 0-5v input is regulated to <10mA by the AD580. Values for wind speed must be entered into the counter properties, direction into the 0-5v. Speed in MPH

Coefficient Equation:

$$displayed\_value = coeff\_1 + coeff\_2 \cdot [value] + coeff\_3 \cdot [value]^2 + coeff\_4 \cdot [value]^3$$

**Wind Speed:**  
Sensitivity =  $\frac{22.03}{40} = 550.75 \times 10^{-3} \text{ Hz/MPH}$

$$coeff\_2 = \frac{1}{\text{Sensitivity} \cdot \text{Measurement\_Interval}} = 15.1309 \times 10^{-3}$$

(measurement\_interval = 120sec in this example)

**Direction:**  
Sensitivity =  $\frac{2.5}{360} = 6.944 \times 10^{-3} \text{ volts/degree}$

$$coeff\_2 = \frac{5}{\text{Sensitivity} \cdot 1024} = 703.125 \times 10^{-3}$$

General	Info	Advanced	Counter (Speed)	0-5v (Direction)
		Calibration Coefficient-1:	<input type="text" value="0"/>	<input type="text" value="0"/>
		Calibration Coefficient-2:	<input type="text" value="15.1309E-3"/>	<input type="text" value="703.125E-3"/>
		Calibration Coefficient-3:	<input type="text" value="0"/>	<input type="text" value="0"/>
		Calibration Coefficient-4:	<input type="text" value="0"/>	<input type="text" value="0"/>

Accsense Online - Sensor Preferences (Advanced)

Accsense, Inc provides these datasheets as a guide only, and makes no claims as to the validity or accuracy of these schematics, calculations, or uses. Always review and follow the documentation that comes with the specific sensors. If you have questions about how to hook up a particular sensor, please contact us via the telephone, or through the tech support contacts on our website.