

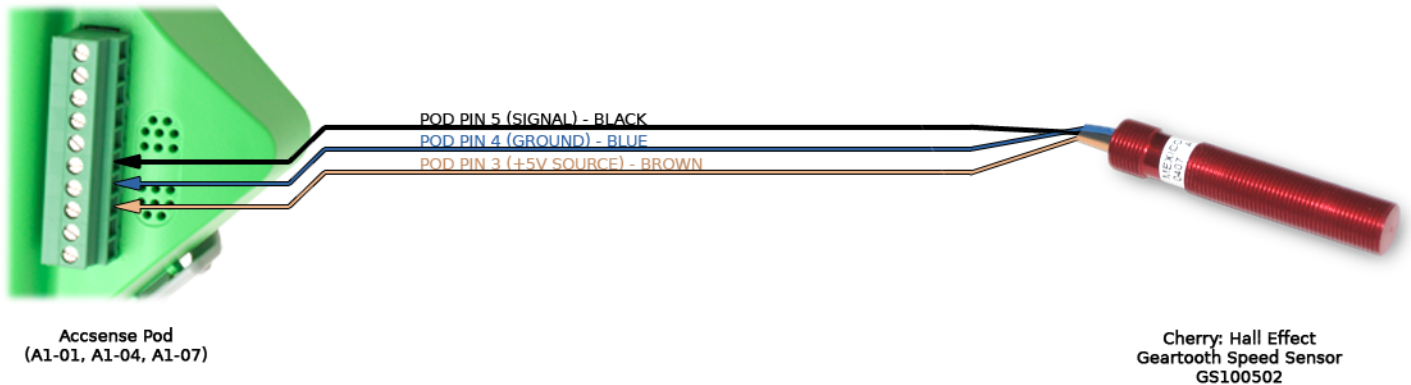
**Overview:**

The purpose of this document is to illustrate the proper connection and configuration of a Cherry GS100502 Hall Effect Geartooth Speed Sensor. The sensor can connect to any pod with a Totalizer and 5VDC Source.

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

Connects to Pod Input: **Totalizer, +5VDC**

**Connection Diagram:**



**Coefficient Calculation:**

This sensor utilizes the Event Counter (Totalizer) to count the number of teeth in a given time period, and then convert that to RPM. Because it is a linear transfer function, coefficients 3 and 4 are not used. The Pod's Totalizer is used to monitor the output pulses of this sensor. The displayed units are in RPMs. Note your Measurement Interval, specified in the Gateway Preferences, and the number of teeth on your gear.

Coefficient Equation:

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

$$Sensitivity = \frac{Number\_sprocket\_teeth}{60} \quad coeff\_2 = \frac{1}{Sensitivity \cdot Measurement\_Interval} = \frac{1}{333.333 \cdot 120} = 25 \times 10^{-3}$$

General	Info	Advanced
Calibration Coefficient-1: <input type="text" value="0"/>		
Calibration Coefficient-2: <input type="text" value="25E-3"/>		
Calibration Coefficient-3: <input type="text" value="0"/>		
Calibration Coefficient-4: <input type="text" value="0"/>		

LEGAL DISCLAIMER???

SOME OTHER INFORMATION

CONTACT INFO, ETC...