Speed Amp #892E Anemometer Interface

Introduction

The #892E Anemometer Interface is an electronic module designed to interface the NRG #40 anemometer to data acquisition systems with frequency input capabilities. The module converts the anemometer signal to a higher voltage square wave with the same frequency as the input sine wave from the anemometer. This provides a high-level square wave signal with frequency proportional to wind speed.

Output Signal

Output drive capability is 5 mA for frequencies from 0 to 60 Hz. The input signal filtering and sensitivity are optimized for the NRG #40 anemometer and compatible anemometers. The input is varistor protected against over-voltage. The common ground should be connected to a suitable ground like earth ground.

Connection

The module has 6 connection points:

PIN	DESCRIPTION
1	Anemometer input
2	Anemometer input (Supply Common)
3	+5 VDC power @ approx. 15 A input
4	Supply Common
5	Output Common (Supply Common)
7	Frequency output signal (TTL/CMOS compati ble)

The module can operate from a pulsed power supply. The internal energy storage capacitor allows the module to run for a maximum of 13 seconds with no load on the output. A diode should be used to separate the module power from other power if this capacitance causes the interface to back-feed the pulsed power supply.