Special Information for using 1 KΩ Direction Vanes on the Symphonie Logger

Introduction

The Symphonie, SymphoniePLUS and SymphoniePLUS3 loggers have two built-in wind direction channels that are pre-configured for 10 KΩ potentiometer type wind vanes. This Application Note explains the special considerations needed when using 1 KΩ direction vanes such as the Vector W200P.

Channel configuration

All Symphonie loggers have six analog channels, numbered 7 to 12. Channels 7 and 8 are pre-configured for 10 KΩ potentiometer type wind direction vanes such as the NRG 200P, the RM Young Wind Sentry, or the RM Young Wind Monitor's direction channel. NRG does not recommend using 1 KΩ direction vanes such as the Vector W200P on channels 7 and 8.

You can configure any of the analog channels 9 to 12 for potentiometer type wind vanes by installing the appropriate Sensor Configuration Module (200P SCM, part number 3152). Standard Symphonie vane SCMs are designated "200P Vane SCM". This standard Symphonie SCM is compatible with either 10 KΩ or 1 KΩ potentiometer type wind vanes.

SymphoniePLUS3 loggers have Flex Channels (4 to 6), which can accommodate analog, digital and counter sensors. To use a 1 KΩ sensor on a Flex Channel, use the 200P Vane SCM card. The Symphonie and SymphoniePLUS loggers can only support counter sensors on channels 4 to 6.

Refer to your logger's User Guide for more information on installing SCMs and configuring Symphonie logger channels.

The default scaling provided by the Symphonie logger for the NRG 200P direction vane channel is appropriate for any potentiometer type wind vanes with a negligibly small dead band. There are no special considerations for processing the data from 1 KΩ potentiometer type wind vanes. Refer to your logger's User Guide for more information on using SDR for data scaling, data viewing, and other site data processing.