Instruction Manual

Speed Sensor
SEN-SPD

Contents

1. Introduction

This speed sensor is designed to work with our Pro-160 and Pro-360 digital controllers. It can be plugged into the speed port on the control board, and the software can then be set to show and limit the RPM on the display. The sensor detects a North magnetic field which can be from the 1cm disc magnet supplied, or any other suitable magnet capable of giving a field of 7mT.

2. Dimensions

Length = 41mm, width = 19mm, height = 11mm.

3. Mounting

The sensor board has 3 mounting holes to allow a variety of mounting arrangements.

A magnet will need to be mounted to the wheel or shaft whose speed is to be measured in such a way that its North pole will pass close to the sensor chip once per revolution. Due regard should be given to the speed of the shaft and the mass of the magnet used when deciding how to mount the magnet.

4. Connections

The sensor requires a 5V power feed which can come from the BEC socket on the Pro-160 / 360 control board.
The output of the sensor should go to pin C of Auxiliary Input 2 on the control board. We recommend using screened cable with the screen connected to the 0V at the BEC socket end only.

5. Testing

With the speed sensor connected as above switch on the Pro-160 / 360. Now move the magnet close to the sensor chip located at the corner of the sensor board, the blue LED should illuminate to confirm the detection of the magnetic field. If the LED does not come on try different orientations of the magnet. With the magnet supplied detection should occur at a range of around 1cm.

6. Configuring the software

Once the sensor board and magnet have been mounted and confirmed to work, the speed sensor should be made active in the Advanced section of the Pro-160 / 360 menu. If "Learn" is on, then the display will show the rpm currently being measured, this can be used to find the RPM that corresponds to a real world speed. The desired RPM limit can be entered in the "Max RPM" field. Once the RPM limit has been set, "Learn" can be turned off and the display will resume its normal operation.

7. Water Resistance

The sensors are not water resistant, and when mounting you should make sure water cannot run down the leads onto the circuit boar

8. Warranty

All our products have a warranty against defective manufacturing for 12 months from the date of shipment. The warranty does not cover damage caused by incorrect installation.