



Testing the IceFree NPN Vane

INTRODUCTION

The NRG IceFree NPN Vane uses opto-switches to create a square wave output. By checking the voltage output and current draw of the sensor its health can be determined. This IceFree vane will run on excitation voltage from 9 to 24 V DC and will draw no more than 50mA of current (30mA typical).

TOOLS REQUIRED

- 9 to 24 V DC source (24V DC source recommended to simulate turbine installation)
- Digital Voltmeter (DVM) set to 200 V DC scale
- Two clip leads

INSTRUCTIONS

Signal Output Check:

- a) Connect power to vane
 - i) Connect Black (-) lead to DC (-)
 - ii) Connect Red (+) lead to DC (+)
- b) Monitor output voltage while slowly spinning vane head
 - i) Connect Black DVM lead to the sensor's Black (-) lead
 - ii) Connect Red DVM lead to the sensor's Green (VL) lead
 - iii) Watch DVM while slowly spinning vane head. Reading should shift from 0V to 24V (or whatever source voltage is) and back.
 - iv) Connect Red DVM lead to the sensor's Orange (VR90) lead and repeat step iii

