



Reed Switch Anemometers

Thank you for purchasing an Inspeed Anemometer!

General

The Inspeed Reed Switch anemometer is a 3-cup spinning type anemometer that produces one pulse per rotation. They are available with "Classic" (1.25" diameter) body or with "WS2" (bottle-shaped) body, and different mounting options.

See www.inspeed.com for more information.

The conversion from pulse rate to speed is as follows:

Classic Body, D2 & D3 rotors: $V(\text{mph}) = 2.85 f$

WS2 Body, D2 & D3 Rotors: $V(\text{mph}) = 2.7 f$

WS2 Body, metal cup rotors: $V(\text{mph}) = 2.45 f$

...where f is the frequency in Hz (pulses per second).

Specifications

The reed switch, soldered to the end of the wire that is inserted in the body of the anemometer is a Comus model RI-69GP1520. It is rated up to 200V. However, the life of the reed switch is directly related to the voltage and current applied. We strongly recommend keeping the voltage below 24VDC (ideally 3VDC) and microamps of current. This will ensure years of operation.

Installation & Operation

PLEASE TEST IT BEFORE YOU INSTALL IT ☺

Connect the display and spin the rotor to make sure everything is working FIRST THING.

Electrical

The reed switch anemometer is a normally open mechanical device that is closed once per rotation by a magnet that is attached to the rotor or shaft. There is no polarity nor power required to operate it.



Rotors: D2 (above), D3 (top right), metal.
D3 rotor introduced in February, 2020
The anemometer on the left has a "WS2" body

Mount it as high up as you can in order to get into clean air.

Maintenance

In the rare event that cleaning is required (slow rotation, audible friction...), proceed as follows:

- Cut the zip ties that hold the wire to the bracket
- Loosen the screw that holds the body to the bracket and tip the body to the side so as to access the screws that hold the cap to the base
- Remove the two screws that hold the cap under the anemometer body
- Carefully remove (pry off) the circlip on the bottom of the shaft (caution! It can be hard to find if dropped!)
- Pull upwards on the rotor to pull the rotor and shaft out of the magnet holder (WS2) and the body.
- Clean thoroughly – do not oil – graphite (dry) lube only.

Reassemble in reverse order:

- Put the rotor and shaft back in the body
- Press the magnet holder onto the shaft (Ws2)
- Put the circlip back on (tricky!)
- Pull up to seat the magnet holder on the circlip
- Replace the reed switch (WS2) and anemometer base (careful not to overtighten the 2 screws)

For more information, see www.inspeed.com

Thank you and enjoy!

