WIND SPEED SENSOR

(WS52)

Features

- 0 to 75m/s measurements
- Magnetic Hall Effect sensing
- Low friction stainless steel bearings
- Low starting torque
- Good dynamic characteristics
- Long operating life
- Australian designed and Australian made

Applications

- Meeting Australian Standards
- EPA reporting and licensing
- Meteorology
- Wind profiling
- Automation and alarms
- Crop studies
- Agronomy
- Pollution tracking and dispersion monitoring

The WS52 Series Wind Speed sensor uses a sensitive 3-cup anemometer designed to measure wind speed and wind run. The rugged Australian design ensures reliable long term unattended operation.

Three conical black UV stable polycarbonate cups of optimum proportions turn the main spindle. The spindle is supported by two special low torque, stainless steel, low friction shielded bearings.

The dynamic characteristics of the unit are exceptionally good because the moment of inertia of the rotating parts is very low. The body is symmetrical and well clear of the three rotating cups, which minimises interference.

The sensor is designed specifically to prevent the entrance of moisture or dust into the upper bearing, to provide a long sensor life, even in dusty, marine or other harsh environments.

WIND SPEED SENSOR
SPECIFICATIONS

Sensing Type
- 3-cup anemometer

Measurement Units
- Metres per second (m/s)
- Other units can also be used

Operating Range
- 0 to 75 m/s

Thresholds
- Startup 0.35 m/s
- Stall 0.30 m/s

Accuracy
- ± 3% to 2 m/s
- ± 2% 2 m/s to 35 m/s
- ± 3% 35 m/s to 75 m/s

Distance Constant
- 3 metres

Sensor Exposure
- Heights of 2 or 10 metres above ground level are most commonly used, application dependent.

Calibration
- Not subject to drift - Bearing replacement as directed.

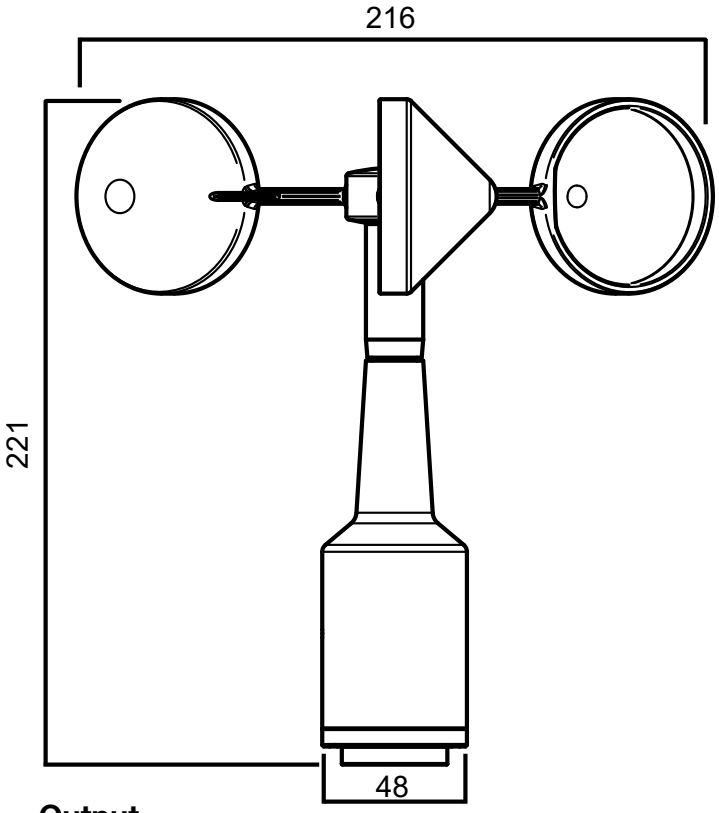
Construction
- Cups: Black - 64 mm polycarbonate
- Arms: Polycarbonate
- Bearings: Low friction stainless steel
- Housing: Anodised CNC machined aluminium

Detector
- Magnetic Hall Effect

Operating Conditions
- Temperature -20°C to +70°C
- Humidity 0% to 100%

Supply Voltage
- 6 to 24 Volts DC

Current Drain
- < 1.5 mA at 12V DC



Output
- +5 Volt square wave pulse
- 4-20 mA converters are available (FA12)
- Sensor alarms are available (SA12)

Configurations	WS52
Pulses per Rev.	2
Pulse/km	987
km/hr per Hz	3.55
m/s per Hz	0.987

Dimensions
- 221mm from base to top of cups
- 48mm Diameter at base
- 216mm Cup rotating diameter
- 300mm Fly lead with 3 pin Conxall male

Options
- FX1M5 - 1.5m F-F extension cable
- FX16 - 16m F-F extension cable
- Custom cable lengths available
- Optional adapter plate available to retrofit to WD3X and WD4X series sensor mounting positions.

Environdata
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