

WINDCRANE™ V20

Wind Direction Sensor



Wind direction vane for WINDCRANE wind monitoring system

Technical Specification

The V20 wind vane is a rugged, high-accuracy wind direction sensor for use with the WINDCRANE wind monitoring system. It is easy to install and provides reliable, accurate wind direction readings.

The sensor is supplied with mounting hardware (mount tube and clamps) for easy installation on a tubular pole or stub mast.

Connection to the WINDCRANE logger unit is via tough, abrasion-resistant shielded cable with rugged weatherproof M12 industrial connectors.



Mechanical

Materials	Polycarbonate rotor/vane and body, PVC weather boot, black colour. Low-friction stainless bearings and shaft.
Dimensions	Sensor height 115 mm, swept diameter 260 mm Mount tube + sensor height 300 mm approx
Mounting	Integral mounting tube, 250 mm length, 12.7 mm dia. Clamp bracket to suit mounting onto 25-50 mm (1-2 inch) diameter tubular pole.
Working temperature	-40 °C to +60 °C (non-icing)
Weight	0.6 kg incl. fixings and cable



Electrical / Measurement

Sensor	Low-friction conductive plastic potentiometer, 10kΩ resistance
Measurement range	0-360° continuous rotation, 1 m/s (3.6 km/h, 2.2 mph) threshold 50 million revolutions life (typ 4-6 years operation)
Accuracy	1% linearity, max 5° deadband
Power	Passive sensor, powered by logger (3.3V)
Connection	M12 4-pole male connector on pre-wired 1.5 m pigtail. Logger connection via M12 cable supplied separately. Pin 2 = GND, anticlockwise end of potentiometer Pin 3 = +V, clockwise end of potentiometer Pin 4 = Output, wiper of potentiometer Knurl/Thread = Cable screen
Output Signal	Voltage proportional to direction, zero at north. (conversion from voltage signal to wind direction is handled by WINDCRANE system)

