020C Wind Speed Sensor

The 020C Wind Direction Sensor provides azimuth data for use in micrometeorological measurements related to operational studies and research. The lightweight airfoil vane is directly coupled to a single precision potentiometer. These sensors are especially useful when a low starting threshold, a high damping ratio, or a short delay distance is required.

Low starting threshold

Internal heater for long bearing life

Low profile to minimize "sensor turbulence"

High damping ratio

Short delay distance

Quick-disconnect connector

Field-replaceable electronic components

Ingress protection level 65 (IP65)

Specifications

Performance	
Azimuth	Electrical 0° – 357°, Mechanical 0° – 360°
Threshold	0.5 mph (0.22 m/s)
Linearity	±1/2% of full scale

Accuracy	±3°, resolution <0.1°
Damping Ratio	Standard 0.6 (magnesium tail) (meets EPA specifications)
Delay Distance	Less than 3 ft (91 cm)
Temperature Range	-50°C to + 65°C (-58°F to +149°F)
Electrical	
Power Requirements	12 VDC at 10 mA, 12 VDC at 350 mA for internal heater
Output Signal Selectable	a. 0 – 5 V for 0° – 360° b. 0 – 2.5 V for 0° – 360°
Output Impedance	100 Ω maximum
Physical	
Weight	1.5 lbs (.68 kg)
Finish	Clear anodized aluminum
PN 1957	Cable assembly; specify length in feet or meters
Mounting	PN 191 crossarm assembly (contains orientation lock)

024mini Wind Direction Sensor

The 024mini Wind Direction Sensor is an accurate, durable and economical instrument, designed for use in wind resource assessment. The sensor is identical to the 024A wind speed sensor except that it is intended for mounting on a standard ½" vertical mast and uses a reduced size vane. This sensor is ideal where upgrades or replacement of existing equipment is required.

024A Wind Direction Sensor

The 024A Wind Direction Sensor is accurate, durable and economical instruments, suitable for a wide range of wind study applications. They are designed for long term unattended operation in most environments.

The sensor uses a quick-connect sensor cable which may extend hundreds of feet without affecting measurement performance. The potentiometer meets stringent military specifications for sand, dust, salt spray and fungus resistance.

Precision wire-wound potentiometer

Built-in alignment and calibration fixture

Digital or analog measurement ability

Aluminum or Lexan cups available

Specifications

Performance	
Range	0° – 360°
Starting Threshold	1.0 mph (0.45 m/s)
Accuracy	±5°
Delay Distance	Less than 5 ft (1.5 m)
Damping Ratio	0.25 (aluminum vane)
Potentiometer	MIL-E-5272 (sand, dust, fungus), MIL-E-12934 (salt spray)
Electrical Range	0° – 360°
Operating Range	-50°C to +70°C (-58°F to +158°F)
Physical	

Weight	1 lb 2 oz (.45 kg)
Finish	Clear anodized aluminum
Cable & Mounting	
PN 1806	Cable assembly; specify length in feet or meters
Mounting	PN 191 Crossarm Assembly (contains orientation lock)