



Met One Instruments, Inc.

010C Wind Speed Sensor 020D Wind Direction Sensor

Both wind speed and wind direction sensors are used in environments ranging from Antarctic cold to arid desert heat. The 010C 010C-1 and 020D instruments meet U.S. EPA and NRC performance specifications for critical regulatory, research or scientific measurement applications.

The 010C Wind Speed Sensor provides accurate and detailed information on horizontal wind speed. The lightweight three-cup anemometer is used in virtually all applications where fast response and low starting threshold(s) are of paramount importance.

The 020D 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.

Reliability

The 010C and 020D are made of stainless steel and anodized aluminum components and are functionally more reliable than any other sensors of their kind:

- Built-in electrical field surge protection greatly reduces problems associated with static fields, near-miss lightning hits and poor grounding systems
- Inclusion of Met One Instruments internal heater (AC use only) provides positive clean aspiration through the bearings, thereby greatly increasing sensor bearing life
- Optional, external de-icing heater sleeve for applications where freezing rain, ice and low wind speeds may be encountered



010C Wind Speed Sensor

Features

- Low starting threshold
- Internal heater for long bearing life
- High damping ratio
- Low profile to minimize "sensor turbulence"
- Short delay distance
- Quick-disconnect connector
- Ingress Protection Level 65 (IP65)
- Field-replaceable electronic components

010CWindSpeedSensor

Performance Characteristics

Maximum Operating Range: Starting Speed: Calibrated Range: Accuracy:

Temperature Range: Distance Constant:

Electrical Characteristics

Power Requirements: Output Signal: Output Impedance:

Physical Characteristics

Weight: Finish:

Cable & Mounting PN 1953 Mounting:

020DWindDirectonSensor

Performance Characteristics Azimuth:

Threshold: Linearity: Accuracy:

Damping Ratio: Delay Distance: Temperature Range:

Electrical Characteristics

Power Requirements: Output Signal: Output Impedance:

Physical Characteristics

Weight: Finish:

Cable & Mounting PN 1957 Mounting:

Wind Sensors W/ Aluminum Cups & Vane 010C Distance Constant: 020D Damping Ratio:

Specifications are subject to change at any time.

0-135mph (0-60m/s) 0.5 mph (0.22 m/s) 0 -112 mph (0 -50 m/s) ±1% or 0.15 mph (0.07 m/s) Resolution <0.1 mph or m/s -50°C to +65°C (-58°F to +149°F) less than 5 lt (1.5m) of flow (meets EPA specifications)

12 VDC at 10 mA, 12 VDC at 350 mA for internal heater 11 volt (pulse frequency equivalent to speed) 100 Ω maximum

1.5 lbs (.68 kg) Clear anodized aluminum; Lexan cup assembly

Cable Assembly; specify length in feet or meters PN 191 Crossarm Assembly

Electrical 0° -357° Mechanical 0° -360° 0.5 mph (0.22 m/s) $\pm 1/2\%$ of full scale $\pm 3^{\circ}$ Resolution <0.1 ° Standard 0.6 (magnesium tail) (meets EPA specifications) Less than 3 ft (91 cm) -50°C to +65°C (-58°F to +149°F

12 VDC at 10 mA, 12 VDC at 350 mA for internal heater 0-5, 0-2.5 (optional 0-1) VDC for 0° -360° Ω maximum

1.5 lbs (.68 kg) Clear anodized aluminum

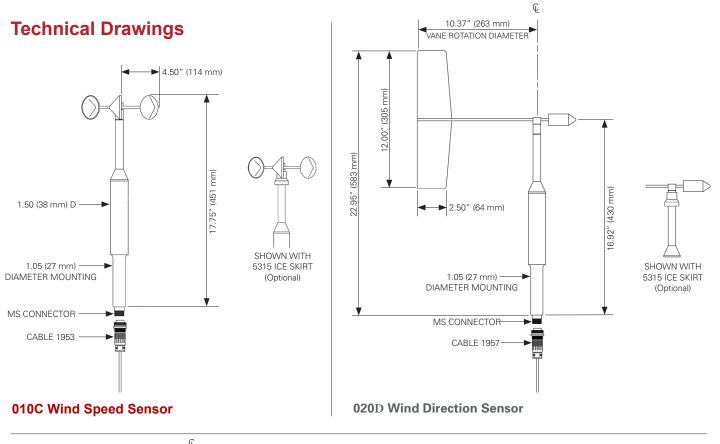
Cable Assembly; specify length in feet or meters PN 191-1 Crossarm Assembly

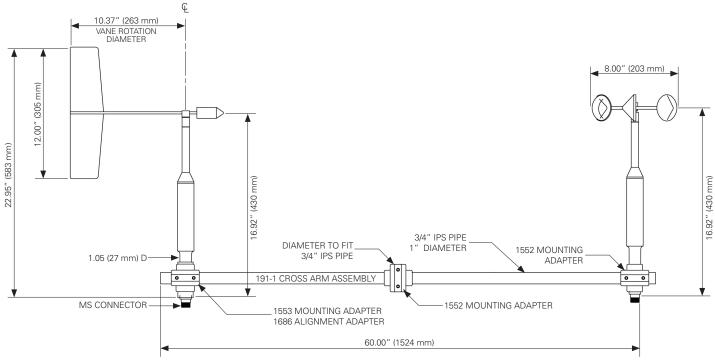
15 ft. (4.6 m) aluminum cup assembly (meets EPA specifications) 0.25 (aluminum tail)





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191-1 Mounting Arm & 010C-020D



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