

About the Met Equipment

Updated March 2008

Wind Sensor

Met One Instruments

Model: 034B

Range: 1-100 MPH

Starting Threshold: 0.9 MPH

Accuracy: Less than 22.7 MPH: .25 MPH

Greater than 22.7 MPH: +/- 1.1% of true

Range: 0-360 Degrees

Net Radiometer

Campbell Scientific

Model: NR-LITE

Spectral Range: 0.2 to 100 μm

Detector type: Thermopile

Detector protection: Teflon coating

Detector profile: Conical

Directional Error: (0-60° at 1000 W m⁻²)

Housing Material: Anodized aluminum

Physical Dimensions:

Sensor: 3.1" (8.0 cm) diameter

Support Arm: 0.6" (1.6 cm) diameter x 31.5" (80 cm) L

Weight: 23 oz (635 g)

Working Temperature: -30 to + 70°C

Temperature Dependence: 0.12%/°C

Pyranometer

Campbell Scientific

Model: LI200X

Stability: <+/- 2% change over a 1 year period

Response Time: 10 μs

Cosine Correction: Cosine corrected up to 80°

Operating Temperature: -40 to +65 °C

Temperature Dependence: 0.15% per °C

Relative Humidity: 0 to 100%

Sensor Housing: Weatherproof anodized aluminum case with
acrylic diffuser and stainless steel hardware

Size: 0.94" dia x 1.00" H (2.38 cm dia x 2.54 cm H)

Weight: 1 oz. (28 g)

Accuracy: Absolute error in natural daylight is +/-5% maximum;
+/-3% typical

Light Spectrum Waveband: 400 to 1100nm

Temperature and Relative Humidity Probe

Campbell Scientific

Model: HMP45C

Operating Temperature: -40°C to +60°C

Probe Length: 25.4 cm (10 in.)

Probe Body Diameter: 2.5 cm (1 in.)

Filter: 0.2 µm Teflon membrane

Filter Diameter: 1.9 cm (0.75 in.)

Power Consumption: <4 mA @ 12 V

Supply Voltage: 7 to 35 VDC

Settling Time: 0.15 seconds

Temperature Sensor

Sensor: 1000 Ω PRT, IEC 751 1/3 Class B

Temperature Measure Range: -40°C to +60°C

Temperature Accuracy: +/- 0.4 °C at -40 °C

Relative Humidity Sensor

Sensor: HUMICAP® 180

Relative Humidity Measurement Range: 0 to 100% non-condensing

Accuracy at 20°C

+/- 2% RH (0 to 90% Relative Humidity)

+/- 3% RH (90 to 100% Relative Humidity)

Rain Gauge

Microcom Designs

Model: TB3

Calibration: +/- 2% @ 0.05-300mm/hr

Range 0-700 mm/hr

Receive: 200 mm +/- .3 Diameter Powder Coated Aluminum

Sensitivity (per tip): 0.01 in, 0.2 mm or 0.5 mm

Sensor: Tipping Bucket with Siphon

Contact: Dual Reed Switch Potted in Silicon Rubber with Varistor Protection

Contact Capacity: 12 Volts DC, 0.5 Amp max

Contact time: 0.1 Second

FLOW: Siphon (removable for cleaning)

Environmental Operating Range: 0 to + 60°C to 100% Humidity

Datalogger

Campbell Scientific

Model: CR23X

Program Execution Rate: Real time up to 100 Hz

Clock Accuracy: +/- 10 minute per month

Analog Inputs: