



TMC20-HD Sensor

Air/Water/Soil Temperature (20' cable) Sensor

Measure temperature in air, water, or soil with the 6.1m (20 ft) TMC20-HD temperature sensor. This product is designed to be used with HOBO U-Series, UX120-006M external-channel data loggers or ZW series wireless datanodes. This sensor records temperatures between -40° and 50°C (-40° to 122°F) in water or soil, and between -40° and 100°C (-40° to 212°F) in air. This product provides a response time of minutes typical to 90% in air moving 1 m/sec (2.2 mph); and 1 minute typical to 90% response time in stirred water. Please note, accuracy and resolution depend on data logger.



Supported Measurements:

Temperature and Water Temperature

Key Advantages:

- Plug directly into the external input jacks of U12, UX120, or ZW Family loggers to expand the range of measurement options and applications

TMC20-HD Sensor Specifications

Measurement range: -40° to 50°C (-40° to 122°F) in water; -40° to 100°C (-40° to 212°F) in air

Accuracy:

w/U12: $\pm 0.25^{\circ}\text{C}$ from 0° to 50°C ($\pm 0.45^{\circ}\text{F}$ from 32° to 122°F), insert probe 2.3 cm (0.9 inches) minimum;

w/ZW: $\pm 0.21^{\circ}\text{C}$ from 0° to 50°C ($\pm 0.38^{\circ}\text{F}$ from 32° to 122°F), insert probe 2.3 cm (0.9 inches) minimum;

w/UX120-006M: $\pm 0.15^{\circ}\text{C}$ from 0° to 70°C ($\pm 0.27^{\circ}\text{F}$ from 32° to 158°F), insert probe 2.3 cm (0.9 inches) minimum;

Resolution:

w/U12: 0.03° at 20°C (0.05° at 68°F);

w/ZW: 0.02°C at 25°C (0.04°F at 77°F);

w/UX120-006M: 0.002° at 25°C (0.003° at 77°F);

Drift: $<0.1^{\circ}\text{C}$ ($<0.2^{\circ}\text{F}$) per year

Response time in air: 2 min. typical to 90% in air moving 1 m/sec (2.2 mph)

Response time in stirred water: 30 sec. typical to 90%.

Operating range: Sensor tip and cable immersion in fresh water up to +50°C (122°F) for 1 year

Housing: Copper-plated sensor tip

Dimensions: 5.1 x 33 mm (0.2 x 1.3 inches)

Weight: 34 g (1.1 oz)