



## 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)