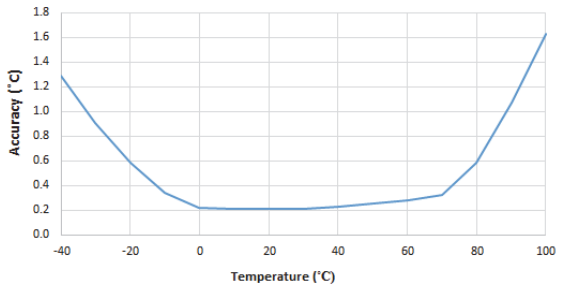
TMCx-HD Water/Soil Temperature Sensor

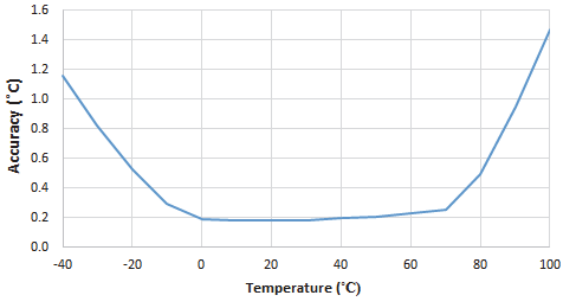
For use with HOBO® U12 and UX120-006M data loggers and ZW data nodes

Specifications

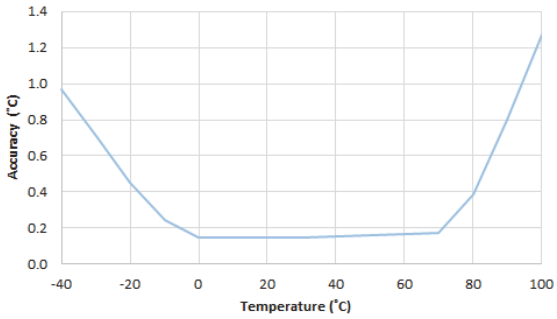
Measurement Range	-40° to 50°C (-40° to 122°F) in water; -40° to 100°C (-40° to 212°F) in air
Accuracy with U12	±0.25°C from 0° to 50°C (±0.45°F from 32° to 122°F), insert probe 2.3 cm (0.9 inches) minimum; see Plot A
Accuracy with ZW	±0.21°C from 0° to 50°C (±0.38°F from 32° to 122°F), insert probe 2.3 cm (0.9 inches) minimum; see Plot B
Accuracy with UX120-006M	±0.15°C from 0° to 50°C (±0.27°F from 32° to 122°F), insert probe 2.3 cm (0.9 inches) minimum; see Plot C
Resolution with U12	0.03° at 20°C (0.05° at 68°F)
Resolution with ZW	0.02°C at 25°C (0.04°F at 77°F)
Resolution with UX120-006M	0.002° at 25°C (0.003° at 77°F)
Drift	<0.1°C (<0.2°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)



Plot A: U12 Accuracy*



Plot B: ZW Accuracy*



Plot C: UX120-006M Accuracy*

*Accuracy shown in plots outside the 0 to 50°C range is typical.

Mounting Considerations:

- Mount the sensor where there is good air circulation for measuring air temperature.
- Mount the sensor off the mounting surface so temperature measurements are not affected by the surface itself.

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