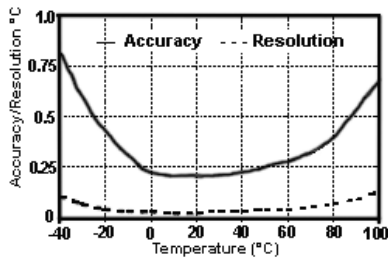# TMCx-HE Temperature Sensor
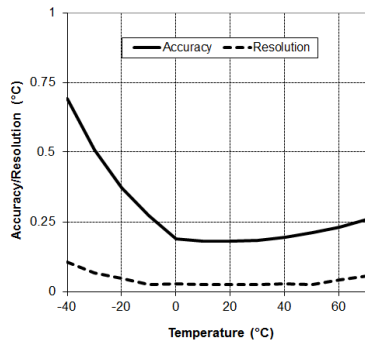
For use with HOBO® U12 and UX120-006M data loggers and ZW data nodes

Specifications
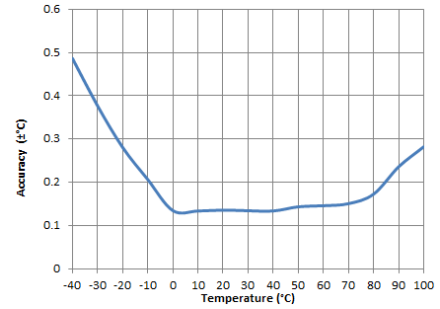
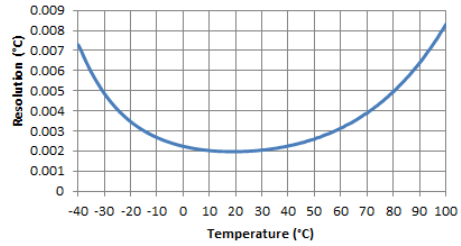|	
Measurement Range	-40° to 100°C (-40° to 212°F)
Accuracy with U12	±0.25°C from 0° to 50°C (±0.45°F from 32° to 122°F), insert probe 2.3 cm (0.9 inches) minimum; see Plot A
Accuracy with ZW	±0.21°C from 0° to 50°C (±0.38°F from 32° to 122°F), insert probe 2.3 cm (0.9 inches) minimum; see Plot B
Accuracy with UX120-006M	±0.15°C from 0° to 70°C (±0.27°F from 32° to 158°F), insert probe 2.3 cm (0.9 inches) minimum; see Plots C & D
Resolution with U12	0.03° at 20°C (0.05° at 68°F); see Plot A
Resolution with ZW	0.02°C at 25°C (0.04°F at 77°F); see Plot B
Resolution with UX120-006M	0.002° at 25°C (0.003° at 77°F); see Plots C & D
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 on a pipe	Typically 2 times faster than the TMCX-HD. Typically less than 1 minute to 90%.
Housing	Copper-plated sensor tip
Dimensions	0.9 x 5.8 cm (0.38 x 2.30 inches)
Weight	34 g (1.1 oz)

Plot A: U12 Accuracy/Resolution

Plot B: ZW Accuracy/Resolution

Plot C: UX120-006M Accuracy

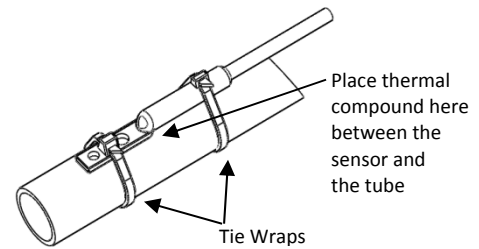Plot D: UX120-006M Resolution

Items Included:

- 2 tie wraps
- 1 #6 screw
- Thermal compound

Mounting the Sensor

Use a small amount of the enclosed thermal compound between the flat part of the sensor tip and the surface where the sensor is being deployed to enhance the contact between the two.

Sensor mounted on pipe using two tie wraps:

Place thermal compound here between the sensor and the tube

Tie Wraps

Sensor mounted on wall using #6 screw:

#6 screw

Place thermal compound here between the sensor and the wall