

What is the supplied cable length of the TMP100 sensors; is it possible to extend the cable?

Article Number: 545 | Rating: Unrated | Last Updated: Tue, Nov 13, 2018 6:28 PM

Maretron thermistor probes come with 6' long wires. Yes, you can extend Maretron TMP100 sensor wires to complete temperature sensing applications throughout a vessel.

In many applications technicians have extended thermistor wires up to 100 feet to measure temperatures in separate compartments throughout a vessel. When choosing to extend a thermistor temperature wire, calculate the resistance the wire will add to the measured resistance. Refer to Maretron article: [What temperature probes are compatible with Maretron's Temperature Monitor \(TMP100\)?](#)

For TMP100 channels 3-6, Maretron uses a $3K\Omega @ 25^{\circ}C$ thermistor so you can extend the cable with an understanding that an error is introduced into the system as a function of the additional wire resistance.

The stock length of the cable is 10 feet or 3 meters.

THERMISTOR

Maretron Part: TR3K



The image provided is a standard TR3K sensor with stock wire. The wire is designated as Alpha Wire H1

P/N1172C 2 conductor, 22AWG UL spec.

With supplied thermistor probe, Measurement Range – Thermistor -20°C to 80°C (-4°F to 176°F)

With supplied thermistor probe, Measurement Accuracy – Thermistor $\pm 2^{\circ}\text{C}$ ($\pm 3.6^{\circ}\text{F}$)

THERMOCOUPLE

Maretron Part: TP-EGT-1

Note: Only two separate thermocouple probes can be used on a single TMP100 device (Channel 1:

terminals 1 & 2, Channel 2: terminals 3 & 4).

Thermocouple wires can be extended using K-Type thermocouple wires with junction connections ONLY. Review length options with your local supplier. Figure 1 shows an example of a K-type Thermocouple extension wire with junction connections:



Figure 1

With supplied thermocouple probe, Measurement Range – +0°C to 700°C (32°F to 1292°F)

With supplied thermocouple probe, Measurement Accuracy – $\pm 2^\circ\text{C}$ ($\pm 3.6^\circ\text{F}$)

Posted - Thu, May 17, 2012 2:59 PM. This article has been viewed 5686 times.

Online URL: <https://www.maretron.com/support/knowledgebase/phpkbv7/article.php?id=545>