Installation Instructions

Maretron TR3K - Ring/Under Bolt Temperature Probe for DCM100 & TMP100

Instructions

Please follow these instructions to connect the TR3K temperature probe to the NMEA 2000® network via a Maretron TMP100 Temperature Module. The wiring diagram appears in Figure 1 below. The diagram shows a connection to channel #3, but connections to other channels are similar.
Please note that the TR3K may be connected only to channels #2 - #5. It may not be connected to channels #0 and #1.

1. Place a bolt through the 5/16” (7.94mm) hole in the TR3K and secure it to the object whose temperature is being measured.

2. The TR3K cable is 10 ft. (3.05m) long and contains one red and one black wire. The cable may be extended with the understanding that the TR3K uses a 3KΩ nominal thermistor, and that the resistance of the extension cable will introduce an error which is largest at higher temperatures.

3. Connect the red and black wires to the appropriate T*x*+ & T*x*- terminals on the TMP100 as shown in Figure 1 and the TA & TB terminals on the DCM100 as shown in Figure 2.

4. *Connecting with a TMP100*
   Use a Maretron DSM Series display or a PC running N2KAnalyzer software paired with an appropriate NMEA 2000® gateway to properly configure the TMP100 and channel for use with the TR3K temperature probe to apply the following characteristics such as Label, Source Type, and Instance.
   a. **Channel #x Label** is a text string that allows you to identify the particular temperature that is being measured by this probe. For example, if you have two freezers, you may wish to label one of them “Port Shaft Seal Temp” and the other “Starboard Shaft Seal Temp”.
   b. **Channel #x Source** applied the type of temperature you are measuring; many are pre-defined.
   c. **Channel #x Instance** applies to a number that is unique across the network for the source you have selected. In other words, if you are measuring Freezer Temperature, there may be only one channel on the network that measures Freezer Temperature that has an instance number of 0. Number further Freezer Temperature channels as instance #1, #2, and so on.

   d. Using a Maretron DSM Series display, N2KView, or an MConnect to show the temperature matching the source and instance you have selected and verify that you see a valid temperature on the display.

5. *Connecting with a DCM100*
   Use a Maretron DSM Series display or a PC running N2KAnalyzer software paired with an appropriate NMEA 2000® gateway to properly configure the DCM100 and configured as Source Type Battery.
   a. **Label** is a text string that allows you to identify the particular DC source that is being measured. For example, if you have multiple battery banks, you may wish to label each of them.
   b. **DC Type** must be set to Battery for broadcasting temperature output.
   c. **Instance** applies to a number that is unique across the network for the source you have selected. In other words, if you have a multiple batterie being monitored the first has an instance number of 0. Number further Battery banks as instance #1, #2, and so on.

   d. Using a Maretron DSM Series display, N2KView, or an MConnect to show the Battery Case Temperature matching the instance you have selected for your DC Battery source.

(continued on reverse)

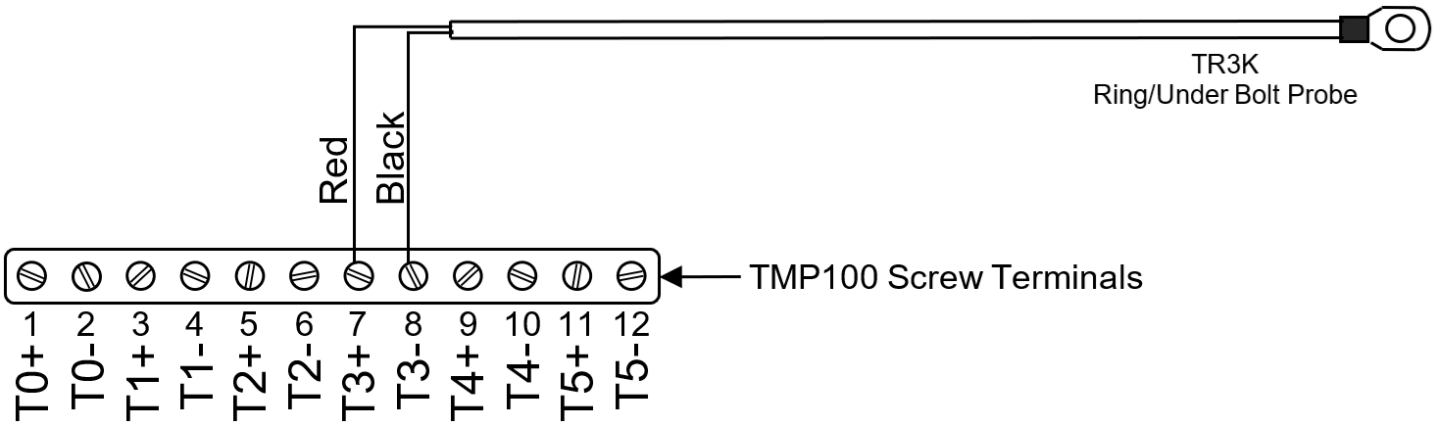

Figure 1 – TMP100 Wiring Diagram

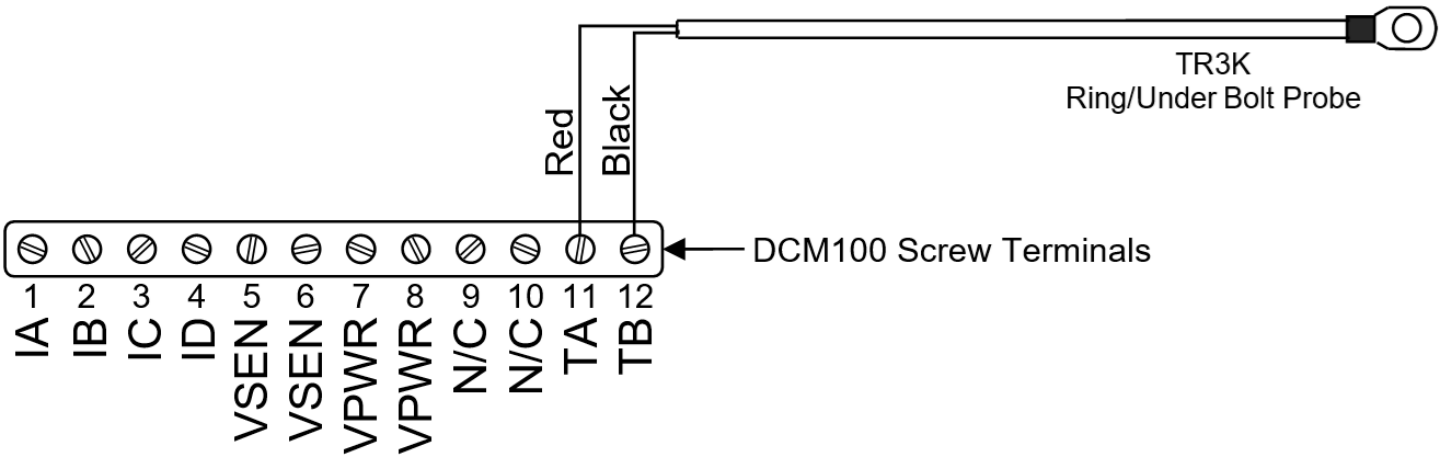

Figure 2 – DCM100 Wiring Diagram

For installation support, please contact:

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