



MCS-T300-L

Description & Specifications



Part # **MCS-T300-L**

Specifications

Standard Temperature Range -76°F to 32°F (-60°C to 0°C)
 Standard Temperature Accuracy .. $\pm 0.37^\circ\text{F}$ ($\pm 0.21^\circ\text{C}$)
 Resistance Range 1,117k to 89.9k
 Input Voltage..... 5 Vdc
 Output Resistance..... 279.9k @ -30°F
 Overall Length 1.75"
 Diameter (outside)..... 0.275"

Cable:

Length..... 20'
 Wire 3 conductor 20 awg stranded
 Shield..... Foil shield with 25% overlap

Description

An extremely accurate thermistor packaged in a water tight thin walled nickel plated brass Deep Drawn Tube. The sensor is potted with a thermal transfer epoxy to guarantee durability and response. The accuracy of the sensor is $\pm 0.37^\circ\text{F}$ ($\pm 0.21^\circ\text{C}$) which allows the units to be interchanged in the field.

The unit is a double thermistor providing a linear response over the range. The unit input is 5.00 vdc. The voltage output over the range is 0.807V to 3.525V. At 22°F the voltage output is 2.171 vdc. The table below provides a cross reference between °F/°C, ohms, and vdc at a sensor input pin (S1) of a MCS micro controller.

Temp to OHMS to VDC Chart

(Partial temperature conversion chart below)

Temp (°F/°C)	Resist (ohms)	S1 (Vdc)
-76/-60	1116.995	0.807
-67/-55	834.658	1.024
-58/-50	642.896	1.252
-49/-45	508.659	1.485
-40/-40	411.250	1.716

Temp (°F/°C)	Resist (ohms)	S1 (Vdc)
-31/-35	337.683	1.944
-22/-30	279.874	2.171
-13/-25	232.887	2.399
-4/-20	193.780	2.629
5/-15	160.821	2.860

Temp (°F/°C)	Resist (ohms)	S1 (Vdc)
14/-10	132.963	3.089
23/-5	109.499	3.312
32/0	89.871	3.525

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