MICRO CONTROL SYSTEMS

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The MCS-T300 Specifications & Description

Physical Characteristics

Std. Temp. Range.....-22º to 125º F
Std. Temp. Accuracy.....± 0.4º F
Resistance Range.....9,640 to 134,900 ohms
Response (32°F to 122°F) .....40 sec. (in liquid)
Response (122°F to 32°F) .....75 sec. (in liquid)
Input Voltage.....5 Vdc
Output Resistance.....20,772 ohms @77 º F
Overall Length.....1.750"
Diameter (outside).....0.275"
Cable
Length.....20' (40' optional)
Wire .....3 cond. 20 awg stranded
Shield.....foil shield w 25% overlap
Drain .....stranded tinned copper drain
Part Number Description when ordering
xx .....20' or 40' wire length

Product 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 ±0.4º F which allows the units to be interchanged in the field.

The unit is a double thermister providing a linear responce over the range. The unit input is 5.00 vdc. The voltage output over the range is .726 to 3.523. At 50°F the voltage output is 2.123 vdc. The table below provides a cross reference between °F, ohms and Vdc

Product Specifications

(Partial temperature conversion chart)

Temp. (° F)	(ohms)	(Vdc)
-22	134.900	0.707
-13	105.944	0.866
-4	85.993	1.036
5	69.557	1.210
14	57.945	1.385
23	49.002	1.559

Temp. (° F)	(ohms)	(Vdc)
32	41.935	1.731
41	36.199	1.901
50	31.425	2.070
59	27.363	2.240
68	23.848	2.411
77	20.772	2.583

Temp. (° F)	(ohms)	(Vdc)
86	18.064	2.757
95	15.678	2.931
104	13.578	3.103
113	11.736	3.271
122	10.129	3.434
125	9.640	3.486