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|-----------------|----------|---------------------------------|-----------------|
| Document Number | | RG_SPEC-0077 | |
| Title | | RaceGrade DTM Fluid Temp Sensor | |
| Revision | Date | Prepared By | Change History |
| 1.0 | 01/16/18 | DD | Initial Release |

Introduction

The RG.SN.5022 is an NTC (Negative temperature coefficient) temperature sensor. The resistance of the sensor element decreases with increasing air temperature. It is designed as a fluid temp sensor and is not recommended for air temperature due to a slower response time. It is an unpowered sensor and therefore requires that the input line is pulled up, so that the resistance change will result in a voltage drop in the input pin. It is generally recommended to connect the sensor to an AT input on a MoTeC device, as these inputs include a 1kΩ pullup to 5V.

Specifications

Thread: 1/8 NPT

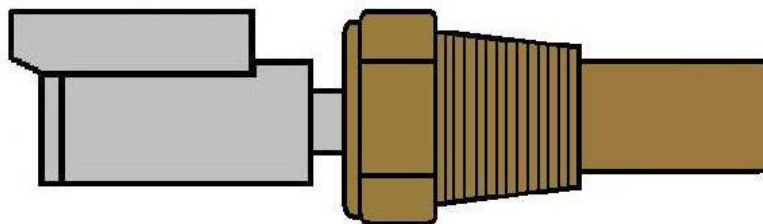
The voltage information below is provided assuming the sensor is setup on an input including a 1kΩ pullup resistor to 5V. If this is not the case, then the resistance row must be used to calibrate the sensor instead.

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|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Ω | 15873 | 9256 | 5572 | 3457 | 2830 | 2205 | 1443 | 992 | 660 | 475 | 329 | 244 | 175 | 134 | 99 | 80 | 60 | 47 |
| Voltage | 4.704 | 4.512 | 4.239 | 3.878 | 3.695 | 3.440 | 2.953 | 2.490 | 1.988 | 1.610 | 1.238 | 0.981 | 0.745 | 0.591 | 0.450 | 0.368 | 0.283 | 0.224 |
| Deg C | -10 | 0 | 10 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
| Deg F | 14 | 32 | 50 | 68 | 77 | 86 | 104 | 122 | 140 | 158 | 176 | 194 | 212 | 230 | 248 | 266 | 284 | 302 |

Wiring Information

Mating Connector: DTM04-2S

https://www.milspecwiring.com/DTM-2SK_p_60.html



1 = SIGNAL
2 = 0 VOLT

