

Document Number		RG_SPEC-0078	
Title		RaceGrade DTM Air Temp Sensor	
Revision	Date	Prepared By	Change History
1.0	01/16/18	Nick Baggett	Initial Release

Introduction

The RG.SN.5012 is an NTC (Negative temperature coefficient) temperature sensor. The resistance of the sensor element decreases with increasing air temperature. It is designed to be used in air and is not recommended to be used for fluid temperature. 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.

Ω	15504	9192	5531	3445	2206	1448	976	662	460	326	234	169	125	94	70	53	41
Voltage	4.697	4.509	4.234	3.875	3.440	2.958	2.470	1.992	1.575	1.229	0.948	0.723	0.556	0.430	0.327	0.252	0.197
Deg C	-10	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Deg F	14	32	50	68	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

