



## Combination Coolant Pressure/Temperature Sensor

PN's 52-1021 and 52-1041

Available exclusively through Motion Raceworks ([motionraceworks.com](http://motionraceworks.com)) and [rifesensors.com](http://rifesensors.com)

### Range:

Pressure: 0-100PSI (0.5V to 4.5V)                      Temperature: -20F to 300F (Ω)

Accuracy: 0.5% Full Sweep

Mounting: M12 x 1.5 (52-1021) or 1/8 NPT (52-1041)

Sealing: Aluminum Crush Washer (52-1021) or pipe thread sealant (52-1041)

### Wiring:

Red: +5V Max.

White: Signal Ground reference

Blue: Pressure Signal

Yellow: Temperature Signal

Black: Temperature Ground

### Installation:

#### **PN# 52-1021 - Direct Mount for GM LS engines**

The Rife Sensors LS coolant Pressure/ Temperature sensor mounts directly in place of the factory coolant temperature sensor (CTS). Simply remove the factory CTS (or plug) and replace with the supplied sensor and new crush washer. Calibration data is on the following page. Wiring is per the description above, we recommend tapping into the ECU for +5V and reference ground, voltages above 5V will damage the sensor. For connector options, contact Motion Raceworks or visit [www.rifesensors.com](http://www.rifesensors.com).

#### **PN# 52-1041 – 1/8 NPT connection**

The Rife Sensors Combo Pressure/ Temperature sensor mounts directly in place of any 1/8 NPT mount sensor. Use a suitable sealant on the thread, do not overtighten. Calibration data is on the following page. Wiring is per the description above, we recommend tapping into the ECU for +5V and reference ground, voltages above 5V will damage the sensor. For connector options, contact Motion Raceworks or visit [www.rifesensors.com](http://www.rifesensors.com).



Calibration Data

5V maximum input voltage

32 cells are calculated, for 16 or 8 cell input, use every other, or fourth cell as necessary

Temperature		Pressure	
°F	Ω	PSI	V
-10	91.02	0.0	0.50
0	93.16	3.2	0.63
10	95.29	6.5	0.76
20	97.43	9.7	0.89
30	99.57	12.9	1.02
40	101.71	16.1	1.15
50	103.85	19.4	1.27
60	105.99	22.6	1.40
70	108.13	25.8	1.53
80	110.27	29.0	1.66
90	112.41	32.3	1.79
100	114.54	35.5	1.92
110	116.68	38.7	2.05
120	118.82	41.9	2.18
130	120.96	45.2	2.31
140	123.10	48.4	2.44
150	125.24	51.6	2.56
160	127.38	54.8	2.69
170	129.52	58.1	2.82
180	131.66	61.3	2.95
190	133.79	64.5	3.08
200	135.93	67.7	3.21
210	138.07	71.0	3.34
220	140.21	74.2	3.47
230	142.35	77.4	3.60
240	144.49	80.7	3.73
250	146.63	83.9	3.85
260	148.77	87.1	3.98
270	150.91	90.3	4.11
280	153.04	93.6	4.24
290	155.18	96.8	4.37
300	157.32	100.0	4.50