



Liquid Temperature Sensor Calibration



FuelTech ECU's don't allow for the use of a resistance input on their ECU's. This requires the user to utilize an analog voltage sensor in order to read the sensor.

To set up your sensor in the FuelTech software, go to Inputs and select the sensor you wish to calibrate and configure the names: Under "Input sensor", click the radio button for "custom", select "Analog" in the Signal type drop-down and check "Enable pullup". Input the values from the chart below into the Interpolation table and that's it. When complete the page should look like this:

(next page)

RIFE

SENSORS

by TBM

The screenshot shows the RIFE SENSORS software interface. At the top, there is a toolbar with various icons for ECU operations like 'Read ECU', 'Write ECU', 'Rename map', 'Erase map', 'Map Options', 'Edit axis', 'Confirm', 'Undo', 'TPS / Pedal', 'Ignition', 'Calibration', 'FT Input Expander', 'External Devices', 'Stop log', 'Erase memory', 'Datalogger', 'Connection Unavailable', 'Realtime Disabled', 'Connection Status', 'Map name' (LS E85 24X), and 'Start Engine'. Below the toolbar is a red header bar labeled 'Inputs'. On the left, a list of inputs is shown, with '#5: Engine temp.' selected. The main area is divided into two panels: 'Import sensor' and 'Calibrate sensor'. The 'Import sensor' panel shows 'Channel name' as 'Engine temp.', 'Dash name' as 'Engine temp.', 'Unit' as '°F', 'Decimal places' as '1 (Min: -3200,0 Max: 3200,0)', 'Offset type' as 'Disabled', and 'Offset value' as '0'. The 'Digital filter' section has 'Digital filter enabled' checked, 'Filter frequency' at '50', and 'Q factor' at '0.60'. The 'Calibrate sensor' panel shows 'Input sensor' as 'GM temperature sensor (USA)', 'Signal type' as 'Analog', 'Average points' as '63', and 'Digital options' as 'Higher level'. It also has 'Hi level' and 'Lo level' both set to '0.000 v'. An 'Interpolation table' is visible on the right side of the calibration panel.

Voltage	Value
0.984	290.0
1.210	269.0
1.486	249.0
1.813	228.0
2.192	207.0
2.610	187.0
3.048	166.0
3.480	145.0
3.876	125.0
4.213	104.0
4.479	83.0
4.673	63.0
4.807	42.0

The calibration table is below, if you have any questions, don't hesitate to call your dealer or RIFE at 805-987-7867



LT Calibration Table

	Temp°C	Temp°K	Temp°F	Voltage
1	-29	244	-20	4.972
2	-17	256	1	4.943
3	-6	267	21	4.892
4	6	279	42	4.807
5	17	290	63	4.673
6	29	302	83	4.479
7	40	313	104	4.213
8	51	325	125	3.876
9	63	336	145	3.480
10	74	348	166	3.048
11	86	359	187	2.610
12	97	371	207	2.192
13	109	382	228	1.813
14	120	394	249	1.486
15	132	405	269	1.210
16	143	416	290	0.984