



## 3 Axis Accelerometer

**+/- 3.5 G range**

5V maximum input voltage

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

### Installation:

Accelerometers should be mounted as close to the center of the vehicle as possible and level in the X and Y direction. Accelerometer must be mounted to a secure surface utilizing all three (3) #8 mounting holes.

### Wiring:

Gray – Ground

Blue - +5V

Brown – X-Axis Output to ECU

White – Y-Axis Output to ECU

Black – Z-Axis Output to ECU

### Calibration:

After mounting and wiring, check voltages on all three outputs. The voltages should read between 2.XXV and 2.XXV on the X and Y axes, and between 2.XXV and 3.XXV on the Z axis. The Z axis is higher because of the effect of gravity.

### Creating the calibration chart

The accelerometer has a gain of .494V per "G", that is to say that if your base voltage is 2.48V, at 1 "G" of acceleration, the output voltage would be  $2.48V + .494V = 2.974V$ . The output is linear so these values can be extrapolated up to the full range of the sensor.

# **RIFE**

## **SENSORS**

*by TBM*

<b>Acceleration (G)</b>	<b>Voltage (V)</b>
4.00	4.46
3.75	4.34
3.50	4.21
3.25	4.09
3.00	3.97
2.75	3.84
2.50	3.72
2.25	3.59
2.00	3.47
1.75	3.35
1.50	3.22
1.25	3.10
1.00	2.98
0.75	2.85
0.50	2.73
0.25	2.60
0.00	2.48
-0.25	2.36
-0.50	2.23
-0.75	2.11
-1.00	1.99
-1.25	1.86
-1.50	1.74
-1.75	1.61
-2.00	1.49
-2.25	1.37
-2.50	1.24
-2.75	1.12
-3.00	1.00
-3.25	0.87
-3.50	0.75
-3.75	0.62