

Document Number		RG_SPEC-0019	
Title		3-Axis Accelerometer	
Revision	Date	Prepared By	Change History
1.4	10/22/2013	Chris Brown	updated diagrams, added 10G part number

This accelerometer is designed to measure vehicular motion which normally occurs in the zero to 10 Hz range. It responds to DC accelerations and comes in a sealed harsh environment case. For best results use with a real time anti-alias software filter and log at 10 Hz.

Part # M AXL-5G or M AXL-10G

Range: ± 5 G or ± 10 G* (*special order only)

Specifications:

Output: 0 - 5v absolute
 Supply Voltage: 5 - 16 VDC
 Supply Current: less than 5 mA
 Cut off frequency: 100 Hz 1st order
 Cross axis sensitivity: up to 5%
 Temperature Drift: gain $\pm 2\%$
 offset ± 50 mV
 Temperature Range: -20°C to $+85^{\circ}\text{C}$
 Dimensions: 25 x 25 x 10mm
 Protection: IP66
 Weight: 20 grams w/o connector

Calibration:

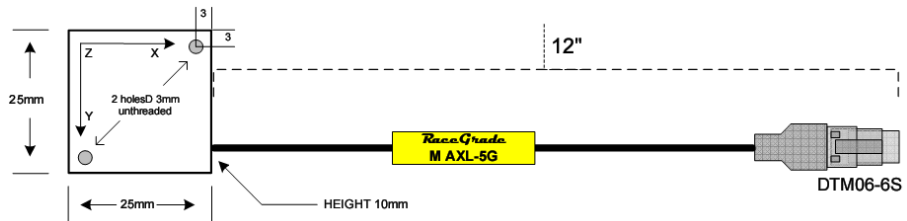
Scale for ± 5 G: 400 mV/G ± 32
 Scale for ± 10 G: 200 mV/G ± 16
 Zero offset at 0G: 2500 mV ± 100

Note: Calibrations are nominal, actual sensor might vary within spec above.

Connection:

Mating Connector: DTM06-06P, Part # M DTM-6PK

- Pin 1 - Shield
- Pin 2 - 0v black
- Pin 3 - X axis white
- Pin 4 - Y axis green
- Pin 5 - Z axis yellow
- Pin 6 - 5v red



Mounting Considerations:

Do not firmly mount sensor to the chassis as this will induce unwanted engine vibration. Use soft hook & loop tape for mounting, not the industrial type or screws. This will reject the most amount of engine vibration. Mount on a solid structure of the chassis. Do not mount on any type of thin sheet metal.

All accelerometers, including temperature compensated ones will vary with temperature so avoid major heat soak.

