

Vehicle Motion Sensor



Thousands in Service Globally

Kearfott's Vehicle Motion Sensor (VMS) converts wheel rotation into digital or analog signals that are available via an RS-422 interface. This interface provides logic pulses proportional to vehicle speed representing forward and reverse vehicle motion.

The VMS is typically used in combination with an inertial navigation system to provide velocity-aiding information to the multi-state Kalman filter that is integral to the navigation solution.

Features & Benefits

- ✓ >20,000 hr MTBF
- ✓ +5 VDC $\pm 5\%$
- ✓ Radiation Hardened Configurations
- ✓ Built-in-Test (BIT) Functions
- ✓ MIL-STD-810D Qualified
- ✓ RS-422 Digital Interface

VMS Product Specifications

Size	8.2 cm x 8.2 cm x 5.1 cm (3.5 in x 3.5 in x 2 in)
Weight	1.4 kg (< 3 lb)
Power	+5 VDC $\pm 5\%$ at 2.5 W
Input Speed	0-2160 RPM, forward or reverse
Operating Temperature Range	-46 to 93°C (-50.8 to 199.4°F)
Reliability	>20,000 hr MTBF
Interface	Digital EIA Standard RS-422
Scale Factor	32 pulse-per-shaft revolution
Environment	Verified to MIL-STD-810D
Installation Kits	Available for a wide range of tracked, wheeled, & towed vehicles in conformance with MS53099 & MS51071

