



# VEHICLE MOTION SENSOR (VMS II)

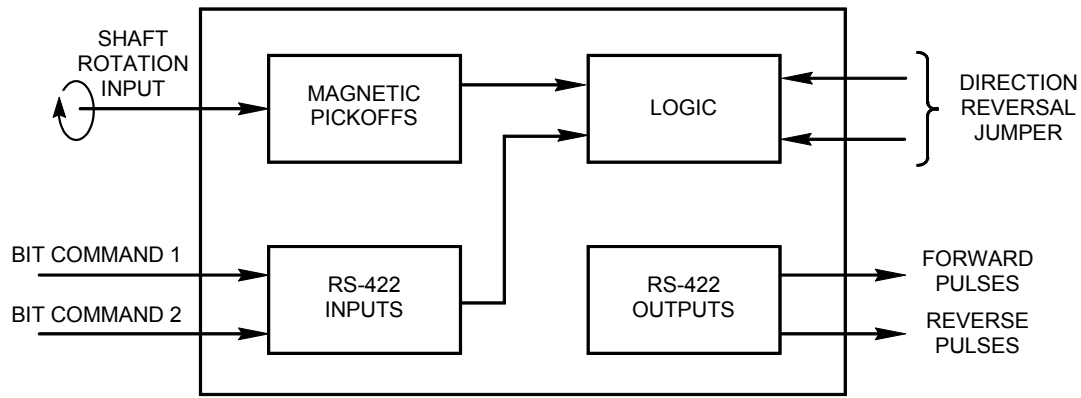
The VMS is a device which converts shaft rotation to distance traveled. This unit consists of a rotor assembly, containing a circular magnet array, integrally mounted to a through shaft, supported on ball bearings. Shaft rotation is sensed by two Hall Switch Integrated Circuits. Sensors are mounted around the periphery of the rotor magnet. The outputs are logic level square waves whose frequency is a multiple of shaft speed.



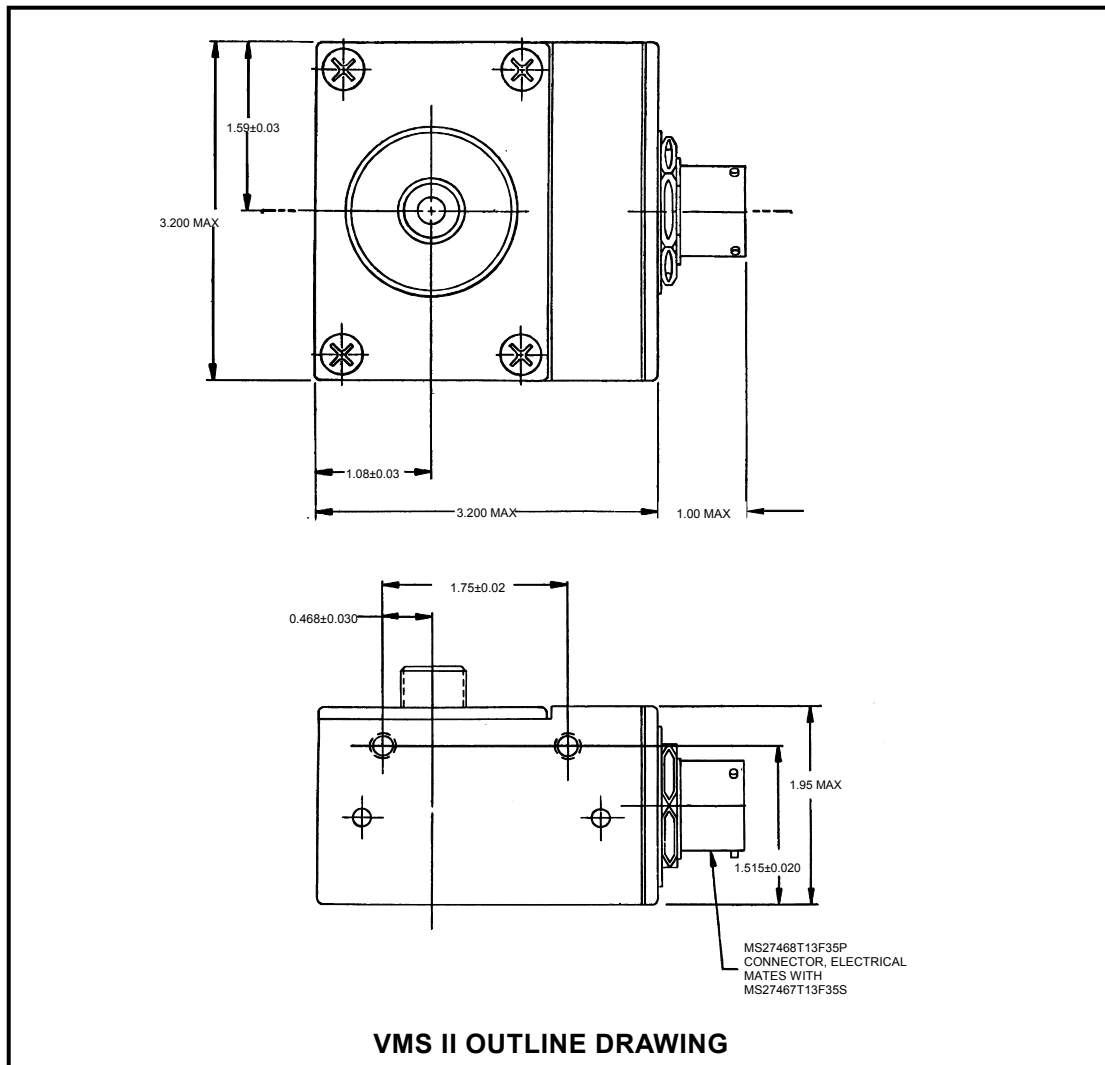
**MAIN FUNCTIONS:**

- Converts vehicle odometer cable shaft revolutions into pulse trains representing forward and reverse vehicle motion
- Data transfer to the Vehicle Reference Unit (VRU), via EIA Standard RS-422 balanced differential voltage circuits
- Performs Built-In-Test (BIT) of itself when commanded by the VRU
- VMS is radiation-hardened

SYSTEM 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 ± 5% at 2.5 watts
INPUT SPEED:	0 - 2160 RPM, forward or reverse
OPERATING TEMPERATURE:	-46°C to +93°C
RELIABILITY:	> 20,000 hr MTBF
SCALE FACTOR:	32 pulses per shaft revolution
ENVIRONMENT:	Verified to MIL-STD-810D
INSTALLATION KITS:	Available for a wide range of tracked, wheeled, and towed vehicles in conformance with MS53099 and MS51071



**VMS II FUNCTIONAL BLOCK DIAGRAM**



**VMS II OUTLINE DRAWING**

***For further information regarding this product or any of our other products or applications, please contact Kearfott Marketing: Telephone (973) 785-6555 or Fax (973) 785-5905***

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