

# **ENCODER DATA SHEET**

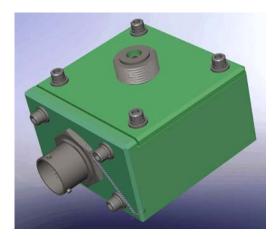
## Vehicle Motion Sensor (VMS II)

The VMS is a device which converts shaft rotation to distance traveled. This unit consists of an optical encoder assembly, integrally mounted to a through shaft, supported on ball bearings. Shaft rotation is detected by light passed through a metal code disk and sensed by photo diodes. The outputs from the photo diodes are converted to logic level square waves whose frequency is a multiple of shaft speed. The output is used by Land Navigation Systems to correct inertial reference signals.

#### **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\*:



#### **CONFIGURATIONS:**

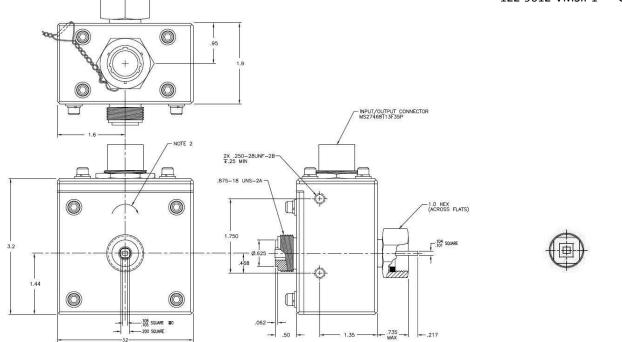
Honeywell P.N.	BEI Model	Shaft	Paint
34201505-001	122-9012-VMSII	Square	Green
34201505-002	122-9012-VMSII-R	Round	Green
34201505-003	122-9012-VMSII-1	Square	Gray
34201505-004	122-9012-VMSII-R-1	Round	Gray

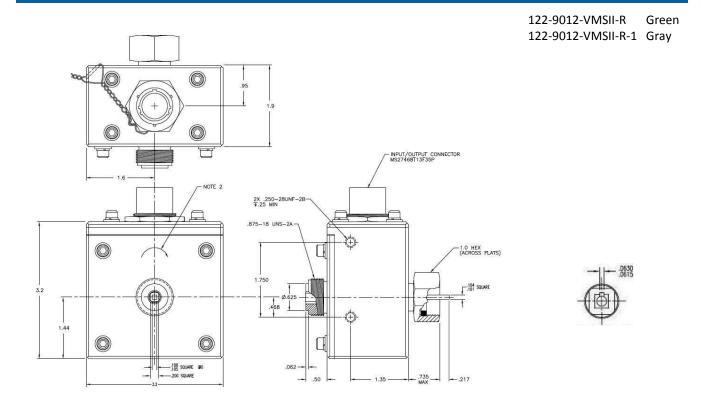
Size	8.2 cm x 8.2 cm x 5.1 cm (3.5 in x 3.5 in x 2 in)	
Weight	< 1.4 kg (3 lb.)	
Power	+ 5 VDC ± 5% at 2.5 watts	
Input Speed	0 - 1400 RPM, forward or reverse	
Operating Temperature	-46°C to +93°C	
Reliability	> 20,000 hr MTBF	
Scale Factor	32 pulses per shaft revolution	

\* Specifications per MIL-PRF-71196

### **Encoder Data Sheet**

122-9012-VMSII Green 122-9012-VMSII-1 Gray





Specifications Subject to Change Without Notice