Kearfott Corporation
A Subsidiary of Astronautics Corporation of America
Guidance & Navigation Division

K600A410-02

VEHICLE MOTION SENSOR (VMS) ADAPTER BOX

MAIN FUNCTIONS

- *Convert non-directional wheel sensor input signal pulses of 12 V to 24 V to RS-422 forward or reverse output pulse trains.*
- *Convert 24 V dc discrete signals to RS-422 signal levels and route to Vehicle Reference Unit (VRU)*
- *Determine VRU direction based on input discretes and send wheel sensor pulses to either forward or reverse outputs*

INPUT SIGNALS				
SOURCE	**TYPE**	**VOLTAGE**	**STANDARD**	**POLARITY**
Wheel Sensor, Poclain 003241106R Tachometer, 1 rev = 60 pulses	Pulses	+12 V dc To +24 V dc	Regulated to ±0.6 V dc	Output Impedance Lo = 150Ω to 24 V return Hi = 4,700Ω to 24 V dc
Travel Lock	Discrete	+24 V dc	MIL-STD-1275A	Hi = Not Engaged
Towed/Self-Propelled	Discrete	+24 V dc	MIL-STD-1275A	Hi = Self-Propelled
Self-Propelled Forward/Reverse	Discrete	+24 V dc	MIL-STD-1275A	Hi = Reverse
Towed Forward/Reverse	Discrete	+24 V dc	MIL-STD-1275A	Hi = Reverse

OUTPUT SIGNALS			
DESTINATION	**TYPE**	**VOLTAGE LEVEL**	**POLARITY**
Forward Pulses	RS-422 Pulses	RS-422 Driver	Positive VRU Velocity
Reverse Pulses	RS-422 Pulses	RS-422 Driver	Negative VRU Velocity
Travel Lock	Discrete	RS-422 Driver	Hi = Travel Lock Engaged
Towed/Self-Propelled	Discrete	RS-422 Driver	Hi = Towed

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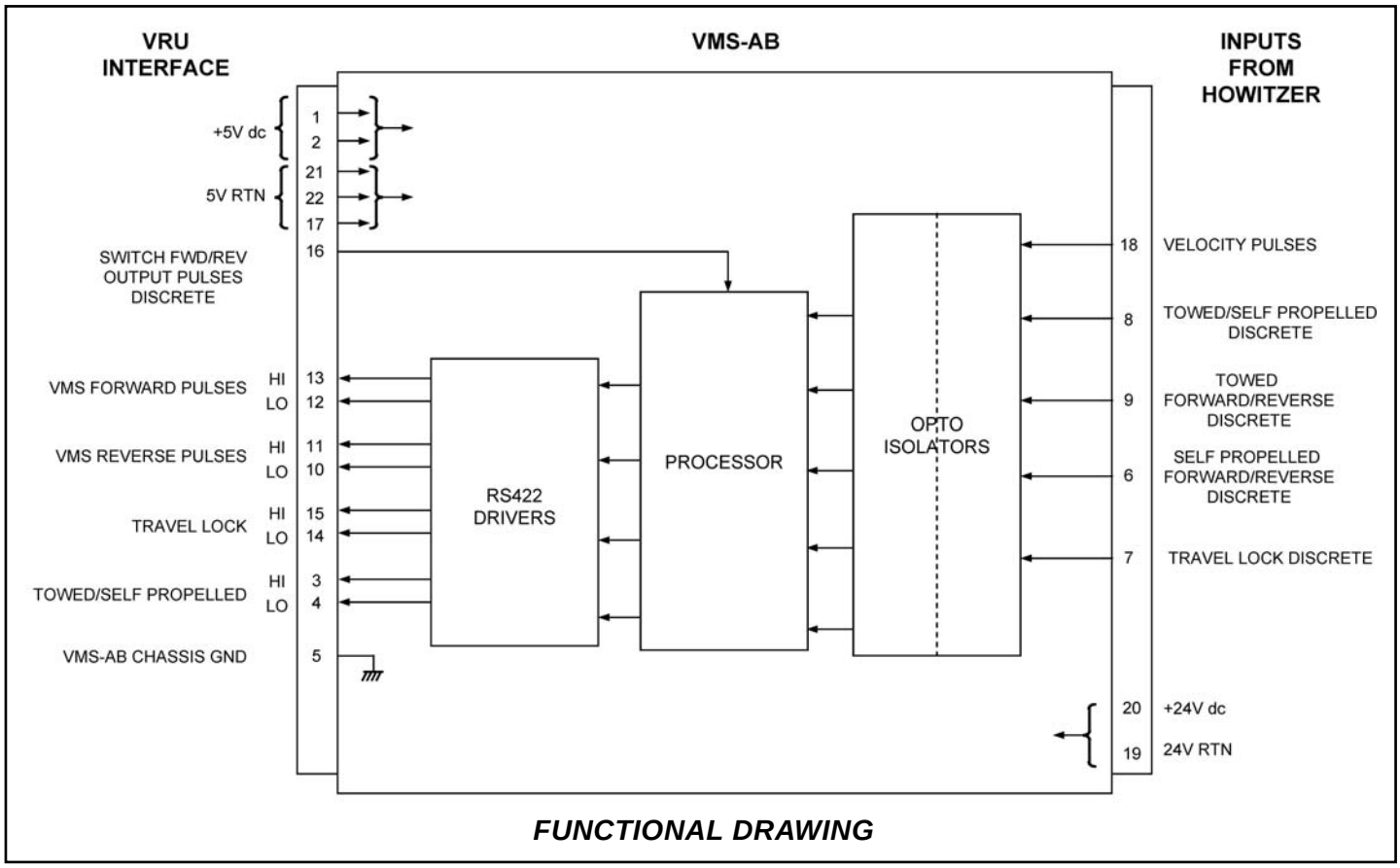
HOWITZER CONFIGURATION	PIN 7 TRAVEL LOCK	PIN 8 TOWED/SELF-PROPELLED	PIN 6 SELF-PROPELLED FORWARD/REVERSE	PIN 9 TOWED FORWARD/REVERSE	OUTPUT PULSES
Towing Vehicle in Forward	Hi or Lo	Lo	Hi or Lo	Lo	Forward
Towing Vehicle in Reverse	Hi or Lo	Lo	Hi or Lo	Hi	Reverse
Self-Propelled In Forward	Hi or Lo	Hi	Lo	Hi or Lo	Reverse
Self-Propelled In Reverse	Hi or Lo	Hi	Hi	Hi or Lo	Forward

Note: Hi = 18.5 to 32 V dc in accordance with MIL-STD-1275A
Lo= Chassis Ground ±1 V dc



FUNCTIONAL DRAWING

Size: 2”x 2”x 2” **(excluding connector & flange)**
Weight: <0.2 kg

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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