

# Zero Velocity – Magnetic Hall Effect Sensors – 5/8 and 3/4 Threads

## Specifications

### Power Supply

#### Power Supply Voltage:

4.5 – 24 Vdc

#### Power Supply Current:

50 mA maximum

### Outputs

#### Output Voltage:

Essentially square wave fanout to 10 TTL inputs

#### TTL Compatible: (See Figure 1)

50% ±30% duty cycle

Logic 0: +.6 Vdc maximum

Logic 1: +4 to +4.6 Vdc @ 5mA

#### Supply Tracking: (See Figure 2)

50% ±30% duty cycle

Logic 0: +.6 Vdc maximum

Logic 1: 
$$V_O = \frac{V_S \times R_L}{R_L + 2.2k}$$

#### Output Impedance:

2.2K Ohms ±5%

#### Output Current:

20 mA sink maximum

#### Output Current - Short Circuit:

5 mA maximum with 10V power supply

#### Reverse Battery Voltage:

-30 Vdc

### Mechanical

#### Target Frequency:

0 to 15 kHz

#### Target Air Gap:

.005 to .020 with a 20 diametral pitch gear

.005 to .045 with a 12 diametral pitch gear

.005 to .060 with a 8 diametral pitch gear

### Environmental

#### Operating Temperature:

-40°C to +125°C

### Materials

#### Housing:

300 series stainless steel

#### Leads:

AWG #24 Teflon, 200°C

#### Cable:

AWG #20 Irradiated cross-linked polyolefin, 125°C

### TTL Compatible

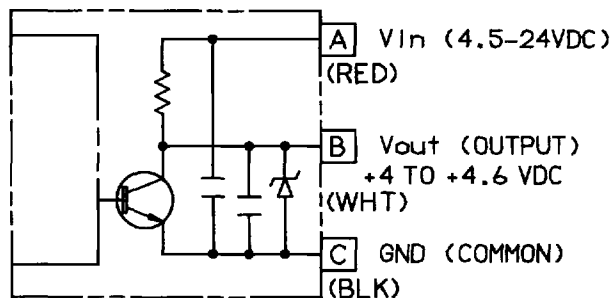


Figure 1

### Supply Tracking

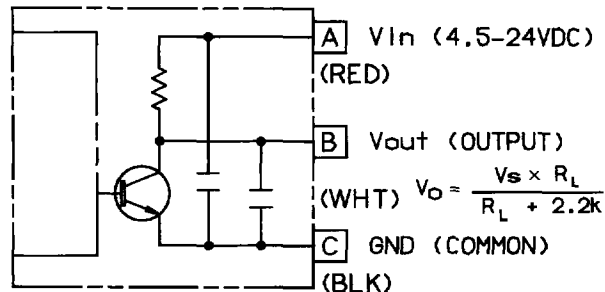
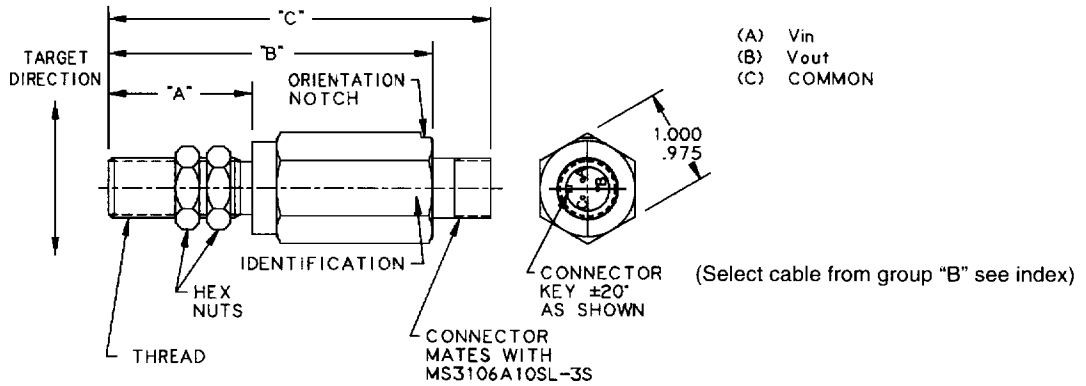


Figure 2

**Note:** Either output will work with any Airpax Tachometer.

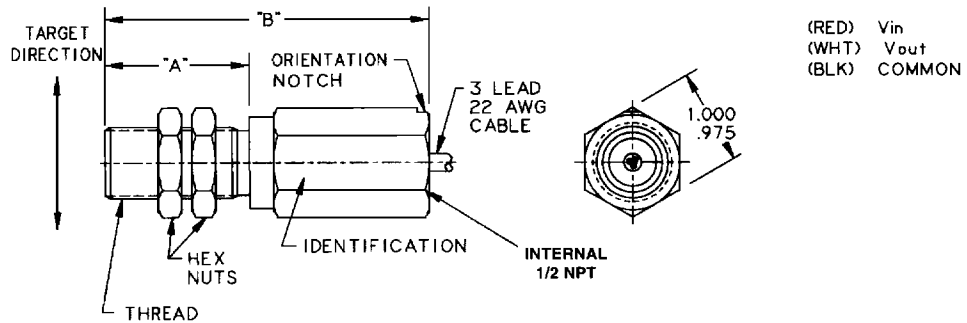
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## Hex Body with Connector



Part Num.	Thread	"A" Dimension	"B" Dimension	"C" Dimension	Output
H1512-001	.625-18 UNF-2A	1.500 (38.100)	3.375 (85.725)	4.012 (101.905)	TTL Compatible
H1522-001	.625-18 UNF-2A	1.500 (38.100)	3.375 (85.725)	4.012 (101.905)	Supply Tracking
H1512-002	.625-18 UNF-2A	2.750 (69.850)	4.625 (117.475)	5.262 (133.655)	TTL Compatible
H1522-002	.625-18 UNF-2A	2.750 (69.850)	4.625 (117.475)	5.262 (133.655)	Supply Tracking
H1612-001	.750-20 UNEF-2A	1.500 (38.100)	3.375 (85.725)	4.012 (101.905)	TTL Compatible
H1622-001	.750-20 UNEF-2A	1.500 (38.100)	3.375 (85.725)	4.012 (101.905)	Supply Tracking
H1612-002	.750-20 UNEF-2A	2.750 (69.850)	4.625 (117.475)	5.262 (133.655)	TTL Compatible
H1622-002	.750-20 UNEF-2A	2.750 (69.850)	4.625 (117.475)	5.262 (133.655)	Supply Tracking

## Hex Body with Cable

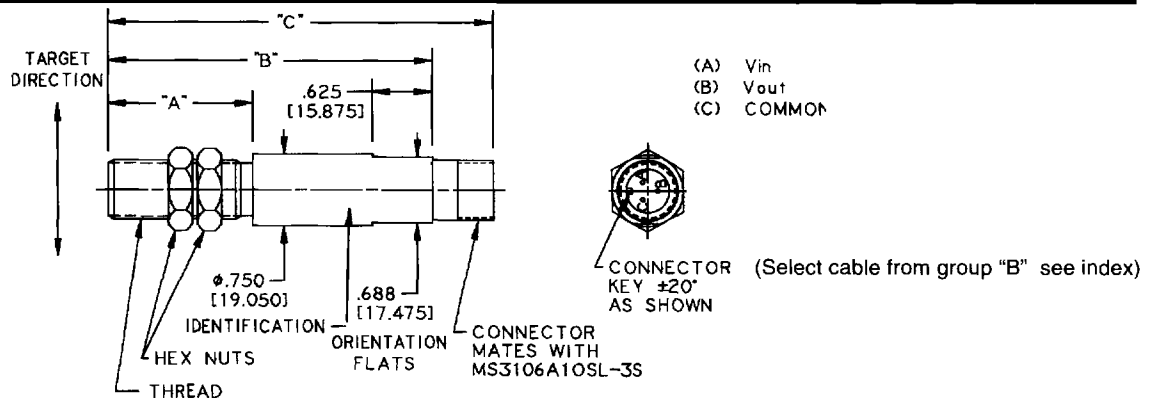


Part Num.	Thread	"A" Dimension	"B" Dimension	Cable Length	Output
H1512-013	.625-18 UNF-2A	1.500 (38.100)	3.375 (85.725)	10 ft (3.05m)	TTL Compatible
H1522-013	.625-18 UNF-2A	1.500 (38.100)	3.375 (85.725)	10 ft (3.05m)	Supply Tracking
H1512-014	.625-18 UNF-2A	2.750 (69.850)	4.625 (117.475)	10 ft (3.05m)	TTL Compatible
H1522-014	.625-18 UNF-2A	2.750 (69.850)	4.625 (117.475)	10 ft (3.05m)	Supply Tracking
H1612-013	.750-20 UNEF-2A	1.500 (38.100)	3.375 (85.725)	10 ft (3.05m)	TTL Compatible
H1622-013	.750-20 UNEF-2A	1.500 (38.100)	3.375 (85.725)	10 ft (3.05m)	Supply Tracking
H1612-014	.750-20 UNEF-2A	2.750 (69.850)	4.625 (117.475)	10 ft (3.05m)	TTL Compatible
H1622-014	.750-20 UNEF-2A	2.750 (69.850)	4.625 (117.475)	10 ft (3.05m)	Supply Tracking

Dimensions in inches and (mm).

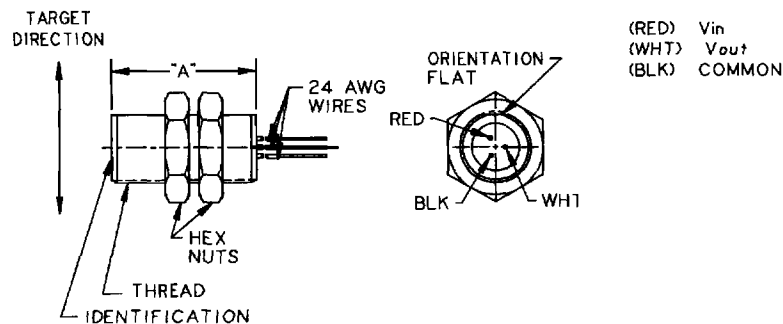
# Zero Velocity – Magnetic Hall Effect Sensors – 5/8 and 3/4 Threads

## Round Body with Connector



Part Num.	Thread	"A" Dimension	"B" Dimension	"C" Dimension	Output
H1512-005	.625-18 UNF-2A	1.500 (38.100)	3.375 (85.725)	4.012 (101.905)	TTL Compatible
H1522-005	.625-18 UNF-2A	1.500 (38.100)	3.375 (85.725)	4.012 (101.905)	Supply Tracking
H1512-006	.625-18 UNF-2A	2.750 (69.850)	4.625 (117.475)	5.262 (133.655)	TTL Compatible
H1522-006	.625-18 UNF-2A	2.750 (69.850)	4.625 (117.475)	5.262 (133.655)	Supply Tracking
H1512-007	.625-18 UNF-2A	4.000 (101.600)	5.875 (149.225)	6.512 (165.405)	TTL Compatible
H1522-007	.625-18 UNF-2A	4.000 (101.600)	5.875 (149.225)	6.512 (165.405)	Supply Tracking
H1612-005	.750-20 UNEF-2A	1.500 (38.100)	3.375 (85.725)	4.012 (101.905)	TTL Compatible
H1622-005	.750-20 UNEF-2A	1.500 (38.100)	3.375 (85.725)	4.012 (101.905)	Supply Tracking
H1612-006	.750-20 UNEF-2A	2.750 (69.850)	4.625 (117.475)	5.262 (133.655)	TTL Compatible
H1622-006	.750-20 UNEF-2A	2.750 (69.850)	4.625 (117.475)	5.262 (133.655)	Supply Tracking
H1612-007	.750-20 UNEF-2A	4.000 (101.600)	5.875 (149.225)	6.512 (165.405)	TTL Compatible
H1622-007	.750-20 UNEF-2A	4.000 (101.600)	5.875 (149.225)	6.512 (165.405)	Supply Tracking

## Fully Threaded with Leads



Part Num.	Thread	"A" Dimension	Lead Length	Output
H1512-009	.625-18 UNF-2A	1.500 (38.100)	12 (304)	TTL Compatible
H1522-009	.625-18 UNF-2A	1.500 (38.100)	12 (304)	Supply Tracking
H1512-010	.625-18 UNF-2A	2.750 (69.850)	12 (304)	TTL Compatible
H1522-010	.625-18 UNF-2A	2.750 (69.850)	12 (304)	Supply Tracking
H1612-009	.750-20 UNEF-2A	1.500 (38.100)	12 (304)	TTL Compatible
H1622-009	.750-20 UNEF-2A	1.500 (38.100)	12 (304)	Supply Tracking
H1612-010	.750-20 UNEF-2A	2.750 (69.850)	12 (304)	TTL Compatible
H1622-010	.750-20 UNEF-2A	2.750 (69.850)	12 (304)	Supply Tracking

Dimensions in inches and (mm).

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