DH SERIES
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% ±10% duty cycle
Logic 0: +.6 Vdc maximum
Logic 1: +4 to +5 Vdc @ 5mA

Supply Tracking: (See Figure 2)
50% ±10% 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

Defined Power on State - High

Single Tooth/Valley Compatible

Mechanical

Target Frequency:
0 to 15 kHz

Target Air Gap:
.005 to .025 with a 32 diametral pitch gear
.005 to .055 with a 24 diametral pitch gear
.005 to .100 with a 20 diametral pitch gear
.005 to .120 with a 12 diametral pitch gear
.005 to .175 with an 8 diametral pitch gear

Automatic Calibration:
Power up +3 edges
Running Update

Environmental

Operating Temperature:
-40°C to +125°C

Thermal Shock:
100 cycles air to air (-40° to +130°C)
1 min. ramp time with 30 min. soak

Salt Spray:
Per MIL-STD-202, method 201, test cond. B, 5% NaCl for 48 hrs. No visible corrosion

Humidity:
92% RH@ 40°C for 90 hrs. No visible corrosion.

Dielectric Strength:
Per MIL-STD-202, method 301, 1000 Vrms (60Hz) for 5 sec. leads to case. 1.0 mA max. leakage.

Insulation Resistance:
Per MIL-STD-202, method 302, 500 Vdc for 30 sec. leads to case. 100 mega-ohm min.

Vibration:
Per MIL-STD-202, resonant frequency search, sine method 204, test cond. C&D (20g); random method 214a, test cond. A&B (7.56g) for 15 min.

Shock:
Per MIL-STD-202, method 213b (sawtooth), test cond. H&I (1 00g, 6 ms), 3 shocks, mutually perpendicular planes

Materials

Housing:
300 series stainless steel

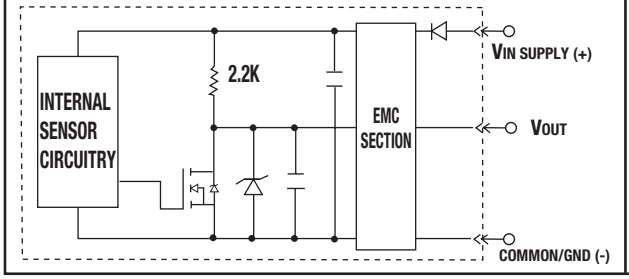
Connector: MIL Style
Mates with MS3106A10SL-3S

Leads: *(Available on special request)*
AWG #24 Teflon, 200°C

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

Alignment:
Rotational alignment of sensing face is required for optimum output signal. Align flats with direction of rotation.

TTL Compatible Fig. 1



Supply Tracking Fig. 2