

GEARTOOTH SPEED SENSOR

GS1005 – GS1007 Series



Hall-effect geartooth speed sensor with adjustable aluminum housing.

Features

- Senses motion of ferrous geartooth targets
- Near zero speed sensing capability
- Immune to rotational alignment
- 10 bit dynamic threshold detection offers
 - Automatically adjusting magnetic range
 - Self compensating to target geometry
 - Immune to target run out
- Compatible with unregulated power supply
- Reverse battery protected to -24VDC
- Meets IEC529 IP67 for dust and water protection
- Discrete wire version: 20 AWG, tin plated, polyolefin insulation

- Connector version: M12 integral connector meets IEC 60947-5-2 for low voltage devices
- Hard coat anodized aluminum housing

Applications

- Exercise equipment
- Food processing equipment
- Speedometer

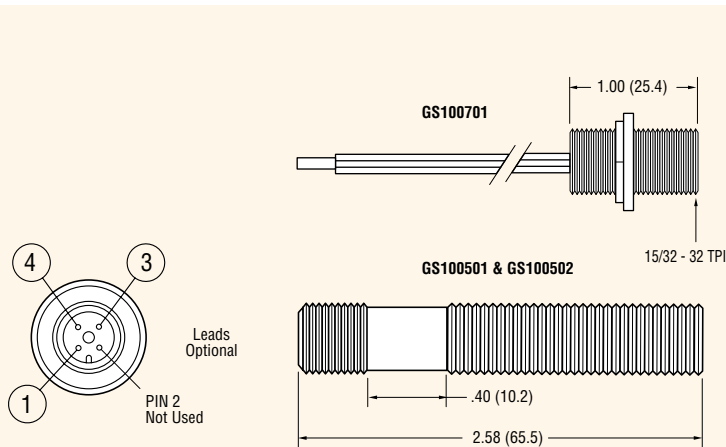
Specifications

| Part Number | Operating Voltage Range (VDC) | Supply Current (mA max.) | Output | Output Saturation Voltage (mV max.) | Output Current (mA max.) | Operating Temp Range (°C) | Storage Temp Range (°C) | Thread | Barrel Length | Leads | Connector |
|-------------|-------------------------------|--------------------------|--------|-------------------------------------|--------------------------|---------------------------|-------------------------|-------------|---------------|-----------------|---------------|
| GS100501 | 4.5 – 24 | 6 | sink | 400 | 25 | -40 to 105 | -40 to 105 | M12-1 | 65mm | — | 12mm circular |
| GS100502 | 4.5 – 24 | 6 | sink | 400 | 25 | -40 to 125 | -40 to 125 | M12-1 | 65mm | 20 AWG x 1m BBB | — |
| GS100701 | 4.5 – 24 | 6 | sink | 400 | 25 | -40 to 125 | -40 to 125 | 15/32" – 32 | 1.00" | 20 AWG x 1m BBB | — |

Notes: These sensors require the use of an external pull-up resistor, the value of which is dependent on the supply voltage. See page 18 for recommendations. Pull-up resistor should be connected between output (Black) and Vcc (Brown).

Dimensions inches (mm)

All tolerances ± 0.005 (0.13) unless otherwise noted.



Open Collector Sinking Block Diagram

