

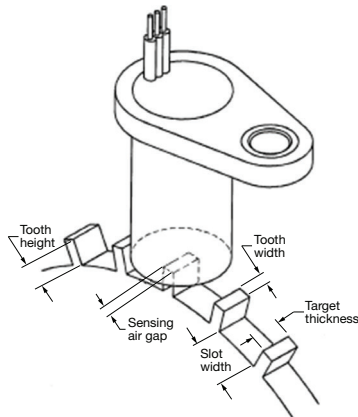
Speed Sensors

1GT Series Gear Tooth Sensors

Target Guidelines

Table 5 provides basic parameters to follow when an application is not restricted to a specific target. Any target that exceeds these dimensions may be sensed over the entire temperature range of -40 °C to 150 °C [-40 °F to 302 °F] with a sensing air gap up to 2,0 mm [0.080 in].

Table 5. Reference Target Dimensions¹



Characteristic	Parameter
Tooth height	5,06 mm [0.200 in] min.
Slot width	10,16 mm [0.400 in] min.
Tooth width	2,54 mm [0.100 in] min.
Target thickness	6,35 mm [0.250 in] min..

¹Based on a target diameter of 101,6 mm [4 in] at a rotation of 10 RPM to 3600 RPM.

Reference Target and Test Conditions (See Table 6)

Parameters will vary due to target size, geometry, location, and material.

Table 6. Reference Target Configuration and Evaluation Conditions^{1,2}

Characteristic	Parameter
Target diameter	101,6 mm [4 in] min.
Target thickness	6,35 mm [0.250 in]
Tooth width	8,89 in [0.350 in]

¹Reference target material is cold rolled steel.

²Test conditions are:

- Sensing air gap = 1,02 mm to 2,03 mm [0.040 in to 0.080 in]
- Vsupply = 4.5 Vdc to 24 Vdc.
- RPM = 10 RPM min. to 3600 RPM max.

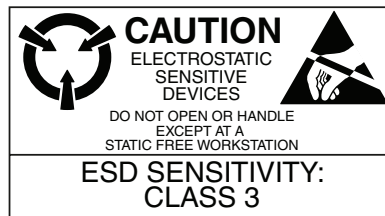


Figure 1. Sensor Output Diagram with Sensor Output Diagram (with Pull-up Resistor Added to Output Circuit)

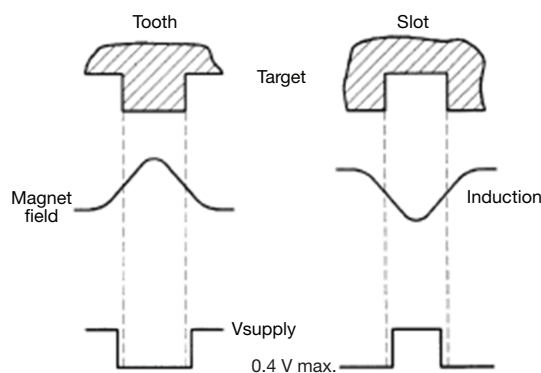
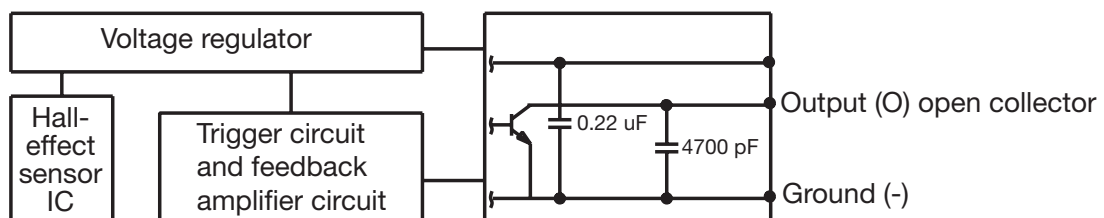


Figure 2. Block/Electrical Diagram



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Figure 3. Mounting Dimensions (For reference only. mm/[in].)

Catalog Listing	Lead Length "A"
1GT101DC	3X 137,2 mm [5.4 in]
1GT103DC	3X 650 mm [25.6 in]
1GT105DC	3X 1500 mm [59.1 in]

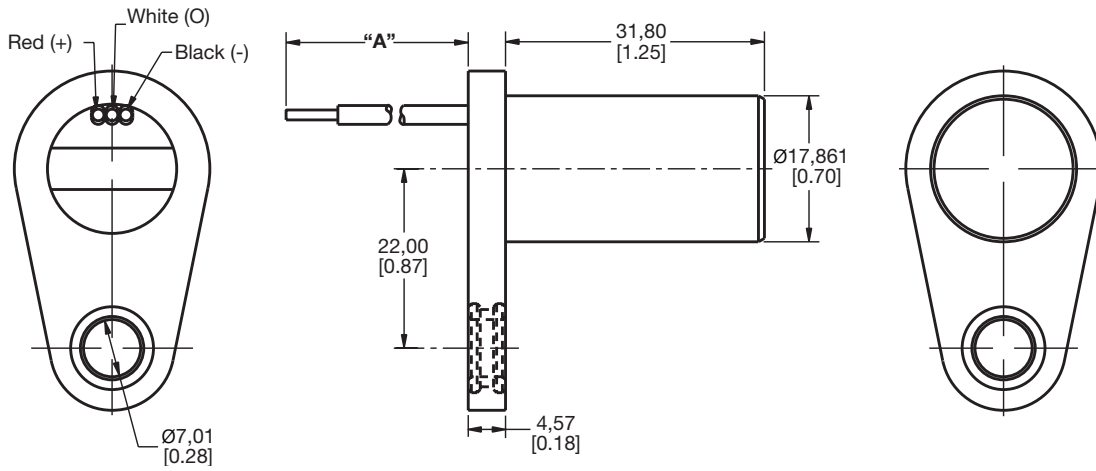


Table 7. Order Guide

Catalog Listing	Description
1GT101DC	1GT Series gear tooth sensor, 137,2 mm [5.4 in] lead length
1GT103DC	1GT Series gear tooth sensor, 650 mm [25.6 in] lead length
1GT105DC	1GT Series gear tooth sensor, 1500 mm [59.1 in] lead length