

Magnetic Speed Sensor



Model: YD62

Brief Introduction

YD62 Magnetic Speed Sensor uses magnetic resistance as sensing element, it is a new type speed sensor. Core component is magnetic resistance as detection element, and then after a new signal processing the circuit to reduce the noise and make the function better. Compared with the output wave of other types tooth speed sensors, it has many advantages, e.g. the error of measured speed is very small, there is very good consistency of linear characteristic. Its induce objects are magnetic materials or permeability magnetic materials, like magnetic steel, iron and electrical steel. When there are raised magnetic or permeability magnetic materials on the measured body, the sensor output pulse signal that associated with gyro frequency with the measured body moves, so it achieves the purposes of measuring speed and displacement.

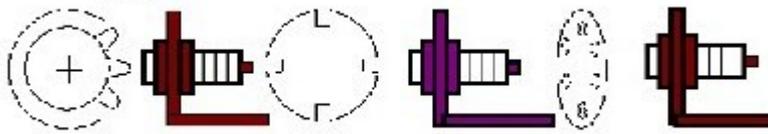
The speed sensor has the features as follow:

- high sensitivity, high reliability, long life, long trigger distance;
- trigger signal is iron (soft) magnetic materials;
- long distance transport, strong anti-electromagnetic interference ability;
- good impact resistance and vibration resistance.

Technical parameters

1. Signal frequency: 0~10 kHz
2. Power supply: 12 ~ 25V (DC)
3. Load resistance $\geq 1.0k\Omega$
4. Detection distance: 0.5 ~ 2.0mm (A3 steel, electrical steel)
5. Module of gear: $m \geq 1$
Gear material: A3 steel, electrical steel 120°C
6. Output signal:
Waveform: a rectangular wave
Amplitude: near the supply voltage
7. Environmental conditions:
Temperature: -40°C ~
Relative humidity: $\leq 85\%$
8. Mounting screw: M16 x 1 (or custom it)

Dimension Figure



P.S:

① parameters of gear

Outside diameter of gear: 99.3mm; Number of teeth: 60; modulus: 1.57

(above data is the parameters of one example, modulus can be from 1.5 to 2)

② when install the sensor, make the red LED in the stern perpendicular to the surface of gear and root of outgoing line connected.

③ outgoing lines of the sensor are red line as power wire, black line as ground wire and white line as signal output wire.

Because it is easy to use and install, good generality, so it is widely applied in many fields. Especially in low speed or super-low speed non-contact detection, it has the characteristics that other sensors cannot reach, which fills the gap of magneto-electric sensor with the measurement range 50~5000Hz in domestic (detection distance is only 0.5 mm; proximity switch cannot detect small mould teeth); in middle high speed non-contact detection, it can replace Hall switch directly.

Model of Connection

Blown: +24V

Blue: Signal Output

Black: COM