

Hall effect Gear tooth Sensor

General Description

OHG101 Hall effect gear tooth sensor utilize magnetic biased hall-effect IC to measure the movement of ferrous-like metal. Specially designed IC with separate electric capacity and biased alnico are sealed in a probe type outer casing. The working condition of hall-effect gear tooth sensor is related to the following factors, which must be considered in combination:

1. The material, shape and speed of the target object;
2. The gap between sensor and the target;
3. Ambient temperature.

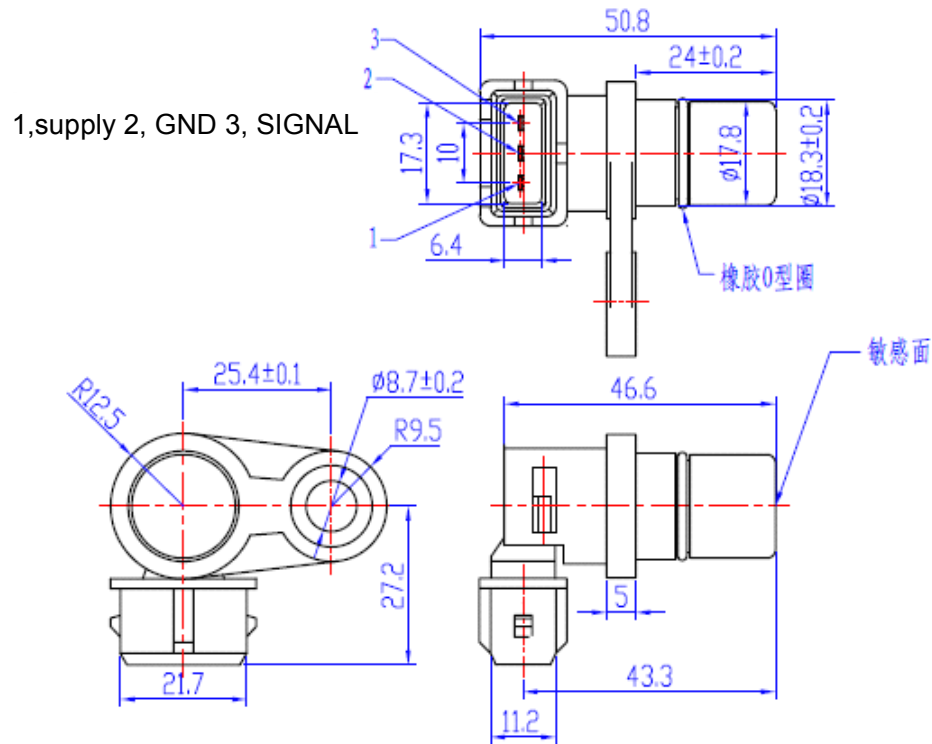
Features

- Induce Ferrous Metal Targets
- Open-collector Output
- Signal-to-noise Ratio are Better than Electromagnetic Induction Sensors
- Excellent Low and High Speed Performance, Output Amplitude have no relation with Revolution
- Frequency response: 10Hz to 20KHz (It depend on the target)
- Solid package, Connector Output Port

Typical applications

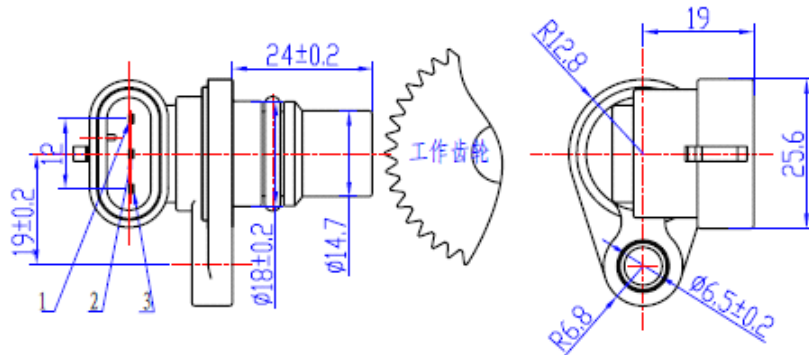
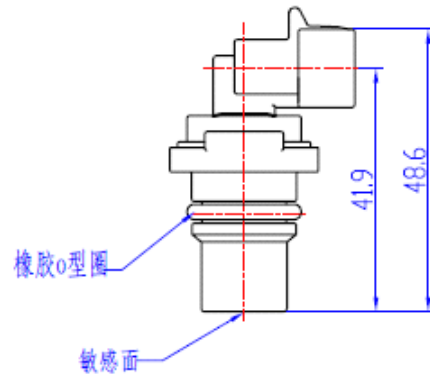
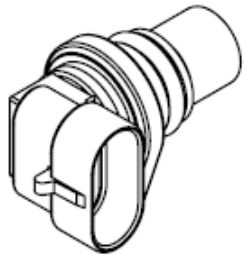
- Gear box RPM Measurement
- Sprocket Speed Measurement
- Conveyor Speed and Distance Measurement
- Crankshaft and Camshaft RPM and position detection
- Pulse count
- Speedometer

Part No.: PCC020



Supply Voltage VCC 4.5~24 V
Load current Icc ≤ 40mA
Output Voltage(Output low voltage) VOL≤ 0.6 V
Operate Temperature T -40~150 °C
Distance between Sensor and Gear tooth
D 0.1~1.5 mm
Gear for reference:
m=2, number of teeth=40, Thickness:10

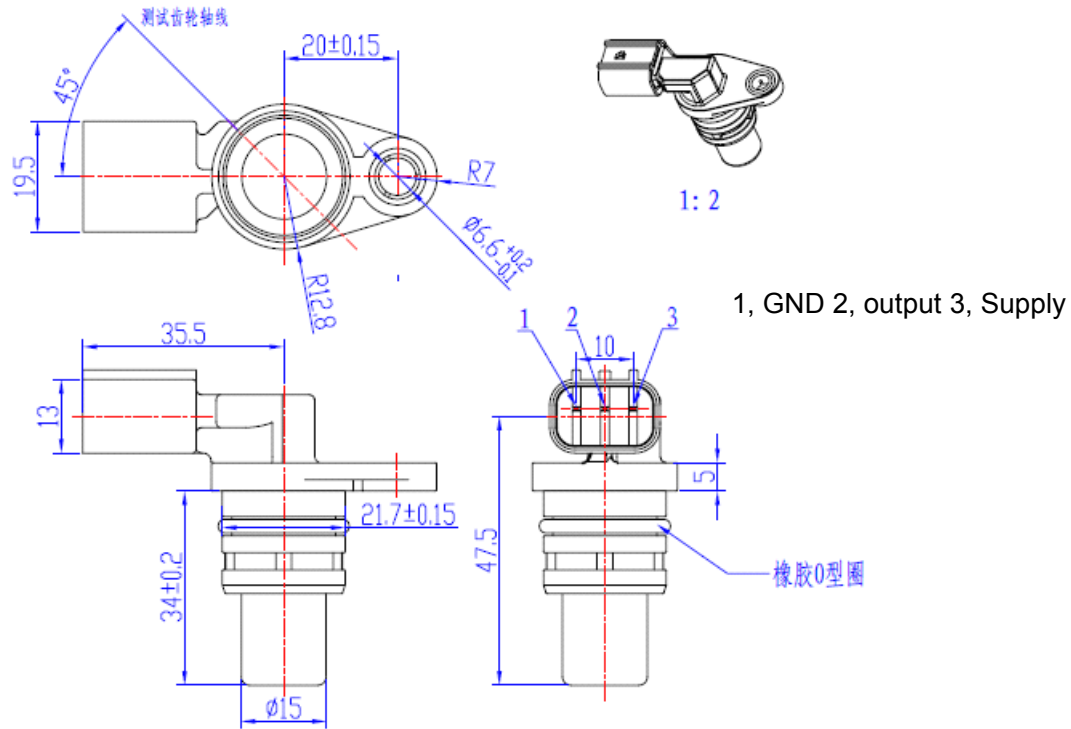
Part No.: HUA0908



1, signal 2, supply 3, GND

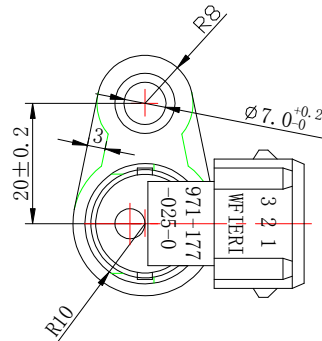
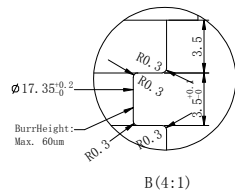
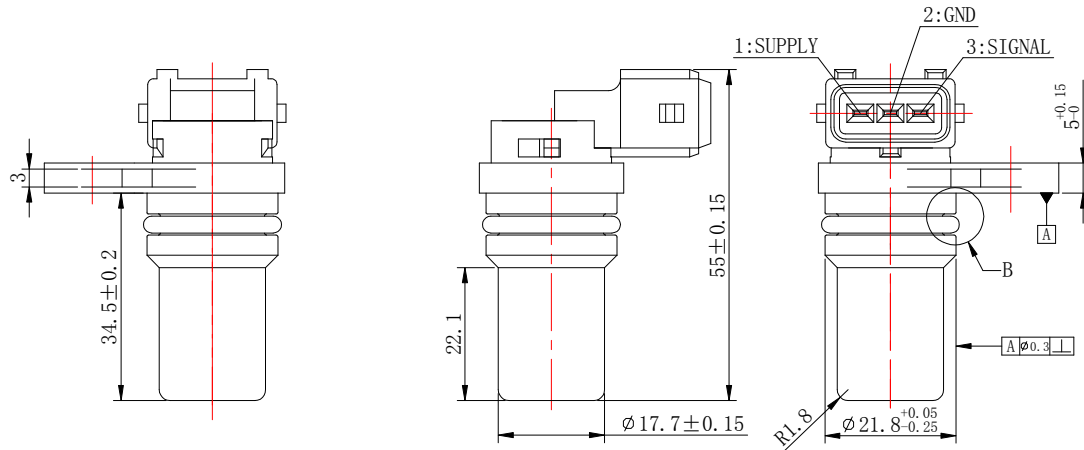
Supply Voltage VCC 4.5~24 V
Load current $I_{cc} \leq 40\text{mA}$
Output Voltage(Output low voltage) $V_{OL} \leq 0.6$ V
Operate Temperature T -40~150 °C
Distance between Sensor and Gear tooth
D 0.1~2.0 mm
Gear for reference:
m=2, number of teeth=40, Thickness:10

Part NO.: 12K073



Supply Voltage	VCC	4.5~24 V
Load current	I _{cc}	≤ 40mA
Output Voltage(Output low voltage)	VOL	≤ 0.6 V
Operate Temperature	T	-40~150 °C
Distance between Sensor and Gear tooth	D	0.1~2.0 mm
Gear for reference:		m=2, number of teeth=40, Thickness:10

Par No. : HG-04



Supply Voltage VCC 5~24 V
 Load current Icc ≤ 25mA
 Output Voltage(Output low voltage) VOL ≤ 0.4 V
 Output Leakage Current IOH ≤ 10μA
 Switching Time (Depend on external cuircuit)
 Raise (10% to 90%) t 15 μs
 Fall (90% to 10%) t 1 μs
 Frequency Range f 10~20000 Hz
 Operate Temperature T -40~150 °C
 Distance between Sensor and Gear tooth
 D 1~2.5 mm