

TBT1C

Rotating Speed
Sensor

Product Overview

TBT1C rotation speed sensor is a magnetoelectric rotation speed sensor, and it is installed the case or case cover of transmission gear, the tested rotary object is magnetic conductivity gear which has two signaling hole with diameter 4 mm (depth 3 mm). It is composed of permanent-magnet steel, electrical inductance coil, shell, shield cable, connector, etc. Output signal is similar to sine wave, adapting operation with other speed measuring control equipment in the various transport facilities. The sensor can detect the rotational speed of transmission gear and the speed of transport, applicable to various transport facilities.

Features

- Wide temperature accommodation
- Wide speed measuring range
- Strong shock resistance
- Good tightness
- Non-contact with tested gear, without abrasion
- Convenient installation, simple and reliable

Main Technical Data

Supply Voltage : 12VDC~30VDC
Frequency range: 1.83Hz~2500Hz

Operating temperature: $-25^{\circ}\text{C} \sim +100^{\circ}\text{C}$
 Speed measuring range: 1000rpm~33000rpm
 Tested object: Magnetic steel
 Signaling hole: $2 \times \Phi 4$, depth 3 mm
 Operating air gap: 1mm3
 Output waveform: Similar to sine wave
 Output channel: 1
 Coil resistance: $850 \pm 10\%$
 Output feature: 1000rpm & Load resistance 10K? $V_{p-p} \leq 0,1\text{V}$
 Insulation resistance: $\geq 200\text{M?}$ (500V Megohmmeter) (REV. 01)
 Insulation strength: 500V/50Hz/1s
 Output short - circuit protection: Available 2 2
 Protection class: IP65
 Vibration and shock: Vibration 5.9 m/s ; Shock 30 m/s
 Interface: X14J4A /X14K4P

The definition of cable & connector output function

S/N	Shield cable	Connector	Output function
1	White wire	Pin 1、 3	Terminal 1
2	Red wire	Pin 2、 4	Terminal 2

Installation\operation and malfunction disposal. Forbidden contact between terminals; otherwise the permanent-magnet would be demagnetized greatly, even damaged. Output wire distribution as per the definition strictly, and ensure it correct, without short and open circuit; After installation of sensor, tighten locknut; When check the sensor, use the multimeter to measure DC resistance (connector pin1 and pin 3 or pin 2 and pin 4), the resistance should comply to $1.3\text{K?} \pm 10\%$, which shows the sensor work normally.

Outline and instal. drawing

