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NCZ13 Speed Sensor

Product Overview

* Magnetoelectric principle, passive sensor
* Non-contact speed test, mechanical parts, no internal electronic elements, high reliability
* Restricted by principle, inaccurate speed test under low speed
* Threaded installation

Environmental parameters

Service conditions	
Altitude	≤2500m
Operating temperature	-40℃ ~ +125℃
Relative humidity	0 ~ 100% (MIL-STD-202 Method 106)
Impact and shock	meet the installation requirements of class 3 axle in GB/T 21563-2008
Protection grade	IP66

Performance parameter

Electrical Parameters	
Working frequency	30Hz ~2000Hz
Working air gap	0.25mm~1.53mm
Number of output channels	Single channel
Output waveform	Approximate sine wave
Direct current resistance	When the temperature is 20℃, direct current resistance is 1.7×（1±10%）kΩ
Load resistance	27kΩ
Output signal amplitude	When frequency is 30Hz, signal voltage peak value Vp-p：1.3V ≤ Vp-p ≤ 3.9V When frequency is 52.5Hz, signal voltage peak value Vp-p：2.4V ≤ Vp-p ≤ 6.6V When frequency is 150Hz, signal voltage peak value Vp-p：6.5V ≤ Vp-p ≤ 17.9V When frequency is 750Hz, signal voltage peak value Vp-p：28.5V ≤ Vp-p ≤ 75.6V When frequency is 1500Hz, signal voltage peak value Vp-p：47.6V ≤ Vp-p ≤ 120V When frequency is 1980Hz, signal voltage peak value Vp-p：56.6V ≤ Vp-p ≤ 136V

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Performance parameter

Electrical Parameters	
Insulation resistance	≥100MΩ@500VDC
Insulating strength	AC1500V/60Hz/1s
Electrostatic discharge	IEC 61000-4-2

Mechanical Parameters	
Speed measuring gear	depth of tooth socket: 6.35mm;
External dimension	Referring to figure 1, line length can be customized according to customer requirements
Connector	VG3106EW14S-1PN-B14-M16x1.5

Outline Drawing

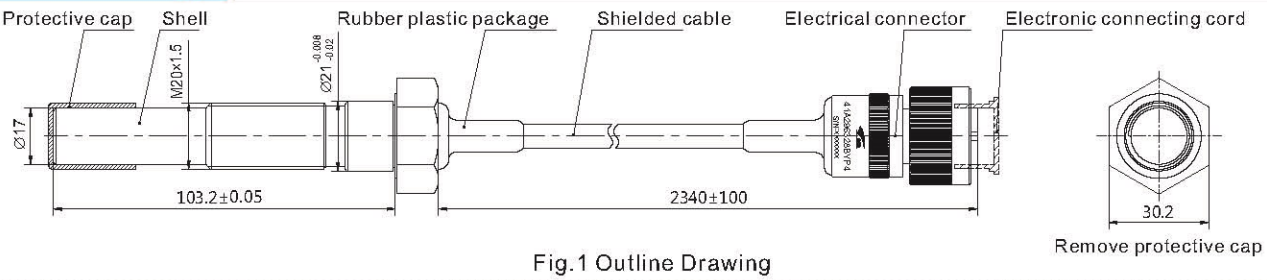


Fig.1 Outline Drawing

Mechanical Interface
The sensor is tightened through mounting threads M20×1.5, as shown in Fig.2.

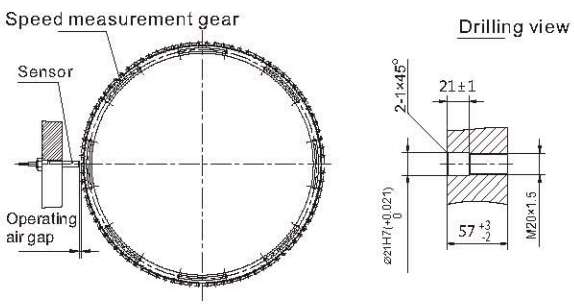
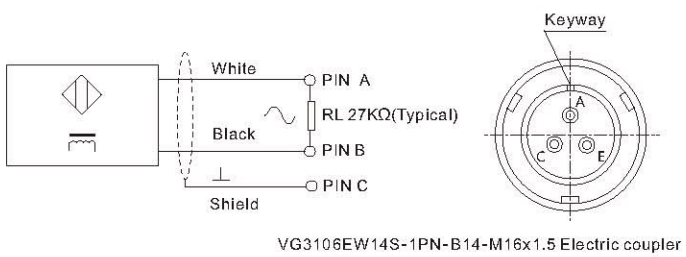


Fig.2 Mechanical interface diagram



VG3106EW14S-1PN-B14-M16x1.5 Electric coupler

Fig.3 Electrical wiring diagram

Mounting Requirements

- Cable laying requirements: sensor conductors and subsequent connecting lines should keep away from large-scale electrical equipment and power lines, and are forbidden to be winded with power lines or transmit in the same pipeline;
- Wire according to the definition of the electrical interface strictly, make sure of right wiring without short circuit and break circuit;
- Grounding way of shielded wire: recommended to be grounded on the control system through one end.

Standards

- MIL-STD-202 DEPARTMENT OF DEFENSE TEST METHOD STANDARD ELECTRONIC AND ELECTRICAL COMPONENT PARTS

Main Application Fields

Achievements: diesel engine system of diesel locomotive
Main application achievements: diesel engine system of HXN5 diesel locomotive