Rotational Speed Sensor 84A207936P3A

The 84A207936P3A speed sensor is composed of a Hall element, amplification circuit, waveform conversion circuit, housing, and cable connector. It outputs a square wave signal and measures rotational speed by detecting the transition between gear teeth peaks and valleys on a ferromagnetic gear. The product offers excellent performance and high stability, making it suitable for various diesel locomotive applications.

Parameters

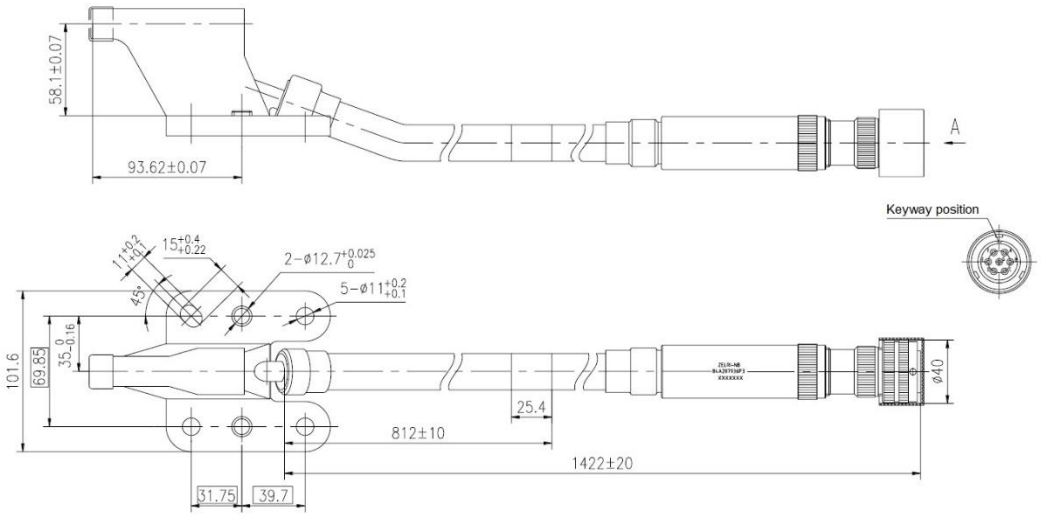
Operating Parameters

- Measuring Range: 0~12.5kHz
- Output Channels: 4
- Output Waveform: Square wave
- Pulse Amplitude: HL≥9V
  LO≤2V
- Rise/Fall Time: <10μs
- Duty Cycle: 50%±20%
- Phase Shift: 90°±45°
- Supply Voltage: 15±1VDC
- Load Resistance: ≥1160Ω
- Current Consumption: ≤125mA
- Test Gear: Low-carbon ferromagnetic steel, diametral pitch=15.7081, number of teeth=192
- Operating Gap: 0.38~1.27mm
- Operating Temperature: -40℃~+85℃
- Storage Temperature: ≥-40℃
- Insulation Resistance: ≥50MΩ@500VDC (between cable cores and shield, and between all leads and housing)
- Dielectric Strength: 500Vrms/50Hz/1min (between cable cores and shield, and between all leads and housing)

General Data

- Ingress Protection: IP68
- Housing Material: SUS304 stainless steel
- Protection Features: Supply polarity protection & output short-circuit protection
- Vibration & Shock Resistance: Compliant with GB/T 21563
- Electromagnetic Compatibility (EMC): Compliant with IEC 61000

Outline & Interface



- Electrical Connector: JL5-7TJ connector, housing is not connected to the shielding layer

PIN Configuration

PIN-A	Vcc
PIN-B	GND
PIN-C	Channel 1
PIN-D	Channel 2
PIN-E	Shield
PIN-F	Channel 3
PIN-G	Channel 4

Notes

- Ensure usage conditions remain within specified limits.
- Installation environment should avoid direct exposure to wind, sand, rain, or snow,
  Recommended Environmental Conditions:
  Ambient Temperature: -40℃~+150℃
  Locomotive Surface Temperature: ≤+65℃
  Relative Humidity: ≤95%
  Altitude: ≤2500m