e-Vehicle Semiconductor

All-New 3rd Generation

HN01001 Multi-Functional Hydrogen Sensor

Product Performance

Built on high precision, low power consumption, and long lifespan,
setting a new standard for next-generation hydrogen safety.

Model	HN01001
Target Gas	Hydrogen (H_2)
Detection Method	Thermal Conductivity
Full-Scale Concentration	4 vol% H_2 (=100% LEL)
Alarm Setpoint	User-configurable
Alarm Accuracy	±10% based on 0–4 vol% H_2 (0–100% LEL) (standard conditions)
Alarm Response Delay	Within 10 seconds upon reaching 1.5× setpoint (standard conditions)
Alarm Indication	Gas Alarm: Red LED flashing Fault Alarm: Yellow LED flashing (sensor disconnection, zero drift, power abnormality, etc.)
Output	1) Alarm Output · Rated load: AC 250V 0.5A or DC 30V 0.5A (resistive load) 2) Analog Output · Gas concentration output: DC 4–20 mA (power negative common)
Gas Concentration Display	LED display: 4-digit digital
Operation Method	· Magnetic non-contact switch (5-point): to prevent malfunction · Dedicated magnet required (accessory included)
Rating	Ex d IIC T5
Protection Rating	IP65
Compatible Cable	· Applicable cable: Φ10–Φ13mm outer diameter · Recommended cable: 5-core CVV-S 1.25 mm^2 / 3-core CVV-S 2 mm^2 or 1.25 mm^2
Operating Temperature Range	-20 to 60°C
Operating Humidity Range	5–95% RH (0–60°C)
Rated Power Voltage	DC 24V (±20%)

Industry-Leading Performance

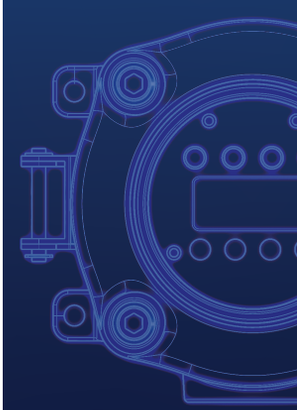
- Industry-leading high-precision detection
- 10 years of outstanding sensor core lifespan
- Excellent long-term stability with low maintenance cost
- Ultra-low power consumption design

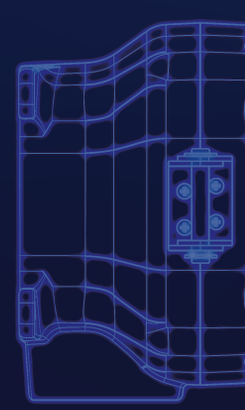
Reliable Protection Standards

- Explosion-Proof Rating: Ex d IIC T5
- Protection Rating: IP65

Wide Range of Applications

Hydrogen production systems, hydrogen storage facilities, hydrogen supply chain equipment, AI power generation systems, semiconductor fabs, hydrogen mobility, and a wide range of sites requiring high safety standards.





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