KHD-EVAL - Hydrogen Sensor Digital Evaluation Boards

The KHD-EVAL Series are 2 hydrogen gas sensor digital evaluation boards based on KHS-200 micropellistor MEMS hydrogen sensor. They detect hydrogen gas in the linear range of 0 to 100% LEL (0 to 40,000 PPM) or 0 to 4% hydrogen by volume in air. The KHD-EVAL Series allow early warning detection of highly flammable hydrogen gas, and prevention of hazardous and unsafe conditions from potential hydrogen gas buildup.

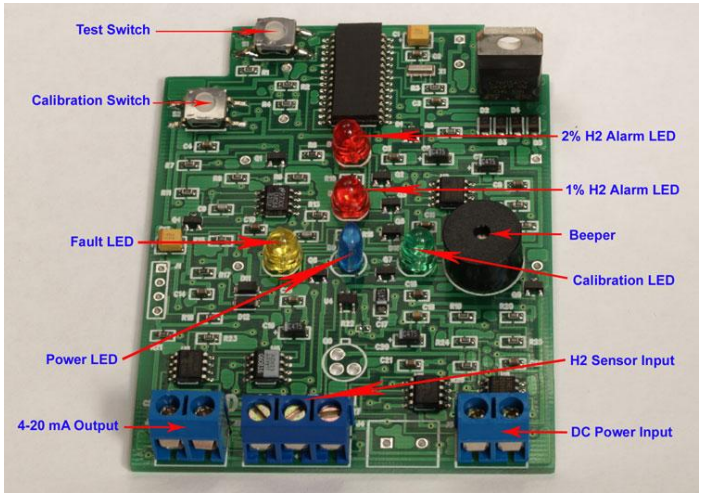
These evaluation boards consist of a KHS151 hydrogen sensor.
The KHS151 hydrogen gas sensor is a packaged MEMS-based micropellistor sensor, it is user replaceable, and it can be remotely installed up to 7.6 m (25 feet) away from the KHD-EVAL digital evaluation board.

The KHS151 hydrogen gas sensor detection principle is micro-catalytic oxidation reaction of hydrogen gas. High sensitivity and selectivity to hydrogen gas with no cross-sensitivity to methane.

FEATURES

- Intelligent microprocessor-based design, with continuous self-testing operation.
- Automatic digital calibration with no trimpots or potentiometers user adjustment.
- Dual audible and visual low and high alarms at 25% & 50% LEL.
- Audible and visual fault alarm.
- Factory preset low and high alarms at 25% & 50% LEL (1% & 2% H2).
- 4-20 mA analog output, linear from 0 to 100% LEL with 1% LEL resolution.

Two different digital evaluation boards are available:



KHD-EVAL-DC powered by a constant voltage source (12 VDC).

Kebaili Corporation – 18 Technology Drive, Suite 137, Irvine, CA 92618-2311 USA
Phone: (949) 494-5892 – Website: www.kebaili.com – Email: info@kebaili.com

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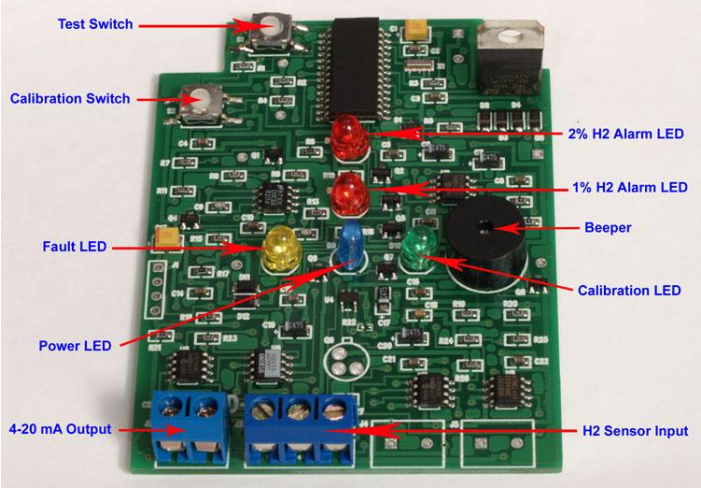

KHD-EVAL-AC powered by a 12 VDC universal input AC Adapter.

TECHNICAL SPECIFICATIONS

- Sensor Type: KHS151 hydrogen gas specific MEMS micropellistor sensor.
- Sensor Life: Typical 5+ years.
- Detection Range: 0-100% LEL
- Detection Accuracy: +/- 0.5% LEL
- Zero Drift: < +/- 0.1 mV/month
- Linearity: Linear from 0 to 100% LEL
- Response Time: T50 = 1 sec & T90 = 3 sec
- Recovery Time: 2 sec
- Input Power: 100 mA @ 12 VDC
- Analog Output: 0-20 mA (200 Ohms)
- Analog Output: 0-2.0 mA => Fault
- Analog Output: 3.0 mA => Calibration Request
- Analog Output: 3.5 mA => Calibration in Progress
- Analog Output: 4-20 mA = > 0-100% LEL, with 1% LEL resolution.
- Analog Output: > 20 mA => Over-range
- Temperature Range: -20°C to 55°C (-4°F to 131°F)
- Humidity Range: 0% to 100% RH (non-condensing) during continuous operation.
- Dimensions: (81 x 61) mm, (3.2 x 2.4)".
- Weight: 50 g (1.75 oz)
- Warranty: 12 months on the electronics & on the sensor.
- Made in USA

ACCESSORIES

KHS151 Hydrogen Gas Sensor.

KCC10 Calibration Cup.

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ORDER CONTENT

- KHD-EVAL-DC - Hydrogen Sensor Digital Evaluation Board.
- KHS151 - Hydrogen Gas Sensor.
- KCC10 - Calibration Cup.

Like all the other catalytic bead sensors, the MEMS micropellistor hydrogen gas sensor is susceptible to a variety of poisoning compounds including silicone, lead, chloro-fluoro carbons (CFC's) and high concentrations of hydrogen sulfide (H2S).