

► Midas® EX

Extractive Gas Detector (ATEX/IECEx)



Technical specifications

Dimensions :

- 222 (W) × 161 (D) × 134 (H) mm

Power Supply :

- 24 VDC nominal (-15% to +10%, 20.4 to 26.4 VDC)

Outputs :

- Relays (Alarm 1, Alarm 2, Fault), 0–21 mA, Modbus/TCP

Relay Output Specifications :

- 3 relays (Alarm 1, Alarm 2, Fault); rated 1 A @ 30 VDC / 0.5 A @ 125 VAC max, configurable NO/NC, maintained or non-maintained (latched/non-latched).

Operating Temperature Range

- -20°–to +60 °C (outside ATEX zones: 0 °C to +40 °C)

Warranty :

- 1 year (transmitter), 1–2 years (sensor cartridge), pump ≥ 2 years

Temperature Conditions :

- Transmitter: -20 °C to +60 °C
- In explosive atmosphere: 0 to +40 °C
- Unit with cartridge: 0 to +40 °C
- Ambient: 0 to +40 °C

Sampling Flow Rate : 500 cc/min

Display Power Consumption : < 5 W

Maximum Pressure : 75,8 kPa

Sampling Distance : Up to 30 m (FEP or PP tubing)

Gas Transport Time : 2–30 seconds

Interfaces : 4 boutons, accès PC/PDA via Ethernet

Weight : 3.25 kg (with sensor)

Power Consumption : Backlit LCD with flow bar graph and status icons

Certifications : IECEx, KCs, EN 61000-6-4, EN 50270

Product description

The Honeywell Midas® EX is a single-point extractive gas detector designed for industrial environments with a high risk of explosion (ATEX/IECEx zones). Thanks to its integrated sampling system with an internal sensor cartridge, it can analyze gases both locally or remotely up to 30 meters.

It detects a wide range of gases, including toxic, flammable, corrosive, pyrophoric, oxidizing, and asphyxiating gases (including oxygen) commonly used in microelectronics, aerospace, chemical processing, wastewater treatment, and university laboratories.

► Design and Integrated Technologies

The Honeywell Midas® EX features a backlit LCD display with a bar graph and status icons, three configurable relays (Alarm 1, Alarm 2, and Fault), and SureCell™ pre-calibrated sensors that ensure accurate measurements without frequent calibration. Thanks to Power over Ethernet (PoE) technology, both power and communication are transmitted through a single RJ45 cable, while Modbus/TCP compatibility allows seamless integration with supervision and control systems. Compact and wall-mounted, it is easy to install even in confined or space-restricted environments.

► Key Benefits

The Honeywell Midas® EX is IECEx and KCs certified, ensuring reliable explosion-proof protection. It detects more than 30 different gases using pre-calibrated sensor cartridges, installs easily via PoE and Modbus/TCP, and provides sampling distances of up to 30 meters with a long-life pump offering over two years of continuous operation.

► Additional Information

The Midas® EX supports interchangeable sensor cartridges for more than 30 gases and is available with optional filters, pumps, and tubing kits. Fully compatible with Modbus/TCP and PoE, it integrates easily into supervision and control systems. It requires minimal maintenance thanks to its pre-calibrated sensors and durable long-life pump.

► Other Features

The Midas® EX combines 48 V PoE, Modbus/TCP + 0–21 mA outputs, and remotely controllable relays to manage your processes and safety systems in real time while ensuring full Ex db IIC T6 Gb (IECEx/KCs) compliance. Its 500 cc/min sampling flow rate enables fast gas extraction up to 30 meters with a transport time between 2 and 30 seconds, ensuring quick and reliable gas detection on critical monitoring points.

► Applications

The Honeywell Midas® EX is particularly well-suited for critical environments such as semiconductor manufacturing, light industrial production, university laboratories, aerospace and aviation sectors, as well as wastewater treatment facilities.

Complete list of detectable gases

Reference	Gas detected	Chemical formula	Measuring range	Sensor technology
S2-E-ASH	Arsine	AsH ₃	0–200 ppb	Electrochemical
S2-E-ASH	Germane	GeH ₄	0–800 ppb	Electrochemical
S2-E-B2H	Diborane	B ₂ H ₆	0–400 ppb	Electrochemical
S2-E-BR2	Chlorine	Cl ₂	0–0.4 ppm	Electrochemical
S2-E-BR2	Bromine	Br ₂	0–0.4 ppm	Electrochemical
S2-E-BR2	Chlorine Dioxide	ClO ₂	0–0.4 ppm	Electrochemical
S2-E-CO ₂	Carbon Dioxide	CO ₂	0–2 % vol	Electrochemical
S2-E-CO _H	Carbon Monoxide (anti-H ₂)	CO	0–100 ppm	Electrochemical
S2-E-CO _X	Carbon Monoxide	CO	0–100 ppm	Electrochemical
S2-E-H ₂ S	Hydrogen Sulfide	H ₂ S	0–40 ppm	Electrochemical
S2-E-H ₂ X	Hydrogen	H ₂	0–1000 ppm	Electrochemical
S2-E-HAL	Chlorine	Cl ₂	0–2 ppm	Electrochemical
S2-E-HAL	Fluorine	F ₂	0–4 ppm	Electrochemical
S2-E-HCN	Hydrogen Cyanide	HCN	0–20 ppm	Electrochemical
S2-E-HFX	Hydrogen Fluoride	HF	0–12 ppm	Electrochemical
S2-E-HFX	Boron Trifluoride	BF ₃	0–8 ppm	Electrochemical
S2-E-HFX	Tungsten Hexafluoride	WF ₆	0–12 ppm	Electrochemical
S2-E-LEB	Butane	C ₄ H ₁₀	0–100 % LEL	Catalytic
S2-E-LEL	Methane / H ₂ / Ethylene / Propylene	CH ₄ / H ₂ / C ₂ H ₄ / C ₃ H ₆	0–100 % LEL	Catalytic
S2-E-LEO	Butane / Octane	C ₄ H ₁₀ / C ₈ H ₁₈	0–100 % LEL	Catalytic
S2-E-LEX	Propane	C ₃ H ₈	0–100 % LEL	Catalytic
S2-E-NH ₃	Ammonia	NH ₃	0–100 ppm	Electrochemical
S2-E-NO ₂	Nitrogen Dioxide	NO ₂	0–12 ppm	Electrochemical
S2-E-NO _X	Nitrogen Monoxide	NO	0–100 ppm	Electrochemical
S2-E-O ₃ H	Ozone (High Range)	O ₃	0–0.7 ppm	Electrochemical
S2-E-O ₃ X	Ozone (Low Range)	O ₃	0–0.4 ppm	Electrochemical
S2-E-PH ₃	Phosphine	PH ₃	0–1200 ppb	Electrochemical
S2-E-PHX	Phosphine	PH ₃	0–1200 ppb	Electrochemical
S2-E-SHL	Silane	SiH ₄	0–2 ppm	Electrochemical
S2-E-SHX	Silane / Disilane	SiH ₄ / Si ₂ H ₆	0–20 ppm	Electrochemical
S2-E-SO ₂	Sulfur Dioxide	SO ₂	0–8 ppm	Electrochemical
S2-E-TEO	Ethylene Oxide	C ₂ H ₄ O	0–40 ppm	Electrochemical
S2-E-TEO	Tetraethoxysilane	SiC ₈ H ₂₀ O ₄	0–40 ppm	Electrochemical
S2-E-TEO	Cyclopentyl Methyl Ether	C ₆ H ₁₂ O	0–40 ppm	Electrochemical
S2-E-XCF	Hydrogen Fluoride	HF	0–12 ppm	Electrochemical (with Pyrolysis)
S2-E-XCF	Hexafluorobutadiene	C ₄ F ₆	0–40 ppm	Electrochemical (with Pyrolysis)
S2-E-XCF	Octafluorocyclopentene	C ₅ F ₈	0–40 ppm	Electrochemical (with Pyrolysis)
S2-E-XCF	Difluoromethane	CH ₂ F ₂	0–120 ppm	Electrochemical (with Pyrolysis)
S2-E-XCF	R134a	C ₂ H ₂ F ₄	0–1000 ppm	Electrochemical (with Pyrolysis)
S2-E-XCF	Hexafluoroisobutylene	C ₄ H ₂ F ₆	0–40 ppm	Electrochemical (with Pyrolysis)
S2-E-XHF	Hydrogen Fluoride	HF	0–12 ppm	Electrochemical (with Pyrolysis)
S2-E-XHF	Nitrogen Trifluoride	NF ₃	0–40 ppm	Electrochemical (with Pyrolysis)
S2-E-XHF	Methyl Fluoride	CH ₃ F	0–120 ppm	Electrochemical (with Pyrolysis)
S2-I-C ₄ F	Hexafluorobutadiene	C ₄ F ₆	0–100 ppm	Infrared (NDIR)
S2-I-CO ₂	Carbon Dioxide	CO ₂	0–2 % / 0–5 % vol	Infrared (NDIR)
S2-I-COS	Carbonyl Sulfide	COS	0–20 ppm	Infrared (NDIR)
S2-L-O ₂ S	Oxygen	O ₂	0–25 % vol	Electrochemical
I-NF ₃	Nitrogen Trifluoride	NF ₃	0–50 ppm	Infrared (NDIR)

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