

BESAFE

Dual Channel Gas Detector for Battery Energy Storage

Detecting hydrogen, carbon monoxide and methane released during thermal runaway, enabling fast, reliable safety response.



Crowcon's BESafe offers fast, accurate detection of hydrogen (H_2), carbon monoxide (CO), and methane (CH_4). Its dual-channel capability enables simultaneous monitoring of two gases and allows flexible configuration to suit different applications. Specifically developed for the demands of battery backup and energy storage systems, BESafe features remote smart sensors that simplify installation and reduce maintenance.

FEATURES & BENEFITS

Dual Channel Gas Detection

Supports two gas sensors, allowing flexible configurations based on application needs. Sensors can be placed remotely to monitor hard-to-reach areas or where space is constrained.

High-Performance Swappable Smart Sensors

Easily swap out pre-calibrated sensor trays without manufacturer intervention, reducing downtime and maintenance costs. Supports remote, non-intrusive testing to verify performance without interrupting operations. The sensor life indicator monitors service life and signals end-of-life status.

Multiple Signal Output

Analog and relay outputs integrate easily with existing control systems and support multi-level audio-visual alarms. Additionally, RS485 communication with Modbus RTU enables remote monitoring and data transmission.

User-Friendly Interface

High-definition OLED display clearly shows gas readings and alarms in any lighting conditions. While simple button controls make setup and adjustments quick and intuitive.

Compact and Flexible Structural Design

Compact design fits into limited spaces such as energy storage cabinets. The IP65-rated housing ensures reliable performance in harsh environments.

On-Site, Built-In Alarm Functions

High-decibel audible alarm and bright status indicators instantly alert users to abnormal status and provide at-a-glance visibility of operational state. Additionally, relay output can trigger external alarms or ventilation fans.

REMOTE SMART SENSORS



MODULAR SENSORS



SPECIFICATIONS

DEVICE SPECIFICATIONS	
SIZE	175 x 150 x 55 mm
WEIGHT	Base: 550g Adapter: 169g Sensor Tray: 65g each
ENCLOSURE MATERIAL	Polycarbonate
INGRESS PROTECTION	IP65
CABLE ENTRY	M20
POWER	10 to 30V DC, 24V DC Nominal 150mA (3.6W @ 24V dc), 5W Max
DISPLAY	128x64 OLED
ELECTRICAL OUTPUT	2 x 4-20mA RS-485 Modbus RTU
RELAYS OUTPUT	SPDT Relay (1A at 24 VDC) Alarm 1, Alarm 2, Fault
AUDIO VISUAL OUTPUT	Sounder: 85dB @ 3m LED: Power (Green), Fault (Yellow), Alarm (Red)
OPERATING TEMPERATURE	-40 to +75°C
OPERATING HUMIDITY	0 to 99% RH (non-condensing)
DATA LOGGING	3000 data logs
APPROVALS	EN 61010-1 EN 50270 UL 2075 (ETL)*
WARRANTY	2 years on Transmitter and Sensors

*Certification in final stages

GASES & RANGES			
SENSOR	GAS	RANGE	TEMPERATURE RANGE
CATALYTIC	Hydrogen (H ₂) Methane (CH ₄)	0-25% LEL 0-100% LEL	-40°C to +75°C
ELECTROCHEMICAL	Carbon Monoxide (CO)	0-1000 PPM	-20°C to +75°C

Disclaimer

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