

Single Channel Gas Monitor

- Voltage free relay contacts
- · Advanced digital readout
- User programmable
- Low power consumption
- Built-in battery backup circuit
- Alarm inhibit during calibration
- 4-20mA analogue output
- Extensive fault detection firmware
- Sealed to IP65 rating



The Monicon Single Channel Gas Monitor is an innovative, cost effective, wall mounted unit. It is designed to operate in conjunction with the T100 toxic gas detector or the highly successful CGS500 combustible gas sensor to monitor a range of toxic gases, combustible gases and oxygen in a wide range of applications.

The Single Channel Gas Monitor is also compatible with a wide range of third party sensors and 4-20mA transmitters including temperature probes. The gas concentration is indicated on a 4-digit, 7-segment display while another 2-character alphanumeric display indicates instrument status.

Simple to use and microprocessor controlled, the Single Channel Gas Monitor is menu assisted and fully user programmable for alarm setpoints, relay options, range, sensor type, gas type and many other parameters in a user friendly manner offering unique flexibility and control over the system.

Digital Signal Processing

Monicon have pioneered a novel approach to significantly reduce false alarms by processing the sensor signal through an advanced analysis program in the microprocessor. Monicon's digital signal processing algorithms are an innovative approach to compensate for the undesirable effects of RFI, Humidity changes, EMI, pressure changes, vibration and electrical noise.

Automatic self-test

The microprocessor implements a comprehensive self-test routine, continually monitoring the system's performance and functionality. The self-test routine examines the integrity of the system's electronic circuitry, system software, sensor cabling, sensor signal, ancillary cabling etc. In the unlikely event of a fault, the digital display will indicate the nature of the condition in a user-friendly diagnostic mode.



The Monicon Single Channel Gas Monitor has a built-in battery trickle charger circuit and an optional 12V, 1.2AH rechargeable battery (sealed lead-acid type) may be fitted inside the enclosure to ensure uninterrupted operation in the event of a mains power failure.

Careful product design and rigorous product testing combined with a stringent ISO9002 quality assurance program at Monicon's state-of-the-art manufacturing facility ensure ultimate reliability.

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The Monicon Single Channel Gas Monitor offers a robust, easy to use, cost effective approach to providing an effective gas monitoring system where safety matters.

Single Channel Gas Monitor Specifications

Mechanical Specifications

Height 160mm Width 240mm Depth 90mm

Weight 3Kg (including optional 1.2AH battery, if fitted)

Mounting holes 4 holes, Ø4.2mm, spaced at 130mm (vert) 228mm (horz)

Environmental Specifications

Operating temperature -18 to +66 C Storage temperature -40 to +66 C

Humidity range 10 to 90%RH (Non-condensing)

Electrical Specifications

Supply voltage 230Vac (115Vac optional)

Power consumption 5W Mains fuse 1A'T'

Transformer secondary fuse

1.6A PCB mounted, auto reset, PTC fuse

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Sensor cables

1.6A PCB mounted, auto reset, PTC fuse

3 core, screened, 0.5mm² to 1.5mm²

Relay contacts SPDT, 250V, 3A each for A1, A2, A3 and FAULT (total of 4 relays)
Analogue output 4-20mA into maximum 500 W (current "source", ground referenced)
Battery operation time Typically 4 hours with fully charged 1.2AH battery (T100 sensor)

Battery voltage 12V

Battery type Sealed lead-acid

Combustible gas sensor type Monicon CGS500 or compatible third-party thermocatalytic sensor Toxic gas sensor type Monicon T100, IR100 or compatible third-party 4-20mA transmitter

Stabilisation time User selectable between 1 and 250 seconds

Annunciator output 2.5kHz, 84dB(A) @ 1m

Transient protection PCB mounted, 7 Joule, Metal Oxide Varistor

Terminations PCB mounted terminal blocks to accept 1.5mm² cable

Option setting

Alarm setting

Digital setting (all options fitted as standard and user selectable)

Digital setting (fully adjustable between zero and full scale)

Energised/de-energised. Enrichment/deficiency. User selectable

Resolution 1% Accuracy 5%

Full scale range 1.00 to 5000 (user selectable)
User variable storage Non-volatile RAM (EEPROM)

Enclosure material Two-piece, hinged, ABS or polycarbonate with neoprene gasket

Electromagnetic Conformance (EMC) Complies with EN50081 and EN50082

Literature supplied 20-page detailed instruction manual with wiring diagram

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