

Monitors

Single Channel



Features

- 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.

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.

4 Channel



Features

- Individual voltage free relay contact
- 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 4 Channel Gas Monitor is an innovative, cost effective, wall mounted unit. It is designed to operate in conjunction with the T100 toxic gas detector and 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 4 Channel Gas is also compatible with a wide range of third party 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. A third display indicates the active channel. Simple to use and microprocessor controlled, the 4 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. 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. 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 4 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. The Monicon 4 Channel Gas Monitor offers a robust, easy to use, cost effective approach to providing an effective gas monitoring system where safety matters.

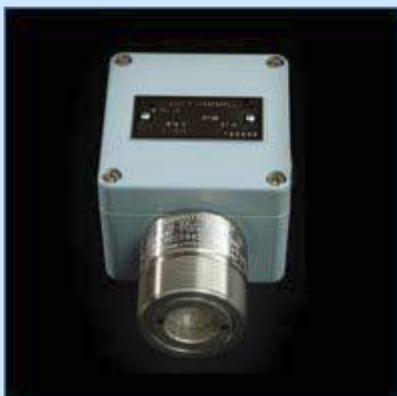
MultiChannel



The multichannel gas detection systems are a modular, rack mounted, multichannel monitor providing fast, reliable warnings of combustible gas concentrations at levels below which these gases become potentially explosive. Or warnings against exposures to potentially harmful levels of SO₂, CO, O₂, O₃, NO, NO₂, HCl, HCN, H₂, H₂S, NH₃, C₂H₄O and Cl₂ in air.

Sensors & Transmitters

CGS500 Combustible Gas Sensor



Features

- Temperature compensated
- Low drift
- Improved poison resistance
- Long life Fast response time
- Rugged stainless steel sensor
- Detects combustible gases & solvents
- Many accessories available
- Certified ATEX II 2 G EExd IIC T6

The CGS500 combustible gas sensor has been designed to measure concentrations of combustible gases in the range 0-100% LEL. The CGS500 is fitted in an EExe certified junction box.

Each sensor contains two thermocatalytic beads. Combustible gases will oxidise on the surface of the active bead while the reference bead compensates for changes in temperature, pressure etc. Each bead consists of a coil of fine platinum wire surrounded by an alumina based substrate containing a catalyst.

An electric current is passed through the bead which raises the temperature to a level where oxidation will occur. The catalyst reduces the temperature at which oxidation occurs, thus prolonging the life of the bead and resulting in much lower power consumption.

Intelligent Combustible Gas Detector



The Monicon S500L Gas Monitor is a rugged, self contained, Intelligent gas sensor with, many advanced features to provide fast, reliable warnings of combustible gas concentrations at levels

below at which these gases become potentially explosive. The S500L is certified ATEX EEx'd IIc T6 Ta -20°C to +60°C.

The gas concentration is indicated locally on the dot-matrix LED display in the range 0-100% LEL. The S500L incorporates a 4-20mA analogue output, an RS485 computer interface and on-board alarm relays. The sensor is available in catalytic, semiconductor or NDIR technology.

Toxic Gas Transmitter



Features

- 2-wire, 4-20mA Transmitter
- Plug-in electrochemical sensor
- Built-in ZERO & SPAN controls
- One person calibration
- SMD electronic circuitry
- Enhanced RFI and EMI resistance
- Cost effective with high performance
- Works with most 4-20mA controllers
- Calibration gas ampoules available
- Certified ATEX Eex ia IIC T4

The T100 is a 4-20mA 2-wire transmitter can measure a wide range of gases and is housed in a rugged, compact metallic enclosure. It incorporates advanced SMD electronics and a 3 electrode electrochemical sensor based on micro fuel cell technology, designed to be maintenance free and inherently stable.

The sensor uses the highly successful capillary diffusion barrier technology, resulting in a low temperature coefficient and a direct response to concentration, relatively unaffected by pressure. The use of electrodes based on fuel cell technology gives a high reserve of activity which results in long term stability.

Gas diffusing to the sensor electrode reacts at the surface of the electrode either by oxidation (e.g. CO, H₂S, SO₂, NO, H₂, HCN, HCl, C₂H₄O, NH₃) or by reduction (NO₂, O₃ and Cl₂). Reactions are catalysed by specially developed electrode materials and are designed to be specific to the gas being sensed.

CO₂ Monitoring Unit



Features

- Dual Beam NDIR technology
- Microprocessor based
- 4-20mA Analogue Output
- Voltage free relay contacts
- RS485 digital interface
- Alphanumeric dot-matrix display
- “One Person” calibration
- Dual detectors
- Temperature compensation
- Standalone operation

The Monicon IR80 is a high quality, self contained, NDIR (Non Dispersive Infra Red) gas sensor that offers a host of sophisticated features to provide fast, reliable warnings against exposure to dangerous concentrations of carbon dioxide. The IR80 will operate as a standalone instrument or in conjunction with a controller or a computer. It is housed in an attractive, compact enclosure and may be configured or calibrated by one person. The gas concentration is indicated on a rugged 8-character alphanumeric display which also indicates instrument status. The IR80 is fully user programmable and no physical adjustments are necessary during calibration as the on-board computer assists the calibration procedure. All user variables are stored in non-volatile memory (EEPROM) and retained indefinitely even during total power failure.

The IR80 uses advanced miniaturised NDIR technology combined with surface-mount microprocessor and firmware technology.

A pulsed infrared source emits a broad spectrum infrared beam within an optical cavity. The system measures the adsorption of infrared energy as it passes through a gas sample. Different gases have clearly defined absorption characteristics, their concentration can be determined by their absorption of infrared radiation at the wavelength determined by filter lambda 1 in the diagram.

To compensate for interfering factors filter lambda 2 isolates another wavelength which is used to measure the total transmission through the optical cavity and is not affected by the gas being monitored. By comparing the infrared energy reaching each of the two detectors, the concentration of the gas sample can be determined. The signal processor compares and linearises these two signals. A thermistor monitors the sensor temperature and the signal processor factors in variations caused by temperature changes.

Accessories



Monicon Technology offers a large range of gas detection accessories which are available upon request. These items include:

- Replacement Parts
- Replacement Cells
- Ampoules
- Calibration Equipment
- Splashguards
- Adapters
- Batteries
- Zener Barriers
- Flashing and Audible Beacons