

**Features**

- Microprocessor based
- 4-20mA Analogue Output
- Voltage free relay contacts
- RS485 digital interface
- Alphanumeric dot-matrix display
- "One Person" calibration
- Small size
- Certified ATEX II 2 G Ex d IIC T6
- Low power consumption
- Standalone operation

The Monicon S500L is a high quality, self contained, Intelligent gas sensor that offers a host of sophisticated features to provide fast, reliable warnings against explosive concentrations of combustible gases.

The S500L will operate as a standalone instrument or in conjunction with a controller or a computer. The S500L is housed in an attractive, compact diameter enclosure and may be configured or calibrated by one person, without declassifying the hazardous area. The gas concentration is indicated on a 4-character alphanumeric display which also indicates instrument status. The S500L 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.



**Typical Applications for the S500L**

- Oil refineries
- Chemical processing
- Offshore platforms
- Gas processing
- Oil and gas storage depots
- Gas pipelines
- Tank farms
- Laboratories
- Petrochemical industry

The S500L uses the proven Monicon CGS500 thermocatalytic sensor combined with advanced, surface-mount microprocessor and firmware technology. Combustible gas oxidising on the surface of a thermocatalytic element causes an imbalance in a Wheatstone bridge circuit. This imbalance is amplified to give a voltage proportional to the gas concentration. This voltage is then processed by the CPU. A watchdog circuit monitors the system operation and resets the CPU if a failure is detected.

The S500L is calibrated or user-programmed by activating the magnetic switches with a magnet. The operator is then guided through a variety of options by a user-friendly menu. The CPU constantly verifies system operation. In the unlikely event of a fault, the operator is alerted with a helpful diagnostic display.

