

## 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 Exd IIC T6
- Low power consumption
- Standalone operation



The Monicon S500-OSV-825 is a self contained, intelligent gas sensor that offers a host of sophisticated features to provide fast, reliable warnings against concentrations of hydrogen sulphide (H<sub>2</sub>S).

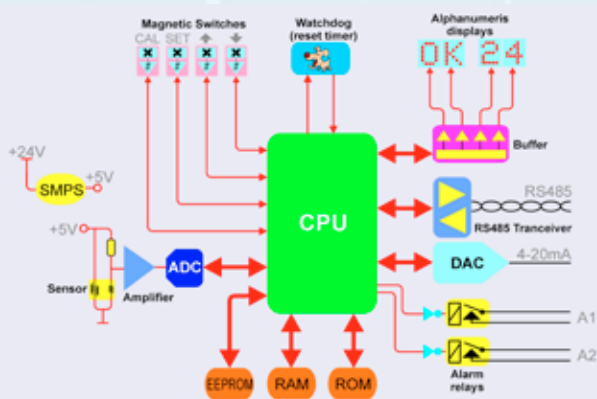
The S500-OSV-825 will operate as a standalone instrument or in conjunction with a controller or a computer. The S500-OSV-825 is housed in an attractive, compact enclosure and may be configured or calibrated by one person, without declassifying the hazardous area. The gas concentration is indicated on a 4 character alphanumeric display which also indicates instrument status. The S500-OSV-825 is 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-OSV-825

- Chemical processing
- Chemical storage
- Laboratories
- Waste water treatment
- Petroleum refineries
- Gas processing
- Paper mills
- Tanneries

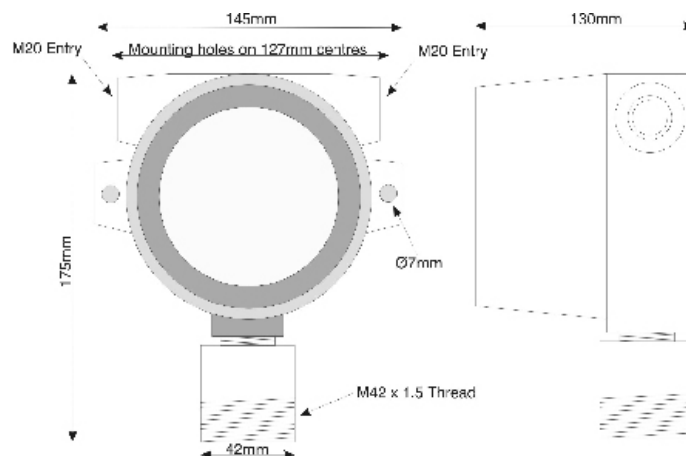
The S500-OSV-825 uses a semiconductor gas sensor combined with advanced, surface-mount microprocessor and firmware technology. Gases and vapours being adsorbed onto the surface of a heated semiconductor element causes the electrical resistance of the semiconductor to change. This resistance change is measured, processed and linearised by the on-board CPU to give a signal proportional to the gas concentration. A watchdog circuit monitors the system operation and resets the CPU if a failure is detected.

The S500-OSV-825 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.



# S500L-OSV-825 Specifications

<b>Supply voltage</b>	Nominal 24Vdc (operates from 20Vdc to 35Vdc)
<b>Power consumption</b>	2W nominal, 2.8W maximum
<b>Circuit protection</b>	Electronic current limiter, 1.5A auto-reset
<b>Transient Protection</b>	PCB mounted, 3 Joule, Metal Oxide Varistor
<b>Analogue output</b>	4-20mA current source referenced to 0V
<b>Analogue output load</b>	500 Ohms maximum
<b>Operating temperature</b>	-10°C to +52°C
<b>Storage temperature</b>	-40°C to +66°C
<b>Humidity range</b>	20%RH to 80%RH (Non-condensing)
<b>Preconditioning Requirements</b>	Operational: 60 seconds, Specification: 24 hours
<b>Full-Scale range</b>	H <sub>2</sub> S 100ppm
<b>Response time (T90)</b>	Typically 10 seconds (flame arrestor and accessories may influence response time)
<b>Principle of Operation</b>	Metal Oxide Semiconductor
<b>Linearity</b>	±5% (@50% RH and 20°C)
<b>Repeatability</b>	±3% of FSD (@50% RH and 20°C)
<b>Resolution</b>	2% of FSD (@50% RH and 20°C)
<b>Sensor life</b>	Typically 5 years in clean air
<b>Weight</b>	2.0Kg (including sensor)
<b>RS485 operating mode (optional)</b>	Slave mode, half duplex, polled
<b>Max. units on RS485 loop</b>	100
<b>RS485 comm parameters</b>	1200-N-8-1
<b>RS485 error checking</b>	1 byte checksum
<b>Unit interrogation time</b>	40mS
<b>Relay contacts</b>	SPST, NO, 125V @ 0A5 (30V DC @ 1A) each for A1 & A2
<b>Option setting</b>	Digital setting (all options fitted as standard and user selectable)
<b>Alarm setting</b>	Digital setting (adjustable between 10% and 90% of full scale)
<b>Alarm types</b>	Energised/de-energised. Enrichment/deficiency. User selectable
<b>ATEX certification</b>	II 2 G Exd IIC T6 Tamb -20°C to +60°C (Certificate number Baseefa 08ATEX0056)
<b>Recommended calibration flow rate</b>	1 litre per minute
<b>Mounting holes</b>	2 holes, diam 7mm, spaced 127mm
<b>User variable storage</b>	Non-volatile RAM (EEPROM)
<b>Electromagnetic Conformance (EMC)</b>	Complies with EN50081 and EN50082
<b>Cable gland entries</b>	2 entries, each M20 x 1.5
<b>Terminations</b>	PCB mounted terminal blocks to accept 1.5mm <sup>2</sup> cable
<b>Enclosure material</b>	Aluminium pressure die-casting, chromated with blue epoxy coated finish



**Monicon Technology Ltd**  
**Ballybrit Industrial Estate**  
**Monivea Road**  
**Galway**  
**Ireland**

Tel: +353 91 752884  
 Fax: +353 91 752886  
 e-mail: sales@monicon.com  
 web-site: www.monicon.com