

NEW

# S4 AURORA

## Paramagnetic oxygen analyser



Paramagnetic oxygen analysers for accurate percent measurements in combustion testing, inert atmospheres, medical and safety for humans, internal combustion engine exhaust and many more applications.

### Flexible

- Many different configurations
- Programmable contact closure for gas path control

### Easy to Use

- Wireless tablet
- Software suite for use over ethernet or RS232

### Accurate

- 0.01% O2 resolution
- 0.1% linearity



**Non-tablet Version**  
available for system  
integrators

**SIGNAL**  
**GROUP** 

# S4 AURORA

Oxygen is possibly the most measured of all gases. Essential for all life on Earth, it is also required for combustion and a wide range of industrial processes.

The Paramagnetic oxygen analyser will remain in operation for many years giving accurate and dependable readings. Essentially, users can almost fit it and forget it, because it is likely to be the most reliable of gas analyzers.

The Signal series 4 platform augments this reliability with embedded firmware and remote operational software running over Ethernet. Each analyser has its own individual I.P. address, which provides the operator with functionality such as:

- remote data logging
- analyser set-up
- gas path configuration
- fault log examination
- remote viewing of important tests or processes

In recent years electrochemical sensors have become widely available and these have improved significantly. Their advantages are their small size and negligible power requirement. They have therefore been widely used for safety applications in confined spaces.

However, they have a short life span; typically lasting for up to 2 years before replacement is necessary. Of course this is unacceptable in a fixed industrial process or in testing laboratories where operational uptime and maintenance costs are

important.

Every analyser is supplied with a memory stick loaded with a full suite of software to operate the analyser remotely using LAN/RS232.

**NEW - Every S4 analyser can now be supplied with a rugged, wireless tablet which connects wirelessly to the analyser via an inbuilt 802.11 wifi that can connect up to 50 metres away. This provides users with the ability to view live data in a different location, and even manage data logging, alarms and calibration.**

## SPECIFICATIONS

### DETECTOR TYPE:

Paramagnetic. 'Dumb bell' servo driven.

### RANGES:

Range A: 0-5%, 0-10%, 0-25% or  
Range B: 0-100% or  
Range C: 95-100%

**NOISE:** 0.005% O<sub>2</sub>.

**LINEARITY:** +/- 0.1% O<sub>2</sub>

**REPEATABILITY:** < +/- 0.01% O<sub>2</sub>

**ZERO DRIFT:** < +/- 0.2% O<sub>2</sub> per 30 days

**RESPONSE TIME:** < 4.5s

### FLOW EFFECT:

0.05% change in reading with flow change of 0.4 l/min to 1.4 l/min into atmospheric pressure.

### TEMPERATURE EFFECT:

ZERO - 0.1% O<sub>2</sub> Change per degrees-C  
SPAN - 0.05% O<sub>2</sub> Change per degrees-C

### TILT EFFECT:

0.01% O<sub>2</sub> per degree of tilt.

**EXTERNAL MAGNETIC EFFECT:**

A mass of soft magnetic material anywhere on the enclosure will cause less than 0.1 % O<sub>2</sub> change in reading.

### CONSTRUCTION:

Wetted parts, 316 Stainless steel and Quartz

### DIMENSIONS:

19" X 133.3mm X 550mm  
Weight: 12 Kg

### POWER REQUIREMENTS:

110VAC - 250VAC or 24VDC. 70 Watts.

### OUTPUTS:

0-10 volts  
RS232  
Ethernet (remote software is included)  
Optional 4-20 mA.

### GAS CALIBRATION SERVICES:

Nitrogen (to set analyser zero)  
Oxygen in Nitrogen of appropriate concentration for calibration. Or room air.

### OPTIONAL:

Atmospheric barometric pressure compensation



Authorised Representative:



www.signal-group.com

### Signal Group Ltd

Standards House, Doman Road, Camberley, Surrey GU15 3DF  
United Kingdom

Tel: +44 (0)1276 682841 Email: sales@signal-group.com



ISO  
9001 : 2015  
REGISTERED

Cert No. 317012019

Specifications may be changed without notification