

SERVOMEX 4100

GAS PURITY ANALYSER

is specifically designed to meet the control and product quality monitoring needs of industrial gas producers and users.

- Measures up to four gas streams simultaneously
- FDA validated for medical oxygen and nitrogen
- European Pharmacopoeia compliant
- Easy and quickly configured using intuitive LCD menu
- Low maintenance
- Extremely stable and reliable sensors
- Digital comms: RS232/RS485, Modbus™ protocol
- FM/CSA Approved - Process Control Equipment



SPECIFICATION

Gases Measured:	O ₂ (purity)	O ₂ (control)	CO ₂ (%)	CO (%)	Moisture (trace) Easidew transmitter	Moisture (trace) Pura transmitter
PERFORMANCE						
Technology:	Paramagnetic	Paramagnetic	SBSW Infrared ☼	SBSW Infrared ☼	Ceramic impedance	Ceramic impedance
Max Range:	0-100% O ₂	0-100% O ₂	0.25,0.5,1,2.5,5,10,25,50,100 % CO ₂	1,2.5,10 % CO	-100 to +20°C dp	-120 to -40°C dp
Min Range:	0-0.5% O ₂	0-0.5% O ₂				
Response Time (T ₉₀):	<12 secs	<15 secs	<20 secs	<20 secs		
Intrinsic error : (accuracy)	<0.02% O ₂	<0.15% O ₂	1% of FS	1% of FS	±2°C dewpoint	± 1°C (-40 to -60°C) ± 2°C (-61 to -100°C) ± 4°C (-101 to -120°C)
Zero drift/week:	<0.01% O ₂	<0.05% O ₂	<2% of FS	<2% of FS		
Span drift/week:	<0.02% O ₂	<0.1% O ₂				
					The transmitters are mounted externally to the analyser. The moisture transmitters provide a linear 4-20mA output over the entire range. The Easidew is available with a ppm output.	

Gases Measured:	O ₂ (trace)	CO ₂ (trace)	CO ₂ (trace)	CO (trace)•	N ₂ O (trace)	CH ₄ (trace)•
PERFORMANCE						
Technology	Zirconia	Gfx Infrared +	Gfx Infrared +	Gfx Infrared +	Gfx Infrared +	Gfx Infrared +
Max Range:	0-210,000ppm(v) O ₂ †	0-100ppm(v) CO ₂	0-500ppm(v) CO ₂	0-500ppm(v) CO	0-500ppm(v) N ₂ O	0-500ppm(v) CH ₄
Min Range:	0-5 ppm(v) O ₂	0-5ppm(v) CO ₂	0-50ppm(v) CO ₂	0-10ppm(v) CO	0-10ppm(v) N ₂ O	0-10ppm(v) CH ₄
Response Time (T ₉₀):	<15 secs ♦	<20 secs	<20 secs	<20 secs	<20 secs	<20 secs
Intrinsic error (accuracy):	<0.1ppm(v) O ₂ †	<0.1ppm(v) CO ₂ **	<0.5ppm(v) CO ₂ **	<0.5ppm(v) CO **	<0.5ppm(v) N ₂ O **	<0.5ppm(v) CH ₄ **
Zero drift/week:	{ <1% of reading) * or 250ppb(v)	<0.2ppm(v) CO ₂	<1ppm(v) CO ₂	<1ppm(v) CO	<1ppm(v) N ₂ O	<1ppm(v) CH ₄
Span drift/week:		<2% of reading * or 0.2ppm(v) CO ₂	<2% of reading * or 1ppm(v) CO ₂	<2% of reading or 1ppm(v) CO **	<2% of reading * or 1ppm(v) N ₂ O	<2% of reading * or 1ppm(v) CH ₄

† 21% - 100% indicative oxygen measurement
 † derived figure dependent on calibration gases, in range 0-100ppm
 + gas filter correlation
 ☼ single beam single wavelength
 Modbus™ is a trademark of AEG-MODICON

* whichever is greater
 ** or 1% of reading whichever is greater
 • higher ranges are available
 ♦ for a change of 2-10ppm(v) O₂
 dp = dewpoint

PHYSICAL

Dimensions (WxDxH): 483mm (19") x Short Chassis depth
478mm (18.8") or Long Chassis depth
608mm (23.9") x 133mm (3U) nominal
Weight: Typical 22Kg (48.4lb)

ELECTRICAL SAFETY

FM Approval CB Test Certificate -
Electrical Safety IEC61010-1:1990

EC DIRECTIVE COMPLIANCE

The 4100 analyser complies with the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC (as amended by Directive 92/31/EEC), both as amended by Directive 93/68/EEC.

It conforms to the following harmonised European standards for product safety and electromagnetic compatibility:

EN 61010-1: Safety requirements for electrical equipment for measurement, control and laboratory use.

EN 61326-1: Electrical equipment for measurement, control and laboratory use - EMC requirements (All induced errors are less than the intrinsic error, with the exception of:

O₂ purity: <0.05% O₂
O₂ trace: <2% of reading).

This product is rated for "Installation Category II" in accordance with IEC 664.

This product is rated for "Pollution Degree 2" in accordance with IEC 664.

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