

SERVOFLEX MiniHD (5200)

RUGGED PORTABLE GAS ANALYZER

For analysing the composition of common gas mixtures in field and light industrial applications

(Not for use in areas at risk from explosive atmospheres)

- Non-depleting paramagnetic or infrared measurement technology ensures the unit is always ready for use
- Fast, accurate, reliable and component specific, with confidence that observed values are credible and not due to background interference
- Robust, IP65 case with protective overmoulding
- Customer pre-tested software and long life Li-ion rechargeable batteries for maximum ease of use
- Two versions available: Internally pumped or "AFCD" version for pressurized samples



SPECIFICATION

GASES MEASURED: Oxygen (O₂), Carbon Dioxide (CO₂) or Carbon Monoxide (CO)

SENSORS	OXYGEN		CARBON DIOXIDE, CARBON MONOXIDE	
Technology:	Paramagnetic		Infrared	
Variant:	Industrial	High accuracy		
Full Scale Range (FSR):	0-100% O ₂	0-100% O ₂	CO ₂ : 0-10%, CO: 0-5%	0-25%, 50%, 100%
Decimal places:	1	2	2	1
PERFORMANCE				
Accuracy (intrinsic error):	±0.1% O ₂	±0.05% O ₂	±2% Full Scale Range (FSR)	
Response time (T ₉₀) ¹ :	<15 seconds	<15 seconds	<15 seconds	
Zero drift, per week:	±0.4% O ₂	±0.2% O ₂	±4% FSR	
Tilt effect, at 15° from cal:	±0.15% O ₂	±0.15% O ₂	±1% FSR	
Pressure effect:	Directly proportional to ambient barometric pressure		<0.2% reading / mBar change	
Flow variation effect:	±0.1% O ₂ change ¹		±0.5% FSR change ²	
Operating temperature:	+14°F to 122°F (-10°C to + 50°C)		+14°F to 122°F (-10°C to + 50°C)	
Temp. coefficient, zero :	±0.2% O ₂ per 18°F (10°C) change		±1% FSR per 18°F (10°C) change ³	
Temp. coefficient, span :	±0.3% O ₂ per 18°F (10°C) change		±5% FSR per 18°F (10°C) change ³ (exc.100% CO ₂) ±8.5% FSR per 18°F (10°C) change ³ , 100% CO ₂ only	

PHYSICAL

Dimensions:	W 6.3"(160mm) x D 5.5"(140mm) x H 7.3"(185mm) without protective case W 6.9"(175mm) x D 6.3"(160mm) x H 7.7"(195mm) with protective canvas case
Weight:	4.0 to 5.1lbs (1.8 kg to 2.3kg)
Ingress protection:	IP65 (Protected against dust and low pressure water jets from all directions)
Outer construction:	Anti-static, stainless steel loaded polypropylene with carbon filled rubber overmoulding.
Display:	White backlit LCD
Alarms:	Fault and 2 user configurable concentration alarms indicated by an LED, icon display and audible sounder
Batteries:	Internal Li-ion battery pack recharged with a 100-240V / 43-70Hz charger (supplied). Typical battery life 10 hours at 68°F (20°C). NOTE: The unit is not designed to run from mains power.
Notepad:	Up to 200 measurement points can be stored in the analyzer memory for later viewing

Notes:

¹ Response time - With internal pump or AFCD version at 10psig (70kPa)

² Across the specified inlet pressure range

³ From +41°F to +113°F (+5°C to +45°C)

The effect of temperature changes occurring between +14°F and +41°F (-10°C and +5°C) may be greater.

SERVOMEX

SERVOFLEX MiniHD (5200)

The SERVOFLEX MinHD (5200) is a rugged, heavy duty portable gas analyzer specifically designed to meet the demanding needs of customers looking to analyze accurately gas mixtures in field locations. This compact, reliable and easy to use instrument is based upon non-depleting, component specific measurement techniques (magnetodynamic paramagnetic and infrared) for long life and minimal running costs, avoiding the problems associated with electrochemical or other less robust methods of analysis.

The 5200 HD can be used as a replacement for the well established Servomex 244, 404, 571, 572 and 575 analyzers. Where there is no risk of an explosive atmosphere it may also be used to replace the Model 570.

APPROVALS:

AFCD version ORSAT validated to meet USFDA performance requirements for verifying medical oxygen USP and nitrogen NF. CE marked and in compliance with the EEC EMC and WEEE Directives. UL approved and CE marked 100-240V / 43-70Hz AC power supply.

APPLICATION EXAMPLES:

Physiology studies Research Combustion optimization Transformer entry Medical gas verification

SAMPLE

Sample gas:	Clean, dry, non-flammable and non-toxic gases only. Note: Though samples containing >5% CO ₂ or >200ppm CO are toxic they can be analyzed if suitable precautions are taken.
Sampling:	Internal pump samples at 0.7 litres (0.03 cubic feet) per minute (nominal). User configurable timer
Flow control:	To maximize measurement stability, unpumped units are supplied with an automatic flow control device (AFCD) Over the specified inlet pressure range this controls sample flow rate to approximately 1.5 to 6 litres (0.05 to 0.2 cubic feet) per minute
Inlet pressure:	Without internal pump 7kPa (1psig) to 70kPa (10psig) With optional internal pump -3.5kPa (-0.5psig) to 3.5kPa (0.5psig)
Sample inlet connection:	5mm OD stub with "QuickConnect" barb fitting for 1/4" (6.3mm) ID tube or adaptor to 1/8" NPT fitting (option)
Sample outlet connection:	5mm OD stub (sample and bypass)
Sample filter:	Replaceable 0.6µm glass fiber particulate filter

OPTIONS AND ACCESSORIES

<input type="checkbox"/> Additional barb fittings	Additional QuickConnect barb fittings.
<input type="checkbox"/> 1/8" NPT adaptor	QuickConnect fitting to allow connection to hard pipes
<input type="checkbox"/> Carry case	Protective canvas case for additional protection
<input type="checkbox"/> Sample conditioning kit	To handle wet or dirty samples
<input type="checkbox"/> Sampling probes	Stainless steel probes with holder and connecting tube <input type="checkbox"/> 9.8" (25 cm) and <input type="checkbox"/> 39" (100 cm)
<input type="checkbox"/> Transport case	Tough plastic shipping case with pre-cut foam insert to hold analyzer and accessories (excluding 39" probe).
<input type="checkbox"/> 2 years spares	Recommended spares for two years operation, comprising replacement filters (5) and filter cap 'O'-ring



BUSINESS CENTRES

EUROPEAN (Europe, Middle East, Africa and India):
+31 (0) 79 3301581 Fax: +31 (0) 79 3420819
Toll Free from UK/France/Germany/Netherlands:
00800 7378 6639

AMERICAS:
+1 281 295 5800 Fax: 1 281 295 5899
Toll Free from US:
1 800 862 0200

ASIA PACIFIC:
+86 (0) 21 6489 7570 Fax: +86 (0) 21 6442 6498

TECHNICAL CENTRES

Servomex Group Limited
Jarvis Brook
Crowborough
East Sussex, UK
TN6 3FB
Tel: +44 (0)1892 652181
Fax: +44 (0)1892 662253

Servomex Canada
1076 Johnson Street,
Thetford Mines,
Qc Canada,
G6G 5W6
Tel: +1 418 3340990
Fax: +1 418 3340660

WWW.SERVOMEX.COM

Servomex has a policy of constant product improvement and reserves the right to change specifications without notice.
© Servomex Group Limited. 2009. A Spectris company. All rights reserved.

PB5200HD Rev. 2 08/09 A