

# SERVOFLEX MiniMP (5200 Multipurpose)

## PORTABLE BENCHTOP GAS ANALYZER

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

- Non-depleting paramagnetic and infrared measurement technology ensures the unit is always ready for use
- Accurate, reliable and component specific, giving confidence that observed values are credible and not due to background interference
- Customer pre-tested software offers ease of use, simple calibration and advanced features
- Innovative construction gives a robust unit with a space saving footprint
- Rechargeable battery and vehicle power (12/24V) options enable mobile use



## SPECIFICATION

GASES MEASURED	Oxygen (O <sub>2</sub> ) and/or Carbon Dioxide (CO <sub>2</sub> )			CARBON DIOXIDE
<b>SENSORS</b>	OXYGEN			Infrared
Technology:	Paramagnetic			All variants
Variant:	<b>Standard</b>	<b>Industrial</b>	<b>High accuracy</b>	10%, 25%, 50%, 100%
Full scale range (FSR):	0-100% O <sub>2</sub>	0-100% O <sub>2</sub>	0-100% O <sub>2</sub>	0-10% FSR
Minimum output range:	0-10% O <sub>2</sub>	0-1% O <sub>2</sub>	0-1% O <sub>2</sub>	316 Stainless Steel
Cell construction:	Polymer (PPS)	316 Stainless Steel	316 Stainless Steel	Ranges ≤10%:2 >10%:1
Decimal places:	1	1	2	
<b>PERFORMANCE</b>				
Accuracy, general use:	±0.2% O <sub>2</sub>	±0.1% O <sub>2</sub>	±0.05% O <sub>2</sub>	±2% FSR
Accuracy, stable environment:	±0.1% O <sub>2</sub>	±0.1% O <sub>2</sub>	±0.02% O <sub>2</sub>	±1% FSR (after 20 mins warm up)
Zero drift, per week:	±0.4% O <sub>2</sub>	±0.2% O <sub>2</sub>	±0.2% O <sub>2</sub>	±4% FSR
Response time (T <sub>90</sub> ):	<10 seconds	<15 seconds	<15 seconds	<10 seconds
Tilt effect, at 15° from cal:	±0.3% O <sub>2</sub>	±0.15% O <sub>2</sub>	±0.15% O <sub>2</sub>	±1% FSR
Pressure effect:	Directly proportional to ambient barometric pressure			<0.2% reading / mBar change
Flow variation effect:	±0.1% O <sub>2</sub> for a ±0.5psig (3.5kPa) change			±0.5% FSR for a 10psig (70kPa) change
Operating temperature:	+14°F to +122°F (-10°C to +50°C)			+41°F to +113°F (5°C to +45°C)
Temp. coefficient, zero:	±0.2% O <sub>2</sub> per 18°F (10°C)			±1% FSR/18°F (10°C)
Temp. coefficient, span:	±0.3% O <sub>2</sub> per 18°F (10°C)			±5% FSR/ 18°F (10°C)(exc. 100% CO <sub>2</sub> )
Temp. coefficient, span:	±0.3% O <sub>2</sub> per 18°F (10°C)			±8.5% FSR/ 18°F (10°C) 100% CO <sub>2</sub> only
<b>SAMPLE</b>				
Sample gas:	Clean, dry, non-flammable and non-toxic gases only. Note: Though samples containing >5% CO <sub>2</sub> are toxic they can be analyzed if suitable precautions are taken.			
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 liters (0.05 to 0.2 cubic feet) per minute			
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)			
Inlet pressure:	Without pump 7kPa (1psig) to 70kPa (10psig) With optional internal pump -7kPa (-1psig) to 3.5kPa (0.5psig)			
Sample filter:	Replaceable 0.6µm glass fiber particulate filter			

Response time - All at 10psig (70kPa)

Flow effect - AFCD version, within specified sample gas supply range

**SERVOMEX**

## SERVOFLEX MiniMP (5200 Multipurpose)

The Servomex 5200 Multi Purpose gas analyzer has been specifically designed to meet the demanding needs of field and laboratory analysts, light industrial users and others who require fast, accurate and reliable analysis of common gas mixtures. This compact, portable 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 Multi Purpose replaces the well established Servomex 244, 404, 571, 572 and 575 analysers. Where there is no risk of an explosive atmosphere it may also be used to replace the Model 570.

### SIZE AND WEIGHT

Dimensions: W 6.0" (150mm) x D 10.5" (260mm) x H 12.0" (300mm )  
Weight: 5.7lbs (2.6Kgs ) to 8.6lbs (3.9Kgs) depending on configuration

### 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      Universities      Combustion optimization      Fermentation      Medical gas verification

### OPTIONS

- Internal pump      0.7l (0.02 cu.ft)/min internal pump with user configurable timer  
When an internal pump is specified users may also select sample outlet location  
front  or rear
- Analog output      One 4-20mA output per measurement.  
(Note RS 232 output included as standard on base model)
- Rechargeable batteries      Advanced lithium ion batteries providing 8-36 hours use, depending on sensor selections
- Vehicle power adaptor      Allows the unit to run/recharge from 12/24V dc vehicle socket
- Printer      Preformatted compact, mains power/rechargeable printer
- Additional barb fittings      Additional QuickConnect fittings to simplify connection of zero and span gases
- 1/8" NPT adaptor      QuickConnect fitting to allow connection to hard pipes
- 2 years spares      Recommended spares for two years operation, comprising replacement filters (5) and filter cap 'O' ring

### ADDITIONAL ACCESSORIES AVAILABLE (consult your local sales contact):

Sample conditioning panel      Flow Meters      Sampling Probes      Transport Case

NOTE: These analyzers are not medical devices as defined in the Medical Devices Directive 93/42EEC and are not intended to be used on human beings for the diagnosis, prevention, monitoring, treatment or alleviation of disease, injury or replacement or modification of the anatomy.

## BUSINESS CENTRES

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