

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
- TÜV and MCERTS approved to EN15267-3 (certification of automated measuring systems) available



SPECIFICATION

| GASES MEASURED | Oxygen (O ₂) and/or Carbon Dioxide (CO ₂) | | | CARBON DIOXIDE |
|-----------------------------------|--|-----------------------|-----------------------|--|
| SENSORS | | OXYGEN | | Carbon Dioxide |
| Technology: | | Paramagnetic | | Infrared ¹ |
| Variant: | Standard | Industrial | High accuracy | All variants |
| Full scale range (FSR): | 0-100% O ₂ | 0-100% O ₂ | 0-100% O ₂ | 10%, 25%, 50%, 100% |
| Minimum output range: | 0-10% O ₂ | 0-1% O ₂ | 0-1% O ₂ | 0-10% FSR |
| Cell construction: | Polymer (PPS) | 316 Stainless Steel | 316 Stainless Steel | 316 Stainless Steel |
| Decimal places: | 1 | 1 | 2 | Ranges ≤10%:2 >10%:1 |
| PERFORMANCE | | | | |
| Accuracy, general use: | ±0.2% O ₂ | ±0.1% O ₂ | ±0.05% O ₂ | ±2% FSR |
| Accuracy, stable environment: | ±0.1% O ₂ | ±0.1% O ₂ | ±0.02% O ₂ | ±1% FSR |
| Zero drift, per week: | ±0.4% O ₂ | ±0.2% O ₂ | ±0.2% O ₂ | ±4% FSR |
| Response time (T ₉₀): | <10 seconds | <15 seconds | <15 seconds | <10 seconds |
| Tilt effect, at 15° from cal: | ±0.3% O ₂ | ±0.15% O ₂ | ±0.15% O ₂ | ±1 FSR |
| Power cycle offset: | ±0.4% maximum | N/A | N/A | N/A |
| Pressure effect: | Directly proportional to ambient barometric pressure | | | <0.2% reading / mBar change |
| Flow variation effect: | ±0.1% O ₂ 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 ₂ per 18°F (10°C) | | | ±1% FSR/18°F (10°C) |
| Temp. coefficient, span: | ±0.3% O ₂ per 18°F (10°C) | | | ±5% FSR/ 18°F (10°C)(exc. 100% CO ₂) |
| Temp. coefficient, span: | ±0.3% O ₂ per 18°F (10°C) | | | ±8.5% FSR/ 18°F (10°C) 100% CO ₂ only |
| SAMPLE | | | | |
| Sample gas: | Clean, dry, non-flammable and non-toxic gases only. Note: Though samples containing >5% CO ₂ 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

¹ Allow 1 hour warm up to meet performance specification

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.

TÜV and MCERTS (Annex F, transportable systems) to EN15267-3 (certification of automated measuring systems) available, using Industrial or High accuracy oxygen variants and mA output.

APPLICATION EXAMPLES:

•Physiology studies •Universities •Combustion optimization •Fermentation •Medical gas verification •Source/Stack testing

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.
We recommend a calibration of the analyzer after each power up.

BUSINESS CENTERS

EUROPE (Europe and Africa) USA & CANADA
Tel: +31 (0)79 330 1580 Tel: +1 281 295 5800
Fax: +31 (0)79 342 0819 Fax: +1 281 295 5899
Toll Free : 00800 7378 6639 Toll Free: 1 800 862 0200

LATIN AMERICA/ ASIA PACIFIC
MEXICO Tel: +86 (0)21 6489 7570
Tel: +55 11 5188 8166 Fax: +86 (0)21 6442 6498
Fax: +55 11 5188 8169

INDIA MIDDLE EAST
Tel: +91 22 39342700 Tel: +971 6 5528073
Fax: +91 22 39342701 Fax: +971 6 5528074

TECHNICAL CENTERS

Servomex Group Limited Servomex Company Inc
Crowborough 4 Constitution Way
East Sussex, TN6 3FB Woburn, MA 01801 1087
UK USA
Tel: +44 (0)1892 652181 Tel: +1 781 935 4600
Fax: +44 (0)1892 662253 Fax: +1 781 938 0531
Toll Free: 1 800 433 2552

SYSTEMS ENGINEERING CENTERS

Crowborough, UK Tel: +44 (0)1892 652181
Houston, USA Tel: +1 281 295 5800
Shanghai, China Tel: +86 (0)21 6489 7570
Mumbai, India Tel: +91 22 39342700

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