



PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

SERVOFLEX MiniMP (5200MP) Portable Analyser

manufactured by:

Servomex Group Ltd

*Jarvis Brook
Crowborough,
East Sussex,
TN6 3FB
UK*

has been assessed by Sira Certification Service
and for the conditions stated on this certificate complies with:

MCERTS Performance Standards for Continuous Emission Monitoring Systems, Version 3.5 dated June 2016, Annex F; Transportable Systems

Note: This instrument is considered suitable for use as an SRM according to EN 14789 for verifying
and calibrating installed CEMS, according to the requirements of EN 14181

Certification Ranges :

O₂ 0 to 25 %vol

Project No: 16A23969 Rev 1
Certificate No: Sira MC110190/04
Initial Certification: 11 August 2011
This Certificate Issued: 11 August 2016
Renewal Date: 10 August 2021

Joe Prince MSc, MInst MC
Certification Manager

MCERTS is operated on behalf of the Environment Agency by

Sira Certification Service

Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
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The MCERTS certificate consists of this document in its entirety.

For conditions of use, please consider all the information within.

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Approved Site Application

Any potential user should ensure, in consultation with the manufacturer, that the monitoring system is suitable for the intended application. For general guidance on monitoring techniques refer to the Environment Agency Monitoring Technical Guidance Notes available at www.mcerts.net

On the basis of the assessment and the ranges required for compliance with EU Directives, this instrument is considered suitable for use as an SRM and for verifying and calibrating installed CEMS, according to the requirements of EN 14181. This portable analyser is not suitable for use as a back-up CEM.

The laboratory tests have been conducted in accordance with the requirements of EN 15267-3 and EN 14789.

Basis of Certification

This certification is based on the following Test Report(s) and on Sira's assessment and ongoing surveillance of the product and the manufacturing process:

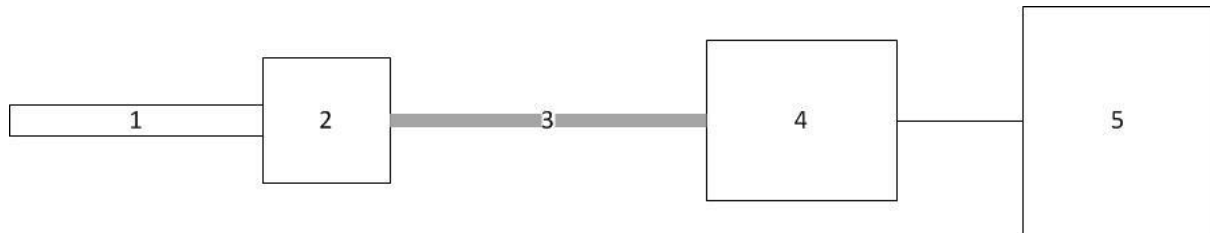
TÜV Rhineland Report Number 936/21216148/A dated 6th June 2011

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Product Certified

The measuring system consists of the following parts:



1. Sample Probe	2. Heated Filter	3. Heated Sample Line	4. Gas Conditioning	5. Analyser
Model: 5000 Probe assembly or equivalent	Model: N/A	Portable analyser does not require sample lines.	Model: 5000 sample conditioning panel or equivalent	Model: Servomex MiniIMP 5200 gas Analyser

The Servoflex MiniIMP is a portable analyser which can operate as a self contained unit with its own integrated sample system and probe. The system can also be supplied for fitting to an existing equivalent sample system. This unit does not use a heated filter or heated sample line.

This certificate applies to all instruments fitted with software version 05000/651/18 onwards and serial numbers 05230A1/11831 onwards.

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Certified Performance

The instrument was evaluated for use under the following conditions:

Ambient Temperature Range: +5°C to +40°C
 Instrument IP rating: IP40

Note: If the instrument is supplied with an enclosure then the ambient temperature shall be monitored inside the enclosure to ensure that it stays within the above ambient temperature range.

Unless otherwise stated the evaluation was carried out on the certification range O₂ 0 to 25%vol

Test	Results expressed as % vol				Other results	MCERTS specification
	<0.5	<1	<2	<5		
Response time O ₂					70s	<200s
Detection Limit O ₂					0.02% range	0.2% range
Lack-of-fit O ₂	-0.08					<0.3%vol
Zero drift O ₂					0.00%vol/24hr	<0.2%vol/24hr
Span drift O ₂					0.16%vol/24hr	<0.2%vol/24hr
Sensitivity to atmospheric pressure					-0.8% range / 2kPa	<3.0% relative to the range / 2kPa
Sensitivity to sample gas flow O ₂	-0.04					To be reported
Influence of ambient temperature zero point O ₂					0.11%vol/10K	<0.3%vol/10K
Influence of ambient temperature reference point O ₂					0.13%vol/10K	<0.3%vol/10K

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Test	Results expressed as % vol				Other results	MCERTS specification
	<0.5	<1	<2	<5		
Sensitivity to electrical voltage O ₂					<0.01%vol/10V	<0.1%vol/10V
Cross Sensitivity at zero with interferents: H ₂ O, CO, CO ₂ , CH ₄ , N ₂ O, NO, NO ₂ , NH ₃ , SO ₂ , HCl, H ₂ S O ₂	0.20					<0.2% vol
Cross Sensitivity at span with interferents: H ₂ O, CO, CO ₂ , CH ₄ , N ₂ O, NO, NO ₂ , NH ₃ , SO ₂ , HCl, H ₂ S O ₂	0.18					<0.2% vol
Repeatability standard deviation at zero point O ₂	0.01					<0.2%vol
Repeatability standard deviation at reference point O ₂	0.01					<0.2%vol
Measurement Uncertainty O ₂					2.3%	Not specified in Annex F 6% in EN14789

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Description:

The Servomex SERVOFLEX MiniMP (5200MP) is a portable gas analyser that sample flue gases via an extractive process. The analyser measures oxygen by a magnetodynamic paramagnetic sensor.

Various options are available for the SERVOFLEX portable analysers, including sample conditioning panel, internal pump, automatic flow control device and flowmeter. For short term use the optional attached sample conditioning panel may be used. For longer term use it is recommended that a separate sample conditioning unit is used to condition the sample to the same specification. The configuration of analysers and sample conditioning system can be varied depending upon the application and customer requirements.

General Notes

1. This certificate is based upon the equipment tested. The Manufacturer is responsible for ensuring that on-going production complies with the standard(s) and performance criteria defined in this Certificate. The Manufacturer is required to maintain an approved quality management system controlling the manufacture of the certified product. Both the product and the quality management system shall be subject to regular surveillance according to 'Regulations Applicable to the Holders of Sira Certificates'. The design of the product certified is defined in the Sira Design Schedule for certificate No Sira MC110190/04.
2. If certified product is found not to comply, Sira Certification Service should be notified immediately at the address shown on this certificate.
3. The Certification Marks that can be applied to the product or used in publicity material are defined in 'Regulations Applicable to the Holders of Sira Certificates'.
4. This document remains the property of Sira and shall be returned when requested by the company.

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