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# PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

## *Xendos 2510 GFC Emissions Analyser and System*

manufactured by:

### **Servomex Group Limited**

Jarvis Brook  
Crowborough  
East Sussex  
TN6 3DU  
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 2, Revision 1 (April 2003)**

Certification Ranges :

HCl	0 to 100 ppm
N <sub>2</sub> O	0 to 3000 ppm

Certificate No:	Sira MC 990002/03
Initial Certification:	06 September 1999
This Certificate Issued	13 July 2007
Renewal Date:	05 September 2009

Technical Director

*MCERTS is operated on behalf of the Environment Agency by*

## **Sira Certification Service**

12 Acorn Industrial Park, Crayford Road, Crayford  
Dartford, Kent, UK, DA1 4AL  
Tel: 01322 520500 Fax: 01322 520501

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### Certified Performance

The instrument was evaluated for use under the following conditions:

Ambient Temperature Range:	Stack Components	10 to +50 °C
	Control Unit	0 to +45 °C
Relative Humidity:	Stack Components	5 to 95% (including condensation)
	Control Unit	20 to 80% (excluding condensation)

Performance values are expressed as a percentage of the certification range, except for availability and analysis function, and 'a' indicates compliance with MCERTS requirements.

Test	Results expressed as % of max of certification range				Other results	MCERTS specification
	<0.05	<0.3	<1.0	<2.0		
Linearity HCl			a			< ±2 %
Linearity N <sub>2</sub> O		a				< ±2 %
Cross-sensitivity HCl					8.5 % Note 1	< ±4 %
Cross-sensitivity N <sub>2</sub> O					-2.2%	< ±4 %
Ambient temperature: HCl Zero shift ( $\Delta T = 10$ °C)					0.14 %/°C	< 0.3 %/°C
Ambient temperature: HCl Span shift ( $\Delta T = 10$ °C)					-0.24 %/°C	< 0.3 %/°C
Response time HCl					303 s	< 600 s
Detection limit - % of range HCl		a				< 2 %
Detection limit - % of range N <sub>2</sub> O		a				< 2 %
Detection limit - % of emissions limit HCl					2.8 %	< 5 %
Repeatability HCl					±0.52 %	-
Repeatability N <sub>2</sub> O					0.10%	-
Maintenance interval HCl: (field test)					1-2 weeks	To be reported
Availability (field test) HCl					100 %	> 95 %
Integral performance (field test) HCl					1.87 %	< 10%
Zero drift (weekly) HCl				a		< 2 %
Span drift (weekly) HCl				a		< 4 %

Note 1: Cross-sensitivity to interfering substances was only performed on zero measurements. The concentration values of CO, NO<sub>2</sub> and CH<sub>4</sub> in the cross-interference tests were set higher than required by the test programme. If the CEM outputs are scaled linearly by the ratio required/applied concentration then the result is 6.8%. This result still exceeds the performance specification however the MCERTS Certification Committee have stated that the required concentration for the NO<sub>2</sub> interferent should have been set at 20mg/m<sup>3</sup> and not 50mg/m<sup>3</sup> as tested. If this lower value had been used then the instrument would have passed the MCERTS requirement, if the CEM output is linear with NO<sub>2</sub> interferent concentration.

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## Field Test

The Xendos 2510 analyser was assessed on the basis of a three month field trial mounted on a municipal waste incinerator.

Fuel capacity of the incinerator was 11 tonnes/hour. Abatement techniques were carbon and lime injection, and bag filters.

## Approved Site Application

On the basis of these tests this certificate is valid when the instrument is used on waste incineration and large coal-fired combustion plant applications.

*Any potential user should ensure, in consultation with the manufacturer, that the emission monitoring system is suitable for the process on which it will be installed.*

*For general guidance on stack emission monitoring techniques refer to Environment Agency Technical Guidance Note M2: Monitoring of stack emissions to air. This is available on the Agency's website at [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)*

## 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:

NPL Report	QE/N97/004 dated February 1999
AEAT Report	MCT/ESTC/B.01/SO5 dated July 1999
SIRA Report	Ref: 04 Issue 01 dated 05/07/07

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## Description:

The Xendos 2510 GFC Analyser is equipped with a high temperature sample cell for extractive monitoring of trace level HCl. It takes a continuous sample of hot, filtered flue gas and provides a continuous display and output of the HCl concentration. Its sampling system comprises a heated filter probe including calibration sample injection facility, high temperature heated sampling line, and a system panel including a hot component box. The system uses aspiration to draw the flue gas sample through the probe, heated line and analyser. The system uses aspiration to draw the flue gas sample through the probe, heated line and analyzer. Full calibration facilities and hardware interlocks are provided to prevent damage under failure conditions.

Ordering Code of System Tested:

02510A2HTV-\* -11-5-4-1-1-1-1-4-\*-\*-\* -2 (\*user choice)(analyser)  
290003/006(probe)  
290003/001(sampling system)

## 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 MC 990002/01.
2. If certified product is found not to comply, Sira Certification Services 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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