



ENVIRONMENT
AGENCY

Product Conformity Certificate

Certificate No: **Sira MC 990003/00**

Issue date: 06 September 1999

Valid to: 05 September 2004

This certificate is issued for the following instrument:

Model 3000 Gas Monitor

Manufactured by:

CODEL International Limited
Station Building
Station Road
Bakewell
Derbyshire DE45 1GE
UK

Sira Certification Service being accredited by the United Kingdom Accreditation Service certifies that this instrument has been found to comply with the following standard:

MCERTS Performance Standards for Continuous Emission Monitoring Systems
(November 1998)

Certification Range:

CO - 0 to 200 ppm.m
SO₂ - 0 to 400 ppm.m
NO - 0 to 450 ppm.m
HCl - 0 to 100 ppm.m

and has successfully met the test requirements recorded in Test Report Nos:

QE21/N99/005 (NPL)
MCT/ESTC/B.01/SO6 (AEAT)
N 0312 (Sira)

I D Knott
Chief Executive

MCERTS is operated on behalf of the Environment Agency by

Sira Certification Service

South Hill, Chislehurst, Kent, BR7 5EH, England
Tel: 020-8467-2636 Fax: 020-8295-3005

This certificate may only be reproduced in its entirety and without change



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Product Conformity Certificate (Continued)

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Description

The Model 3000 is a cross-stack flue gas analyser, based upon infra-red absorption techniques, that is capable of measuring four gaseous determinands plus water vapour. The transmitter and receiver units are mounted opposite each other on a duct or stack and are connected by a tube which has diffuser elements that allows flue gas exclusively into the measurement volume.

The Model 3000 measures water vapour concentration to exclude the effect of this dilutant from the measured values. The analyser accepts inputs for pressure and temperature to carry out normalisation to standard values. The output data can be presented in ppm (by volume), mg/m³ (measured), mg/Nm³ (normalised).

The Model 3000 has an automatic zero check system using injected dry compressed air or N₂. Audit gases may be introduced manually into the sampling volume for independent span verification.

Maintenance Interval (as defined in the standard)

>16 weeks



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Product Conformity Certificate (continued)

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Performance Results

Refer to MCERTS Performance Standards for Continuous Emission Monitoring Systems (November 1998) for full performance criteria.

Performance values are given with reference to the certified ranges.

Note: The instrument required re-calibration before evaluation.

Effect of a sample pressure change (%/kPa)

CO	SO ₂	NO	HCL
-0.06%	-0.06%	-0.09%	0.03%

Effect of sample temperature change (per 10°C)

CO	SO ₂	NO	HCL
-0.02%	-0.29%	-0.02%	-0.09% (100 to 129°C)
-0.01%	0.34%	0.48%	0.48% (129 to 158°C)

Field Trial Information

The system was evaluated for 3 months on a municipal waste incinerator with stack conditions appropriate to those given in Table 2.1 of the above Standard. Fuel capacity of the incinerator was 11 tonnes/hour. Abatement techniques were carbon and lime injection, and bag filters. The system complied with the performance requirements stated in the above standard.

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. The above standard gives guidance of process conditions for some other types of plant.

Additional Tests:

A vibration test was satisfactorily completed on the stack-mounted components.

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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 systems shall be subject to regular surveillance according to SCS regulations. The design of the product certified is defined in the SCS Design Schedule for certificate No. MC 990003/00.
2. If marked product is found not to comply, Sira Certification Service should be notified immediately at the address shown on page 1.
3. The Certification Marks that can be applied to the product or used in publicity material are defined in SCS regulations.
4. This document remains the property of SCS and shall be returned when requested by the company.

Limitations on Use:

1. Ambient Temperature Range

Stack Components	-10 to +45°C.
Control Unit	-10 to +45°C
2. Relative Humidity

Stack Components	5 to 95% (including condensation)
Control Unit	20 to 80% (excluding condensation)

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