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PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

FIDAMAT 6 FID Analyser

manufactured by:

Siemens Production Automisation S.A.S.

*1 Chemin de la Sandlach
B.P. 189
F-67506 Haguenau Cedex
France*

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 Range :

TOC 0 to 15 mgC/m³

Project No: 674/0257
Certificate No: Sira MC 080120/01
Initial Certification: 11 January 2008
This Certificate Issued 23 August 2011
Renewal Date: 10 January 2013

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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Approved Site Application

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. Operators with installations falling under the Large Combustion Plant Directive or Waste Incineration Directive must refer to Technical Guidance Note M20: Quality Assurance of Continuous Emission Monitoring Systems, for guidance on the suitability of CEMS for their installations. M2 and M20 are available on the Agency's website 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 on waste incineration and large coal-fired combustion plant applications. H₂ only fuel was used during the field test.

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 Süd Industrie Service GmbH Report No: 678844 dated 20/12/05

TÜV reports are accepted on the basis of the Environment Agency's document 'MCERTS – Guidance on the acceptance of German type approval test reports for CEMS' Version 2 (October 2003)

Product Certified

The FIDAMAT 6 measuring system consists of the following parts:

- FIDAMAT 6 analyser
- SP2000 HR probe with sinter metal/ceramic-filter, length 90cm, heated 180°C
- Heated line H-SO 2615 with integrated heating to 180°C
- Controller HTi-15-200-DS
- Heated filter Universal filter M&C FT-3G-H2

This certificate applies to all instruments fitted with analyser software version 1.2.0 onwards and adaptor card software 1.0 onwards (serial number N1-S3-0053 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

Unless otherwise stated the evaluation was carried out on the certification range 0 to 15 mgC/m³.

Test	Results expressed as % of certification range				Other results	MCERTS specification
	<0.5	<1	<2	<4		
Linearity					0.1mgC/m ³	±<0.4mgC/m ³
Cross-sensitivity (H ₂ O, CO, CO ₂ , NO, NO ₂ , SO ₂ , HCl)					0.91mgC/m ³	±<1.0mgC/m ³
Temperature dependent zero shift	0.24					<0.3%/°C
Temperature dependent upper reference point shift	0.23					<0.3%/°C
Response time					36s	60s
Detection Limit					0.16mgC/m ³	±<0.4mgC/m ³
Sample gas pressure					Note 1	To be reported
Sample gas temperature					Note 1	To be reported
Mains voltage (10V increments, varying voltage from 230V to 190V and then 230V to 250V)	0.5					<2%
Control gas mixture – low levels of TOC					8.71%	<15%
Effect of oxygen (synergism)					0.63mgC/m ³	±<0.8mgC/m ³
Range of response factors:						
Ethane, Hexane					1.02	0.90 – 1.10
Benzene, Toluene					1.04	0.85 – 1.10
Dichloromethane					0.94	0.75 – 1.15
Ethanol, propanol					0.74	0.70 – 1.00
Esters, ethyl acetate					0.73	0.70 – 1.00
Ketones, acetone					0.73	0.70 – 1.00
Organic acid, acetic acid					0.53	0.50 – 1.00

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Test	Results expressed as % of certification range				Other results	MCERTS specification
	<0.5	<1	<2	<4		
Vibration test (10 to 60Hz (0.3mm), 60Hz to 150Hz at 19.6m/s ²)					Note 2	To be reported
Zero drift during field test ^{Note 4}	0.14					<2%/week
Upper reference point drift during field test ^{Note 4}	0.13					<4%/week
Analysis function (field) ^{Note 4}					Note 3	>95%
Availability ^{Note 4}					96.8%	>95%
Reproducibility ^{Note 4}					38	>30
Maintenance Interval ^{Note 4}					8 days	To be reported

- Note 1: Test not applicable as FIDAMAT 6 is an extractive analyser.
 Note 2: Test not applicable as FIDAMAT 6 is an extractive analyser
 Note 3: Test not applicable for TOC flame ionisation detectors (FID).
 Note 4: Field test: FIDAMAT 6 was mounted for a 4.5 month period on a waste incinerator.

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Description:

The FIDAMAT 6 gas analysers apply flame ionisation principles for the determination of the total hydrocarbon content in the air and high-boiling gas mixtures.

The manufacturer states that the FIDAMAT 6 shows low cross sensitivity to interference gases, including oxygen and is low for combustion gas consumption. Several features ensure safe operation and reduce maintenance costs. These include a corrosion-proof filter, a corrosion-proof capillary and pump shut-down below set temperature.

The analyser is equipped with warning and fault messages:

- In the event of combustion gas failure
- If the flame is extinguished
- To indicate faults in the pump and filter

Auto calibration is available. Auto or manual range change between four ranges is available. Remote operation of the range change is also possible.

Outputs of 0-20mA and 4-20mA are standard and a PROFIBUS version can be supplied as an option.

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 080120/00.
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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