

PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

Model 6888A

Manufactured by:

Rosemount Inc.

8200 Market Boulevard
Chanhassen, MN 55317, USA

&

Emerson Process Management Asia Pacific Ltd.

9 Gul Road #01-03,
Singapore 629361, Rep. of Singapore

&

Circuitio del Progreso 27,
Parque Industrial Progreso,
Mexicali B.C. 21190, Mexico

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 (CEMS), Version 4 dated July 2018
EN15267-1:2009, EN15267-2:2009, EN15267-3:2007,
& QAL 1 as defined in EN 14181: 2014**

Certification Ranges :

O₂ 0 to 25 Vol.-%

Project No.: 16A29888/80023650
Certificate No: Sira MC140270/03
Initial Certification: 17 December 2014
This Certificate issued: 16 December 2019
Renewal Date: 16 December 2024



Emily Alexander
Environmental Project Engineer

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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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 on waste incineration and large coal-fired combustion plant applications. This CEM has been proven suitable for its measuring task (parameter and composition of the flue gas) by use of the QAL 1 procedure specified in EN14181, for LCPD and WID applications for the ranges specified. The lowest certified range for each determinand shall not be more than 1.5X the daily average emission limit value (ELV) for IED Chapter IV applications, and not more than 2.5X the ELV for LCPD and other types of application.

The field trial was conducted over 11 months on a municipal waste incinerator.

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 Köln Report no. 936/21219899/C dated 30 August 2013

Product Certified

The Model 6888A measuring system consists of the following parts:

- Probes 6888A-1OXY-4-1-5DR or 6888A-1OXY-4-1-1HT
- 6888Xi Electronics

This certificate applies to all instruments fitted with software version 1.048 onwards (probe serial number M-1100145 onwards and electronics serial number M-1100112X or F-10004111X onwards).

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Certified Performance

The instrument was evaluated for use under the following conditions:

Ambient Temperature Range: -20°C to +50°C
Instrument IP rating: IP66

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.

Results are expressed as error % of vol, unless otherwise stated.

Test	Results expressed as %vol.				Other results	MCERTS specification
	<0.5	<1	<2	<5		
Response time O ₂					21s	<200s
Repeatability standard deviation at zero point O ₂	0.01					<0.20%
Repeatability standard deviation at reference point O ₂	0.01					<0.20%
Lack-of-fit O ₂	-0.12					<0.20%
Influence of ambient temperature zero point O ₂	0.03					<0.50%
Influence of ambient temperature reference point O ₂	0.22					<0.50%
Influence of sample gas pressure O ₂	0.09					<0.20%
Influence of voltage variations 190 to 250V O ₂	-0.03					<0.20%

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Test	Results expressed as % of the certification range				Other results	MCERTS specification
	<0.5	<1	<2	<5		
Influence of vibration (10 to 60Hz (±0.3mm), 60 to 150Hz at 0.5g) O ₂	0.16					<0.20%
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 O ₂	0.00					<0.40%
Cross-sensitivity at reference with interferents: H ₂ O, CO, CO ₂ , CH ₄ , N ₂ O, NO, NO ₂ , NH ₃ , SO ₂ , HCl O ₂	0.17					<0.40%
Measurement uncertainty O ₂				2.4	Guidance - at least 25% below max permissible uncertainty	<7.5% (10%)
Calibration function (field) O ₂					0.9509	>0.90
Response time (field) O ₂					16s	<200s
Lack of fit (field) O ₂	0.1					<0.20%
Maintenance interval O ₂					4 Months	Note 1 >8 days
Zero and Span drift requirement	In order to compensate for drifting, the user shall perform a 2-point calibration if the analyser shows the "calibration recommended" alarm.					Clause 6.13 & 10.13 Manufacturer shall provide a description of the technique to determine and compensate for zero and span drift.

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Test	Results expressed as % of the certification range				Other results	MCERTS specification
	<0.5	<1	<2	<5		
Change in zero point over maintenance interval O ₂	0.18					<0.20%
Change in reference point over maintenance interval O ₂	<0.20					<0.20%
Availability O ₂					99.9%	(>98% for O ₂)
Reproducibility O ₂	0.04					<0.20%

Note 1: The Model 6888A has a maintenance interval of 4 months. The work detailed below has to be carried out at regular intervals, depending on local conditions:

- Zero and span point check. (Pure nitrogen should not be used for the zero point check. Instead, use a test gas with an oxygen concentration of 0.4 to 2 Vol.-%. Test gas with an oxygen concentration of approximately 18 Vol.-% is suitable for the span point check.) When supplying test gas, a volume flow of 2.5L/min must be maintained.

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Description

The Model 6888 In Situ Oxygen Transmitter is an in situ, zirconium oxide-based oxygen transmitter for flue gas measurement. The probe is inserted directly into a duct to measure oxygen in combustion processes. No sampling system is required.

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'.
2. The design of the product certified is held and maintained by TUV Rheinland for certificate No. Sira MC140270/00
3. 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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