



MCERTS 2007

The first CEM Solution
to be tested against
prEN15267-3



ABB

Content



Background – prEN 15267-3:2007

prEN 15267-3:2007 – Key Points

AO2000 Series – Continuous Gas Analysers

EL3000 Series – Easyline Continuous Gas Analysers

TÜV / MCerts Status



Content



Background – prEN 15267-3:2007

prEN 15267-3:2007 – Key Points

AO2000 Series – Continuous Gas Analysers

EL3000 Series – Easyline Continuous Gas Analysers

TÜV / MCerts Status



- **EN 45011:1998 – General requirements for bodies operating product certification systems**
 - Important step towards mutual recognition between certificate bodies
 - Establishes general criteria which may have to be supplemented when applied to a particular sector

- **prEN 15267-X, Air Quality – Certification of automated measuring systems – Parts 1-4**
 - Defines common procedures and requirements for certification of AMS
 - Minimise costs burdens on AMS manufacturers
 - Defines roles and responsibilities of manufacturers, test laboratories, certification bodies and relevant bodies
 - Combines TÜV and MCerts schemes into one European Standard

Air Quality - Certification of Automated Measuring Systems

EN 15267-1
(Under Approval)

Part 1: General Principles

EN 15267-2
(Under Approval)

Part 2: Initial assessment of the manufacturer's quality management systems and post certificate surveillance for the manufacturing process

EN 15267-3
(Under Approval)

Part 3: Performance specifications and test procedures for automated measuring systems for monitoring emissions from stationary sources

EN 15267-4
(Under Development)

Part 4: Performance specifications and test procedures for automated measuring systems for monitoring ambient air quality



Content



Background – prEN 15267-3:2007

prEN 15267-3:2007 – Key Points

AO2000 Series – Continuous Gas Analysers

EL3000 Series – Easyline Continuous Gas Analysers

TÜV / MCerts Status



prEN 15267-3:2007 – Key Points

- Amalgamation of current TÜV, MCerts & other certification schemes
- Test institute must perform all relevant tests on two identical AMS (as per current TÜV scheme) – Universal Recognition
- Manufacturer must demonstrate/maintain a suitable quality management system (i.e. ISO9001:2000 & prEN 15267-2)
- Test of 'repeatability at span' is now included
- Linearity – 7 point test as opposed to 5 in UK & 10 in Germany
- Effect of ambient temperature changes – now at mid-point and extreme high/low only
- Certification only applies for measuring range(s) tested
 - Manufacturer likely to certify low and high measuring ranges
- Incorporation of EN14181 requirements
 - Certificate to state QAL1 compliance
 - Certificate to contain statement of how QAL3 can be achieved

Content



Background – prEN 15267-3:2007

prEN 15267-3:2007 – Key Points

AO2000 Series – Continuous Gas Analysers

EL3000 Series – Easyline Continuous Gas Analysers

TÜV / MCerts Status



Advance Optima Continuous Gas Analyzers

- The Advance Optima line is based on an integrated system concept
 - Standardized analyzer modules combined to a multianalyzer system
- Advance Optima offers:
 - Simple, operator-friendly analyzer systems
 - Turnkey installations for problem-free operations from the very start
 - Reliable, low-maintenance and performance tested systems
 - Comprehensive multicomponent analytical systems that meet requirements cost-effectively



Innovative modular analyzer technology

- Highest Flexibility
 - Wall mounted model, AO2040
 - Rack mounted model, AO2020
 - Models for hazardous locations, AO2060
- Customized Combination
 - Up to 4 analyzer modules
 - Up to six measuring components
 - Designed to be tailored
- Maximum Independency
 - Distributed analyzers, connected to one central unit
 - Digital Interfaces for DCS and maintenance



The analyzer modules

module name	type	typical
Uras14	NDIR photometer	CO, SO ₂ , CO ₂
Limas11 IR	NDIR photometer	CO, CO ₂ , HCl
Limas11 UV	UV photometer	NO, NO _x
Magnos106	Paramagnetic, dumbbell	O ₂
Magnos17	Heavy duty	O ₂
Caldos17	Fast silicon sensor, TC	H ₂
Caldos15	Glass coated TC	Chlorine NH ₃ , SO ₂
MultiFID14	Flame ionization	TOC
MultiFID14 NMHC	Flame ionization	Non-methane HC, VOC
ZO23	Zircon dioxid	O ₂ traces
LS25	Laser in-situ	O ₂ , CO, NH ₃ HCl
Oxygen cell	chemical	O ₂



ABB

Unique concept for communication and networking

■ Ethernet interface

- TCP/IP-protocol
- Integration into existing PC- or Maintenance networks

■ OPC-Interface

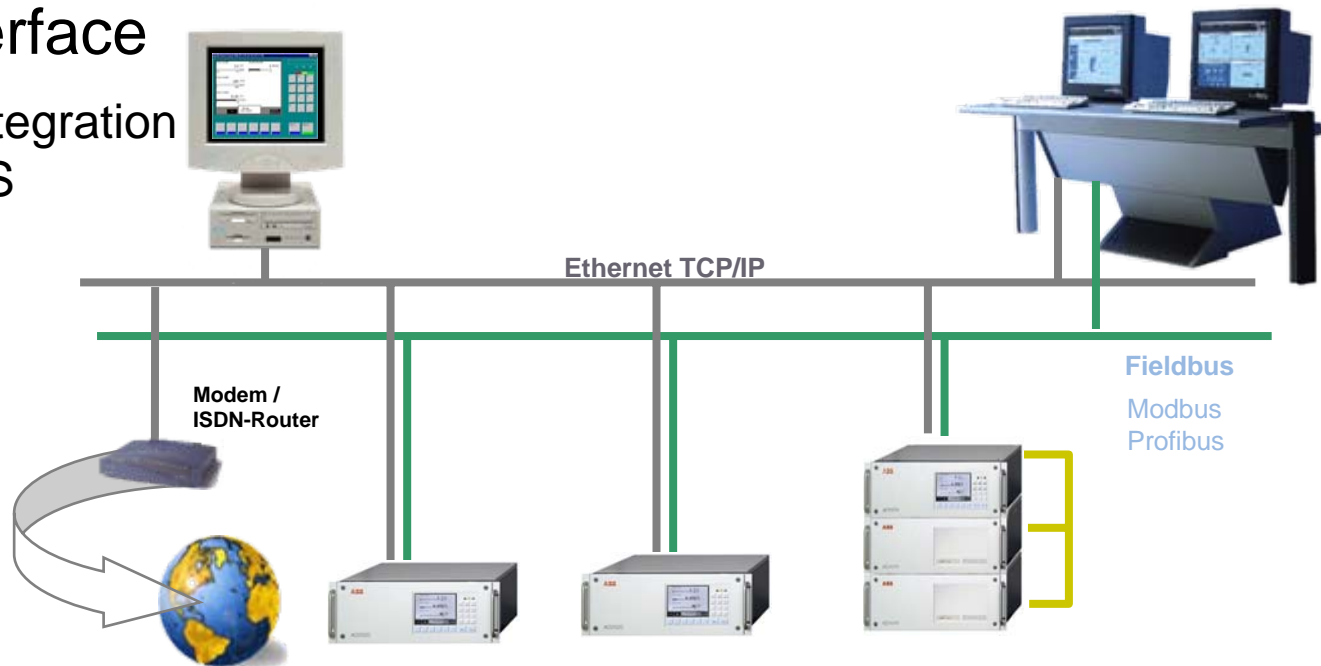
- direct integration into DCS

■ Profibus DP/PA

- direct fieldbus coupling

■ Modbus connection

- serial port



Content



Background – prEN 15267-3:2007

prEN 15267-3:2007 – Key Points

AO2000 Series – Continuous Gas Analysers

EL3000 Series – Easyline Continuous Gas Analysers

TÜV / MCerts Status



EasyLine Continuous Gas Analyzers

- **EasyLine** - a **powerful** and **affordable** line of instruments for the monitoring of gas concentrations in numerous applications.
- **EasyLine** - based on the **proven** and **reliable** analyzer technology of ABB for extractive continuous gas analysis.
- **EasyLine** - available in two versions, **optimized** for the various installation requirements of the respective location.



EasyLine - solution specific configurations

■ Emission Monitoring

- Uras + Electrochemical cell
- Uras + Magnos
(CO, NO, SO₂, O₂)

new

■ plus Emission Trading

- CO₂ measurement included

new

■ in one single gas analyzer !

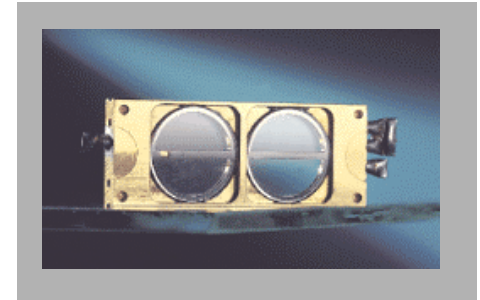


ABB

EasyLine - the analyzers

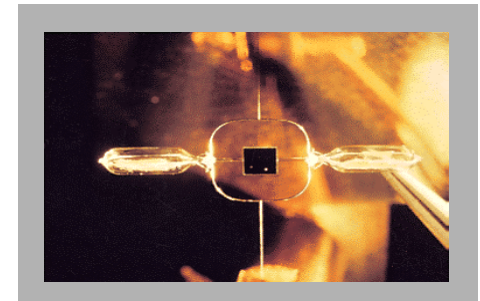
■ Uras26

- NDIR analyzer with optional calibration cells
- up to 4 IR components simultaneously
- components: CO, CO₂, SO₂, CH₄, NO, N₂O
- Small ranges 100ppm



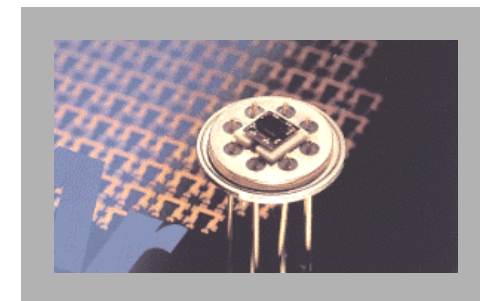
■ Magnos206

- paramagnetic oxygen analyzer



■ Caldos27

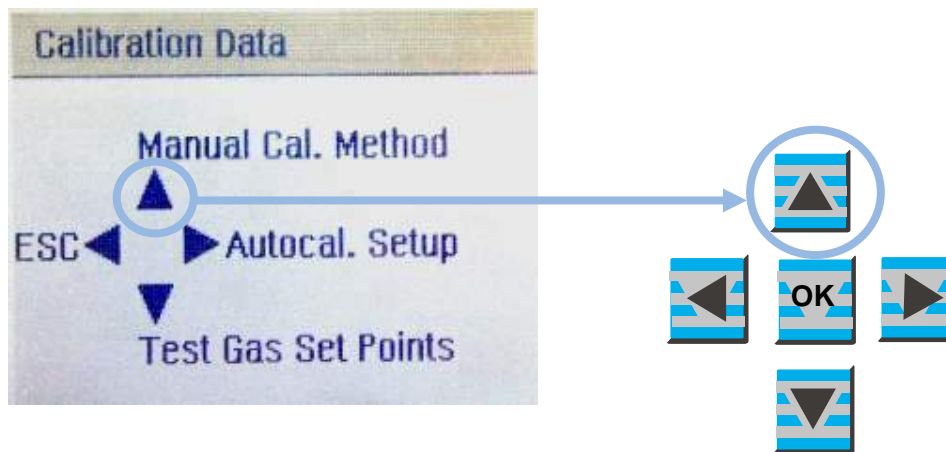
- thermal conductivity analyzer
- micromechanical sensor with short response time



■ O₂ with electrochemical cell

Easy Operation

- Graphical display allows asian languages
- Up to five components can be displayed
- Intelligent 4-way navigation
- Flat menu structure
 - Access most likely functions using the same button
 - Password protection for expert levels



EasyLine Interfaces and I/Os

- Modbus
- Profibus*
- RJ45 Ethernet, service interface
- 0/4...20mA analog output
- Digital inputs and outputs with individual configuration



* in preparation



Content



Background – prEN 15267-3:2007

prEN 15267-3:2007 – Key Points

AO2000 Series – Continuous Gas Analysers

EL3000 Series – Easyline Continuous Gas Analysers

TÜV / MCerts Status



Current TÜV/MCerts Status

	Certified Range	TUV Report No.	MCerts Certificate No.
AO2000-Uras 14	SO ₂ 0...75 mg/m ³ NO 0...200 mg/m ³ NO _x 0...300 mg/m ³ CO 0...75 mg/m ³ O ₂ 0...25 Vol%	Report No. 2401 6657 Report No. 170 608	Sira MC 030018/01
AO2000-Limas 11 UV	SO ₂ 0...75 mg/m ³ NO 0...33.5 / 200 mg/m ³ NO _x 0...50 / 300 mg/m ³ CO 0...75 mg/m ³ O ₂ 0...25 Vol%	Report No. 2402 3188 Report No. 170 608	Sira MC 030017/01
AO2000-MultiFID 14	TOC 0...15 mgC/m ³	Report No. 2401 6659 Report No. 170 608	Sira MC 030015/00
ACF-NT	SO ₂ 0...75 mg/m ³ NO 0...200 mg/m ³ HCl 0...15 mg/m ³ H ₂ O 0...40 Vol% CO 0...75 mg/m ³ O ₂ 0...25 Vol% NH ₃ 0...15 mg/m ³	Report No. 936/21204160/A	Sira MC 030016/02



Future TÜV/MCerts Status

	Certified Range	TUV Report No.	MCerts Certificate No.
AO2000 Series - Uras 26 - Magnos 206 - Oxygen Sensor	SO ₂ 0...75 / 3600 mg/m ³ NO 0...100 / 1000 mg/m ³ N ₂ O 0...100 / 3000 mg/m ³ CO 0...75 / 750 mg/m ³ CO ₂ 0...20 Vol% O ₂ 0...10 / 25 Vol%	Report No. 821029	To Follow...SOON!
EL3000 Series - Uras 26 - Magnos 206 - Oxygen Sensor	SO ₂ 0...300 / 3600 mg/m ³ NO 0...100 / 1000 mg/m ³ N ₂ O 0...100 / 3000 mg/m ³ CO 0...150 / 750 mg/m ³ CO ₂ 0...20 Vol% O ₂ 0...10 / 25 Vol%	Report No. 691317	To Follow...SOON!

TÜV tested according to the Performance Specifications of prEN15267-3:2007 and will be MCerts approved accordingly!



Future proof your investment...

**...compliance with tomorrow's
legislation today!!**



Any Questions?





**Come and visit us at
Stands 44 & 45!!**