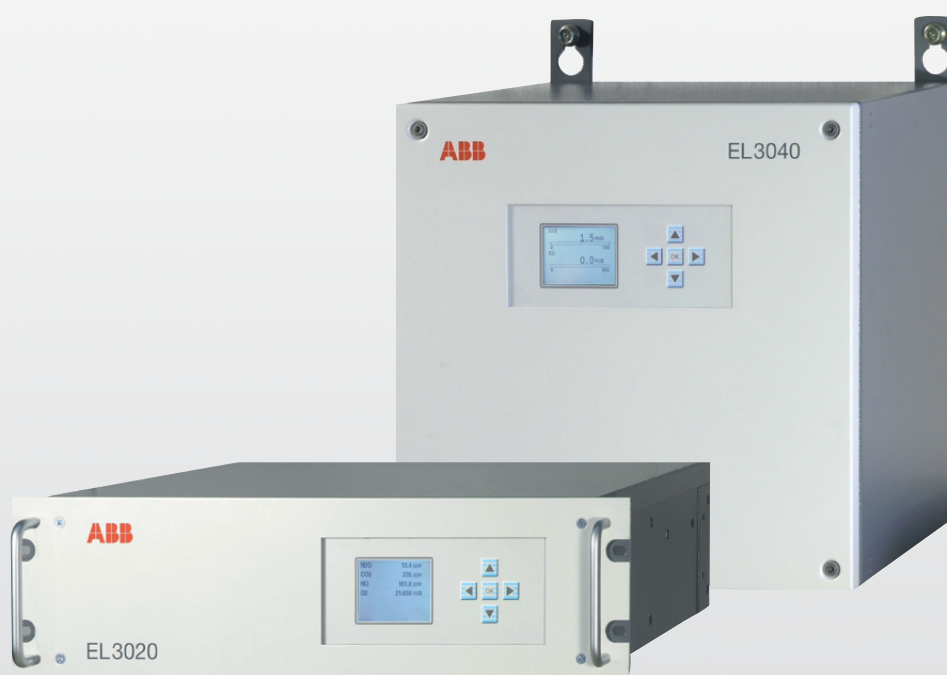


ABB MEASUREMENT & ANALYTICS

# EasyLine

Continuous gas analyzers  
So smart, they're simple



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**EasyLine was born out of the market demand for high quality continuous gas analysis at an affordable price.**

**Suitable for a wide variety of applications, EasyLine combines ABB's proven and reliable analyzer technology with unrivaled ease of use – So smart, they're simple.**

**Experience confidence and peace of mind when choosing EasyLine, reinforced by independent safety and emission monitoring approvals.**



# EasyLine

## So smart, they're simple

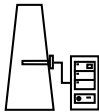
—  
01 Application in  
industrial gases  
sector



### Easy configuration

Easy to select the right product, tailored to your needs and stress-free set up after delivery

- Delivered tailored for each application
  - Configurable measuring ranges
  - Single dynamic range with two measuring ranges
  - Measure flammable gases without purging
  - Modular I/O based on your needs
- All commonly used functions accessible via HMI
- Every analyzer shipped with PC configuration tool for custom parameter setting



### Easy integration

Good fit for each application, options to fit your needs, I/O for every eventuality

- 19" rack (3HU) and wall mount housing (IP65)
- Optional pump, flow sensor and solenoid valve
- Control up to 7 external solenoid valves
- Industry standard I/O
  - 0/4...20 mA for each component
  - Standard 4 x DI, 4 x DO (Max. 12/12)
  - Standard Modbus TCP/IP
  - Optional Modbus RTU or Profibus
- Attractive solutions for hazardous applications!
  - General Purpose for flammable gases
  - Zone 2 for non-flammable gases



### Easy operation

No complex menu structure means no training and no manual necessary

- No training/manual necessary for operation
- Intelligent 4-way navigation
- Flat menu structure
- Access to most likely functions using same button
- Password protection for expert levels



### Easy maintenance

Innovative calibration concepts, accessible modular design, intelligent and intuitive servicing

- Optional gas-filled calibration cells reduce calibration costs by up to 95%!
- Integrated drift checking with one year data storage (QAL3 reporting according EN14181)
- Automatic or manual calibration
- Modular design allows easy disassembly of hardware for component replacement
- Extensive self-diagnostics, clear text status messages



—  
Now with Dynamic  
QR Codes for faster fault  
diagnosis and repair!



# Analyzer modules – world renowned brand names built on 90 years of rich heritage

## Uras26

### Infrared photometer

- Components: CO, NO, N<sub>2</sub>O, SO<sub>2</sub>, CO<sub>2</sub>, CH<sub>4</sub>, ...
- Ranges: 0 - 100 ppm up to 100 vol%
- Measure up to 4 components simultaneously
- Measure up to 2 streams continuously
- Gas-filled detectors for highly selective measurement
- Easy to add and change measuring components in field
- Internal calibration cells minimize cost of ownership



Uras26

## Magnos28

### Paramagnetic detector

- Components: O<sub>2</sub>
- Ranges: 0 - 0.5 vol% up to 100 vol%
- Patented microwing® offers improved repeatability
- Semi-automatic manufacturing for consistent quality
- Inert materials suitable for corrosive applications
- Fast response (1.3s) for improved process control
- Suppressed ranges (99,5 - 100 vol%) for purity applications
- SIL declaration available acc. EN 61508 (2010) part 2



Magnos28

## Magnos27

### Thermomagnetic detector

- Components: O<sub>2</sub>
- Ranges: 0 - 10 vol% up to 100 vol%
- Reliable measurement for flue gas applications
- Robust cell design ideal for corrosive samples
- Easy to clean even after liquid/acid contamination
- Very popular for cement and metals applications



Magnos27

## Fidas24

### Flame ionization detector

- Components: THC, TOC, VOC, C<sub>n</sub>H<sub>m</sub>
- Ranges: 0 - 10 ppm up to 10,000 ppm
- Excellent temp. stability through single block design
- Automatic and reliable re-ignition on flame out
- Injector for sample transport with no moving parts
- Optional heated connector block to avoid cold spots
- Optional internal pump for mobile applications



Fidas24







Limas23

## Limas23

### Ultra violet photometer

- Components: NO, NO<sub>2</sub>, SO<sub>2</sub>
- Ranges: 0 - 50 ppm up to 100 vol%
- Measure up to 3 components simultaneously
- Insensitive to H<sub>2</sub>O and CO<sub>2</sub> interference
- Simultaneous NO and NO<sub>2</sub> measurement w/o converter
- Internal calibration cells minimize cost of ownership
- Four beam detection simplifies failure diagnosis



ZO23

## ZO23

### Zirconium dioxide detector

- Components: O<sub>2</sub>
- Ranges: 0 - 1 ppm up to 250,000 ppm
- Trace level measurement for purity applications
- Catalytically inactive cell minimizes influence from flammable gases
- Wide dynamic range for start-up / shut-down operation
- T<sub>90</sub> response time < 60 sec for alternation of 2 test gases
- Automatic self-check function without test gases

O<sub>2</sub> Sensor

## O<sub>2</sub> Sensor

### Electrochemical sensor

- Components: O<sub>2</sub>
- Ranges: 0 - 1 vol% up to 25 vol%
- Low initial cost option for O<sub>2</sub> measurement
- Combined as add-on with Uras or Limas modules
- Up to two sensors possible together with Uras
- 6 - 24 months lifetime depending on gas composition
- Certified for continuous emission measurement

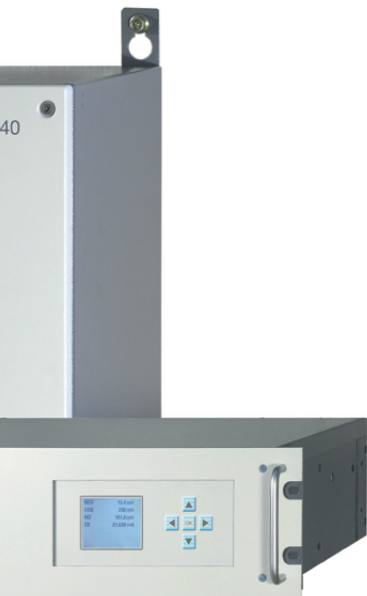


Caldos27

## Caldos27

### Thermal conductivity detector

- Components: H<sub>2</sub>, He, Ar, N<sub>2</sub>, ...
- Ranges: 0 - 1 vol% up to 100 vol%
- Flexibility to cover wide variety of applications
- Fast response (t<sup>90</sup> < 2s) for improved process control
- Standard application for H<sub>2</sub>-cooled turbogenerator
- Standard application for blast furnace with Uras26



# Proven and reliable measurement

## Adaptable to your operation

EasyLine offers an excellent price-performance ratio and can be configured to match your specific application requirements. The ability to combine up to two sensors in one housing provides a high degree of flexibility and comprehensive safety and emission monitoring approvals reassure you that you are making the right choice in choosing ABB as your partner in continuous gas analysis.

01 Application in power generation processes

### Combinations

#### Combine up to two sensors in one housing:

Uras26 + Magnos28  
 Uras26 + Magnos27\*  
 Uras26 + O<sub>2</sub> sensor (up to two)\*  
 Uras26 + Caldos27  
 Fidas24 (standalone)  
 ZO23 (standalone)  
 Limas23 + Magnos28  
 Limas23 + O<sub>2</sub> sensor  
 Magnos28 + Magnos28  
 Magnos28 + Caldos27  
 Caldos27 + Caldos27

\* Combination only available in rack mount housing

### Approvals



### Applications

#### Emission monitoring

According EU, US EPA and other local regulations

#### Industrial Gas

Air separation, HyCO, Carbon Dioxide

#### Chemicals

Combustion, Reactors

#### Cement

Kiln, Preheater, Safety

#### Waste

Incineration, Landfill

#### Pulp & Paper

Boilers, Lime kilns

#### Metals

Blast furnace, Converter

#### Mining

Smelting, Safety

#### Water

Biogas, Dryers

#### Marine

Combustion, Safety

#### Renewable Energy Technologies

Electrolyzers, (green) Hydrogen,  
 Carbon Capture, (green) Methane



# Unique qualities

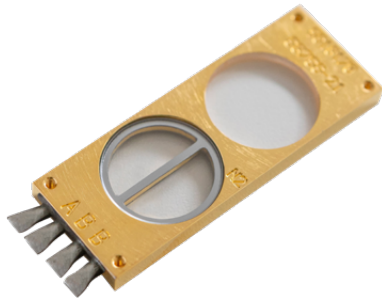
## Calibration cells and Dynamic QR Codes

— 02 Application in cement industry

— 03 EasyLine display with Dynamic QR Code

### Calibration cells

Calibration is necessary for all gas analyzers but the frequency varies significantly between different devices. The time and costs can increase substantially depending on the approach taken. Regulatory aspects can also have a big impact (e.g. daily validation required according to US EPA emission regulations), especially when you consider the real cost of gas cylinders.



#### Manufacturing

- Gas-filled calibration cell
- Tightness guaranteed by proprietary manufacturing technique
- 30 years' manufacturing experience

#### Suitability

- Alternative to flowing test gas
- Available in both Uras and Limas photometers
- Compliant with EN 14181 and US EPA 40 CFR 60

#### Proven technology

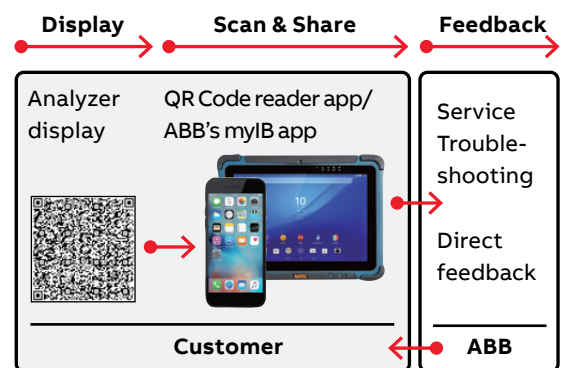
- Tested by TÜV for over 10 years
- Stability superior to many test gas cylinders
- Drift < 0.5% per year
- Certified according EN 15267



**Up to 95% lower calibration costs!**  
Ask your local contact for more info

### Dynamic QR Codes

ABB's Dynamic QR Code is a unique feature to display dynamically generated QR codes on the analyzer display for easy communication. In addition to static information for system identification, it contains also dynamic information on system configuration and analyzer health status. In combination with mobile devices, the Dynamic QR Code represents an innovative way of customer's communication which allows, for instance, improved case-specific support by ABB resulting in an increased availability of analyzer assets. It is compatible with standard QR code reader applications as well as ABB's application 'my Installed Base (myIB)'.



#### Generally applicable for all installations across all industries, especially interesting for

- Measurements with high availability requirements (for example CEMS)
- Remote installations
- Installations with constraint remote access due to information security guidelines

02



03





# ABB Ability™

## Digital & Advanced Service products

With ABB Ability™, ABB offers Scalable Digital solutions for analyzers and systems point

**Dynamic QR Code** – for easy transfer of all relevant diagnostic information for faster troubleshooting and repair. A unique feature providing dynamically generated QR codes on the analyzer display for easy communication, enabling comprehensive product health checks and effective troubleshooting, without physically connecting to your system. In addition to static information for system identification, it contains also dynamic information on system configuration and analyzer health status.

### Additional Information

Additional Information on [www.abb.com/.../dynamic-qr-code](http://www.abb.com/.../dynamic-qr-code)  
Alternatively simply scan this code:



**Remote Assistance** – quick problem resolution delivered remotely utilizing our expertise to diagnose physical problems and provide a fast and cost-effective solution point.

ABB Ability™ Remote Assistance for measurement devices offers expert on-demand remote diagnostic support. It enables access to ABB experts from around the globe and provides a fast way to identify and resolve issues that reduce downtime. Remote access to the device removes the burden of knowledge and makes support from ABB experts easy.

### Additional Information

Additional Information on [www.abb.com/.../remote-assistance-for-measurement-devices](http://www.abb.com/.../remote-assistance-for-measurement-devices)  
Alternatively simply scan this code:



**Condition Monitoring** – provides scheduled remote product health checks and generates reliable early warnings for recommended maintenance actions point. ABB Ability™ Condition monitoring for measurement devices offers a solution, that streamlines your maintenance approach, performs time-saving analysis of data, identifies significant or undesirable changes in device condition and produces the necessary information for the expert to troubleshoot potential problems.

### Additional Information

Additional Information on [www.abb.com/.../condition-monitoring-for-measurement-devices](http://www.abb.com/.../condition-monitoring-for-measurement-devices)  
Alternatively simply scan this code:



**Genix Datalyzer** – comprehensive cloud-based analyzer fleet health monitoring solution ABB Ability™ Genix Datalyzer offers a cloud-based analyzer fleet monitoring, unlocking the value of asset data through actionable value-added insights and thus, lowers the cost of ownership by providing easy access to data and complete analyzer or system health information. The solution is scalable and flexible in deployment, removing complexity while transforming data into business value and driving business outcomes seamlessly from an asset to a fleet of analyzers.

### Additional Information

Additional Information on [www.abb.com/.../genix-datalyzer](http://www.abb.com/.../genix-datalyzer)  
Alternatively simply scan this code:



Explore how ABB's scalable digital solutions can help to make proactive and informed decision for analyzer's health status, service, and maintenance.











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**ABB Measurement & Analytics**

For your local ABB contact, visit:  
**[abb.com/contacts](https://abb.com/contacts)**

For your local product information, visit:  
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