

# EL6010 Gas Analyzers

The specialists for hazardous areas



**ABB**

# The New EL6010 Analyzer Series – Robust and Efficient

EL6010 analyzers have been designed especially for use in hazardous areas. Their flameproof enclosures are certified in accordance with the new ATEX Directive 94/9/EC. The analyzers are grouped in Category II 2 G and may be used in plants with potentially explosive gas atmospheres in Zone 1 and Zone 2.

## The concept

### Design

EL6010 gas analyzers are made up of an analyzer and a control unit, each with a flameproof enclosure meeting the highest requirements of group IIC. They can, thus, be used in atmospheres containing hydrogen and acetylene.

Two preassembled cables are used for communication and power supply from the common power unit accommodated in the control unit. Additionally, the control unit is provided with a terminal box with increased safety (EEx e), where you can also connect other signal lines, e.g. for analog output or status signals.

Advantage: the control unit with the display and the operating elements is installed at eye level, and the analyzer unit is installed in the appropriate place of the process.



## Applications

Production, storage, processing and transport of flammable and non-flammable gases in hazardous areas.

## Industries/plants

Chemical industry, process industry, pharmaceutical industry, biogas, gases from waste disposal sites or sewage treatment plants.

## Operation

EL6010 series analyzers can be easily controlled by the user. They are tailored to the requirements of hazardous area applications and provide all necessary configuration options. The menu structure is the same for all three analyzer types.

The devices can be comfortably operated in hazardous areas without opening the housing. All necessary functions are controlled through only four innovative touch keys. These keys are actuated through an explosion-proof glass pane, i.e. local operation is safe and reliable at any time.

## Interfaces

Besides the analog outputs a Modbus interface with RS232 and RS435 connector is integrated in the device and can be selected via the menu. With this interface, a digital link can be established between the EL6010 analyzer and a PC, PLC, or process control system. A DDE driver is available on the CD-ROM delivered with the device and provides for easy integration. The analyzer data can thus be read, archived and visualized by using the appropriate Windows programs of the connected PC.

## Well-proven measurement technology

No compromises are made with regard to the used measurement technology. EL6010 analyzers use the same reliable measuring principles and have the same robust design as the other well-known and proven ABB analyzers like Uras, Magnos, Caldos, and the devices of the Advance Optima series.

### Infrared gas analyzer EL6010-Uras14

The infrared gas analyzer Uras 14 selectively measures the concentration of up to two gas components. Optionally, the built-in calibration cell allows for calibration without the need for test gas bottles. The device stands out for its high selectivity and stability and permits to measure gas components like CO, CO<sub>2</sub>, CH<sub>4</sub>, SO<sub>2</sub>, NO. Using a 200 mm measuring cuvette with thermostat for smallest measuring ranges is possible.



### Thermal conductivity gas analyzer

#### EL6010-Caldos17

The Caldos 17 analyzer uses the thermal conductivity of the individual gas components for measurement. The analyzer's silicon sensor ensures quick measurement with an excellent long-time stability.

#### Specifications

Measuring component with the smallest measuring range, e.g.:

H <sub>2</sub> in air	0...4 Vol%
H <sub>2</sub> in N <sub>2</sub>	0...1 Vol%
He in air	0...1 Vol%
CH <sub>4</sub> in H <sub>2</sub>	0...3 Vol%

For a detailed table of all possible binary gas mixtures please refer to the data sheet 10/24-3.10 EN.



#### Specifications

Measuring components with the smallest measuring range, e.g.:

CO	0...10 ppm
CO <sub>2</sub>	0...5 ppm
SO <sub>2</sub>	0...25 ppm
NO	0...150 ppm

For other components like NH<sub>3</sub>, CH<sub>4</sub> and measuring ranges please refer to the data sheet 10/24-3.10 EN.

One measuring range per component, freely settable; two measuring components.

### Oxygen analyzer EL6010-Magnos106

The measuring principle of the Magnos 106 analyzer is based on the specific paramagnetic behavior of oxygen.

#### Specifications

Measuring components with the smallest measuring range:

O <sub>2</sub>	0...1 Vol%
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Suppressed measuring ranges, smallest span 1 Vol% O<sub>2</sub>

### Common specifications

Ex certificate: II 2 G EEx de IIC T4

#### Control unit

- Dimensions: 358 mm x 455 mm x 200 mm (WxHxD)
- Weight: approx. 19 kg
- Installation: Wall-mounting

#### Analyzers

- Dimensions: 250 mm x 250 mm (base plate)  
405 mm (cylinder height)
- Weight: approx. 26 kg
- Installation: Wall-mounting

# Analyzer technology is our strength

ABB is one of the leading international companies in the field of analyzer technology. Thanks to decades of experience, we can develop innovative instruments and systems to meet your company's individual requirements.

And with a distribution network covering over 40 countries, ABB's know-how is available to you – worldwide.

Naturally, after any purchase after-sales services are just as important to you, as they are to us. That's why we offer you a broad spectrum of specialized services, such as: continuous maintenance, analyzer modifications and troubleshooting etc. We'll be pleased to put together an individual service package for you.

**ABB is your partner: From consulting to project planning, from system installation to after-sales service.**



## Tradition and innovation

More than 75 years of experience in the development and production of analyzers as well as regular contacts with our customers are the basis for our innovative solutions – which have always been the market leader. Under the brandname "Hartmann & Braun", our products for the continuous measurement of process gases have gained an outstanding international reputation and represent the leading edge of technology. Since then, analyzers with the names Uras, Limas, Caldos and Magnos have enjoyed worldwide acclaim and stand for the highest efficiency. Today, more than 30,000 of these analyzers have been installed in virtually every industry – around the world.

ABB continuously optimizes its products, therefore the technical data in this document is subject to change.

Printed in the Fed. Rep. of Germany (01.2006)

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