ABB gas analyzer solutions for the power industry
So smart, they're simple

At ABB, we are dedicated to making your life easy through our leading technology and national service network.

Measurement made easy

“If it ain’t broke, don’t fix it”

There is a fair amount of truth in this often used statement, but it is also important not to be left standing still when inevitable surprises come. Those analyzers that you have relied upon for many years may work just fine now, but what if regulations change, the product reaches the end of its life cycle or the manufacturer makes hardware or software changes that unexpectedly lead to reliability issues?

No risk, just reward

ABB knows that compliance with environmental regulations is not a matter to be taken lightly. You need reliable equipment that is easy to use and maintain and is fully supported when you need help. ABB is ready to step in as your partner to help solve your compliance issues. Pioneers in CEMS for over 60 years, ABB is world renowned for our market leading technology. Our products are so robust and reliable, that we’re offering you an unrivaled 5-year warranty* on the EasyLine continuous gas analyzer series. We take care of the risk so you can focus on running your plant.

* Applies to EL3000 series only

Key reasons to partner with ABB

- Longest warranty in the industry of 5 years *
- Widest range of measuring principles
- Most horsepower in the smallest footprint
- Service and parts from a single source
- Confidence dealing with the world leader in continuous gas analysis

Coal, gas or oil fired power solutions

ABB is your expert partner for source-level extractive CEMS. Our cool/dry offering for CO (IR), NOx (CLD), SO₂ (UV) and O₂ (Paramagnetic) measurements is one of the strongest around and we are the undisputed world leader in hot/wet, FTIR based CEMS. ABB also offers integrated path TDL technology for O₂ and NH₃ measurement.

For dilution extractive systems, ABB offers the most trusted and reliable NDIR analyzer in the world (over 30,000 installations) for CO₂ measurement and is leading the way with laser-based Off-Axis ICOS technology for HCl, NH₃ and H₂O measurements.
Easy to configure, integrate, operate and maintain

EL3000 (short for EasyLine) continuous gas analyzers were designed to make your life easier while still offering the market-leading performance that ABB is renowned for.

- **Uras26 NDIR** measures up to 4 components with ranges from 0 to 10 ppm up to 100 vol %
- **CL3020 CLD NOx** analyzer with dual cell option for continuous NO/NO\(_2\) or NOx/NH\(_3\) speciation
- **Limas23 NDUV** with corrosion resistant measuring cell is ideal for SO\(_2\) and/or NOx measurement
- **Magnos28 Paramagnetic O\(_2\)** available as an option in the Uras26 or Limas23
- Flat menu structure and intelligent four-way navigation requires no training to operate
- Extensive self-diagnostics and clear text status messages warn you before a failure occurs
- Compact 19 inch housing (3HU) with industry standard analog and digital communications
- Excellent price / performance ratio with a great deal of horse power at a very reasonable price point

The most trusted and reliable NDIR analyzer in the world

Originally licensed from BASF in 1952, ABB (formerly Hartmann & Braun) has continuously refined the URAS to where it is today, with over 30,000 installations worldwide. The Uras26 is a dual beam, Luft-type NDIR, capable of both low (0 to 10 ppm) and high (0 to 2000 ppm) range CO measurement in combination with up to three additional IR absorbing components (for example, NO, SO\(_2\), CO\(_2\)). What’s more, due to the modular design, you can freely reconfigure the analyzer at a later date to add components or extend ranges.

CLD NOx analyzer

ABB’s new CL3020 CLD NOx analyzer was designed around Method 7E for low-NOx CEMS on gas-fired power plants using innovative all solid-state detection. The compact footprint also allows assembly of two detectors inside a single 19 inch housing, enabling continuous NOx speciation or NH\(_3\) measurement and eliminating complex valve switching. The instrument is fully compliant with 40CFR60 and 40CFR75 demands for relative accuracy, linearity and calibration drift in low and ultra-low NOx combustion applications.
**Robust SO\textsubscript{2} measurement with corrosion-resistant UV analyzer**

Low-drift SO\textsubscript{2} measurement is one of the key features of this product and the corrosion-resistant quartz measuring cell would be a valuable option if acid formation in the system is a concern. Where continuous speciation of NO and NO\textsubscript{2} is required, the LIMAS UV analyzer is a great choice. It also eliminates errors associated with CO\textsubscript{2} quenching and converter efficiencies common to all CLD analyzers.

**Revolutionary, extractive laser-based Off-Axis ICOS technology**

Combining the benefits of laser technology with very long path lengths (~12 miles), Off-Axis Integrated Cavity Output Spectroscopy (ICOS) has been successfully applied with dilution-extractive systems to monitor HCl and H\textsubscript{2}O on coal-fired power plants. Fully field serviceable, in the unlikely event that the optical path becomes contaminated, the mirrors may be removed and cleaned on site. Off-Axis ICOS can be employed at any wavelength from UV through mid-IR and it is simple to couple multiple lasers into a single cavity for multi-species detection, making this technology suitable for a wide range of applications.

**Paramagnetic oxygen measurement reaches new heights**

The Magnos28 represents the future of paramagnetic oxygen measurement, leveraging ABB’s pioneering technology leadership and over 75 years of innovation in the field of continuous gas analysis.

This exciting new product completely rethinks paramagnetic oxygen analysis, replacing the glass dumbell with a revolutionary new silicon sensor, the microwings, and automating historically manual manufacturing processes leading to levels of quality and reproducibility beyond anything that is currently available on the market.

**25 years experience with FTIR CEMS and over 1,600 installations**

ABB has unrivalled expertise in the design and application of FTIR based CEMS for emission monitoring. The ACF5000 is a fourth generation, pre-engineered, hot / wet system for simultaneous measurement of up to 15 components including highly soluble gases such as HCl, HF and NH\textsubscript{3}. You don’t need to be a spectroscopist to operate and maintain the ACF5000 and we do not store spectra onboard for subsequent re-analysis.
Pioneers in CEMS for over 60 years

1952
  • first usable NDIR for combustion optimization paved the way for widespread use of continuous gas analyzers.

1988
  • invention and subsequent patent of gas-filled calibration cells was a major breakthrough for ABB and they continue to be a very popular option with our photometers.

1993
  • introduced the first fully automated FTIR based CEMS, now in its 4th generation with >1600 installations worldwide.

1996
  • the world’s first truly modular gas analyzer system, the AdvanceOptima series, is still the benchmark in continuous gas analysis today and was certainly years ahead of its time then.

2005
  • recognizing the demand for high performance measurement technology in a more compact enclosure with only essential functionality, the EasyLine series was launched.

2013
  • following acquisition of Los Gatos Research (LGR), ABB is again leading the way with highly sensitive, cavity enhanced laser absorption technology called Off-Axis ICOS.

2017
  • continuing with our pioneering spirit, ABB is rethinking paramagnetic oxygen measurement with revolutionary new microwaving technology

ABB’s comprehensive instrumentation and analytical offering also includes integrated path TDL technology, natural gas BTU and flow measurement, DP stack flow monitoring, pressure and temperature measurements, zirconia O₂ probes and predictive emission monitoring software (PEMS).

The added value

What you can expect from the market leader.