

In-situ, low cost, low maintenance analyzer for continuous process and emissions monitoring providing accurate and reliable measurements.

The **GCEM40** series is the latest generation of in-situ monitors. Extensive development, knowledge and practical experience have been utilized to produce this advanced technology gas analyzer which gives complete flexibility of use on process applications while delivering superb accuracy and repeatability at a very competitive price. The analyzer uses a field-proven in-situ 316 stainless steel probe designed for the harshest stack conditions to measure directly in the flue stream. The design of the probe enables accurate measurements to be made even in very high dust level processes exceeding several grams/m³.

The **GCEM40** Series can be configured with different probe sizes to suit difficult applications. All models are fitted with a probe mounted temperature sensor. Pressure, CO₂ and H₂O can be measured as an additional option to provide fully normalized data. Designed for use primarily on combustion processes, the GCEM40 series measures key pollutants such as CO, NO, NO₂, NO_x, SO₂, CH₄, CO₂ and H₂O using infra-red spectroscopy to ensure that there is no cross sensitivity from other contaminants in the gas stream.

Features and Benefits:

- Single or Multi-species infrared absorption analyzer
- SCR NOx feedback
- In-situ stainless steel probe measurement
- Gas temperature and pressure sensors, on-board normalization
- Analog and serial outputs



APPLICATIONS

- > All Combustion Processes
- > Process Monitoring for CO, CO₂, CH₄, H₂O, HCl, NO, NO₂, NO_x, SO₂
- > SO₂ and HCl inlet monitoring on dry FGD's
- > SCR NO_x Feedback

MONITORING SOLUTIONS

Complete source for all your Continuous Emissions Monitoring (CEMS) needs:

- > Both Dilution and Extraction CEMS systems
- > Data Acquisition Systems (DAS)
- > Flow Monitoring
- > Opacity Monitoring
- > Oxygen Monitoring Systems
- > Particulate (PM) Monitoring
- > Process Monitoring Systems

Sensor Unit

Operating Principle	NDIR gas filter correlation
Span	0 to 3000 ppm (CO, NO, SO ₂) 0 to 25% (CO ₂ , H ₂ O)
Certified Ranges	0-500 ppm, 0-1000 ppm for CO, NO & SO ₂
Response Time	<200 secs
Accuracy	+/-2 ppm or +/-2% of span
Resolution	1 ppm
Calibration	Zero - automatic every 24 hours span - manually on demand
Probe Length	1m , 2m and 2.2m (NEW low weight 1m)
Low Voltage	61010-1 (Edition 3)
Analogue Output	5 x 4 to 20mA isolated, 500Ω load, fully configurable from keypad.
Logic Output	5 x volt-free SPCO contacts, 50V, 1A max, configurable as alarms - 1 x volt-free
Serial Output	RS485 Modbus configured
DDU Display	32-character alpha-numeric back lit LCD
Keypad	4-key soft-touch entry
Construction	Probe - 316L stainless steel; Head & DDU - Powder coated aluminum (IP66)
Ambient Temperature	-4 to 122°F Certified -4 to 131°F On request
Flue Gas Temperature	Up to 572°F (standard probe). Up to 752°F (high-temperature probe)
Power Requirements	24 V DC @ 15 A
Compressed Air Requirements	Dry & Oil free, 20 liter/min @ 4 bar for calibration and purging; 2 liter/min @ 4 bar normal operation

Options

Dust Shield	For applications with over 400 mg of constant dust Loading
Power Supply	110/220 VAC, 50 Hz +/- 10%, 400 VA to 24 V DC @ 15 A

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