E.ST

ecom-ST, the flue gas analyser for fixed installation of autonomous, continuous emission monitoring

EMC-tested according to EN 61326-1

STATIONARY FLUE GAS ANALYSIS

Made in Germany

Conserved resources

Reduce fuel, energy and equipment downtime. Provide for predictive maintenance through the detection of anomalies and yield losses.

Increased efficiency

How efficiently your generate process heat might be crucial for their production process.

Enhanced safety

Monitor emissions and processes to trigger alerts when level reach set unsafe thresholds.

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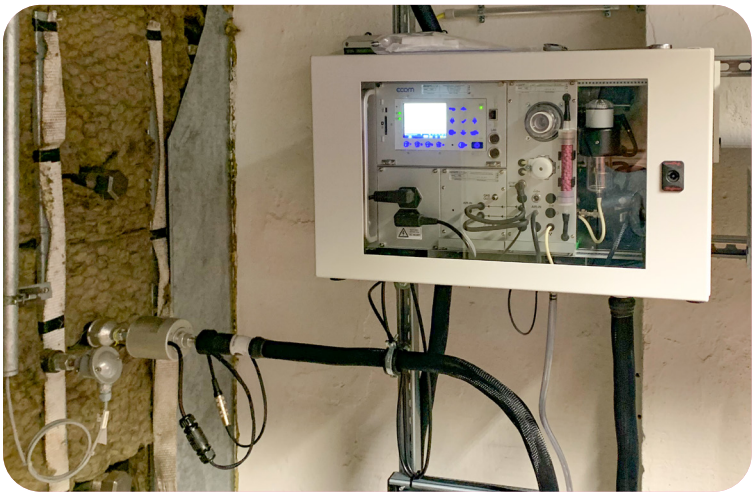
ecom®
Measurement Technology

„The earlier an anomaly is recognised in the process, the sooner it can be eliminated.“

THE STATIONARY SOLUTION

Continuous emission monitoring for clean values



- Data transfer via Modbus RTU via RS485 or Modbus TCP via Ethernet
- Automatic measuring interval programmable with cycles between 10 minutes and 65 minutes (up to 144 measurements/day)
- Up to 6 measured gases in addition to calculated values
- Large, low-maintenance gas pump for fast gas conveyance
- Integrated PTFE filter for protection against dust during long-term measurement
- Modular design fits into 19 inch rack

● = Basis EC ● = Optional Pellistor ● = Optional EC ● = Optional NDIR

O_2 | CO | C_xH_y | CO % | NO | NO ExtraLow | NO_2 | NO_2 Low | SO_2 | SO_2 Low | H_2 | H_2S | CO_2 | CH_4

Technical data			√ Standard • Option
Measured values	Range	Resolution	Accuracy*= Higher value prevails	
Maximum number of sensors				6
O_2	0…21 %	0,01 vol. %	± 0,3 vol. %	√
CO (H_2-comp.)	0…2.500 ppm (10.000 ppm)	1 ppm	± 20 ppm / 5 % of reading*	√
CO %	0…63.000 ppm	5 ppm	± 100 ppm / 10 % of reading*	•
CO_2	0…20 %	0,1 vol. %	± 0,5 % / 5 % of reading*	•
CO_2	0…100 %	0,1 vol. %	± 5 % of measure range end value	•
NO	0…5000 ppm	1 ppm	± 5 ppm / 5 % of reading*	•
NO ExtraLow	0…300 ppm	0,1 ppm	± 2 ppm / 5 % of reading*	•
NO_2	0…1.000 ppm	1 ppm	± 5 ppm / 5 % of reading* (1)	•
NO_2 Low	0…100 ppm	0,1 ppm	± 5 ppm / 5 % of reading* (1)	•
SO_2	0…5.000 ppm	1 ppm	± 5 ppm / 5 % of reading* (2)	•
SO_2 Low	0…100 ppm	0,1 ppm	± 5 ppm / 5 % of reading* (2)	•
H_2	0…20.000 ppm	1 ppm	± 100 ppm oder 5 % of reading*	•
H_2S	0… 1.000 ppm	1 ppm	± 10 ppm / 5 % of reading*	•
CH_4	0…5 %	0,01 vol. %	± 0,2 vol. % / 5 % of reading*	•
C_xH_y	0…4 %	0,01 vol. %		•

Technical data	
Calculation values	Range
CO_2	0…$CO_{2\,max}$
Combustion efficiency (ETA)	0…120 %
Excess air (Lambda)	>1
Losses qA	0…100 %
$CO_{(U)}$ undiluted	x ppm
Dew point	x° C
mg/m³	x mg/m³
mg/kWh	x mg/kWh
O_2 reference	x % O_2

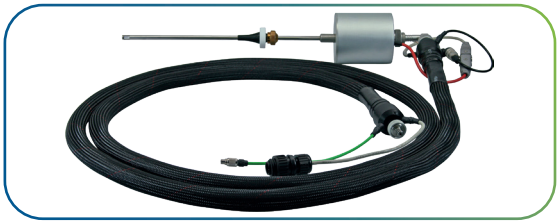
Notes:
(1) NO and NO_2: Either both as normal or low version - a mix of each types is not possible.

(2) Only one type SO_2 sensor (normal or low version) can be added to the analysers configuration.

HEATED GAS SAMPLING SYSTEM (optional)

Using a heated sampling system limits losses when measuring water-soluble substances (NO_2 and SO_2)

A hot gas filter (PTFE) can be integrated in the probe head to protects the analyser from soot during long-term measurements.



Heated gas sampling system SBK2			
Measured values	Range	Resolution	Accuracy
T-Gas	0…500 °C	0,1°C	± 2 °C or 1,5 % of reading*