Mobile multi component analyser

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Mobile measuring system for temporary emission measurement of pollutants in flue gas and for process control

APPLICATION

The MCA 14 m measures the concentrations of up to ten infrared gas components and evaluates them internally. Visualisation, operating and data logging are realised via the delivered software.

The unique characteristic is that instrument air supply is not necessary for its operation. The zero point setting is carried out with ambient air.

MEASURING RANGES

	Meas. range 1	Meas. range 2	Meas. range 3
CO:	0...75 mg/m³	0...300 mg/m³	0...5000 mg/m³
CO_2:	0...25 vol. %	0...50 vol. %	-
NO:	0...100 mg/m³	0...400 mg/m³	0...3000 mg/m³
NO_2:	0...50 mg/m³	0...500 mg/m³	-
N_2O:	0...50 mg/m³	0...3000 mg/m³	-
NH_3:	0...10 mg/m³	0…50 mg/m³	0…500 mg/m³
SO_2:	0...50 mg/m³	0...300 mg/m³	0...2500 mg/m³
CH_4:	0...50 mg/m³	0...500 mg/m³	-
HCl:	0...15 mg/m³	0...90 mg/m³	0...5000 mg/m³
H_2O:	0...40 vol. %	-	-
O_2:	0...25 vol. %	-	-

Other components and measuring ranges on request.

YOUR BENEFITS AT A GLANCE

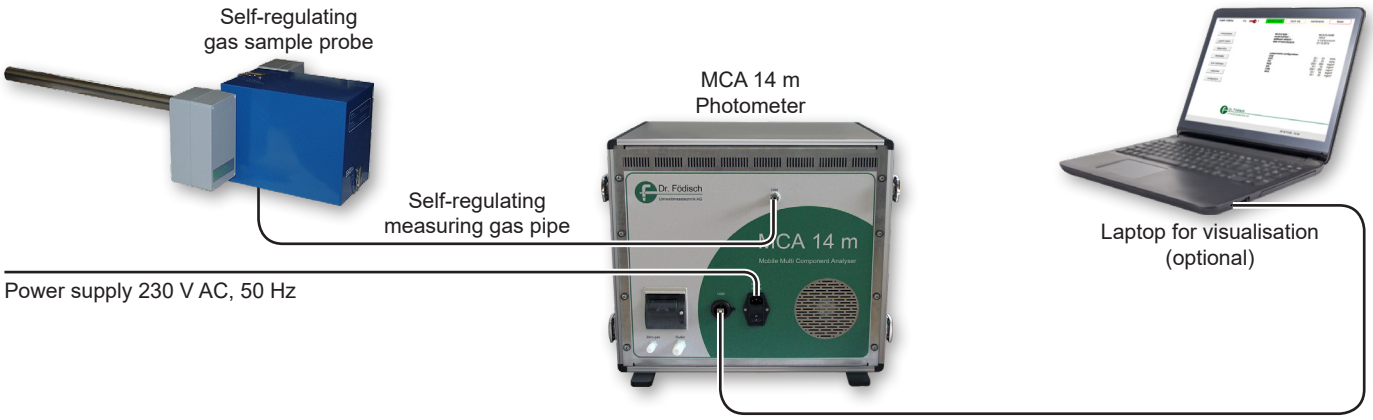
- mobile hot gas analyser system in small format
- no instrument air necessary
- continuous, extractive measurement of up to ten infrared components and oxygen
- field-proven components, modern photometer technology
- self-sustaining operation by pump supply
- long operation times, high reliability
- easy placement directly at the measuring point
- pre-calibrated → immediately deployable
- integrated zero gas provision with ambient air
- visualisation and operating via delivered software
- optionally integrated thermal printer or RS232 connection for data output

PRECONDITIONS ON SITE

- installation place indoors and dust-free with protection against wetness and percussions/vibrations
- provision of non-contaminated ambient air for zero point setting
- power supply and PC/laptop/tablet* with USB interface (resolution min. 1024 x 768 Pixel; Windows XP Professional upwards for installation of delivered user software)
- appropriate gas sampling

** tablet as additional device available (option)*

SYSTEM DESIGN



TECHNICAL DATA

Housing:	mobile housing with carrying handles; IP54 (in case of closed housing cover) / IP31 (in case of opened housing cover); 536 mm x 453 mm x 430 mm (w x h x d), approx. 34 kg (depending on fitments)
Measuring methods:	• bi-frequency measuring method (NO_2, SO_2, H_2O, CO_2) • gas filter correlation (CO, NO, HCl, NH_3, N_2O, CH_4) • zirconium dioxide sensor (O_2)
Number of meas. components:	up to 10 infrared components (dependent on application) and oxygen
Accuracy:	< 2% of the respective measuring range
Ambient conditions:	operation: 0...45 °C (temperature stability max. ± 5 °C); storage: 5...35 °C (temperature stability max. 3 K/h); relative humidity: max. 90% (non-condensing)
Zero point correction:	automatic with ambient air
Sensitivity correction:	with test gas, once in 6 months (sensitivity tests as standard with a concentration of 80% of the measuring range)
Standardisation:	dry, wet
Heat-up phase:	ready for operation after approx. 90 min (at ambient temperature of approx. 20 °C)
Media temperature:	max. 200 °C
Display / Operating:	user software (MCA14m_HID.exe) via USB connection, language selectable by software (German, English, Chinese)
Data storage:	data logger function via tablet/PC
Data output:	output of measuring values and device configuration by integrated thermal printer or optionally via RS232 interface (Modbus)
Interfaces:	USB connection; optionally RS232 connection for data output
Power supply:	230 V AC, 50 Hz (optional: 115 V AC, 60 Hz), 510 W
Other functions:	gas path continuously heated (standard 200 °C, higher temperatures on request), cross-sensitivity correction, air pressure correction, gas conveyance by pump

Special models are possible on request.

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