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

MCA 10 Portable is a hot gas analyser in lightweight 2-case design. It measures the concentrations of up to twelve 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 as lightweight 2-case design (without gas cooler)
- no instrument air necessary
- up to twelve 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
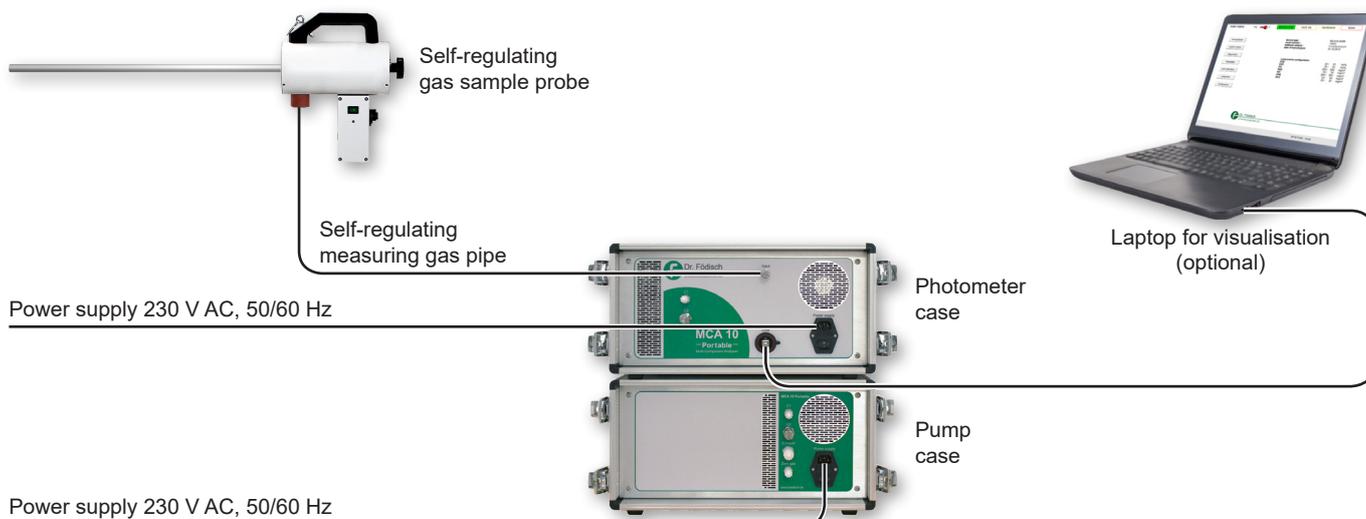- visualisation and operating via delivered software

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

Self-regulating gas sample probe

Self-regulating measuring gas pipe

Power supply 230 V AC, 50/60 Hz

Photometer case

Pump case

Laptop for visualisation (optional)

Power supply 230 V AC, 50/60 Hz

TECHNICAL DATA

Housing:	mobile housing as lightweight 2-case design, IP30; 480 mm x 245 mm x 475 mm (w x h x d); weight: photometer case 23.0 kg, pump case 12.8 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 12 infrared components (dependent on application) and oxygen
Accuracy:	< 2% of the respective measuring range
Ambient conditions:	0...40 °C (temperature stability max. 5 K/h); relative humidity: max. 90% (non-condensing)
Pressure measurement:	measuring range: 0...1600 mbar, accuracy: ± 0.1%
Flow measurement:	measuring range: 0...1000 l/h, accuracy: ± 2%
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
Calibration:	automatically with ambient air, manually with nitrogen
Gas conveyance:	bellows pump (in separate pump case), compressed-air connection not necessary
Heat-up phase:	2 to 3 hours
Media temperature:	max. 200 °C
Display / Operating:	operating software via USB connection; storage function via tablet/laptop
Power supply:	230 V AC, 50/60 Hz (per case), 350 W (photometer case) / 100 W (pump case)
Other functions:	gas path continuously heated (standard 185 °C, higher temperatures on request), cross-sensitivity correction, air pressure correction
Special models are possible on request.	