

CH₄ | CO₂ | CO | O₂ | NO

SWG100 CEMcompact

The compact
Multigas-Analyzer.



**Continuous measurements
for combustion analysis**



SWG 100 CEMcompact

The stationary
Multigas-analyzer
for continuous
gas analysis.

The SWG100 CEMcompact is suitable for continuous, simultaneous measurements of O₂, CO, CO₂ and NO. Sites of application are combustion monitoring facilities.

Outstanding advantages:

- use of most modern NDIR-technology
- optional O₂-measurement with electrochemical or paramagnetical sensor
- automatic zero point calibration with clean ambient air using separate calibration gas inlet port

Fields of application

- clean fluegas / exhaust gas / exhaust emission sources
- natural gas, biogas- and diesel generators
- methane-, natural gas boilers
- landfill gas-, biogas-CHP
- small gas turbines and power plants

Not suitable for fluegases with higher sulfur- and/or acid mist.

Scope of supply

- single heat exchanger Peltier-gas cooler with automatic condensate draining pump
- up to max. 3 electrochemical gas sensors (ECS) for measurement of O₂, CO, NO
- max. 2 unheated sample gas inlets with PTFE-sample gas pipe

- optional use of a paramagnetical O₂-measurement
- connection of up to max. 2 heated, self-regulating probes HD and HD-GW for sampling of dusty gases
- internal gas flow monitoring
- alarm at clogged probe or internal filter
- gas sampling from low pressure –100 mbar up to +50 mbar possible
- regulated sample gas pump with sample gas flow monitoring and alarm
- filtering of acid gases to protect the internal gas flow sensor
- solenoid valve for automatic zero calibration with clean ambient air
- solenoid valve for manual calibration
- up to 2 gas inlets for unheated PTFE 4/6 mm gas pipes
- device operation via TFT-colour display, key pad and RS485-interface (Modbus RTU)
- password protected, intuitive operation incl. diagnosissoftware
- IP54 steel housing 500x433x210 mm (WxHxD), with corrosion-resistant laquer RAL 7035

The device in detail

An overview of the special features



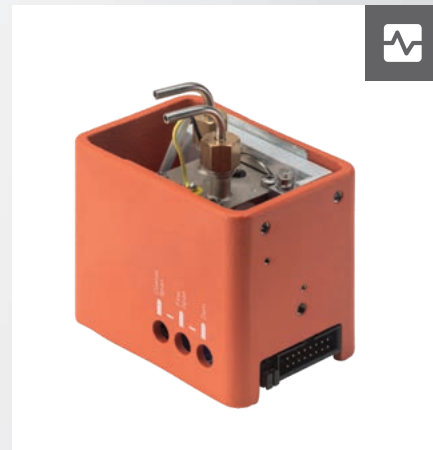
Gas cooler

for constant dewpoint of sample gas

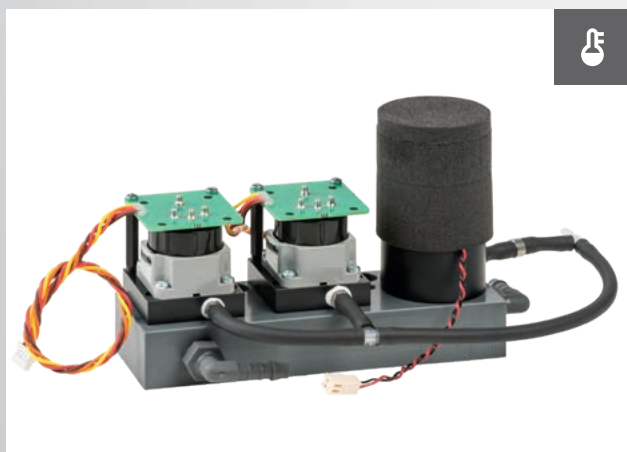


Heating element

temperature regulated, for use in environment from -5°C



Paramagnetic sensor for O_2



Electrochemical sensors

for CO , NO - and O_2 -measurement



NDIR-module

for $\text{CH}_4/\text{CO}/\text{CO}_2$ analysis or single CO_2 analysis



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Technical data

Gas measurements	Sensor technique	Range	Resolution	Accuracy
Oxygen O ₂	EC	0 ... 25 %	0,01 Vol.-%	±0,25 % abs.
Oxygen O ₂	PM	0 ... 25 %	0,01 Vol.-%	±0,1 % abs.
Carbon monoxide CO	EC	0 ... 10.000 / 20.000 ppm	1 ppm	±10 ppm abs. or 5 %, 10 % >10.000 ppm of reading**
Nitric monoxide NO	EC	0 ... 1.000 / 5.000 ppm		±10 ppm abs. or 5 %, 10 % >10.000 ppm of reading**

Measuring module CO ₂	Sensor technique	Range	Resolution	Accuracy
Carbon dioxide CO ₂	NDIR	0 ... 50 %	0,01 Vol.-%	±0,3 Vol.-% or 3 % of reading**

General technical data	
Operation / Interfaces	■ Backlit 3.5" TFT color display keyboard, password-protected calibration ■ 4x analog outputs 4 ... 20 mA, galvanically isolated, max. load: 500 Ω ■ 2x alarm relays, potential-free contacts: 24 Vdc, 5 A ■ RS 485 digital interface (Modbus RTU) ■ RS485 to USB-, Ethernet-, ProfiBus-converter
Gas conditioning	■ stainless steel fittings with 1/8" ID thread ■ Teflon-particle filter ■ sample gas pump 40 ... 60 l/h ■ Gas inlet pressure: -100 mbar up to +50 mbar ■ Sample gas outlet: atmospheric pressure
Dimensions	500x433x210 mm (HxWxD) suitable for wall mounting
Weight / Protection class	20 kg / IP54
Location	indoor or outdoor (rain- and sun protection at customers responsibility)
Ambient temperature	+5 °C ... +45 °C (-5 °C with optional heater)
Housing	steel with corrosion resistant laquer as well as glass front panel
Power supply	Universal 100 ... 240 Vac / 200 W

* overload range of ECS is usable only for short duration | ** which ever is larger | N-9513EN-COMP-K0-0M-0226 | Data subject to change without notice | EC = electrochemical sensor, NDIR = non-dispersive infrared spectroscopy

MRU – Competence in gas analysis. Since 1984.



MRU – Messgeraete fuer Rauchgase und Umweltschutz GmbH

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