

MRU – over 30 years
of innovative gas
analysis!

MRU for professional gas analysis



MRU – Emission Monitoring since 1984



MRU is a globally acting, successful German manufacturer of high-quality and long-lasting Emission Monitoring Systems for installers and industry.

Founded in 1984 MRU developed into a nationally as well as internationally respected enterprise. At its headquarters in Neckarsulm-Obereisheim, Germany, MRU develops, produces and sells Emission Monitoring Systems for portable and stationary use all around the world, employing approx. 100 people.

Continuous innovation is the source for the success of MRU. The range of products includes standard equipment as well as customer specific instruments.

Together with its MRU-owned Service Centers and Sales Representations in Germany, Italy, Slovenia, Croatia, Russia, USA and Turkey as well as its dense Partner Network in 70 countries all around the world MRU focuses on high-quality, innovative measurement technology and a worldwide leading market position.

Main applications



Service and maintenance of all residential and commercial burners and boilers.



Continuous combustion monitoring, process gas and special syngas measurements.



Maintenance and exhaust gas analysis of industrial burners, combined heat power engines and turbines.



Biogas analysis of anaerobic digester plants, biomethane production, landfill sites, water treatment plants.



Flue gas emission monitoring at industrial sites as well as for combustion optimisation.

Portable combustion analysers



DELTA smart

smallest handheld 3-gas flue gas analyser

- for checking residential and commercial boilers
- measures O₂, CO, NO, ΔP and ΔT
- calculates CO₂, NO_x, η combustion efficiency, heat loss
- on site replaceable, pre-calibrated electrochemical cells
- data storage on SD-card, USB and Bluetooth data transfer
- certification: TÜV ByRgG 309, VDI 4206-1, EN 50379



OPTIMA 7

worldwide unique handheld 7-gas flue gas analyser

- for multi-gas analysis of industrial plants, engines, turbines
- 7-gas measurement of O₂, CO, NO, NO₂, SO₂, CO₂ and C_xH_y
- true NO_x measurement, also ΔP and ΔT and flow
- calculates CO₂, η combustion efficiency, heat loss
- data logger on SD-card, USB and Bluetooth data transfer
- certification: TÜV ByRgG 280, VDI 4206-1, EN 50379



NOVA compact

rugged and portable 5-gas flue gas analyser

- for all gases, oil and solid fuel combustions
- measures O₂, CO, NO, NO₂ and SO₂
- true NO_x measurement, also ΔP and ΔT
- combustion calculations CO₂, η efficiency, heat loss
- Peltier gas cooler and condensate draining pump
- powerful lithium battery, large colour TFT display

Semi-continuous portable emission analysers



NOVAplus

multifunctional, portable 8-gas flue gas analyser with wireless Remote Control Unit

- for all gases, oil and solid fuel combustions
- measures O₂, CO, NO, NO₂, SO₂, H₂S, CO₂ and CxHy
- true NO_x measurement, also ΔP and ΔT and flow
- Peltier gas cooler and condensate draining pump
- heated sampling line and probe filter, automatic zeroing
- certification: MCERTS, TÜV ByRgG 296, VDI 4206-1, EN 50379



VARIOluxx

semi-continuous, portable 9-gas flue gas analyser with complete sample conditioning system

- for all industries combustions, laboratories and research centres
- measures O₂ with paramagnetic cell or long-life galvanic cell
- measures CO, NO, NO₂, SO₂, H₂S with ECS and CO, CO₂, CH₄ with NDIR
- Linux OS, large 7" graphical display with touch and swipe
- data transfer over Bluetooth®, WLAN, Ethernet or RS 485
- heated probe filter and heated sampling line, Peltier gas cooler
- complying with ASTM D6522 and USEPA methods ctm-030 / 034



MGAluxx / MGAprime

high precision, portable infrared flue gas analyser with complete sample conditioning system

- for all industries combustions, laboratories and research centres
- measures O₂ with paramagnetic cell or long-life galvanic cell
- Linux OS, large 7" graphical display with touch and swipe
- data transfer over Bluetooth®, WLAN, Ethernet or RS 485
- heated probe filter and heated sampling line, Peltier gas cooler

MGAluxx:

- measures CO, NO, NO₂, SO₂, CO₂, HC with single beam NDIR
- complying with ASTM D6522 and European MCP directives

MGAprime:

- advanced NDIR technology for CO, NO, NO₂, N₂O, SO₂, CO₂, CH₄, HC
- prepared for EN15267-4 and EN14793 as alternative method to SRM

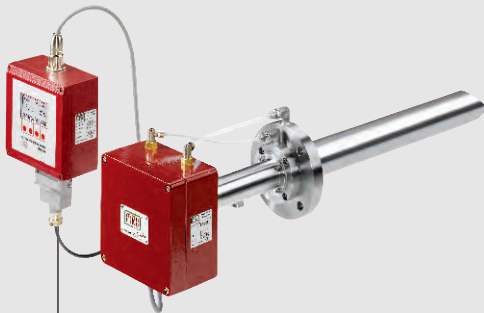
Combustion optimisation products



OMS 420

in-situ oxygen O₂ and combustibles CO_e monitor for all clean flue gas measurements

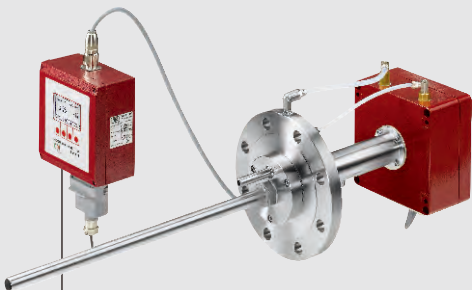
- simultaneous measurement of O₂ and CO_e
- with flow guidance tube for up to 1.000 °C gas temperature
- fast and simple on site service
- optional automatic calibration using one gas cylinder
- 24 Vdc power supply of probe head transmitter
- 2 channel analog output 4 – 20 mA, Modbus RTU via RS 485 interface



OMS 420-RT

in-situ oxygen O₂ and combustibles CO_e monitor for all dusty/dirty flue gas measurements

- simultaneous measurement of O₂ and CO_e
- with flow guidance tube for up to 1.000 °C gas temperature
- included blowback (back-purge) of probe head
- optional automatic calibration using one gas cylinder
- universal 90 – 240 Vac power supply of probe transmitter
- 2 channel analog output 4 – 20 mA, Modbus RTU via RS 485 interface



OMS 420-HT

in-situ oxygen O₂ and combustibles CO_e monitor for all very high temperature flue gas measurements

- simultaneous measurement of O₂ and CO_e
- with ceramic tube for up to 1.700 °C gas temperature
- included blowback (back-purge) of probe head
- optional automatic calibration using one gas cylinder
- universal 90 – 240 Vac power supply of probe transmitter
- 2 channel analog output 4 – 20 mA, Modbus RTU via RS 485 interface

Continuous Emission Monitoring Systems



SWG 100CEM

economical solution for continuous emission monitoring at low scale boilers and engines

- continuous measurement of O₂, CO, NO, NO₂ and SO₂
- infrared measurement of CO, CO₂ and HC
- Peltier gas cooler with automatic condensate draining
- use of heated gas sampling probes and gas sampling lines
- multiple I/O modules with 4 channel analog output 4 – 20 mA
- Modbus RTU via RS 485 interface, data logger and SD-card



SWG 300-1

professional solution for continuous emission monitoring at any industrial combustion site

- complying extractive cold & dry measuring system
- infrared measurement of CO, CO₂, NO, SO₂ and CH₄
- electrochemical or paramagnetic cell for O₂ measurement
- use of heated gas sampling probes and gas sampling lines
- Peltier gas cooler with automatic condensate draining
- 8 channel analog output 4 – 20 mA, Modbus RTU via RS 485 interface



SWG 300-1 Ex

professional solution for continuous emission monitoring in hazardous area zone 2

- complying extractive cold & dry measuring system
- infrared measurement of CO, CO₂, NO, CO₂ and CH₄
- paramagnetic cell for O₂ measurement
- ATEX certified heated gas sampling probes and gas sampling lines
- Peltier gas cooler with automatic condensate draining
- 8 channel analog output 4 – 20 mA, Modbus RTU via RS 485 interface

Biogas, Biomethane, landfill gas analysers



OPTIMA7 biogas

smallest handheld biogas analyser for anaerobic digesters, landfill sites, water treatment plants

- simultaneous measurement of O₂, CO₂, CH₄ and H₂S
- additional CHP exhaust gas measurement for CO and NO_x
- including biogas pressure and flow measurements
- data logger on SD-card, USB and Bluetooth data transfer
- powerful lithium battery, large colour TFT display



SWG 100 BIOcompact

simple and economical solution for all small scale biogas applications

- sequential measurement of O₂, CO₂, CH₄ and H₂S
- condensate separator with automatic draining
- up to 2 sampling points switching
- for suction or pressurized biogas sampling
- data logger on SD-card, large colour TFT display
- 4 channel analog output 4 – 20 mA, Modbus RTU via RS 485 interface



SWG 100 biogas

professional solution for biogas analysis at all anaerobic digesters, landfill sites, water treatment plants

- continuous measurement of O₂, CO₂, CH₄ and H₂S
- Peltier gas cooler with automatic condensate draining
- up to 10 sampling points with automatic interval sampling
- data logger on SD-card, large colour TFT display
- multiple I/O modules with 4 channel analog output 4 – 20 mA
- Modbus RTU via RS 485 interface

special
Ex-version
available

Pressure, temperature, velocity, humidity



MFplus multi-functional handheld analyser

- measurements of differential pressure and temperature
- leakage detection and tightness tests
- humidity, barometric pressure and flow velocity
- traverse points flow rate measurement EN 16911
- data logger on SD-card, large colour TFT display



DM 9600 high precision digital manometer

- measurements of different pressure ranges (from ± 75 hPa to ± 7.000 hPa)
- temperature compensated pressure sensor
- Micro-SD card slot and internal data storage of 1.000 measurements and 500 sites
- 2,8" touch color display with graphical display of measurement
- infrared printing interface

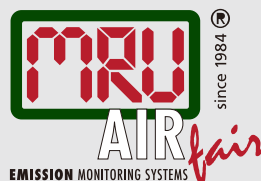


400 GD gas detector of combustible gases in ambient air

- Reliable gas leak detection
- Optical alarm at the sensor and on the display of the device
- Acoustic and vibration alarm by the device
- Adjustable alarm thresholds
- Indication of gas concentration in ppm, % and %LEL
- Strong Lithium - Ion battery, chargeable via Mini-USB socket

MRU - competence in gas analysis. Since more than 30 years.

Dealer:



MRU · Messgeraete fuer Rauchgase
und Umweltschutz GmbH

Fuchshalde 8 + 12

74172 Neckarsulm-Obereisesheim · Germany

Phone +49 7132 99620 · Fax +49 7132 996220

info@mru.de · www.mru.eu