



MGE010-  
**EcoAnalyser**

Portable measuring device without gas return system

**For analysing the quality of quenching and insulating gases**

The EcoAnalyser is designed to meet the requirements of the user in medium and high voltage analysis of quenching and insulating gases and is ready for use as soon as it is switched on. High-quality workmanship and ergonomic design emphasise the quality requirements for a compact and easy-to-maintain measuring device with high measuring accuracy.

Depending on the desired design, values can be determined for the corresponding installed Sensor. The use of the EcoAnalyser is particularly advantageous when direct vapour recovery is not necessary or desired. Even when measuring highly decomposed gas, the simple design allows the measuring device to be cleaned quickly. If the measured gas is to be collected, this can be done emission-free using an optional sample gas collection bag.

The device offers intuitive operation via a 4.3" touchscreen, and Measured values can be transferred to a USB stick. Built into a rugged plastic case, the measuring device can be transported conveniently and safely.

The following versions of the EcoAnalyser are currently available:

**For measurement in SF<sub>6</sub>:**

- Percentage of SF<sub>6</sub> (optionally in N<sub>2</sub> or in N<sub>2</sub> and CF<sub>4</sub> switchable)
- Moisture in SF<sub>6</sub>
- Sulphur dioxide (SO<sub>2</sub>)

**For measurement in synthetic air:**

- Oxygen (O<sub>2</sub>)
- Humidity
- Nitrogen oxides (NO<sub>x</sub> and NO<sub>2</sub>)

**For measurement of NOG (Natural Origin Gases and Gas-Mixtures) without C4-FN:**

- Carbon dioxide (CO<sub>2</sub>)
- Oxygen (O<sub>2</sub>)
- Carbon monoxide (CO)

**For measurement in helium:**

- Percentage of helium
- Humidity in helium



*The actual product may differ slightly from the image.*

### **Standard version**

---

- USB port for data download (max. 50 values)
- 6 m long connecting hose
- 2.5 m long electrical connecting cable including power supply unit
- Inlet coupling: self-closing quick coupling
- Outlet coupling: quick coupling

### **Special features**

---

- Gas type: SF<sub>6</sub>
- Gas type: SO<sub>2</sub>
- Gas type: C4-FN
- Gas type: H<sub>2</sub>O
- Gas type: O<sub>2</sub>
- Gas type: CO<sub>2</sub>
- Gas type: NO<sub>2</sub>
- Gas type: He

## Advantages & functions

Sensor data				
Sensor	Measuring principle	Measuring range	Measuring accuracy	Drift
Percentage SF <sub>6</sub>	Velocity of sound	0 - 100 Vol.-%	± 0,5 Vol.-%	
Moisture	Electronic dew point measurement (capacitive)	-60 to +20 °C	≤ ± 2 °C (at > -40 °C) ≤ ± 3 °C (at < -40 °C)	
SO <sub>2</sub>	Electrochemical reaction	0 - 20 ppm 0 - 100 ppm 0 - 500 ppm	≤ ± 2 % of measuring range	< 2 %/Month (signal loss)
CO	Electrochemical reaction	0 - 500 ppm	≤ ± 2 % of measuring range	< 2 %/Month (signal loss)
Mol percent O <sub>2</sub>	Optical measuring principle	0 - 25 Mol-%	≤ ± 0,3 Mol-% (bis 12%)* ≤ ± 0,5 Mol-% (bis 25%)**	
Mol percent CO <sub>2</sub> (Operating temperature 0 - 45 °C)	Non-dispersive infrared sensor (NDIR)	0 - 100 Mol-%	≤ ± 2 Mol-%	± 2 % of the measuring range in 12 months (zero stability drift)
NO	Electrochemical reaction	0 - 25 ppm	≤ ± 2 % of measuring range	< 2 %/Month (signal loss)
NO <sub>2</sub>	Electrochemical reaction	0 - 20 ppm	≤ ± 2 % of measuring range	< 2 %/Month (signal loss)
Percentage Helium	Velocity of sound	0 - 100 Vol.-%	± 2 Vol.-%	

- \* Valid for a sensor temperature of 15°C - 30°C and a pressure range of 956 mbar ±100 mbar.
- \*\*Valid for a sensor temperature of 10°C - 50°C and a pressure range of 956 mbar ±100 mbar

## Technical data

---

Dimensions (W x H x D)	429 x 328 x 236 mm
Weight	8.5 kg
Operating temperature	-10 to +50 °C
Storage temperature	-10 to +40 °C
Ambient moisture	90 % relative moisture non condensing during operation
Inlet pressure pe	0.5 - 15 bar
Operating voltage	100 - 240 V AC (power supply unit)
Frequency	50 - 60 Hz
Operating voltage	28 - 32 V DC (device)
Interface	USB/LAN
Power supply	rechargeable NiMH-battery
Max. output pressure	0.1 bar pe
Protection class	IP67 (device closed) / IP20 (device opened)
Battery charging temperature	0 to 30 °C

## Configuration

Carrier gas	
C4/CO2	
C4/N2	
CA	
SF6	
CO2	
He	
Measured value + range	
SF6/N2	SF <sub>6</sub> percentage in N <sub>2</sub> , measuring principle: Speed of Sound, measuring range: 0-100%
SF6/CF4	SF <sub>6</sub> percentage in CF <sub>4</sub> , measuring principle: Speed of Sound, measuring range: 0-100%
He/N2	
H2O	Gas humidity, measuring principle: capacitive; measuring range: 20°C # (-60°C)
SO2 0-20 ppm	Sulphur dioxide concentration, measuring principle: electrochemical; measuring range: 0-20 ppm
SO2 0-100 ppm	Sulphur dioxide concentration, measuring principle: electrochemical; measuring range: 0-100 ppm
SO2 0-500 ppm	Sulphur dioxide concentration, measuring principle: electrochemical; measuring range: 0-500 ppm
CO 0-500 ppm	CO concentration, measuring principle: electrochemical reaction, measuring range: 0-500 ppm
CO2 0-100 %	CO <sub>2</sub> percentage, measuring principle: NDIR, measuring range: 0-100%
O2 0-25 %	Mol-Prozent O <sub>2</sub> , Messprinzip: optisches Messprinzip; Messbereich: 0-25%
NO2 0-25 ppm	Nitrogen dioxide concentration, measuring principle: electrochemical; measuring range: 0-25 ppm

## Optional accessories

B151R96	Discharge gas collecting bag
6-1161-R011	DILO coupling DN8 with hose connection
6-1161-R012	DILO coupling DN20 with hose connection
C4-6-1161-R011 C	DILO coupling DN8 (M28x1.5) with hose connection
C4-6-1161-R012 C	DILO coupling DN20 (M48x2) with hose connection
CA-6-1161-R031	DILO coupling DN8 (M30x1.5) with hose connection
CA-6-1161-R012	DILO coupling DN40 (M50x2) with hose connection
CO2-6-1161-R011	DILO coupling DN8 (M24x1.5) with hose connection
CO2-6-1033-R003	Adapter ASEA M32x2 /DN8 M24x1.5