



Multi-Gas Analyzer

For demanding measurements to the highest quality standards.



Functional Overview

- For CO₂, O₂, humidity measurements
- PLC industrial control unit
- 7" touchscreen
- Automatic calibration
- Data logger
- GSM remote access module
- Alarms via SMS/e-mail
- Automatic certificate generation

Additional Optional Analysis

- 5 - 500 ppm residual moisture
- 5 - 2000 ppm oxygen
- 0 - 10% oxygen
- 0 - 100% He in Ar
- 0-30% CO₂

Latest-generation gas measurement system

The analyzer contains highly accurate CO₂, oxygen and humidity gas sensors. In order to meet the most demanding measurement requirements, the instrument can be upgraded with multiple sensors. With the built-in automatic calibration function, the accuracy of the sensors can be continually monitored. Installed in stationary housing, the analyzer offers the possibility to conduct the desired measurements on site at any time and to record them as proof of quality (depending on the selected configuration). Threshold values for each sensor can be individually set and measurement results outside the threshold values trigger an alarm.

The highly intuitive touchscreen offers easy-to-operate instrument control and a full overview of all installed sensors.

The internal data logger records each measurement and stores the values with a time and date stamp along with a user-defined name.

The time interval for the automatic calibration and verification can be set between once a week to once a year. A report is generated for each performed calibration.

Multiple sensors are available, enabling you to combine the measurements you need in single- or multi-sensor configurations.

CO₂ sensor

Sensor type	Non-dispersive IR, dual wavelength
Measuring range	5 – 10000 ppm, 0.1 – 5 vol%, 3 – 30 vol%, 5 – 50 vol%, Other ranges possible
Repeatability	Depends on measurement range, typically < 0.1 vol%
Flow rate	0.1 – 1 l/min
Warm-up time	< 2 min < 30 min (full specifications)
t90	~ 12 s @ 0.7 l/min
Temperature	0 – 60° C

H₂O sensor

Sensor type	Dew point sensor
Range (dew point)	-100 to +20°C with ±2°C
Range (humidity)	5 – 500 ppm [higher range possible]
Pressure	0 – 450 barg
t95	5 min
Temperature	-40 to +60°C

O₂ sensor

Sensor type	Optochemical
Measurement range	5 – 2000 ppm
t90	< 2 s
Temperature	5 – 80° C
Pressure	100 mbara to 5 bara

O₂ sensor

Sensor type	Zirconium oxide sensor
Measurement range	5 ppm – 100% [range selectable from ppm to % range]
Resolution	0.1%
Detection limit	0.1%
Lifetime	5+ years

Density sensor for binary gas DGF-I1

Sensor type	MEMS density
Measurement range	0.5 – 10 kg/m ³
Pressure range	0 – 10 barg
Preselection mix**	Ar/He, Ar/H ₂ , N ₂ /H ₂
Display	Ratio in vol%

NO sensor

Sensor type	NDIR
Measurement range	20 - 1000ppm
Pressure range	Atmospheric pressure
Display	ppm

Digital data output

Interface	RJ-45 Ethernet, USB
Data output	LAN (FTP, OPC UA), GSM (optional Wi-Fi)
Alarm output	Contact, SMS

Housing

Main housing material	Powder-coated sheet metal or stainless steel
Dimensions*	30 x 305 x 145 mm
Weight*	9.5 kg typical and unit weight
Protection class	IP65
Power	100 – 240 VAC, 50 – 60 Hz
Power consumption max.	230 W, typical
Temperature (gas/ambient)	0° – 50°C, indoor installation
Humidity (ambient)	0 – 95% none condensing
Category	Stationary or mobile

Approvals

Company certified to ISO 9001
 CE-marked according to:
 - ATEX 114 Directive 2014/34/EU
 Cleaned for oxygen service according to:
 - EIGA IGC Doc 13/12/E: Oxygen Pipeline and Piping systems
 EMC 2014/30/EU
 Low Voltage Directive 2014/35/EU
 Machinery Directive 2006/42/EU

Piping

Stainless steel

Fittings

Compression fittings (e.g. Swagelok or other)

* Housing size and unit weight may vary

** Possible to combine measurement with other gas sensors for 3 or more gas combinations

Linde GmbH

Gases Division, Seitnerstrasse 70, 82049 Pullach, Germany

Phone +49 89 7446-0, www.linde-gas.com