

CA-3-035R-R201

MirrorAnalyser^{CA} (two-in-one)

For high-precision gas quality analysis of several parameters

With this multi-function device, depending on the version, up to four quality parameters can be determined with just one measurement (Information on which parameters determine your device can be found in the technical data). The MirrorAnalyser^{CA} uses the physical dew point mirror measuring principle which is characterised by its high precision and utmost reliability in order to measure the moisture content. By cooling the integrated mirror the moisture content of the gas is determined by measuring the temperature depending on the condensation or icing of the mirror. The other parameters of the gas quality are determined by electrochemical or optical sensors.

High-quality manufacture and ergonomic design guarantee the quality standards for a compact, user- and maintenance-friendly measuring device with high measuring accuracy.

Our field-replaceable sensors offer a great benefit as the device is ready for use immediately after replacement without any down times.

The MirrorAnalyser^{CA} allows different methods of operation for emission-free handling of the measured gas. On the one hand the internal storage of the measured gas in the device and pumping back up to 10 bar pe. On the other hand the external storage of the measured gas into an external cylinder. For measurements on cylinders, vessels or gas compartments at higher pressure or if the measured gas should not be pumped back into the unit, a cylinder can be connected directly to the outlet (max. 10 bar pe). In this case, it is not necessary to use a pressure reducer and to separate the device from the gas cylinder or the gas compartment. Furthermore, the external storage of the measured gas into an external discharge gas collecting bag. By connecting an external discharge gas collecting bag continuous measurements without pumping back the gas are possible. Afterwards, it is possible to empty the external bag by using the MirrorAnalyser^{CA}, a service cart or compressor unit.

The measuring device offers intuitive operation via a 7" touch screen. It is also possible to operate and exchange data by means of mobile end devices such as smartphones, tablets or laptops via WiFi. The residual lifetime of the electrochemical sensor is indicated automatically. The dew point mirror has self-test functions. Integrated into a trolley, the measuring device can be transported in a safe and comfortable way. Modern control technology in conjunction with a user-friendly interface in several languages make device operation simple and convenient.



The actual product may differ slightly from the image.

Standard version

- indication of moisture concentration in dew point °C or °F, referred to atmospheric or inlet pressure, reversible to indication in ppm_v or ppm_w
- indication of inlet pressure in bar, psi, MPa and kPa (in pa or pe) to be selected on the touch screen
- 6 m long connecting hose with DN8 (M24x1.5) and DN20 (M50x2) DILO couplings
- 2 m long electrical connecting cable
- USB flash drive with data file for evaluation and reading out of measuring results

Special features

- Gas type: CA
- Sensors: moisture
- Sensors: O₂
- Features: storage of measuring results
- Features: WiFi
- Features: gas return system

Advantages & functions

Sensor data			
Sensor	Measuring principle	Measuring range	Measuring accuracy
Frost- /Dew point	Dew point mirror (physical measuring principle)	-50 °C to +20 °C	≤ ± 0,5 °C
Mole percent* O ₂	Optical measuring principle	0 – 25 Mol-%	≤ ± 0,3 mol-% (to 12%)** ≤ ± 0,5 mol-% (to 25%)***
Mole percent NO ₂	Electrochemical reaction	NO ₂ : 0 - 20 ppm	≤ ± 2 % of measuring range

*Mole % represents the amount of substance in a mixture and is equivalent to the ideal volume fraction. Its size is independent of pressure and temperature.

** Valid for sensor temperature of 15°C - 40°C and a pressure range of 956 mbar ±100 mbar.

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

- high accuracy and reliability in moisture determination (dew point mirror measuring principle)
- emission-free measurement
- modular interchangeability of the sensors
- low maintenance due to self-test functions
- storage of up to 500 measuring results with name, date and time
- precise measuring results for subsequent measurements can be guaranteed by automatically purging the measuring hose prior to each measurement

Technical data

Dimensions (W x H x D)	625 x 297 x 500 mm
Weight	27,50 kg
Inlet pressure pe	0,2 - 35 bar
Ambient moisture	max. 90% relative humidity % non-condensing during operation
Operating voltage	85 - 264 V AC
Frequency	47 - 63 Hz
Number of max. measured values to be stored	500
Interface	USB / LAN / WiFi
Measuring time	≤ 10 min variable calculated by the system
Protection class	IP65 (device closed) / IP20 (device opened)
Measuring principle of moisture sensor	Dew point mirror (physical measuring principle)
Measuring range of moisture sensor	-50 to +20 °C
Measuring accuracy of moisture sensor	≤ ± 0,5 °C
Measuring principle O ₂ sensor	Optical measuring principle
Measuring range O ₂ sensor	0 – 25 mol %
Measuring accuracy O ₂ sensor	≤ ± 0,3 mol % (to 12%)**
Measuring accuracy O ₂ sensor	≤ ± 0,5 mol % (to 25%)***

Optional accessories

3-826-R003	Compressor unit for measuring devices
3-531-R060	6 m long connecting hose with self-closing DILO couplings (as extension hose)
K176R21EU	Mobile remote control router for Ethernet devices (EU)
K176R21NA	Mobile remote control router for Ethernet devices (NA)
B151R96	Discharge gas collecting bag
CA-6-1161-R011	Hose connection DN8 with thread (M24x1,5)
CA-6-1161-R012	DILO coupling DN40 (M50x2) with hose connection