C4-3-039R-R302

MultiAnalyser C4 (three-in-one)

For gas quality analysis

With its innovative equipment, the MultiAnalyser C4 perfectly meets the user's requirements and is ready for operation immediately after switching on. High-quality manufacture and ergonomic design guarantee the quality standards for a compact and maintenance-friendly measuring device with high measuring accuracy. This multi-functional measuring device allows the emission-free determination of up to five measuring parameters with only one sample. Depending on the individual device configuration, values of the integrated sensors can be determined. Thanks to the easy-to-remove integrated battery, transport regulations are no longer an issue. Our field-replaceable sensors offer a great benefit as the device is ready for use immediately after replacement without any down times (Information on which parameters determine your device can be found in the technical data).

The MultiAnalyser C4 allows different methods of operation for emission-free handling of the measured gas. On the one hand the internal storage of the measured gas into the device, into an external cylinder or an external discharge gas collecting bag; for continuous measurements without pumping the gas back it is recommended to collect the gas in an external discharge gas collecting bag. On the other hand pumping the gas back into an external cylinder, vessel or gas compartment up to 10 bar pe. Furthermore, the external bag can be emptied by using the MultiAnalyser C4, a DILO service cart or compressor unit.

The measuring device offers automated operation via a 7" touch screen. It is possible to operate and exchange data by means of mobile end devices such as smartphones, tablets or laptops via WiFi. The remaining lifetime of the electrochemical sensors is automatically displayed. 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

- battery operation and/or external power supply
- 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 (M28x1.5) and DN20 (M48x2) 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: C4-FN
- Carrier gas: CO_2
- Sensors: percentage
- Sensors: O_2
- Sensors: CO_2
- Features: storage of measuring results
- Features: WiFi
- Features: gas return system

Advantages & functions

Sensor data			
Sensor	**Measuring principle**	**Measuring range**	**Measuring accuracy**
Mol percent * C4-FN in CO_2 or N_2	Non-dispersive infrared sensor (NDIR)	0 - 10 mol-%	≤ ± 0.1 mol-% (at <7%) ≤ ± 0.2 mol-% (at ≥7%)
Moisture	Electronic dew point measurement (capacitive)	-60 to +20 °C	≤ ± 2 °C (at > −40 °C) ≤ ± 3 °C (at < −40 °C)
Mol percent O_2	Optical measuring principle	0 - 25 mol-%	≤ ± 0,3 mol-% (to 12%)** ≤ ± 0,5 mol-% (to 25%)***
Mol percent CO_2	Non-dispersive infrared sensor (NDIR)	0 - 100 mol-%	≤ ± 2 Mol-%
Concentration CO	Electrochemical reaction	0 - 500 ppm	≤ ± 2 % of measuring range

* Mol-% represents the amount of substance in a mixture and is equivalent to the ideal volume fractionn. The unit is independent from 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.

Overview MultiAnalyser C4						
Device	**C4-FN 0-10 % / rest CO_2**	**C4-FN 0-10 % / rest N_2**	**Moisture**	**O_2 0-25 %**	**CO_2 0-100 % / rest C4-FN**	**CO 0-500 ppm**
R101	X					
R201	X		X			
R202	X			X		
R301	X		X	X		
R302	X			X	X	
R401	X		X	X		X
R402	X		X	X	X	
R405		X	X	X		X
R407	X*	X*	X	X		X
R501	X		X	X	X	X
R503	X*	X*	X	X	X	X

* One sensor with two calibrations (switchable)

- emission-free measurement
- modular interchangeability of the sensors
- storage of up to 500 measuring results with name, date and time
- limit values to be set individually for each sensor
- 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)	538 x 269 x 406 mm
Weight	25 kg
Inlet pressure pe	0.2 - 35 bar
Operating temperature	-10 to +50 °C
Ambient moisture	max. 90 % relative moisture, non condensing
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	≤ 7 min variable calculated by the system
Protection class	IP65 (device closed) / IP20 (device opened)
Measuring principle of sensor in CO_2 or N_2	Non-dispersive infrared sensor (NDIR)
Measuring range sensor in CO_2 or N_2	0 - 10 mol %
Measuring accuracy sensor in CO_2 or N_2	≤ 0.1 mol % at < 7%
Measuring accuracy sensor in CO_2 or N_2	≤ 0.2 mol % at ≥ 7%
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%)***
Measuring principle CO_2 sensor	Non-dispersive infrared sensor (NDIR)
Measuring range CO_2 sensor	0 – 100 mol %
Measuring accuracy CO_2 sensor	≤ ± 2 mol %

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)
B151R96	Discharge gas collecting bag
C4-6-1161-R011	DILO coupling DN8 (M28x1.5) with hose connection
C4-6-1161-R012 C	DILO coupling DN20 (M48x2) with hose connection