



## ■ DEVICE FOR GAS ANALYSIS

### C4-3-039R-R... MULTI-ANALYSER <sup>C4</sup>

With its innovative equipment and intuitive user interface, the MultiAnalyser <sup>C4</sup> 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 six measuring parameters with only one sample.

Depending on the individually combinable unit configuration, the following values can be determined:

- » Percentage of substance amount 3M™ Novec™ 4710 [%]
- » Moisture concentration [div.]
- » Percentage of substance amount oxygen O<sub>2</sub> [%]
- » Percentage of substance amount carbon dioxide CO<sub>2</sub> [%]
- » Concentration carbon monoxide CO [ppm]



Easy operation by intuitive menu navigation



If sensors need to be calibrated, they can be easily calibrated on site by the user. The device is immediately ready for use without loss of time based on the "Plug & Play" principle.

The MultiAnalyser <sup>C4</sup> allows different methods of operation for emission-free handling of the measured gas:

- » Internal storage of the measured gas (**max. inlet pressure 35 bar pe**) within the device, in an external cylinder or an external gas collecting bag. For continuous measurements without pumping the gas back it is recommended to collect the gas in an external gas collecting bag.
- » Pumping the gas back into an external cylinder, vessel or gas compartment (**up to 10 bar pe**).
- » The external bag can be emptied by using the MultiAnalyser <sup>C4</sup>, a DILo service cart or compressor unit.
- No gas emissions
- Modular interchangeability of the sensors
- Easy operation and intuitive menu navigation via high quality 7" colour touch panel
- Storage of up to 500 measurement results with name, date and time
- Remote control and data download via mobile devices and WLAN connection
- Battery operated and / or external power supply
- Adjustable user languages: DE, EN, FR, ES, IT, PT, CZ, PL, CN, JPN, RUS
- Compact trolley case, easy to transport





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Precise and correct results for subsequent measurements can be guaranteed by purging the measuring hose prior to each measurement. The gas is stored internally.

Another big advantage of the MultiAnalyser <sup>C4</sup> is its high precision. The gas moisture is measured at operating pressure. Thus, very precise results are obtained during a short measuring time even in the critical dew point range (< -40 °C). The dew point is calculated at ambient pressure. The device is very maintenance-friendly. The residual lifetime of the electrochemical sensors is displayed automatically. A very practical and useful device.

#### **Technical data:**

Dimensions: Length 406 mm, Width 538 mm, Height 269 mm
Weight: 25 kg
Inlet pressure: $p_g$ 0.2 - 35 bar
Operating temperature: -10 °C to +50 °C
Ambient moisture: max. 90 % relative moisture, non condensing during operation
Operating voltage: 85-264 VAC, 47-63 Hz
Number of measured values to be stored internally: 500
Interface: USB/LAN
Measuring time: variably calculated by the system, max. 15 minutes
Limit values can be set individually for each sensor
Indication of moisture concentration in dew point °C or °F, referred to atmospheric or inlet pressure, reversible to indication in ppm <sub>v</sub>
Inlet pressure indication in bar $p_a$ or $p_g$ , psi, kPa, MPa

#### **Standard equipment:**

Transport case; 6 m long connecting hose with DILLO couplings DN8 (M28x1,5) and DN20 (M48x2); 2 m long connecting cable
USB stick with data file for evaluation and reading out of measured data
Operating manual




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Sensor data:					
	Mole percent * 3M™ Novec™ 4710	Moisture	Mole percent oxygen (O <sub>2</sub> )	Mole percent carbon dioxide (CO <sub>2</sub> )	Concentration carbon monoxide (CO)
Measuring principle	Non-dispersive infrared sensor (NDIR)	Electronic dew point measurement (capacitive)	Electrochemical reaction	Non-dispersive infrared sensor (NDIR)	Electrochemical reaction
Measuring range	0 - 10 mol-%	-60 °C to +20 °C	0 – 25 mol %	0 - 100 mol %	0,0 – 500,0 ppm
Measuring accuracy	≤ ±0,1 mol-% (at < 7%) ≤ ±0,2 mol-% (at ≥ 7%)	≤ ±2 °C (at > -40 °C) ≤ ±3 °C (at < -40 °C)	≤ ±0,2 mol %	≤ ±2 mol %	≤ ±2 % of measuring range
Recommended calibration interval	2 years	2 years	2 years lifetime	2 years	2 years lifetime

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

**Available option of the MultiAnalyser <sup>C4</sup>:**

Single measuring device: Percentage 3M™ Novec™ 4710 (%)	C4-3-039R-R101
Two-in one measuring device: Percentage 3M™ Novec™ 4710 and moisture	C4-3-039R-R201
Three-in-one measuring device: Percentage 3M™ Novec™ 4710, moisture and oxygen O <sub>2</sub> (%)	C4-3-039R-R301
Five-in one measuring device: Percentage 3M™ Novec™ 4710, moisture and oxygen O <sub>2</sub> (%), carbon dioxide CO <sub>2</sub> (%) and carbon monoxide CO (ppm)	C4-3-039R-R501

**Optional accessories at an extra charge:**

External compressor for increase of pressure for application of the MultiAnalyser <sup>C4</sup> in medium voltage switchgear with a pressure of < 0.2 bar p <sub>e</sub>	3-826-R003
Discharge gas collecting bag	B151R95
Adapter case for measuring device	On request
6 m long connecting hose with self-closing couplings (as extension hose)	3-531-R060
Additional operating manual on CD-ROM	6-0004-R213

**Packing:**

Packing for C4-3-039R-R...	3-775-R104
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