### DEVICES FOR THE DETERMINATION OF THE SF<sub>6</sub> GAS QUALITY



#### 3-038R-R...

#### Multi-Analyzer SF6

After years of innovative research and development, DILO is proud to introduce the new and improved Multi-Analyzer<sup>SF6</sup>, boasting an upgraded and intuitive interface on a 7" color touch screen. Mobile operation capabilities allow convenient remote control via smart devices. The Multi-Analyzer<sup>SF6</sup> requires no warm-up time and is ready for immediate operation after switching on. This emission-free, multi-functional measuring device can determine up to six measuring parameters with only one sample:

- » SF<sub>6</sub> volume percentage (%)
- » Moisture concentration
- » SO<sub>2</sub> concentration (ppm)

- » HF concentration (ppm)
- » H<sub>2</sub>S concentration (ppm)
- » CO concentration (ppm)

Moisture measurements are carried out at operating pressure, resulting in the highest accuracy results for any analyzer currently on the market. Direct Connect hardware included on the analyzer allow DILO technicians to access your device remotely to quickly and effectively diagnose problems and assist with operation issues. The lightweight Multi-Analyzer<sup>SF6</sup> makes transport easier than ever with an easy to remove, integrated battery and durable rolling case. Our field-replaceable sensors offer a great benefit as the device is ready for immediate use after the exchange without any down time.



The Multi-Analyzer SF6 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. It is recommended to collect the gas in an external gas collecting bag for continuous measurements.
- » 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 Multi-Analyzer SF6, 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" color touch panel
- Storage of up to 500 measurement results with name, date, and time
- Remote control and data download via mobile devices and WIFI connection
- Battery operated and/or external power supply
- Adjustable user languages: DE, EN, FR, ES, IT, PT, CZ, PL, CN, JPN, RUS
- Two (2) years of Direct Connect serivce support



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#### Multi-Analyzer SF6

#### Technical data:

Dimensions: 16" D x 21.1" W x 10.6" H (Depth 406 mm, Width 538 mm, Height 269 mm)

Weight: 53 lbs (24 kg)

Inlet pressure: pe 0,2 - 35 bar

Operating temperature: 14 °F to 122 °F (-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: max. 500

Interface: USB/LAN

Measuring time: variably calculated by the system, max. 9 minutes

Flow rate: 20 L/h (SF<sub>c</sub>)

Indication of moisture concentration in dew point °C or °F, referred to atmospheric or inlet pressure, reversible to indication in ppm, ppm,

Indication of inlet pressure in bar, psi, MPa and kPa (in p<sub>a</sub> or p<sub>a</sub>)

#### Standard equipment:

Transport case, 6 m long connecting hose with DN8 and DN20 DILO couplings, 2 m long connecting cable

 $\ensuremath{\mathsf{USB}}$  stick with data file for evaluation and reading out of measured data

Operating manual

Wireless operation via mobile device

Router set with case

Two (2) year DILO Direct Connect service plan for remote maintenance

Virtual Operational Equipment Training\*

NOTE: Precise and correct results for subsequent measurements can be guaranteed by automatically purging the measuring hose prior to each measurement.

\*Virtual operational equipment training valid within 60 days of equipment delivery. Currently available in English and Spanish. Additional terms may apply.

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#### Multi-Analyzer SF6

Sensor data:						
	Vol%	Moisture	SO <sub>2</sub>	Option: HF	Option: H <sub>2</sub> S	Option: CO
Measuring principle	Velocity of sound	Electronic dew point measurement (capacitive)	Electrochemical reaction	Electrochemical reaction	Electrochemical reaction	Electrochemical reaction
Measuring range	0 –100 vol%	-60 to +20 °C	0 – 20 ppm 0 – 100 ppm 0 – 500 ppm	0 – 10 ppm	0 — 100 ppm	0 – 500 ppm
Measuring accuracy	±0,5 vol%	±2 °C (to >-40 °C) ±3 °C (to <-40 °C)	< ±2 % of measuring range	< ±10 % of measuring range	< ±2 % of measuring range	< ±2 % of measuring range
Adjustable limit value	0 – 100 vol%	-60 bis +20 °C	0 – 20 ppm 0 – 100 ppm 0 – 500 ppm	0 – 10 ppm	0 — 100 ppm	0 – 500 ppm
Recommended calibration interval	2 years	2 years	2 years (lifetime)	2 years (lifetime)	2 years (lifetime)	2 years (lifetime)

#### Ordering data of the MultiAnalyser SF6:

Single measuring device for percentage measurement 0 - 100 vol%			
Single measuring device for moisture measurement -76 °F to 68 °F (-60 °C to +20 °C) dew point temperature			
Two-in one measuring device for percentage and moisture measurement	R201		
Three-in-one measuring device for measurement of percentage, moisture and SO <sub>2</sub> with 0 - 20 ppm	R301		
Three-in-one measuring device for measurement of percentage, moisture and SO <sub>2</sub> with 0 - 100 ppm	R302		
Three-in-one measuring device for measurement of percentage, moisture and SO <sub>2</sub> with 0 - 500 ppm	R303		
Four-in one measuring device for measurement of percentage, moisture and SO <sub>2</sub> with 0 - 20 ppm and HF with 0 - 10 ppm	R401		
Four-in one measuring device for measurement of percentage, moisture and SO <sub>2</sub> with 0 - 100 ppm and HF with 0 - 10 ppm	R402		
Four-in one measuring device for measurement of percentage, moisture and SO <sub>2</sub> with 0 - 500 ppm and HF with 0 - 10 ppm	R403		
Six-in one measuring device for measurement of percentage, moisture and $SO_2$ with $0$ - 100 ppm, HF with $0$ - 10 ppm, $H_2S$ with $0$ - 100 ppm and CO with $0$ - 500 ppm	R602		

Options (on request): All devices with percentage measuring system are additionally available for  $SF_6$  concentrations in  $SF_6/CF_4$  gas mixtures (measuring accuracy:  $\pm 2.0$  vol. -%). Thus, it is possible to switch over between the  $SF_6/N_2$  and  $SF_6/CF_4$  measurement.

#### Optional accessories at an extra charge:

- F	
External compressor for increase of pressure for application of the MultiAnalyser SFE with an inlet pressure of < 0.2 bar p <sub>e</sub>	3-826-R004
Gas collecting bag, volume 13.74 gallons (52L)	B151R95
Adapter case for measuring devices	Adapter Kit DN8 Testing & Filling
6 m long connecting hose with self-closing couplings (e.g. as extension hose)	3-531-R060
Additional operating manual	6-0004-R213