

Devices for determination of the SF₆ gas quality

For determination of gas purity

3-035-R020 to R025

SF₆ Analyser 973

Since the gas purity is of great importance for the insulation properties of SF₆ gas, it is absolutely necessary to control the most important parameters regularly.

The SF₆ Analyser is based on the dew point measuring principle and scores by its measuring accuracy. The device was specifically designed for moisture measurements in SF₆ switchgear.

The device is optionally available with a SO₂ sensor. Thus the SF₆ Analyser 973 is able to determine up to three parameters.

- Moisture concentration (dew / frost point)
- SF₆ volume percentage
- SO₂ concentration (optionally)



- Integrated measuring gas return system
- Comfortable operation via touch screen
- User configurable display

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For both humidity and purity measurements accurate and reliable condensation techniques are used.

Furthermore the SF₆ Analyser 973 is equipped with a user configurable full colour active matrix LCD with integrated touch screen.

The device is also equipped with a gas recovery system by which the measured gas can be stored in an internal tank during the measurement procedure. After completion of the measurement, the stored gas may be pumped back automatically or manually into the original compartment or into another vessel. In addition the gas compartment pressure is measured.

Calibration:

Easily check the calibration at any time using the built-in "Ice Test" function.

Technical data:

Dimensions (with handle): W 420 mm, H 155 mm, D 390 mm
Dimensions (external) with transport case: W 650 mm, H 370 mm, D 510 mm
Weight: 16.5 kg
Weight (case included): 32 kg
Input pressure: p _e 0.01 to p _e 9 bar
Pressure (pumping back): max. p _e 8 bar
Ambient temperature: -10 °C to +45 °C for storage and operation
Ambient moisture: max. 98 % relative humidity, non condensing during operation
Power supply: 100 - 120 VAC / 200 - 240 VAC, 50 - 60 Hz (auto switching)
Power consumption: max. 200 watt

Sensor data:

	Frost / dew point	Vol. %	SO ₂
Measuring principle	Physical dew point measuring principle		Electrochemical reaction
Measuring range	-50 °C to +20 °C however -50 °C at +35 °C ambient temperature is possible Humidity content by volume: 40 to 20,000 ppm _v Humidity content by weight: 5 to 2,500 ppm _w	80.0 to 100.0 vol.-% SF ₆	0...100 ppm _v or 0...500 ppm _v SO ₂
Measuring accuracy	≤ ±0.5 °C ppm _v / ppm _w : ±1 ppm + 6 % of measured value	±0.5 %	< 2 % of the measuring range
Reproducibility	≤ ±0.2 °C	±0.3 %	< 4 % / year or < 2 % / month

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Standard equipment:

Housing with handle for transportation and placing
Flow meter with automatic control valve
Internal storage vessel for measuring gas
Measuring gas recovery system
6 / 12 m long connecting hose
DILO couplings DN8 and DN20
Power plug with 3 m long connecting cable
CD-ROM with USB driver
RS 232 / USB interface for transmission of measuring data to PC
Optionally with and without SO ₂ measurement
Transport case
1 operating manual (multilingual) on CD-ROM

Device selection SF₆ Analyser 973:

Device without SO ₂ measurement with 6 m long connecting hose	3-035-R020
Device with SO ₂ measurement and 100 ppm _v measuring module with 6 m long measuring hose	3-035-R021
Device with SO ₂ measurement and 500 ppm _v measuring module with 6 m long measuring hose	3-035-R022
Device without SO ₂ measurement with 12 m long connecting hose	3-035-R023
Device with SO ₂ measurement and 100 ppm _v measuring module with 12 m long measuring hose	3-035-R024
Device with SO ₂ measurement and 500 ppm _v measuring module with 12 m long measuring hose	3-035-R025

Optional accessories at an extra charge:

Additional operating manual on CD-ROM	6-0004-R213
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Packing:

Packing for 3-035-R...	3-775-R027-C
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