

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:

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| 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 |
| Measuring range: Frost / dew point: -50 °C to +20 °C however -50 °C at +35 °C ambient temperature is possible |
| Values are valid for measurements at atmospheric pressure |
| Humidity content by volume: 40 to 20,000 ppm _v |
| Humidity content by weight: 5 to 2,500 ppm _w |
| SF ₆ volume percent: 80.0 to 100.0 vol.-% SF ₆ |
| SO ₂ module: 0...100 ppm _v or 0...500 ppm _v SO ₂ |
| Measuring accuracy: Frost / dew point: ≤ ±0,5 °C ppm _v / ppm _w : ±1 ppm +6 % of measured value SF ₆ volume percent: ±0,5 % SO ₂ : < 2 % of the measuring range Pressure: ±30 mbar |
| Reproducibility: Frost / dew point: ≤ ±0.2 °C SF ₆ volume percent: ±0.3 % SO ₂ : < 4 % / year or < 2 % / month Pressure: ±10 mbar |
| 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 |
| Power supply: 100 - 120 VAC / 200 - 240 VAC, 50 - 60 Hz (auto switching) |
| Power consumption: max. 200 watt |
| Ambient moisture: max. 98 % relative humidity, non condensing during operation |

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Standard equipment:

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| 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:

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| 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:

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

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