

SO₂ Upgrade for 973-SF₆ Analyzer



Latest Specifications

The 973-SF₆ is the most accurate and stable SF₆ gas analyzer currently available. With integrated SF₆ collection and pump back, it is the reference in the analysis of SF₆ and will exceed all current SF₆ measurement specifications. The SO₂ upgrade adds further functionality and extends the specification of the 973-SF₆ still further.

Reference

Chilled mirror technology provides accuracy and stability for both dew/frost point and SF₆ purity. Users can be easily trained to achieve excellent measurement reproducibility and dependable results. Incorrect measurements from inferior instruments can waste time on site, waste SF₆ gas and can cause unnecessary SF₆ handling.

Gas Recovery

The 973-SF₆ integrated gas handling system makes life easy for engineers performing measurements in SF₆. The instrument needs no separate gas collection equipment. Tested SF₆ gas can be pumped straight back into the compartment or to another collection vessel without any loss of gas.

SO₂ Functionality

Measurement of SO₂ concentration in SF₆ is increasingly popular in maintenance and system health checks. The 973-SO₂ upgrade includes a mechanical modification to switch gas flow through an integrated SO₂ measurement cell using the existing sample gas connection.

SO₂ Maintenance

Since SO₂ sensors need routine replacement (approximately every 2 years), the measurement cell is mounted externally to the 973-SF₆ so that the user can easily replace the sensor when required. In combination with the high stability of the chilled mirror system, this means that the 973-SF₆ does not require frequent and costly return to the supplier or manufacturer.

Compatible

The SO₂ upgrade can be factory applied to all 973-SF₆ Analyzers. However, older instrument may require more adaptations in order to work with the new SO₂ module. Please contact us to verify your serial number and get a reliable cost estimate.



SO₂ Upgrade Details

- Instrument pre-check
- General cleaning
- Inspect, clean and test sample tubes and internal cylinder
- Replace back panel components
- Modify internal wiring
- Fit SO₂ measurement module
- Fit calibrated SO₂ sensor and printed circuit board
- Upgrade instrument firmware version
- Check functionality, control and coefficients
- SO₂ Calibration including Report



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Specifications 973-SF₆ Analyzer

Measuring Range:

Frost/Dew Point	-50...+20 °C
Humidity content by volume	40...20'000 ppm _v
Humidity content by weight	5...2'500 ppm _w
Volume SF ₆	80...100%
Inlet pressure	120...1'000 kPa abs.

Accuracy:

Frost/Dew Point	± 0.5 °C
ppm _v / ppm _w	± 1 ppm +6% of reading
Volume SF ₆	± 0.5%
Pressure	± 3 kPa

Standard Features:

Digital I/O	RS-232
Thermoelectric mirror cooling	3-stage
Mirror temperature sensor	RTD (Pt-100)
Display	5.7" LCD with touch screen
Internal gas tubes	Stainless steel 316L / FEP
Gas connections	Self-sealing quick connect fitting (Swagelok® QM Series)
Couplings	Self-sealing SF ₆ coupling DN8 (VK/F-02/8) and DN20 (VK/F-02/20)
External sample gas tube	Self-sealing 6 m stainless steel armored PTFE tubing
ORIS	Optimum Response Injection System
Transport case	Custom fit foam lined Peli 1620
Power cable	2.5 m
Operating instructions	English, German, French, Italian or Spanish
Calibration certificate	Pressure calibration, 2-point dew/frost point, 3-point volume %SF ₆

Optional:

Internal SO ₂ -Module	Measuring range:	0...100 ppm _v	or	0...500 ppm _v
	Accuracy:	< 2% of range		< 2% of range
	Sensitivity drift:	≤ 5% / year		≤ 5% / month
	Life time:	2 years in normal operation		

Additional Information:

Supply voltage	100-120 VAC / 200-240 VAC, 50/60 Hz (auto switching)
Supply voltage fluctuations	up to ± 10% of nominal voltage / Overvoltage category II
	Rated pollution degree 2
Power consumption	200 Watt
Pump back pressure max.	900 kPa
Cooling	Air
Operation conditions	-10 °C...+40 °C, 98 %rh, non-condensing, altitude up to 2000 m
Storage temperature	-20 °C...+50 °C
Outdoor use	Permissible, instrument must be protected against exposure to water

Weights & Dimensions:	Instrument	with Transport Case
Width	420 mm	650 mm
Height	155 mm	370 mm
Depth	390 mm	510 mm
Weight	16.5 kg	32 kg

We reserve the right to change design or technical data without notice.