



# SF<sub>6</sub> - 3413

# SF<sub>6</sub> Gas Analyzer



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

# **Analytical Technologies Limited**

An ISO 9001 Certified Company

www.analyticalgroup.net



#### >> General information

SF6 Gas Analyze is a portable device designed to measure SF6 gas dew point, purity and decomposition product. The core component with resistive and capacitive method is used to test dew point, European sensor with NDIR method to test SF6 gas purity and electrochemical sensor from Membrapor to test SF6 gas decomposition product. Besides, we also adopt professional hardware chips and excellent software algorithms of STMicroelectronics.

#### **Application**

- Analysis of trace moisture, purity and decomposition products of SF6 gas electrical equipment for electric power
- SF6 gas cylinder gas quality test
- Quality test of SF6 gas for recovery and reuse
- High purity gas manufacturing
- Semiconductor industry dry gas supply
- Research and development use
- Clean room/dry house monitoring
- Metal heat treatment site and laboratory industrial gas humidity detection, such as air, CO2, N2, H2, O2, SF6, He, Ar and other inert gases.

#### **Features**

- Dew point adopts reliable high-end Vaisala sensor, which can realize the customization of  $-80^{+}20^{\circ}\text{C} -100^{\circ}\text{O}^{\circ}\text{C}$  range, and ensure that the annual drift is less than  $\pm 1^{\circ}\text{C}$ .
- Purity adopts an advanced NDIR sensor, which can ensure the full-scale accuracy of ±0.5%FS.
- Using patented protective gas chamber, the measurement speed is fast.
- All gas path with high polymer material design, ensures no water wall hanging phenomenon and guarantees the test speed.
- The oil-free stainless-steel body regulating valve is used to ensure the accuracy of the measured value.
- Compatible with the proprietary Smart Quick cloud platform management software, it can realize the standardized management of test data.
- High-power lithium battery power, realize AC and DC dual power supply. No on-site AC power is required. Lithium battery power supply continues to work for more than 8 hours without the need of an external power supply.



- Anti-electromagnetic interference circuit design to ensure product reliability.
- Good repeatability and fast response.
- Built-in temperature compensation function
- The slope rate is automatically calibrated, and the sensor can be automatically calibrated under the condition of self-checking to ensure that the annual drift rate of the whole machine is less than 1%.
- The true color touch screen is 10.1 inches, which is simple and easy to operate.
- The same interface displays data such as micro water, purity, decomposition, and flow.
- Advanced probe protection features.
- Anti-pollution and anti-interference.
- · High sensitivity and good stability.
- With gas pump back function, to pump back SF6 gas to gas chamber.

#### **SF<sub>6</sub> Humidity**

- Measurement method: RC measurement principle (Finland Vaisala DMT series sensor)
- Measurement range: -80°C--+20°C or -100°C-0°C (support ppmv)
- Measurement error: better than  $\pm 1^{\circ}$ C (When the dew point temperature is lower than  $0^{\circ}$ C, the sensor output is frost point)
- Resolution: 0.01°C
- Repeatability: ± 0.5°C
- Display unit: <sup>o</sup>C, ppm, <sup>o</sup>CP<sub>2o</sub>(converted value at 20°C)

#### **SF<sub>6</sub> Purity**

- Measurement method: Infrared Measurement Principle (NDIR series sensors)
- Measuring range: 0 ~ 100% SF<sub>6</sub>
- Measurement error: ± 0.5%FS
- Repeatability: ± 0.3%
- Resolution: 0.01%
- Display unit: %



#### SF<sub>6</sub> Decomposition Products

• Measurement method: Electrochemical Measurement Principle (Electrochemical series sensors)

• Measurement range: H2S: 0 ~ 100ppmv

SO2: 0 ~ 100ppmv CO: 0 ~ 500ppmv

HF: 0 ~ 50ppmv

CF4: 0 ~ 1500ppmv

• Resolution: 0.5ppmv

Display unit: ppmv

#### **Pressure**

• Test range: 0-1MPa

• Measurement error: 0.1%

#### **Gas Flow**

• Moisture measurement: SF6 and other gases are adjusted at 400~600mL/min

SF6 gas purity measurement: 300~450mL/min

• SF6 gas decomposition product measurement: 250~300mL/min

• Flow rate display: 0 ~ 1000mL imported digital flowmeter

• Sample air pressure: ≤1MPa

Recycling and filling function: recycling chamber 2L

recycling time ≤ 5min

With gas drying function

• Power supply: 220VAC±10%, 50Hz, AC/DC use, over-charge protection, continuous

• working is no lower than 8hours.

Use environment temperature: -20~+60°C

Environment humidity: 90%RH

Measurement value influence: No effect of pressure and flow

• Dimension: 395\*295\*315mm

• Weight: about 5kg.



# Accessories

Main Tester	1 piece
Teflon pipe (include flow adjustment valve and fast connector)	1 set
Tail pipe	1 set
Spare parts	1 set
Charger	1 piece
User's Guide	1 piece
Test Report	1 piece



# **HPLC Servicing, Validation, Trainings and Preventive Maintenance:**

HPLC Servicing: HPLC Servicing: We have team of service engineers who can attend to any make of HPLC promptly @the most

affordable cost.

Trainings :We also take up preventive Maintenace to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-

shooting.

Validations: We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments: We offer instruments/Renting Services Modules like pumps, detector etc. on Rent.





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UV/VIS Spectro 2080+ Double Beam



Infra FTIR



Optima Gas Chromatograph 3007



Optima Gas Chromatograph 2979 Plus



Flash Chromatograph



Atomic Absorption Spectrophotometer



Liquid Partical Counter



Optical Emission Spectrophotometer



DSC/TGA



Semi Auto Bio Chemistry Analyzer



HEMA 2062 Hematology Analyzer



Micro Plate Reader/Washer



URINOVA 2800 Urine Analyzer



Total Organic Carbon 3800



Fully Automated CLIA



NOVA-2100 Chemistry Analyzer



PCR/Gradient PCR/ RTPCR



TOC Analyzer



Laser Particle Size Analyzer



Ion Chromatograph



Water purification system

# Regulatory compliances



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- 2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.
- 3. ANALYTICAL FOUNDATION aims to DETOXIFY human minds, souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.





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