

# SF<sub>6</sub>-Aciditor Model GA25

WIKA Data Sheet SP 62.04

## Applications

- Analysis of the SO<sub>2</sub> content in SF<sub>6</sub>-filled equipment

## Special Features

- Fast test results, typically 2 minutes total
- Compact, lightweight
- Low maintenance
- Touch-screen interface
- Field Proven design

SF<sub>6</sub>-Aciditor Model GA25

## Description

The WIKA SF<sub>6</sub>-Aciditor is a cost effective way to determine the levels of SO<sub>2</sub> in SF<sub>6</sub>-filled equipment to take the decision if the present gas can be recycled.

## Functionality

The SF<sub>6</sub>-Aciditor is a stand-alone device designed to quickly and accurately measure the amount of sulfur dioxide (SO<sub>2</sub>) in SF<sub>6</sub> tanks. Because the unit contains an automatic flow and pressure control module, the user does not need to be concerned with setting the correct flow rate, or compensating for variations in equipment pressure. All readings are displayed in real-time on the touch-screen display, in parts per million volume (ppm<sub>v</sub>).

The SF<sub>6</sub>-Aciditor has been developed specifically for arced or otherwise stressed SF<sub>6</sub> gas. Unlike conventional decomposition testers, which require disposable detector tubes, this unit uses an electrochemical sensor.

The universally accepted CIGRE B3.02.01 standard for reusable SF<sub>6</sub> is currently 12 ppmv for SO<sub>2</sub>/SOF<sub>2</sub>. The IEC 60 480 SF<sub>6</sub> Recycling Guide indicates that the measurement of either SO<sub>2</sub>, HF, or SOF<sub>4</sub> is acceptable for SF<sub>6</sub>-tank acid detection.

With an optional Recovery Kit GA45 connected to the outlet valve of the Aciditor the tested gas is stored for possible reuse after positive test result.

## Additional Features

### Measuring Principle

An electro-chemical sensor senses the change in electrochemical potential that occurs when varying concentrations of SO<sub>2</sub> present.

### Ranges

0 ... 10 ppm<sub>v</sub>  
0 ... 20 ppm<sub>v</sub>  
0 ... 100 ppm<sub>v</sub>  
0 ... 500 ppm<sub>v</sub>

### Accuracy

± 2 % of value

### Resolution

0.1 ppm<sub>v</sub> at 0 ... 10 / 0 ... 20 ppm<sub>v</sub>  
1 ppm<sub>v</sub> at 0 ... 100 / 0 ... 500 ppm<sub>v</sub>

### Flow Rate

20 liters/hour

### Approximate SF<sub>6</sub> Gas Consumption

Approx. 0.7 liters per measurement (at ambient pressure)

### Pressure

0.5-35 bar (gaseous) with automatic flow rate regulation

### Operation

Purge function with ambient air to reset the SO<sub>2</sub> value to 0 after it has been detected.

### Humidity Range

Up to 90 % (non-condensating)

### Maximum Zero Shift

0.1 ppm<sub>v</sub>

### Long-term Stability

< 2 % signal degradation per month (linear)

### Display

Touchpad-graphic display (240 x 128 pixel)

### Power Supply

Lithium-Ion battery with minimum 10 hour capacity  
Rechargeable 100-265 AC V (50/60 Hz)  
Battery voltage displayed

### Temperature

Storage: -10 °C to 60 °C  
Operation: 0 °C to 50 °C

### Dimensions

W x H x L: 280 x 140 x 300 mm (11.0 x 5.5 x 11.8 in)

### Weight

Approx. 6 kg (13 lbs)

### Lifetime

2 years starting from installation

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Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.

