

# SF<sub>6</sub>-IR-Leak-HS Model GA18

WIKA data sheet SP 62.09

## Applications

- Tightness test after production of SF<sub>6</sub>-filled equipment
- Leak location for SF<sub>6</sub>-filled equipment

## Special features

Infrared leak-detection technology offers many advantages:

- Detects miniscule SF<sub>6</sub> gas concentrations down to 0.6 ppm<sub>v</sub>
- Easy zero/span calibration with certified test gas
- Detects SF<sub>6</sub> only
  - Unaffected by moisture
  - Unaffected by wind
- Easy operation
- Fast response time



SF<sub>6</sub>-IR-Leak-HS model GA18

## Description

The SF<sub>6</sub>-IR-Leak-HS (High Sensitivity) is used to assure leak-tightness of SF<sub>6</sub>-filled compartments. It was designed to find very small SF<sub>6</sub> concentrations in order to do quality inspection after manufacturing.

The instrument is the perfect tool to identify the location and magnitude of leaks so that appropriate repairs can be made. It was specifically developed to be easy to use and quickly pinpoint even the smallest SF<sub>6</sub> leaks through the use of the physical working principle of infrared leak detection technology.

## Functionality

The console is carried via a shoulder strap while the sensor gun is handheld. Both the sensor and handheld portions of the unit have a digital display to show the actual SF<sub>6</sub> level. A suction pump inside the console generates a flow from the tip of the handheld through the IR-sensor.

To find leaks the sensor is moved across the outside of the tank. As the SF<sub>6</sub> level increases, the beeping of the instrument becomes faster. In the tip a replaceable particle filter prevents the sensor from contamination. If the ambient SF<sub>6</sub> level is higher than 0 ppm<sub>v</sub> the reading can manually be set to display zero.

## Additional features

### Measurement Principle

Dual wavelength non-dispersive Infrared Spectrometer (NDIR)

### Sensor Sensitivity

- 0.1 ppmv
- No cross sensitivities to other gases
- Moisture: unaffected from 0-100% relative humidity (non-condensating)

### Range

0 ... 50 ppmv

### Detectable leak rate (calculated)

0.343 g/year equiv. to  $1.81 \times 10^{-6}$  mbar\*L/s (or atm\*cc/s)

### Detection limit

0.6 ppmv

### Accuracy

$\pm 0.5$  ppmv  $\leq 10$  ppmv  
 $\pm 2$  % max.  $>10$  ... 50 ppmv

### Repeatability

$< 0.3$  %

### Response Time T90

$< 2$  sec

### Unit

ppmv

### Supply

- Lithium-Ion battery with 8 hours capacity
- Rechargeable AC 100-265 V, 50/60Hz

### Alarm

Visual

### Temperature

Storage:  $-10$  ...  $60$  °C  
Operating:  $0$  ...  $45$  °C

### Dimensions

Console: 285 x 195 x 80 mm (11.2 x 7.7 x 3.2 in)  
Hand-gun: 210 x 110 x 90 mm (8.3 x 4.3 x 3.5 in)

### Weight

Console: 2.5 kg (5.5 lbs)  
Hand-gun: 0.5 kg (1.1 lbs)

### Calibration

Every 2 years

The specifications given in this document represent the state of engineering at the time of publishing.  
We reserve the right to make modifications to the specifications and materials.



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