

SF₆-IR-Leak



Leak Detection for SF₆-filled Equipment

SF₆-IR-Leak

Sensitive and fast Leakage Detection for SF₆-filled Equipment

Your ideal tool to reduce emissions and protect the environment

Main Advantages

- Non-radioactive source
- Low maintenance (calibration every 2 years) and no wear parts
- No cross sensitivity to moisture
- Unaffected by background contamination
- No consumables
- High sensitivity for detecting leaks down to 1 ppm_v
- Fast response time of 1 second
- No influence due to important leaks or 100 % SF₆ concentrations
- Light weighted and easy to operate

About Sulphur Hexafluoride SF₆

SF₆ is an artificial, inert and generally non-toxic gas (Maximum Allowable Concentration (MAC) of 1,000 ppm_v). It is a well-known greenhouse gas (GWP of 22,200 times higher than CO₂), with an atmospheric lifetime of 3,200 years. Because of its environmental unfriendly attributes SF₆ was included in the Kyoto Protocol with the aim of emission reduction. Due to its excellent insulating and arc quenching properties it is globally used as insulating gas in high and medium voltage equipment like substations, switchgears, circuit breakers, transformers etc. The SF₆-IR-Leak was particularly developed to pinpoint smallest leaks of SF₆. With its fast response time and clear down after saturation the SF₆-IR-Leak is an ideal tool to reduce environmental unfriendly and costly SF₆-emissions.



TECHNICAL SPECIFICATION

Measurement Principle

Dual wavelength non-dispersive Infrared Spectrometer (NDIR)

Sensitivity

1 ppm_v
 3.43 g/year, 1.81 x 10⁻⁵ atm cc/sec (or mbar L/s)
 No cross sensitivities to other gases
 Moisture: unaffected from 0–100% rh, non condensating
 No symptoms of poisoning

Response

T90 = 1 sec.

Repeatability

< 0.3 %

Operation

Li-Ion battery (> 8 hours operation)
 Recharge between 100-265 AC V 50/60 Hz

Alarm

Audio and visual

Measurement Units

Measures in ppm_v
 Range: 0 – 2,000 ppm_v
 Accuracy: 0 – 100 ppm_v ± 5 % of value
 100 – 2,000 ppm_v ± 2 % of range

Calibration

Every 2 years

Temperature

Storage: -10 to 60 °C
 Operating: 0 to 45 °C

Dimension

Console: 285 x 195 x 80 mm
 Handgun: 210 x 110 x 90 mm

Weight

Console: 2,5 kg
 Handgun: 0,5 kg



Certified by Federal Institute for
 Material Research and Testing