SF₆-IR-Leak-HS
Model GA18

Applications

- Tightness test after production of SF₆-filled equipment
- Leak location for SF₆-filled equipment

Special features

Infrared leak-detection technology offers many advantages:
- Detects miniscule SF₆ gas concentrations down to 0.6 ppmv
- Easy zero/span calibration with certified test gas
- Detects SF₆ only - Unaffected by moisture - Unaffected by wind
- Easy operation
- Fast response time

Description

The SF₆-IR-Leak-HS (High Sensitivity) is used to assure leak-tightness of SF₆-filled compartments. It was designed to find very small SF₆ 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 SF₆ leaks through the use of the physical working principle of infrared leak detection technology.

To find leaks the sensor is moved across the outside of the tank. As the SF₆ level increases, the beeping of the instrument becomes faster. In the tip a replaceable particle filter prevents the sensor from contamination. If the ambient SF₆ level is higher than 0 ppmv, the reading can manually be set to display zero.

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 SF₆ level. A suction pump inside the console generates a flow from the tip of the handheld through the IR-sensor.
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 x 10^-6 mbar*L/s (or atm*cc/s)

Detection limit
0.6 ppmv

Accuracy
± 0.5 ppmv ≤ 10 ppmv
± 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