High-precision measuring instrument for determining the concentration of \( \text{SF}_6 \) gas
Model GA65

**Applications**
- Leak test for the final inspection of \( \text{SF}_6 \) gas-filled equipment
- Monitoring of the concentration of \( \text{SF}_6 \) gas in the ambient air of enclosed spaces

**Special features**
- High-precision and reproducible measurements in the ppb range
- Fast response time
- Simple operation and long service intervals
- No consumables, e.g. flush gas, are required
- Expendable by multiplexer for up to 24 measuring points

**Description**

The model GA65 measuring instrument has been specifically designed for measuring small concentrations of \( \text{SF}_6 \) gas. The quantitative measurement of \( \text{SF}_6 \) gas in the air is carried out reliably and reproducibly even at the smallest quantities.

The used technology is based on the photo-acoustic infrared spectroscopy. This physical and non-destructive measuring principle achieves a very high accuracy with a detection rate of 6 ppbv.

Humidity is compensated and thus does not influence the measuring result.

Cyclic self tests guarantee the reliability and functionality of the instrument. It is recommended to recalibrate the instrument once a year.

The leak rate measuring instrument is easy to use and can be operated via control keys at the front of the housing or via an extensive PC software with a graphic user interface.

Both operating modes allow for the setting of the parameters (e.g. duration of the sampling), the starting of a measurement (manually or automatically), the display of the concentration of \( \text{SF}_6 \) gas in real time or the sending of the values to the downstream control software.
Specifications

Measuring principle
Photo-acoustic infrared spectroscopy

Detection limit
6 ppbv or 6 x 10⁻⁹ ml/s
(at a flow rate of 60 ml/min)

Measuring range
6 ... 60,000 ppbv

Resolution
1 ppbv

Sensor characteristics
Temperature and pressure compensated
Humidity: Cross compensated up to 80 % and 31 °C

Reproducibility
1 %

Response time t₉₀
approx. 15 seconds

Permissible temperature ranges
Operation: 5 ... 40 °C
Storage: -25 ... +55 °C

Service interval
Once a year

Warning signals
2 settable alarm values
Audible and visible

Electrical output
2 relays (settable alarm values)

Data storage
Available (internal storage space)
Software and connection cable included in delivery

Voltage supply
AC 100 ... 240 V, 45 ... 67 Hz, 70 W

Interface
IEEE-488 and RS-232

Dimensions
W x H x D: 395 x 175 x 300 mm

Weight
9 kg

Ingress protection
IP 20

Ordering information
The description of the model is sufficient.

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