

Analysis instrument for determining the gas humidity in SF₆ gas Based on the polymer sensor technology Model GA20

WIKA data sheet SP 62.03

SF₆-Humiditor

Applications

Measurement of the humidity content (H₂O) in SF₆ gas-filled equipment

Special features

- Fast test results, measuring time approx. 5 minutes
- Compact and low weight
- Maintenance-free
- Operation via touchscreen
- Long battery life



Analysis instrument, model GA20

Description

The analysis instrument model GA20 is used for determining the humidity content in SF₆ gas. Due to the procedures of filling and servicing equipment, a residual humidity in SF₆ gas is inevitable. However, humidity must be kept as low as possible for guaranteeing a faultless long-term usage.

Easy to use

The GA20 enables easy measuring operations and quickly delivers meaningful results.

Adapters required for connecting the GA20 to the respective gas compartment are available as an option.

The solid measuring tube has self-closing quick couplings on both sides in order to prevent the SF₆ gas from accidentally escaping into the atmosphere.

Fast and safe

While the test gas is streaming through the measuring chamber for approx. 5 minutes, the dew point is indicated directly. The dew point temperature and the humidity concentration are shown both volume-referred and mass-referred in ppm on the display at the same time.

Due to the short test duration, only minimal amounts of SF₆ gas are necessary. The test gas should be intermediately stored at the outlet of the GA20 with a gas recovery bag so that the environmentally hazardous SF₆ gas does not escape into the surrounding atmosphere.

Once the recovery bag is full, the SF₆ gas can be pumped back into a gas cylinder using a model GTU-10 gas transfer unit and subsequently recycled or, depending on the gas quality, be reused directly.

The influence of the ambient temperature fluctuations is compensated in the GA20. The instrument controls the flow automatically and reproducibly. Thus erroneous measurements due to operating errors are virtually eliminated.

Specifications

Measuring principle

Polymer-based capacitive humidity sensor

Measuring range

-60 ... 20 °C dew point

Accuracy

±2 °C dew point at -40 ...+20 °C dew point

±4 °C dew point at < -40 °C dew point

Resolution

1 °C_{td}

Units

°C_{td}, ppm_v, ppm_w

Measured at atmospheric pressure

Pressure and temperature compensated

Flow rate

20 litres/hour

Gas consumption

approx. 1.7 litres per measurement (under atmospheric pressure)

Inlet pressure

0.5 ... 35 bar (gaseous)

With automatic flow control

Control panels

Input via touchscreen

The 'Purge' button conducts the contents of the 4-metre-long measuring tube directly to the outlet. This should be carried out before each measurement.

Display

Touchscreen (240 x 128 pixel)

Voltage supply

Lithium-ion accumulator for approx. 24 h operating time

Charger: AC 100 ... 265 V, 50/60 Hz

Temperatures

Storage: -10 ... +60 °C

Operation: 0 ... +50 °C

Dimensions

W x H x D: 280 x 140 x 300 mm





Weight

approx. 6 kg

Calibration

Recommended every 2 years

Accessories

| | Designation | Order no. |
|---|---|-----------|
|  | Adapter, measuring hose to DN 8 | 14017515 |
|  | Adapter, measuring hose to DN 20 | 14013758 |
|  | Gas recovery bag, model GA45 For specifications see data sheet SP 62.08 | 14013015 |
|  | Inlet pressure control unit for gas analysis instruments Model GA05 | 14050089 |

Ordering information

Model / Accessories

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