Analysis instrument for determining the gas humidity in SF_6 gas Based on the chilled mirror technology Model GA40

SF_6-Hygrometer

Applications

High-precision measurement of the humidity content (H_2O) in SF_6 gas-filled equipment

Special features

- Highest accuracy of ±0.1 °C
- Automatic end value detection
- Dynamic Contamination Correction „DCC“
- Very fast measuring times
- USB interface for simple data transfer

Analysis instrument, model GA40

Description

The analysis instrument model GA40 is used for determining the humidity content in SF_6 gas with high accuracy. Due to the procedures of filling and servicing switchgear, a residual humidity in SF_6 gas is inevitable. However, the concentration of water molecules must be kept as low as possible for guaranteeing a faultless long-term operation of the equipment.

High precision
The GA40 is a high-end measuring instrument for determining the humidity concentration in SF_6 gas quickly, precisely and with repeatable accuracy. The DDC system (Dynamic Contamination Correction) prevents erroneous measurements due to a soiled mirror.

The GA40 controls the flow automatically and reproducibly. Thus erroneous measurements due to operating errors are virtually eliminated.

Even at the lowest dew point temperatures, the GA40 convinces with its performance and clearly stands out from conventional chilled mirror hygrometers. This is achieved by an adapted control of the cooling element, among other things.

Simple commissioning
Adapters (DN 8, DN 20) required for connecting the GA40 to the respective gas compartment are included in the scope of supply. The solid measuring tube has self-closing quick couplings on both sides in order to prevent the SF_6 gas from accidentally escaping into the atmosphere.

Environmentally friendly
The test gas can be intermediately stored at the outlet of the GA40 with a gas recovery bag so that the environmentally hazardous SF_6 gas does not escape into the surrounding atmosphere.

Once the recovery bag is full, the SF_6 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.

Simple data transfer
The internal memory enables the storage of 150 data records. The data can be transferred to a PC via an USB interface at any time.

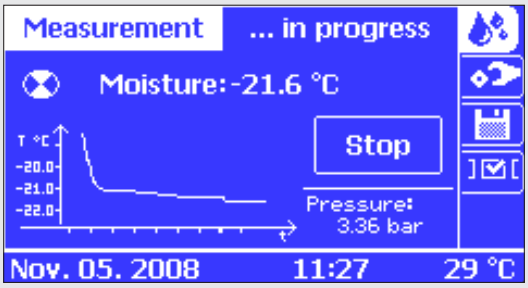
Data sheets showing similar products and accessories:
Analysis instrument for determining the gas humidity of SF6 gas; model GA20; see data sheet SP 62.03
Portable SF_6 gas transfer unit model GTU-10, see data sheet SP 63.07
Gas recovery bag, model GA45; see data sheet SP 62.08

Operating software

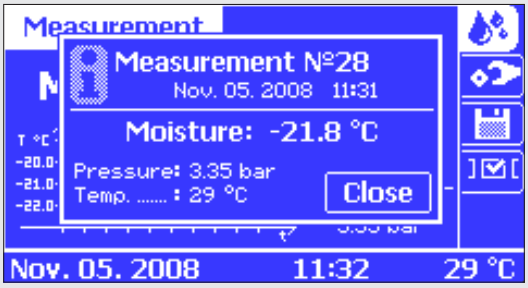
Clear illustration
The dew point temperature and the pressure of the test gas are clearly displayed during the measurement.

Storage of the measured values
Stored measurements are sorted by date and time. The measured values can be transferred to a PC with the provided software "SF_6 Hygroview".

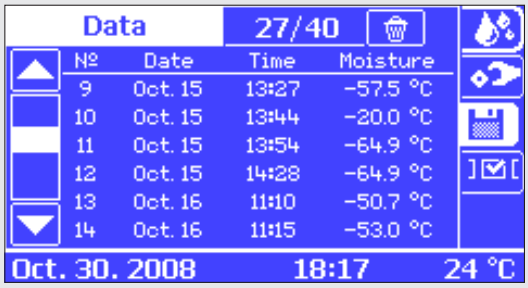
Humidity measurement



Measured value output



Storage management



Specifications

Measuring principle
Chilled mirror

Measuring range
-60 ... +20 °C dew point

Accuracy
±0.1 $°C_{td}$

Resolution
0.1 $°C_{td}$

Units
$°C_{td}$, $°C_{tdpr}$ (at gas compartment pressure)
ppm_v, ppm_w
Pressure indication in bar, kPa or psi

Flow rate
25 litres/hour

Gas consumption
approx. 4.2 litres per measurement (at atmospheric pressure)

Inlet pressure
0.5 ... 14 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
AC 85 ... 265 V, 47/63 Hz, 100 VA

Temperatures
Storage: -20 ... +60 °C
Operation: -20 ... +55 °C

Dimensions
W x H x D: 410 x 190 x 460 mm

Weight
approx. 11 kg

Accessories

	Designation	Order no.
	**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

04/2013 GB

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