

Gas density indicator Model GDI-100

WIKA data sheet SP 60.03

Applications

- Medium and high-voltage equipment
- Gas density monitoring of closed SF₆ gas tanks

Special features

- Case and wetted parts from stainless steel
- On-site display of the pressure standardised to 20 °C
- Temperature-compensated and hermetically sealed, therefore no influence of temperature fluctuations, differences in level and atmospheric pressure fluctuations
- Compensation possible for gas mixtures
- Traceability by serial number



Gas density indicator model GDI-100

Description

Gas density is a crucial operating parameter for high-voltage switchgear. If the required gas density is not present, safe operation of the plant cannot be guaranteed.

With WIKA gas density measuring instruments, changes of gas volumes can be determined reliably (e.g. leakages). Even under extreme environmental conditions.

Numerous fields of application

The WIKA gas density indicator is hermetically sealed and temperature-compensated. Measured value fluctuations and misinterpretations caused by changes in either ambient temperature or atmospheric pressure are therefore prevented.

Via the on-site display, the pressure based on 20 °C can be read directly on the instrument.

Gas density indicator

Nominal size

100

Calibration pressure P_E

To customer specification

Accuracy specifications

- ± 1 % at ambient temperature $+20$ °C
- ± 2.5 % at ambient temperature $-20 \dots +60$ °C

Scale range

Vacuum and overpressure range with measuring span of $1.6 \dots 25$ bar (with an ambient temperature of 20 °C and gaseous phase)

Permissible ambient temperature

Operation: $-20 \dots +60$ °C ($-4 \dots +140$ °F), gaseous phase
Storage: $-50 \dots +60$ °C ($-58 \dots +140$ °F)

Process connection

G $\frac{1}{2}$ B per EN 837, lower mount
Stainless steel, spanner flats 22 mm

Other connections and connection locations on request.

Pressure element

Stainless steel, welded
Gas-tight: leak rate $\leq 1 \cdot 10^{-8}$ mbar · l / s
Test method: helium mass spectrometry

Movement

Stainless steel
Bimetal link (temperature compensation)

Dial

Aluminium
The scale range is subdivided into red, yellow and green ranges

Pointer

Aluminium, black

Case

Selectable versions	
Option 1	Stainless steel, with gas filling
Option 2	Stainless steel, with filling liquid

Gas-tight: leak rate $\leq 1 \cdot 10^{-5}$ mbar · l / s

Window

Selectable versions	
Option 1	Laminated safety glass
Option 2	Clear non-splintering plastic

Ring

Bayonet ring, stainless steel, secured by means of 3 welding spots

Permissible humidity

≤ 90 % r. h. (non-condensing)

Ingress protection

IP 65 per EN 60529 / IEC 529

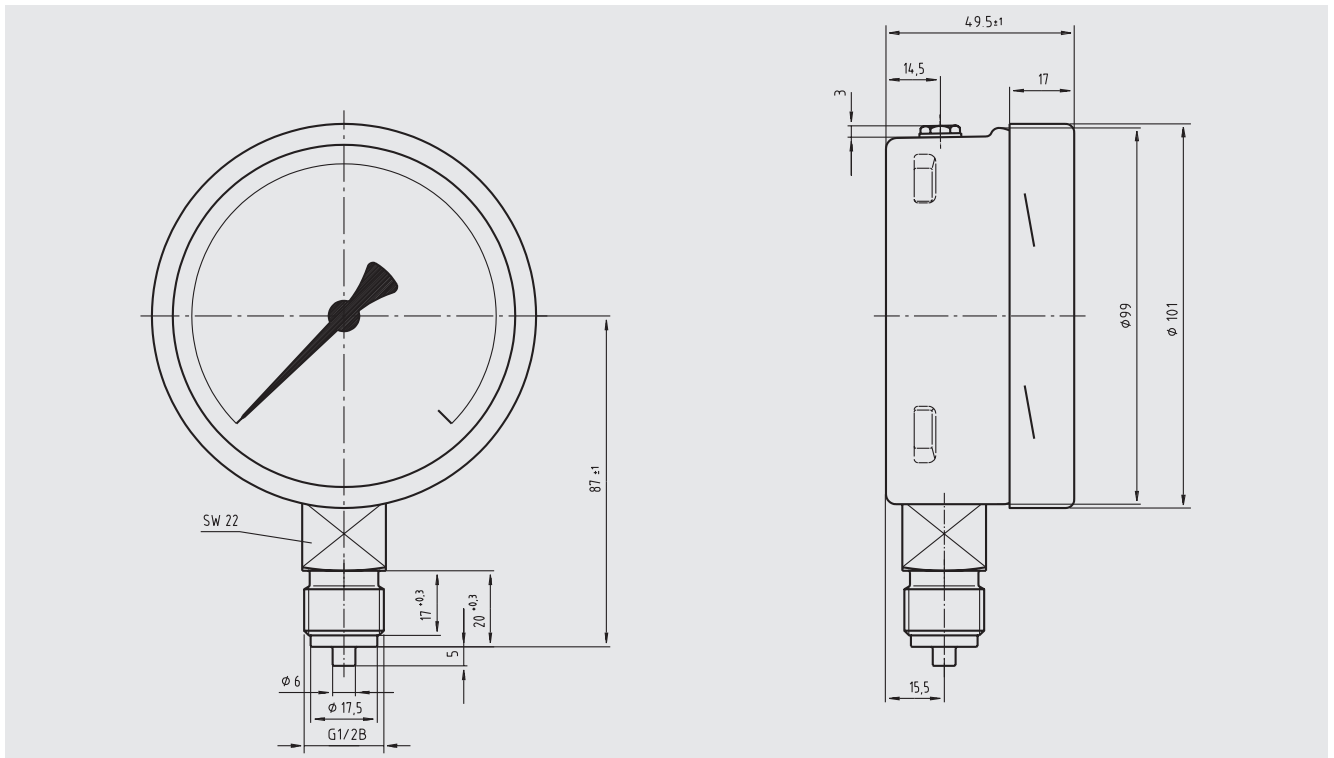
Weight

With gas filling: approx. 0.5 kg
With filling liquid: approx. 0.7 kg

High-voltage test 100 %

2 kV, 50 Hz, 1s

Dimensions in mm



Ordering information

Model / Process connection / Pressure unit / Measuring range / Filling pressure / Gas mixture / Options

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