Gas density indicator
Model GDI-100

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

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
- $\pm 1\%$ at ambient temperature $+20\,^\circ C$
- $\pm 2.5\%$ at ambient temperature $-20\ldots+60\,^\circ C$

Scale range
Vacuum and overpressure range with measuring span of $1.6\ldots25$ bar (with an ambient temperature of $20\,^\circ C$ and gaseous phase)

Permissible ambient temperature
Operation: $-20\ldots+60\,^\circ C$ ($-4\ldots+140\,^\circ F$), gaseous phase
Storage: $-50\ldots+60\,^\circ C$ ($-58\ldots+140\,^\circ F$)

Process connection
G ½ 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 $\leq 1 \times 10^{-8}$ mbar $\cdot$ 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

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<thead>
<tr>
<th>Selectable versions</th>
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<tbody>
<tr>
<td>Option 1</td>
<td>Stainless steel, with gas filling</td>
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<tr>
<td>Option 2</td>
<td>Stainless steel, with filling liquid</td>
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</tbody>
</table>

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

Window

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<th>Selectable versions</th>
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<tbody>
<tr>
<td>Option 1</td>
<td>Laminated safety glass</td>
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<tr>
<td>Option 2</td>
<td>Clear non-splintering plastic</td>
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Ring
Bayonet ring, stainless steel, secured by means of 3 welding spots

Permissible humidity
$\leq 90\%$ 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