

Gas Density Monitor (GDM) Model 233.52.100 with Liquid Filling

WIKA Data Sheet SP 60.01

Applications

- Gas density monitoring of closed SF₆ tanks
- For outdoor installation

Special Features

- Modified pressure gauge with bourdon tube and liquid filled case
- Wetted parts: stainless steel
- Local readout with alarm contacts
- Hermetically sealed, therefore no influence by atmospheric pressure fluctuation and differences in altitude
- Serial number



Gas Density Monitor, Model 233.52.100

Description

Nominal size in mm
100

Accuracy (relating to the measuring span)
± 1 % at ambient temperature + 20 °C,
± 2,5 % at ambient temperature range -20 ... +60 °C and
with calibration pressure as reference isochore
(reference diagram KALI-Chemie AG, Hannover, prepared
by Dr. Döring 1979)

Scale ranges
All standard ranges and +/- ranges with a measuring span
of min. 1.6 bar und max. 25 bar (SF₆ gas pressure
at + 20 °C)

Calibration pressure P_E
As ordering specifications

Permissible temperature
Ambient: -20 ... +60 °C (gas phase)
Storage: -50 ... +60 °C

Alarm contacts / Contact rating

Max. 3 magnetic snap-action contacts, to make or break,
with galvanic isolation, switching points non-adjustable and
secured

Contact rating: 20 W / 20 VA, max. 1 A

Material of contacts: 80 % Ag / 20 % Ni, 10 µm goldplated

Switching accuracy in temperature range -20 ... +60 °C

If switching point is equal P_E : As measuring span

If switching point is not equal P_E : Moved parallel to
calibration pressure

High-voltage test

2 kV, 50 Hz, 1 s (wiring versus case)

Electrical connection

Cable box with cable gland M20 x 1.5

Connection cross-section max. 2.5 mm²

Process connection

Stainless steel, radial entry, spigot D6 x 5, similar to EN 837,
G ½ B (male), 22 mm flats

Pressure element

Stainless steel, welded

Gas tight: leakage rate $\leq 1 \cdot 10^{-8}$ mbar · l / s

Test method: spectrometry of helium mass

Movement

Stainless steel

Bimetal link (temperature compensation)

Dial

Aluminium, red-green-yellow section as ordering specifications

Pointer

Aluminium, black

Case

Stainless steel with silicone oil filling

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

Window

Laminated safety glass

Bezel ring

Cam ring (bayonet type), stainless steel

secured with 3 welding spots

Ingress protection

IP 65 per EN 60 529 / IEC 529

Weight

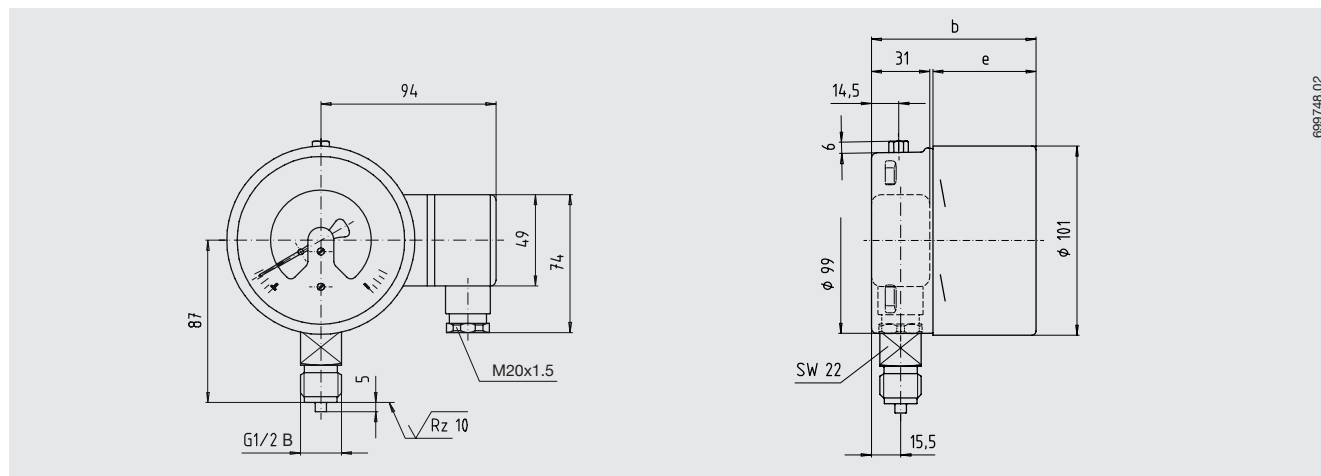
approx. 1.2 kg

Options

- 3 magnetic snap-action contacts, without galvanic isolation, switching points are adjustable
- Acrylic glass window
- Compensation for SF₆ mixtures
- Process connection through flanges
- Connection at 3, 6 or 12 o'clock
- Back connection
- Pluggable cable box

Dimensions in mm

Standard version



Alarm contacts model 821 Sets and version of contact	Dimensions in mm	
	b	e
Double contacts, with galvanic isolation	88	55
Triple contacts, with galvanic isolation, without adjusting arms	96	63

Ordering information

Model / Nominal size / Scale range / No. and size of connection / Filling pressure / Calibration pressure / Options

Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.
Modifications may take place and materials specified may be replaced by others without prior notice.



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