

Pressure transducers DMU 13 with local display

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- Robust stainless steel housing (safety housing)
- High-precision measurements with integrated transducer
- Mechanical, power-independent local display



Chapter 2



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Application For pressure measurements with a power-independent local display in combination with an electrical output signal.

Description The DMU 13 pressure transducers consist of a mechanical Bourdon tube measuring element and a piezo-resistive stainless steel measuring cell. The Bourdon tube measuring element is used to provide an easy-to-read analogue local display. The display is power-independent. Due to the integrated pressure transducer, high-precision measurement in parallel is possible. A standardised current output is available for signal transmission and recording of measured data. The robust stainless steel housing has a solid baffle wall and blow out (safety housing).

Technical specifications

Nominal size
100

Measuring accuracy
Pressure gauge: class 1.0 (EN 837-1/6)
Transducer: Deviation from the characteristic curve according to IEC 60770 – limit point calibration (non-linearity, hysteresis, repeatability):
< ± 0.5 % FSO

Measuring ranges
Relative pressure: 0/0.6 to 0/40 bar

Application area
Static load: full scale value
Dynamic load:
0.9 x full scale value
Short term: 1.3 x full scale value

Operating temperature range
Medium: -20/+100 °C
Ambient: -20/+60 °C
Storage: -40/+70 °C

Housing (safety housing)
Housing with solid baffle wall and blow-out

Window
Laminated safety glass

Degree of protection
IP 54 (EN 60529)

Process connection
G½B – spanner size SW 22, bottom
(EN 837-1/7.3)

Materials
Housing: Stainless steel 304
Pressure connection: Stainless steel 316 L
Diaphragm: Stainless steel 316 L
Seal: FKM (Viton)

Pressure transmission liquid
Silicone oil

Electrical connection
Junction box

Additional data transducer

Output signal/supply voltage
4–20 mA DC 12–36 V
2-wire

Load
4–20 mA ≤ $\frac{U_B - U_{Bmin}}{0.02 \text{ A}}$

Current input
4–20 mA < 25 mA

Long-term stability
≤ ±0.2 % FSO/year

Temperature error band
In compensated range
0–70 °C ≤ 1 % FSO/10 K

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for prices.

Options

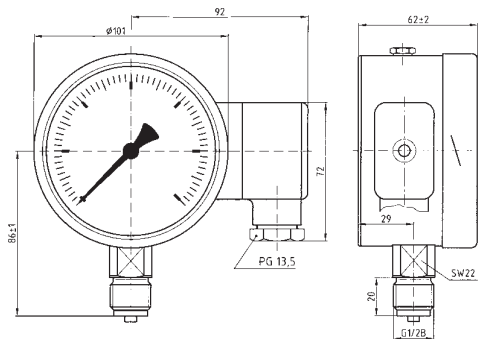
- Housing filling (paraffin oil)
- Electrical contacts
- Other process connections
- Fitting of chemical seal

Pressure transducers DMU 13

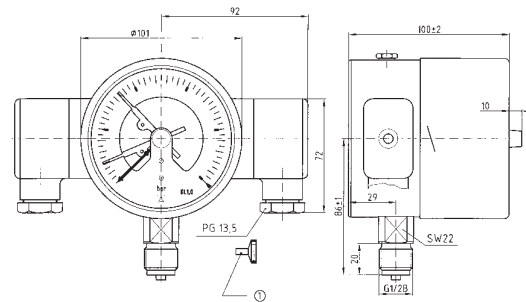
Dimensions (mm) and electrical connections

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Bottom connection



Bottom connection, with electrical contact



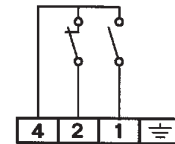
① Removable key, delivered loose with the unit.

Pin assignment table for pressure measuring cell
(right junction box)

Supply +	1
Supply -	2
Earth	Earth pin

Pin assignment table for electrical contact (left junction box).
Example: Magnetic spring contact MK2.12

Normally open contact	1
Normally closed contact	2
Supply	4



Wiring diagram

2-wire, 4–20 mA

