Pressure transducer with local display

benefits

- robust stainless steel housing (safety housing)
- high-precision measurements with integrated transducer
- mechanical, power-independent local display

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

accuracy class (EN 837-1/6)
1.0

Measuring accuracy
Deviation from the characteristic curve according to IEC 60770 – limit point calibration (non-linearity, hysteresis, repeatability)
< ± 0.5 % FSO

Long-term stability
≤ ± 0.2 % FSO/year

Measuring range
see ordering table

application area
static load: Full scale value
dynamic load: 0.9 x full scale value
short-term load: 1.3 x full scale value

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

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

Housing
with solid baffle wall and blow-out (S3)

window
Laminated safety glass

Process connection
G½B, bottom EN 837-1/7.3

material
Housing: Stainless steel 304
pressure connection: Stainless steel 316 L
diaphragm: Stainless steel 316 L
Seal: FKM (Viton)

wetted parts
stainless steel 316 Ti/316 L

pressure transmission liquid
Silicone oil

Supply voltage
DC 12 – 36 V

Output signal
2-wire, 4–20 mA

Load
R_{max} = [(UB – UB_{min})/0.02 A] Ω

Current input
< 25 mA

Electrical connection
Junction box

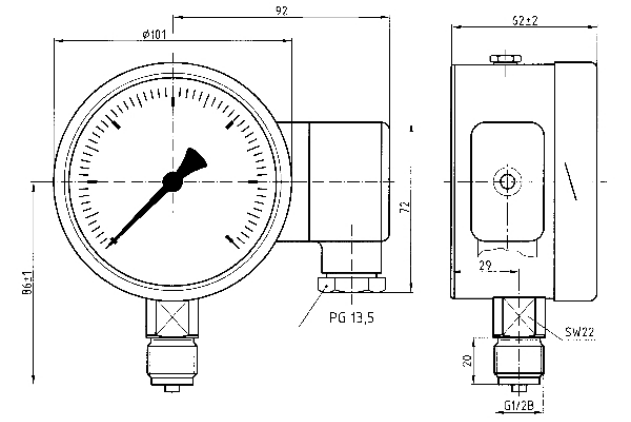
Degree of protection
IP 54 (EN 60529)

Options

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

Technical Drawings

DMU 13 - bottom connection



Dimensions (mm)