

Pressure transducers DMU 02

Industrial version

3



- Extremely resistant to shock, pulsation and vibration
- High overload safety
- Dynamic pressure resistance at high load changes
- Wetted area without seals due to welding
- No transmission liquid



Application Electronic pressure measurement in industrial applications, e.g. hydraulic, pneumatic, gas industry, refrigeration, automation, medical, as well as general mechanical and plant engineering applications.

Description Pressure transducers convert physical pressure into an electrical signal proportional to the pressure. DMU 02 is equipped with a piezo-resistive polysilicon thin-film measuring cell.

Technical specifications

Measuring accuracy

Deviation from the characteristic curve according to IEC 60770 – limit point calibration (non-linearity, hysteresis, repeatability): $\leq \pm 0.5\%$ FSO

Measuring ranges

Relative pressure:
-1/0 to -1/+24 bar
0/0.6 to 0/1,000 bar

Overpressure safety

≤ 250 bar at least 2 x FS
(burst pressure at least 3 x FS)
 ≤ 250 bar at least 1.5 x FS
(burst pressure at least 2 x FS)
 $\geq 1,000$ bar at least 1.2 x FS
(burst pressure at least 1.5 x FS)

Operating temperature range

Medium: -40/+125 °C
Ambient: -40/+105 °C
Storage: -40/+125 °C

Temperature error band

In compensated range
 $-20/+85\text{ °C} \leq 0.15\%$ FSO/10 K

Dynamic characteristics

Response time < 1 ms

Process connection

G $\frac{1}{2}$ B (EN 837-1/7.3)

Material

Housing: Stainless steel 304
Pressure connection: Stainless steel 630
Seal: Without

Supply voltage

DC 10–32 V
EX version: DC 20–27 V

Output signal

4–20 mA, 2-wire
0–10 V, 3-wire

Load

$4-20\text{ mA} \leq \frac{U_B - U_{Bmin}}{0.02\text{ A}}$

At least 100 Ohm with EX version
0–10 V > 5 kOhm

Current input

4–20 mA < 25 mA
0–10 V < 20 mA

Electrical protection

Short circuit proof and protected against reverse polarity


Electrical connection/degree of protection

Connector and junction box as per ISO 4400 (DIN 43650-A), IP 65

CE conformity

EMC Directive 2014/30/EU
RoHS Directive 2011/65/EU
PED 2014/68/EU

Options

- Other connection threads
- Fixed cable connection
- Other connectors
- Other output signals
- Cleaned for oxygen
- EX version (II 1G Ex ia IIB T4) 

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See page 211 for prices.

