Pressure Transducer
DMU 02 / DMU 02 Vario

Extremely robust, without seal and diffusion-tight!

Typical applications

- ***Process technology***
- ***Plant engineering***
- ***Food industry***
- ***Oil- and grease-free applications***
- ***Ultra-pure gas measurement***
- ***Machine engineering***

Description

The new series DMU 02 pressure transducers are based on a poly-silicon thin film measuring cell, a new technology in industrial pressure measurement.
The semiconductor bridge circuit is attached to an isolated stainless steel diaphragm. This measuring technology utilises the positive characteristics of conventional pressure sensors such as a high output signal, excellent dynamic characteristic, high long-term stability. In addition, it is resistant to vibrations and offers a high burst strength.
Seals are not required since the measuring cell is directly welded to the process connection. In the case of an open process connection, no hydraulic transfer medium is required making the DMU 02 the

perfect solution for oil- and grease-free applications, pharmaceutical air, gas and ultra-pure gas measurements.

If flush pressure connections are required, a second diaphragm is mounted in front of the measuring cell. The Vario diaphragm systems of DMU 02 Vario are filled with special transfer liquids and are hermetically sealed with a weld. There is no possibility of diffusion either of the transfer liquid out of the system nor of the measured medium into the system.

Benefits

- Versatile connection technology
- Extremely resistant to shock, pulsation and vibration
- High overrange protection
- Best dynamic pressure resistance at high load changes
- Seal-free wetted parts
- Diffusion-tight

Technical specifications standard version

Accuracy of measurement
<± 0.5 % FSO

Measuring ranges
-1/0 bar
0/0.6 bar to 0/4000 bar

Overrange protection
Min. 2 x FS (full scale)
Burst pressure min. 3 x FS (full scale)

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

Temperature error in compensated range
-20/+80 °C = <0.5 % FSO/10 K

Dynamic characteristics
Response time < 1 ms

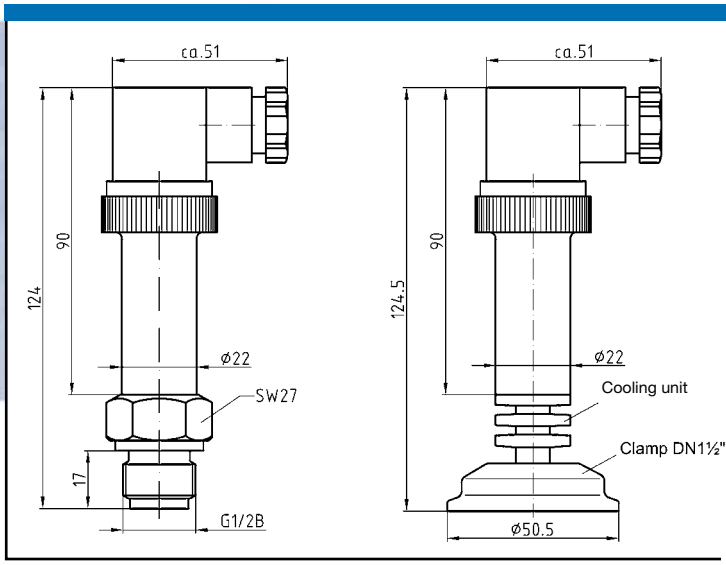
Process connection
G½ B (EN 837)

Your specialist distributor

Materials
Housing: stainless steel 1.4301 (304)
Pressure connection: stainless steel 1.4542 (630)/1.4404 (316 L)
Diaphragm: 1.4435 (316 L)
Seal: without

Supply voltage
12–32 V DC

Output signals
4 ... 20 mA, 2-wire
0 ... 10 V, 3-wire



Load
4 ... 20 mA ≤ $\frac{UB - UB\ min.}{0{,}02\ A}$

Current input
4 ... 20 mA < 25 mA

Protective electrical measures
Short circuit proof and polarity protected

Electrical connection
Connector cable or connection
ISO 4400 / DIN 43650 (IP65)

Protection
IP65

CE conformity
EMC 2004/108/EG

Options

- Various electrical connections
- Various output signals
- Customer and industry-specific process connections
- Flush connection available
- Suitable for oxygen service
- Process temperature up to 180 °C

AFRISO-EURO-INDEX GmbH • Lindenstraße 20 • 74363 Güglingen
Phone +49 7135 102-0 • Fax +49 7135 102-147 • info@afriso.de • www.afriso.de

Ident-Nr. 991517 06668 04/10

Pressure Transducer