Pressure transducers DMU 04

Part no. 31670

Pressure transducer industrial version

benefits

- DMU 04 CP/MR for hygienic processes
- small temperature error
- Options: Ex, field housing or high temperature version (up to 300 °C) and SIL 2

Application

For applications requiring hygienic process connections, materials or processing, especially food technology, pharmaceutical and biotechnology applications.

Description

Pressure transducers convert physical pressure into an electrical signal proportional to the pressure. DMU 4 is equipped with an oil-filled piezo-resistive silicon measuring cell. DMU 04 has safety integrity level SIL 2 (IEC 61508/61511).

Technical Specifications

Measuring accuracy
Deviation from the characteristic curve according to IEC 60770 – limit point calibration (non-linearity, hysteresis, repeatability)
≤ 0/400 mbar < ± 0.5 % FSO

Measuring range
0/400 mbar

Overpressure safety
at least 3 x FS

Burst pressure
at least 5 x FS

Operating temperature range
Medium: -10/+125 °C
Medium: short-term (60 min) up to 150 °C
Ambient: -40/+85 °C
Storage: -40/+100 °C

Temperature error band
≥ 400 mbar
≤ ± 0.75 % FSO/10 K In compensated range -20/+85 °C

dynamic characteristics
Response time: ≤ 10 ms

Process connection
G1B DIN 3852 type E with flush diaphragm

material
Housing: Stainless steel 316 L
pressure connection: Stainless steel 316 L
diaphragm: Stainless steel 316 L

pressure transmission liquid
Food oil, FDA-compliant

Supply voltage
DC 8 – 32 V

Output signal
2-wire, 4–20 mA

Load
$R_{max} = [(UB - UB_{min})/0.02\ A]\ \Omega$

Options

- other process connections
- other electrical connections
- Field housing (stainless steel 303)
- High temperature version up to 300 °C
- higher accuracy
- Union nut DN 25/40/50
- EX version (II 1G Ex ia IIC T4 Ga, II 1D Ex ia IIIC T85°C Da)
- SIL 2 (IEC 61508/61511) 2-wire

Current input
< 25 mA

electrical protection
short circuit proof and protected against reverse polarity

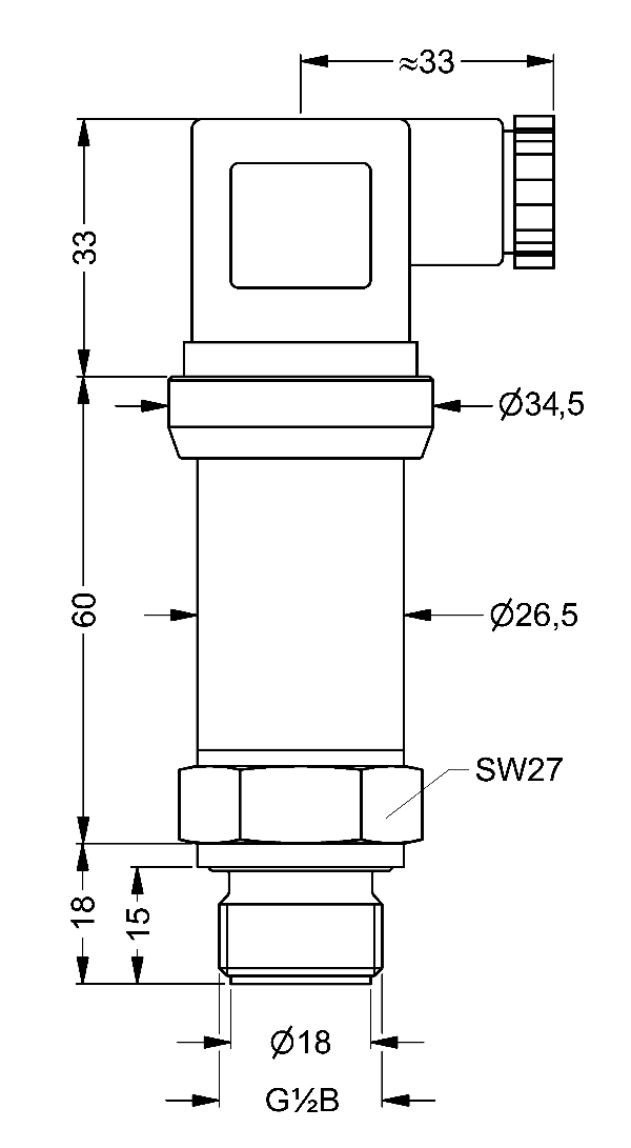
Electrical connection
Connector and junction box as per ISO 4400 (DIN 43650-A)

Degree of protection
IP 65 (EN 60529)

CE conformity
EMC Directive 2014/30/EU
RoHS Directive 2011/65/EU
Pressure Equipment Directive 2014/68/EU

Technical Drawings

DMU 04 - connection G½B
with flush diaphragm



Dimensions (mm)

Versions

Range	Measuring range	Type	Version		Part no.
	0/400 mbar	DMU 04		●	31670

● in-stock items

● Non-stock items