# Pressure transducers DMU 04

## Part no. 31683

## 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)
> 0/40 bar < ± 0.5 % FSO

**Measuring range**
0/160 bar

**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

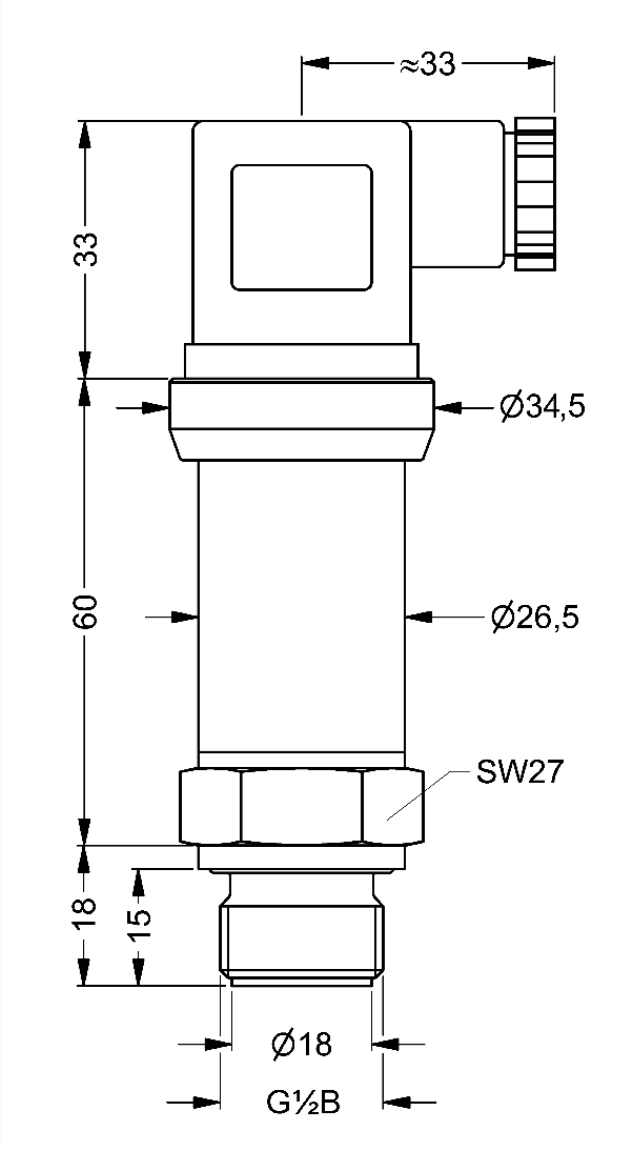
**Electrical connection**
Connector and junction box as per ISO 4400 (DIN 43650-A)

**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. |
|---|---|---|---|---|---|
| | 0/160 bar | DMU 04 | | ● | 31683 |

● in-stock items

● Non-stock items