

## Pressure transducers DMU 03

Part no. 31146

Pressure transducers DMU 03 Industrial version



### benefits

- for low pressure ranges
- Versions for relative pressure and absolute pressure
- excellent long-term stability
- Ex version (optional)
- Option SIL 2

### Application

For electronic pressure measurement in mechanical and plant engineering as well as process engineering applications. With flush diaphragm, the pressure transducers are also suitable for use with viscous, highly viscous media.

### Description

Pressure transducers convert physical pressure into an electrical signal proportional to the pressure. DMU 03 is equipped with an oil-filled piezo-resistive silicon measuring cell. DMU 03 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)

0/100 – 0/400 mbar  $\leq \pm 0.5\%$  FSO

#### Measuring range

0/400 mbar

#### Overpressure safety

at least 3 x FS

#### Burst pressure

at least 5 x FS

#### Operating temperature range

Medium: -40/+125 °C

Ambient: -40/+85 °C

Storage: -40/+100 °C

#### Temperature error band

$P_N \leq 60$  bar

$\leq \pm 0.75\%$  FSO In compensated range -20/+85 °C

#### dynamic characteristics

Response time:  $\leq 10$  ms

#### Process connection

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

**material**

Housing: Stainless steel 316 L  
DMU 03  
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Seal: FKM (Viton)

**pressure transmission liquid**

Silicone oil

**Supply voltage**

DMU 03  
DC 8 – 32 V

**Output signal**

2-wire, 4–20 mA

**Load**

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

**Options**

- other process connections
- other electrical connections
- Field housing (stainless steel 303)
- other seal materials
- higher accuracy and overpressure safety
- Fitting of chemical seal
- 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**

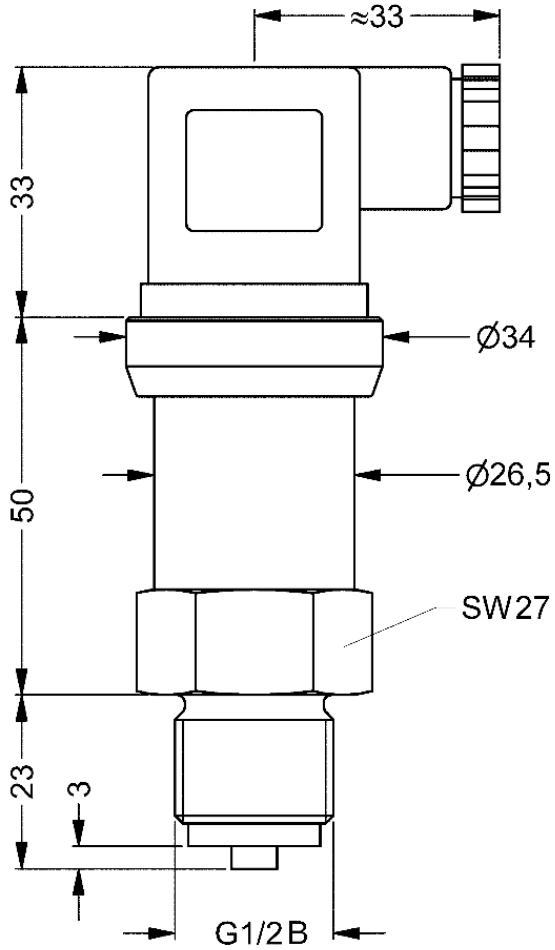
IP 65 (EN 60529)

**CE conformity**

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

**Technical Drawings**

**DMU 03 - connection G1/2B EN 837 and ISO 4400**



**Dimensions (mm)**

**Versions**

| Range | Measuring range | Type   | Version | Part no. |
|-------|-----------------|--------|---------|----------|
|       | 0/400 mbar      | DMU 03 | ●       | 31146    |

- in-stock items
- Non-stock items