



## Pressure transducers DMU 05 P precision version



### Benefits

- Precision version with outstanding measurement performance
- For applications requiring superior measuring accuracy and long-term stability
- Options: ATEX version or RS 232 interface

### Application

For electronic pressure measurement in applications requiring high measuring accuracy and long-term stability, such as process engineering, water treatment, laboratory applications as well as measurements of gas consumption and heat energy.

### Description

Pressure transducers convert physical pressure into an electrical signal proportional to the pressure. DMU 05 P is equipped with an oil-filled piezo-resistive silicon measuring cell. The intelligent DMU 05 P pressure transducers are equipped with digital amplifier electronics (microprocessor and 16 bit A/D converter). DMU 05 P actively compensates for sensor-specific deviations (non-linearity and temperature error), allowing for superior measuring characteristics. DMU 05 P can also be supplied with optional digital RS 485 Modbus RTU for setting offset, range and damping.



## Technical specifications

### Measuring accuracy

Deviation from the characteristic curve according to IEC 60770 – limit point calibration (non-linearity, hysteresis, repeatability)  
< ± 0.1 % FSO

### Measuring range

See ordering table

### Overpressure safety

< 600 bar: At least 2 x FS  
≥ 600 bar: At least 3.5 x FS

### Burst pressure

< 400 bar: At least 5 x FS  
≥ 400 bar: At least 2 x FS

### Operating temperature range

Medium: 25/125 °C  
Ambient: -25/+85 °C  
Storage: -40/+100 °C

### Temperature error band

± 0.02 % FSO/10 K in compensated range -20/+80 °C

### Dynamic characteristics

Response time: < 5 ms

### Process connection

G $\frac{1}{2}$ B EN 837-1/7.3  
G $\frac{1}{2}$ B DIN 3852 type E with protruding diaphragm

### Material

Housing: Stainless steel 316 L  
Pressure connection: Stainless steel 316 L  
Diaphragm: Stainless steel 316 L  
Seal: FKM (Viton)

## Options

- Other process connections
- Other electrical connections
- Other seal materials
- Other output signals
- RS 232 interface in conjunction with Binder connector 723, 7-pin (interface and software required)
- EX version (II 1G Ex ia IIC T4 Ga, II 1D Ex ia IIIC T85°C Da)

### Pressure transmission liquid

Silicone oil

### Supply voltage

DC 12 – 36 V

### Output signal

2-wire, 0/4–20 mA

### Load

$R_{Max} = [(UB - UB_{Min})/0.02 A] \Omega$

### 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)

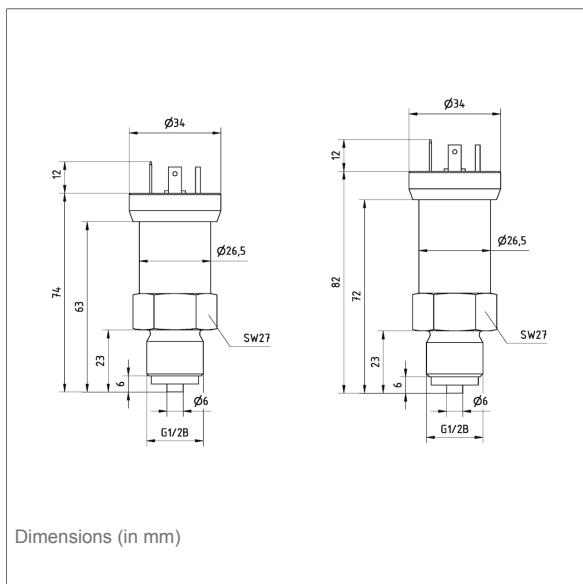
### CE conformity

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

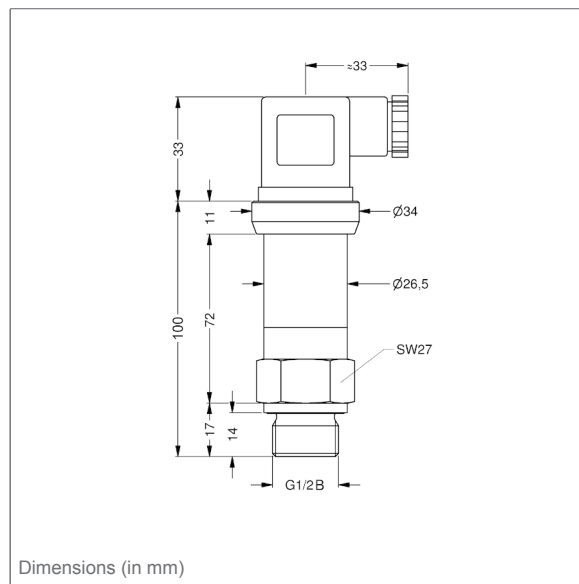


## Technical drawings

DMU 05 P - connection G $\frac{1}{2}$ B EN 837

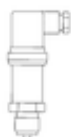


DMU 05 P VM - connection G $\frac{1}{2}$ B DIN 3852 type E – with protruding diaphragm



## Versions

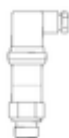
Type	Connection	Measuring range	Part no.
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	-1/0 bar	31742
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	-1/+1.5 bar	31743
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	-1/+3 bar	31744
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	-1/+5 bar	31745
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	0/100 mbar	33026
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	0/160 mbar	31747
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	0/250 mbar	31748
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	0/400 mbar	31749
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	0/600 mbar	31750
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	0/1 bar	31751
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	0/1.6 bar	31752
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	0/2.5 bar	31753
DMU 05 P	G $\frac{1}{2}$ B EN 837-1/7.3	0/4 bar	31754



Blue part no. = in-stock items



Type	Connection	Measuring range	Part no.
DMU 05 P	G½B EN 837-1/7.3	0/6 bar	31755
DMU 05 P	G½B EN 837-1/7.3	0/10 bar	31756
DMU 05 P	G½B EN 837-1/7.3	0/16 bar	31757
DMU 05 P	G½B EN 837-1/7.3	0/25 bar	31758
DMU 05 P	G½B EN 837-1/7.3	0/40 bar	31759
DMU 05 P	G½B EN 837-1/7.3	0/60 bar	31760
DMU 05 P	G½B EN 837-1/7.3	0/100 bar	31761
DMU 05 P	G½B EN 837-1/7.3	0/160 bar	31762
DMU 05 P	G½B EN 837-1/7.3	0/250 bar	31763
DMU 05 P	G½B EN 837-1/7.3	0/400 bar	31764
DMU 05 P	G½B EN 837-1/7.3	0/600 bar	31765
DMU 05 P VM	G½B DIN 3852 type E	0/100 mbar	33027
DMU 05 P VM	G½B DIN 3852 type E	0/160 mbar	31771
DMU 05 P VM	G½B DIN 3852 type E	0/250 mbar	31772
DMU 05 P VM	G½B DIN 3852 type E	0/400 mbar	31773
DMU 05 P VM	G½B DIN 3852 type E	0/600 mbar	31774
DMU 05 P VM	G½B DIN 3852 type E	0/1 bar	31775
DMU 05 P VM	G½B DIN 3852 type E	0/1.6 bar	31776
DMU 05 P VM	G½B DIN 3852 type E	0/2.5 bar	31777
DMU 05 P VM	G½B DIN 3852 type E	0/4 bar	31778
DMU 05 P VM	G½B DIN 3852 type E	0/6 bar	31779
DMU 05 P VM	G½B DIN 3852 type E	0/10 bar	31780
DMU 05 P VM	G½B DIN 3852 type E	0/16 bar	31781
DMU 05 P VM	G½B DIN 3852 type E	0/25 bar	31782
DMU 05 P VM	G½B DIN 3852 type E	0/40 bar	33028



Blue part no. = in-stock items