



## Pressure transducers DMU 01 standard version



### Benefits

- Proven ceramic technology
- No mechanical ageing of the measuring cell
- No transmission liquid
- Versions for relative pressure and absolute pressure
- Small temperature error

### Application

For electronic pressure measurement in industrial applications (such as hydraulic and pneumatic applications as well as mechanical and plant engineering).

### Description

Pressure transducers convert physical pressure into an electrical signal proportional to the pressure. DMU 01 is equipped with a piezo-resistive thick-film ceramic measuring cell.



## Technical specifications

### Measuring accuracy

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

-1/0 bar <  $\pm 1$  % FSO

<  $\pm 0.5$  % FSO

### Measuring range

See ordering table

### Overpressure safety

< 250 bar: At least 2 x FS

250 bar: 400 bar

400 bar: 650 bar

### Burst pressure

< 400 bar: At least 3 x FS

400 bar: 1000 bar

### Operating temperature range

Medium: -25/+125 °C

Ambient: -25/+85 °C

Storage: -40/+85 °C

### Temperature error band

$\leq \pm 0.3$  % FSO/10 K In compensated range -25/+85 °C

### Dynamic characteristics

Response time:  $\leq 10$  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 304

Pressure connection: Stainless steel 304

Diaphragm: Ceramic (Al<sub>2</sub>O<sub>3</sub> 96 %)

Seal: FKM (Viton)

### Supply voltage

DC 8 – 32 V

### Output signal

2-wire, 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, EN 175301-803)

### 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

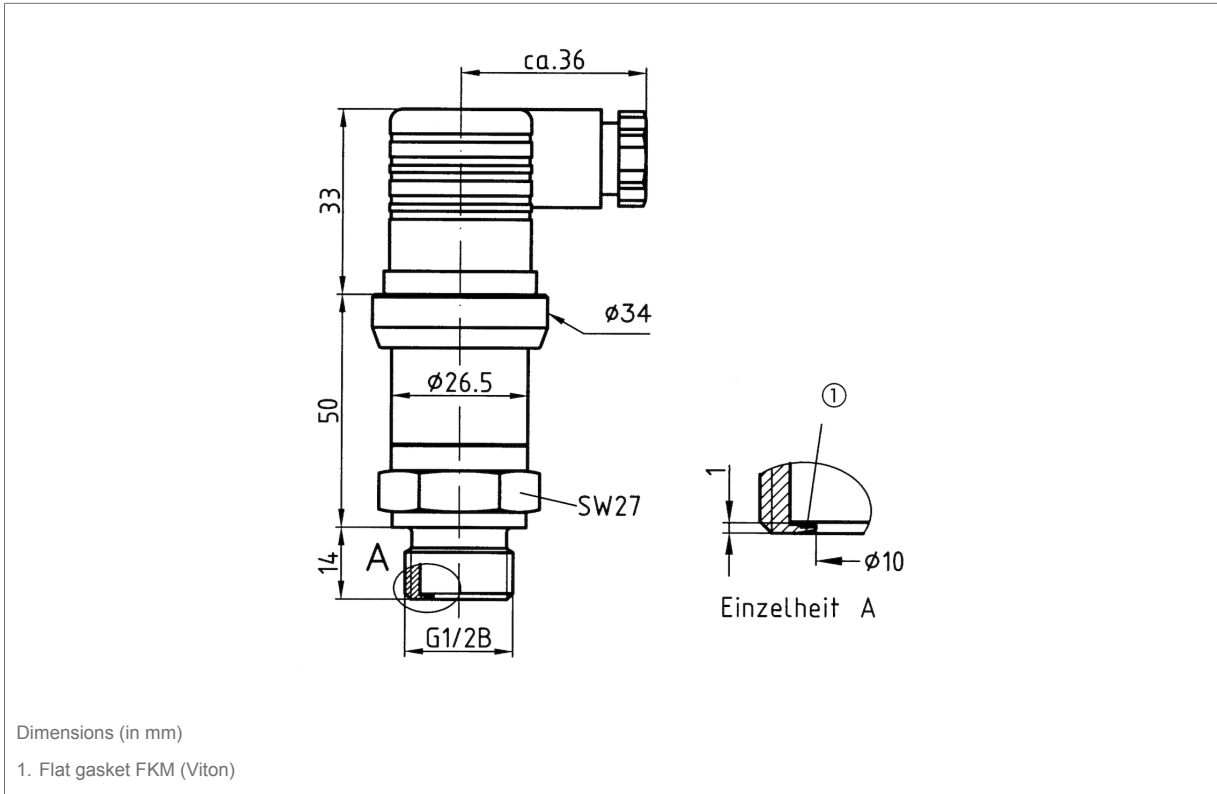
## Options

- Other connection threads
- Fixed cable connection
- Other output signals
- SIL 2 (IEC 61508/61511) 2-wire, for DMU 01 VM



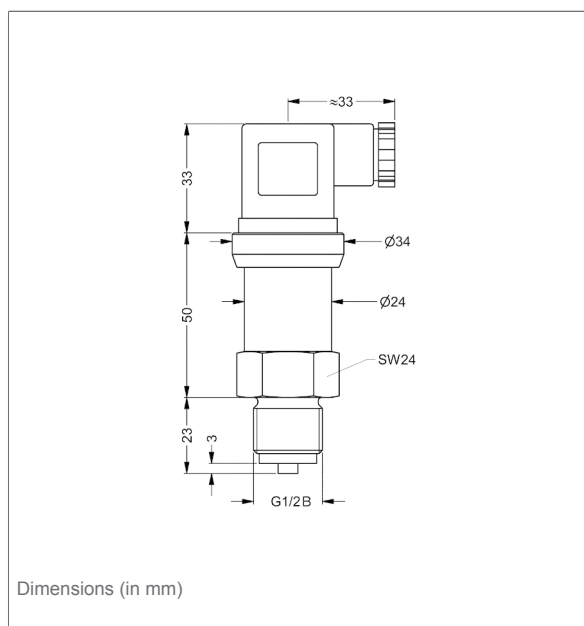
### Detail views

DMU 01 VM with connection G $\frac{1}{2}$ B DIN 3852 type E with protruding diaphragm

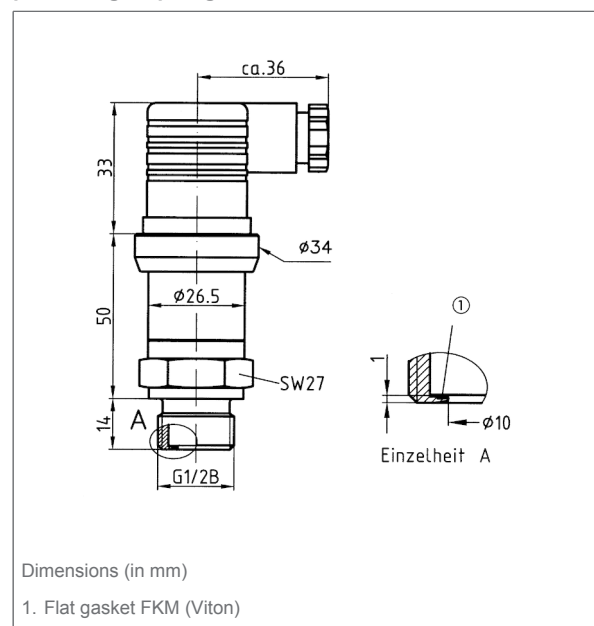


### Technical drawings

DMU 01 - connection G $\frac{1}{2}$ B EN 837



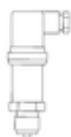
DMU 01 VM with connection G $\frac{1}{2}$ B DIN 3852 type E with protruding diaphragm





## Versions

Type	Connection	Measuring range	Part no.
DMU 01	G½B EN 837-1/7.3	-1/0 bar	<a href="#">31114</a>
DMU 01	G½B EN 837-1/7.3	-1/+1.5 bar	31616
DMU 01	G½B EN 837-1/7.3	-1/+3 bar	31617
DMU 01	G½B EN 837-1/7.3	-1/+5 bar	31618
DMU 01	G½B EN 837-1/7.3	0/1 bar	<a href="#">31115</a>
DMU 01	G½B EN 837-1/7.3	0/1.6 bar	31116
DMU 01	G½B EN 837-1/7.3	0/2.5 bar	<a href="#">31117</a>
DMU 01	G½B EN 837-1/7.3	0/4 bar	<a href="#">31118</a>
DMU 01	G½B EN 837-1/7.3	0/6 bar	<a href="#">31119</a>
DMU 01	G½B EN 837-1/7.3	0/10 bar	<a href="#">31120</a>
DMU 01	G½B EN 837-1/7.3	0/16 bar	<a href="#">31121</a>
DMU 01	G½B EN 837-1/7.3	0/25 bar	<a href="#">31122</a>
DMU 01	G½B EN 837-1/7.3	0/40 bar	31123
DMU 01	G½B EN 837-1/7.3	0/60 bar	31124
DMU 01	G½B EN 837-1/7.3	0/100 bar	31125
DMU 01	G½B EN 837-1/7.3	0/160 bar	<a href="#">31126</a>
DMU 01	G½B EN 837-1/7.3	0/200 bar	<a href="#">31878</a>
DMU 01	G½B EN 837-1/7.3	0/250 bar	<a href="#">31127</a>
DMU 01	G½B EN 837-1/7.3	0/400 bar	<a href="#">31128</a>
DMU 01 VM	G½B DIN 3852 type E	-1/0 bar	31619
DMU 01 VM	G½B DIN 3852 type E	-1/+1.5 bar	31620
DMU 01 VM	G½B DIN 3852 type E	-1/+3 bar	31621
DMU 01 VM	G½B DIN 3852 type E	-1/+5 bar	31622
DMU 01 VM	G½B DIN 3852 type E	0/1 bar	31623
DMU 01 VM	G½B DIN 3852 type E	0/1.6 bar	31624
DMU 01 VM	G½B DIN 3852 type E	0/2.5 bar	31625



Blue part no. = in-stock items



Type	Connection	Measuring range	Part no.
DMU 01 VM	G½B DIN 3852 type E	0/4 bar	31626
DMU 01 VM	G½B DIN 3852 type E	0/6 bar	31627
DMU 01 VM	G½B DIN 3852 type E	0/10 bar	31628
DMU 01 VM	G½B DIN 3852 type E	0/16 bar	31629
DMU 01 VM	G½B DIN 3852 type E	0/25 bar	31630

Blue part no. = in-stock items