



Pressure transducers DMU 04 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)

< ± 0.35 % FSO
 > 0/40 bar < ± 0.5 % FSO
 ≤ 0/400 mbar < ± 0.5 % FSO

Measuring range

See ordering table

Overpressure safety

At least 3 x FS
 40 bar: 105 bar

Burst pressure

At least 5 x FS
 25 bar: 120 bar

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: ≤ ± 1.5 % FSO/10 K In compensated range
 0/50 °C
 ≥ 400 mbar: ≤ ± 0.75 % FSO/10 K In compensated range
 -20/+85 °C

Dynamic characteristics

Response time: ≤ 10 ms

Process connection

G½B DIN 3852 type E with flush diaphragm
 G1B DIN 3852 type E with flush diaphragm
 Clamp 1" ISO 2852
 Conical dairy fitting DN 25 DIN 11851

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

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

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

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)

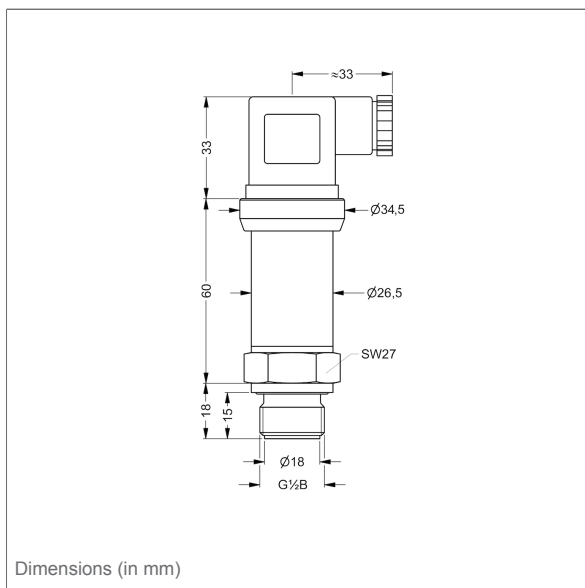
CE conformity

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

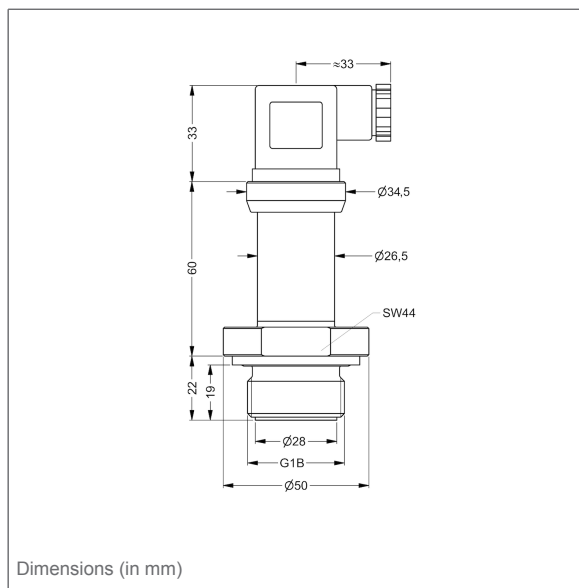


Technical drawings

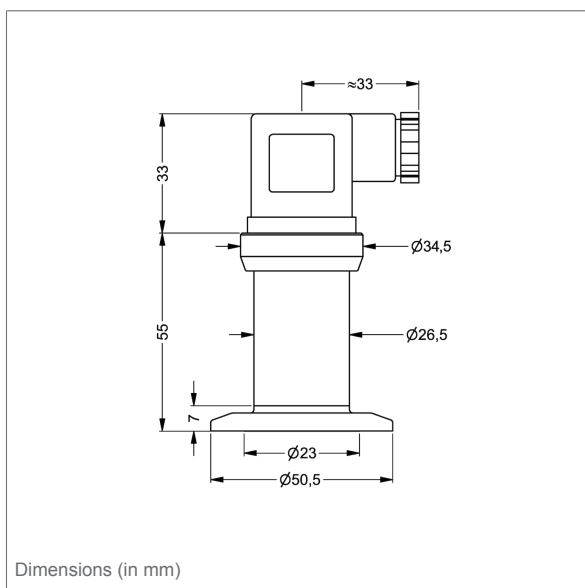
DMU 04 - connection G½B – with flush diaphragm



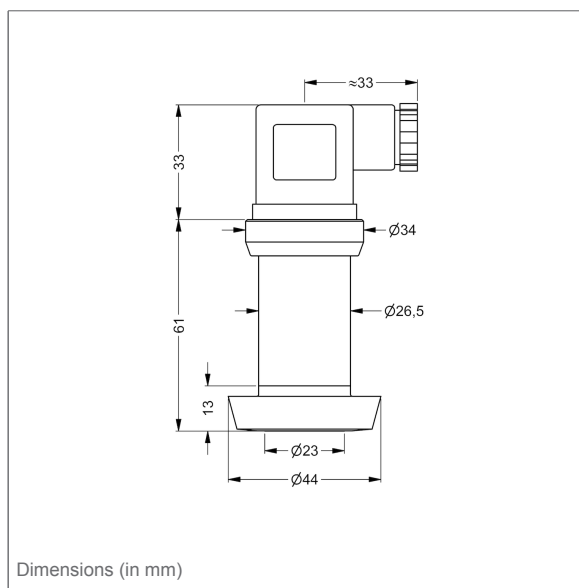
DMU 04 - connection G1B – with flush diaphragm



DMU 03 - clamp connection ISO 2852



DMU 04 - dairy cone DIN 11851 DN 25





Versions

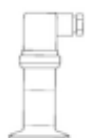
Type	Connection	Measuring range	Part no.
DMU 04	G½B DIN 3852 type E	-1/+1.5 bar	31647
DMU 04	G½B DIN 3852 type E	-1/+3 bar	31648
DMU 04	G½B DIN 3852 type E	-1/+5 bar	31649
DMU 04	G½B DIN 3852 type E	0/600 mbar	33018
DMU 04	G½B DIN 3852 type E	0/1 bar	33019
DMU 04	G½B DIN 3852 type E	0/1.6 bar	33020
DMU 04	G½B DIN 3852 type E	0/2.5 bar	31651
DMU 04	G½B DIN 3852 type E	0/4 bar	31652
DMU 04	G½B DIN 3852 type E	0/6 bar	31653
DMU 04	G½B DIN 3852 type E	0/10 bar	31654
DMU 04	G½B DIN 3852 type E	0/16 bar	31655
DMU 04	G½B DIN 3852 type E	0/25 bar	31656
DMU 04	G½B DIN 3852 type E	0/40 bar	31657
DMU 04	G½B DIN 3852 type E	0/60 bar	31658
DMU 04	G½B DIN 3852 type E	0/100 bar	31659
DMU 04	G½B DIN 3852 type E	0/160 bar	31660
DMU 04	G½B DIN 3852 type E	0/250 bar	31661
DMU 04	G½B DIN 3852 type E	0/400 bar	31662
DMU 04	G1B DIN 3852 type E	-1/0 bar	31663
DMU 04	G1B DIN 3852 type E	-1/+1.5 bar	31664
DMU 04	G1B DIN 3852 type E	-1/+3 bar	31665
DMU 04	G1B DIN 3852 type E	-1/+5 bar	31666
DMU 04	G1B DIN 3852 type E	0/100 mbar	33021
DMU 04	G1B DIN 3852 type E	0/160 mbar	33022
DMU 04	G1B DIN 3852 type E	0/250 mbar	31669
DMU 04	G1B DIN 3852 type E	0/400 mbar	31670



Blue part no. = in-stock items



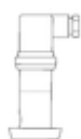
Type	Connection	Measuring range	Part no.
DMU 04	G1B DIN 3852 type E	0/600 mbar	31671
DMU 04	G1B DIN 3852 type E	0/1 bar	31672
DMU 04	G1B DIN 3852 type E	0/1.6 bar	31673
DMU 04	G1B DIN 3852 type E	0/2.5 bar	31674
DMU 04	G1B DIN 3852 type E	0/4 bar	31675
DMU 04	G1B DIN 3852 type E	0/6 bar	31676
DMU 04	G1B DIN 3852 type E	0/10 bar	31677
DMU 04	G1B DIN 3852 type E	0/16 bar	31678
DMU 04	G1B DIN 3852 type E	0/25 bar	31679
DMU 04	G1B DIN 3852 type E	0/40 bar	31680
DMU 04	G1B DIN 3852 type E	0/60 bar	31681
DMU 04	G1B DIN 3852 type E	0/100 bar	31682
DMU 04	G1B DIN 3852 type E	0/160 bar	31683
DMU 04	G1B DIN 3852 type E	0/250 bar	31684
DMU 04	G1B DIN 3852 type E	0/400 bar	31685
DMU 04 CP	Clamp 1" ISO 2852	-1/0 bar	31686
DMU 04 CP	Clamp 1" ISO 2852	-1/+1.5 bar	31687
DMU 04 CP	Clamp 1" ISO 2852	-1/+3 bar	31688
DMU 04 CP	Clamp 1" ISO 2852	-1/+5 bar	31689
DMU 04 CP	Clamp 1" ISO 2852	0/250 mbar	33023
DMU 04 CP	Clamp 1" ISO 2852	0/400 mbar	33024
DMU 04 CP	Clamp 1" ISO 2852	0/600 mbar	31694
DMU 04 CP	Clamp 1" ISO 2852	0/1 bar	31695
DMU 04 CP	Clamp 1" ISO 2852	0/1.6 bar	31696
DMU 04 CP	Clamp 1" ISO 2852	0/2.5 bar	31697
DMU 04 CP	Clamp 1" ISO 2852	0/4 bar	31698
DMU 04 CP	Clamp 1" ISO 2852	0/6 bar	31699
DMU 04 CP	Clamp 1" ISO 2852	0/10 bar	31710



Blue part no. = in-stock items



Type	Connection	Measuring range	Part no.
DMU 04 CP	Clamp 1" ISO 2852	0/16 bar	31711
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	-1/0 bar	31719
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	-1/+1.5 bar	31720
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	-1/+3 bar	31721
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	-1/+5 bar	31722
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/250 mbar	33025
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/400 mbar	31726
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/600 mbar	31727
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/1 bar	31728
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/1.6 bar	31729
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/2.5 bar	31730
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/4 bar	31731
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/6 bar	31732
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/10 bar	31733
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/16 bar	31734
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/25 bar	31735
DMU 04 MR	Conical dairy fitting DN 25 DIN 11851	0/40 bar	31736



Blue part no. = in-stock items