



Pressure transducers DMU 14 DG/FG Ex



Benefits

- Version DMU 14 FG Ex with ATEX approval for zone 0
- Ideal for process engineering
- High accuracy of $\pm 0.1\%$
- Either die cast housing (DG) or field housing (FG)
- Turn down 1:10
- Local display

Application

The intelligent pressure transducer DMU 14 DG EX with die cast aluminium housing provides very high accuracy and a turn down function for measuring range selection and is an ideal solution for process engineering applications. The version DMU 14 FG EX with a stainless steel field housing is perfectly suitable for applications in the pharmaceutical and food industries. The devices come with HART® communication.



Technical specifications

Measuring accuracy

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

$\leq \pm 0.1$ % FSO

$\leq \pm 0.2$ % FSO at turn down > 1:5

Long-term stability

$\leq \pm 0.1$ % FSO/Jahr at reference conditions

Display

LC display,

5-digit 7-segment main display,

Character height 8 mm,

Range $\pm 9,999$,

8-digit 14-segment additional display,

Character height 5 mm,

52-segment bar chart,

Accuracy 0.1 % ± 1 digit

Measuring range

See ordering table

Overpressure safety

$\leq 0/20$ bar: At least 4 x FS

$\leq 0/400$ bar: At least 2 x FS

> 400 bar: 1,000 bar

Operating temperature range

Medium: $-40/+125$ °C

Medium: short-term (60 min) up to 150 °C

Ambient: $-20/+70$ °C

Storage: $-30/+80$ °C

Temperature error band

$\leq \pm 0.2$ % FSO x Turn-Down In compensated range $-20/+85$ °C

Dynamic characteristics

Response time: 100 ms (without consideration of electronic damping)

Process connection

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

Material

Housing

DMU 14 DG Ex: Aluminium die cast, powder-coated

DMU 14 FG Ex: Stainless steel 316 L

Pressure connection: Stainless steel 316 L

Diaphragm: Stainless steel 316 L

Seal: FKM (Viton)

Pressure transmission liquid

Silicone oil

Adjustable parameters

Electronic damping: 0/100 s

Offset: 0/90 % FSO

Turn down of span: 1:10

Supply voltage

DC 12 – 28 V

Output signal

2-wire, 4–20 mA

With Ex version/HART® communication

Load

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

HART® communication: $R_{\text{min}} = 250 \Omega$

on:

Current input

< 25 mA

Electrical protection

Short circuit proof and protected against reverse polarity

Electrical connection

Cable gland M20 x 1.5

Degree of protection

IP 67 (EN 60529)

CE conformity

EMC Directive 2014/30/EU

RoHS Directive 2011/65/EU

Pressure Equipment Directive 2014/68/EU (module A)

ATEX Directive 2014/34/EU

EX approval

IBExU 15 ATEX 1059

X

DMU 14 DG Ex: Ex II 1G Ex ia IIC T4 Ga and Ex II 1D Ex ia IIC T85°C Da

DMU 14 FG Ex: Ex II 2G Ex ia IIC T4 Gb and Ex II 1D Ex ia IIC T85°C Da

Options

- Other process connections
- High temperature version up to 300 °C (only for connection G $\frac{1}{2}$ DIN 3852 with protruding diaphragm)



Versions

Type	Connection	Measuring range	Part no.
DMU 14 DG Ex	G½B EN 837-1/7.3	0/400 mbar	31987
DMU 14 DG Ex	G½B EN 837-1/7.3	0/1 bar	31988
DMU 14 DG Ex	G½B EN 837-1/7.3	0/2 bar	31989
DMU 14 DG Ex	G½B EN 837-1/7.3	0/4 bar	31990
DMU 14 DG Ex	G½B EN 837-1/7.3	0/20 bar	31991
DMU 14 DG Ex	G½B EN 837-1/7.3	0/40 bar	31992
DMU 14 DG Ex	G½B EN 837-1/7.3	0/100 bar	31993
DMU 14 DG Ex	G½B EN 837-1/7.3	0/200 bar	31994
DMU 14 DG Ex	G½B EN 837-1/7.3	0/400 bar	31995
DMU 14 DG Ex	G½B EN 837-1/7.3	0/600 bar	31996
DMU 14 FG Ex	G½B EN 837-1/7.3	0/400 mbar	31977
DMU 14 FG Ex	G½B EN 837-1/7.3	0/1 bar	31978
DMU 14 FG Ex	G½B EN 837-1/7.3	0/2 bar	31979
DMU 14 FG Ex	G½B EN 837-1/7.3	0/4 bar	31980
DMU 14 FG Ex	G½B EN 837-1/7.3	0/20 bar	31981
DMU 14 FG Ex	G½B EN 837-1/7.3	0/40 bar	31982
DMU 14 FG Ex	G½B EN 837-1/7.3	0/100 bar	31983
DMU 14 FG Ex	G½B EN 837-1/7.3	0/200 bar	31984
DMU 14 FG Ex	G½B EN 837-1/7.3	0/400 bar	31985
DMU 14 FG Ex	G½B EN 837-1/7.3	0/600 bar	31986

Blue part no. = in-stock items

