



Pressure transducers DMU 14 FG Ex

Part no. 31977

Pressure transducers

benefits

- Version DMU 14 FG Ex with Ex 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/year 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 $0.1\% \pm 1$ digit

Measuring range

0/400 mbar

Overpressure safety

$\leq 0/20$ bar

at least 4 x FS

Operating temperature range

Medium: $-40/+125\text{ }^{\circ}\text{C}$

Medium: short-term (60 min) up to $150\text{ }^{\circ}\text{C}$

Ambient: $-20/+70\text{ }^{\circ}\text{C}$

Ambient: $-20/+60\text{ }^{\circ}\text{C}$ in Ex zone 0 at p_{atm} 0.8 to 1.1 bar

Storage: $-30/+80\text{ }^{\circ}\text{C}$

Temperature error band

$\leq \pm 0.2\%$ FSO x Turn-Down In compensated range $-20/+85\text{ }^{\circ}\text{C}$

dynamic characteristics

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

Process connection

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

material

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

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

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

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

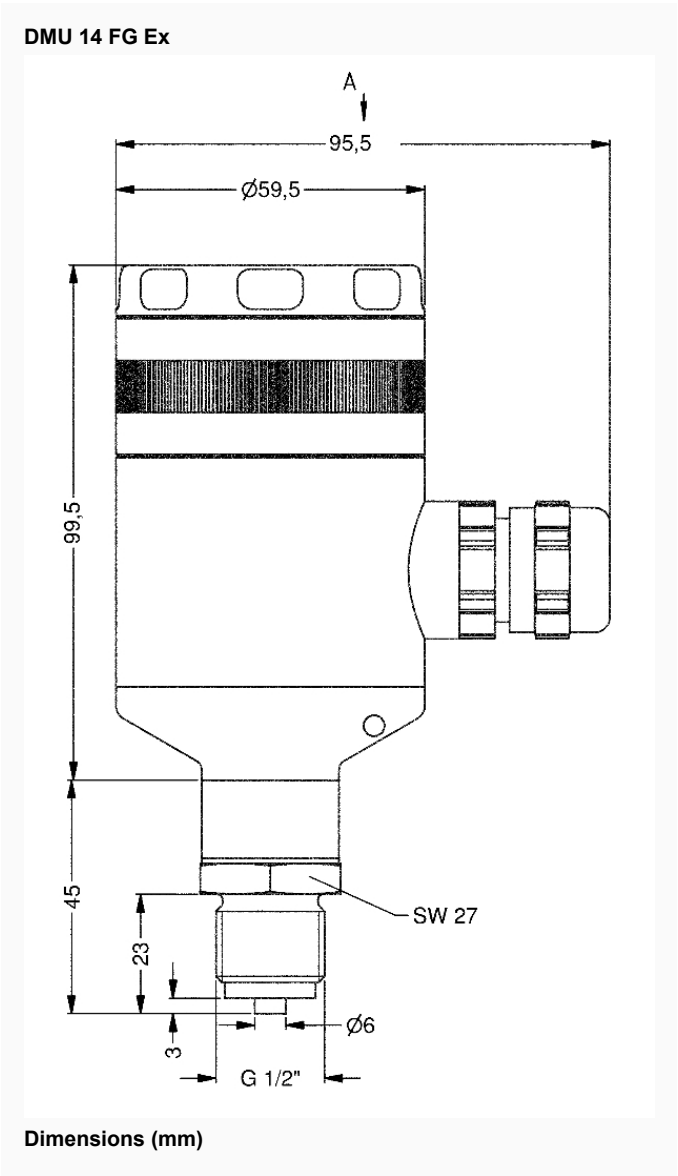
DMU 14 FG Ex

Ex II 1G Ex ia IIC T4 Ga and Ex II 1D Ex ia IIIC 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)

Technical Drawings



Versions

Range	Measuring range	Type	Version	Part no.
	0/400 mbar	DMU 14 FG Ex		31977

-  in-stock items
-  Non-stock items