



## Pressure transducers DMU 14 FG Ex

**Part no. 31986**

### 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

0/600 bar

#### Overpressure safety

$\leq 0/400$  bar

at least 2 x FS

#### Operating temperature range

Medium:  $-40/+125$  °C

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

Ambient:  $-20/+70$  °C

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

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**

G½B (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

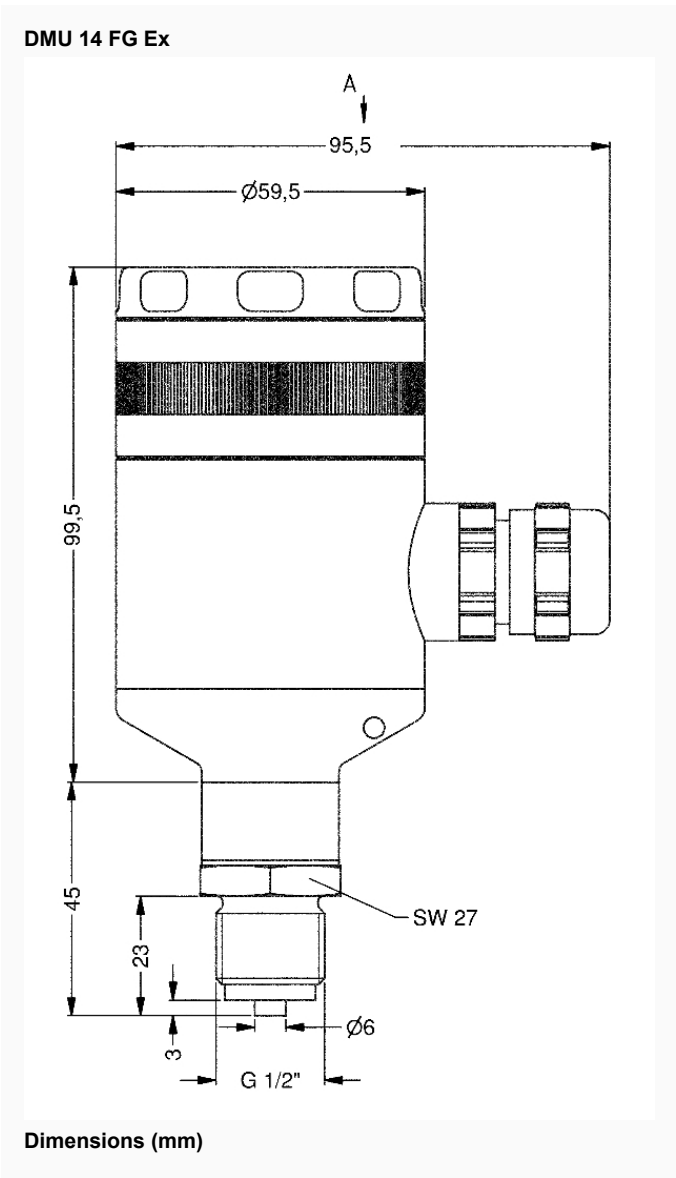
DMU 14 FG Ex

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 G½ DIN 3852 with protruding diaphragm)

Technical Drawings



Versions

| Range | Measuring range | Type         | Version                                                                               | Part no. |
|-------|-----------------|--------------|---------------------------------------------------------------------------------------|----------|
|       | 0/600 bar       | DMU 14 FG Ex |  | 31986    |

-  in-stock items
-  Non-stock items