Pressure transducers DMU 14 FG Ex

Part no. 31983

Pressure transducers

benefits

- Version DMU 14 FG Ex with Ex approval for zone 0
- ideal for process engineering
- high accuracy of ± 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)
≤ ± 0.1 % FSO
≤ ± 0.2 % FSO at turn down > 1:5

Long-term stability
≤ ± 0.1 % FSO/year at reference conditions

Display
LC display,
5-digit 7-segment main display,
Character height 8 mm,
range ± 9,999,
8-digit 14-segment additional display,
Character height 5 mm,
52-segment bar chart,
accuracy 0.1 % ± 1 digit

Measuring range
0/100 bar

Overpressure safety
≤ 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
≤ ± 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 A] Ω
HART® communication: R_{min} = 250 Ω

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

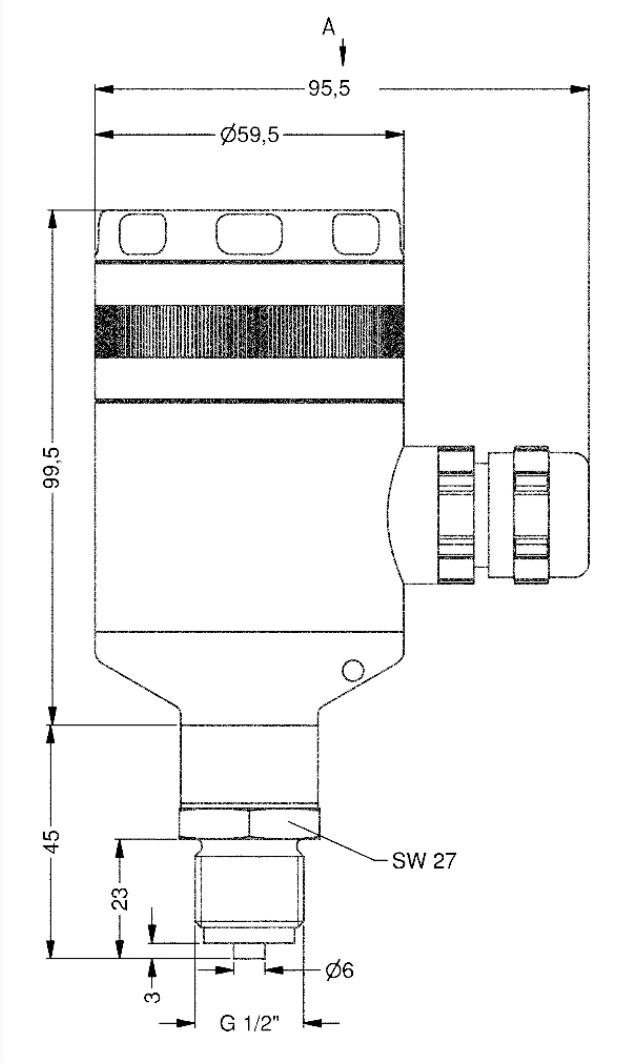
Ex approval
IBExU 15 ATEX 1059 X
DMU 14 FG Ex
Ex II 1G Ex ia IIC T4 Ga and Ex II 1D Ex ia IIIC T85°C Da

Options

- other process connections
- high temperature version up to 300 °C (only for connection G½ DIN 3852 with protruding diaphragm)

Technical Drawings

DMU 14 FG Ex



Dimensions (mm)

Versions

Range	Measuring range	Type	Version		Part no.
	0/100 bar	DMU 14 FG Ex			31983

- in-stock items
- Non-stock items