

# Pressure transducers DMU 05 P Precision version







#### **Application**

For electronic pressure measurement in applications requiring high accuracy of measurement and long-term stability. Application areas include: process technology, electroplating, water treatment, laboratory applications as well as measurements of gas consumption and heat energy.

### Description

The intelligent DMU 05 pressure transducers are equipped with digital amplifier electronics (microprocessor and 16 bit A/D converter). DMU 05 actively compensates for sensor-specific deviations (non-linearity and temperature error), allowing for superior measuring characteristics. DMU 05 can also be supplied with an optional digital RS 232 interface for setting offset, range and damping.

#### Accuracy of measurement

Deviation characteristics according to IEC 60770 - limit point setting (non-linearity, hysteresis, repeatability): < ±0.1 % FSO

**Long-term stability** ≤ ±0.1 % FSO/year

#### Measuring ranges

Relative: 0/160 mbar to 0/600 bar Absolute: 0/400 mbar to 0/600 bar

#### Overpressure safety

 $\leq$  250 bar min. 2 x FS > 250 bar min. 1.5 x FS (burst pressure min. 3 x FS)

#### Operating temperature range

Medium: -25 °C/+125 °C Ambient: -25 °C/ +85 °C Storage: -40 °C/+100 °C

#### Temperature error band

In compensated range -20/+80 °C ≤ 0.2 % FSO

## Dynamic characteristics

Response time < 40 ms

#### **Process connection**

G<sup>1</sup>/<sub>2</sub>B (EN 837-1/7.3) or G<sup>1</sup>/<sub>2</sub>B DIN 3852 with flush mounted diaphragm (up to 0/25 bar)

### Materials

Housing: stainless steel 304
Pressure-

Pressure-

connection: stainless steel 316 Ti

or 316 L

Diaphragm: stainless steel 1.4435 Seal: FKM (Viton), NBR for

40 bar and above

#### Pressure transmission liquid

Silicone oil

#### Output signal/supply voltage

4–20 mA DC 12–36 V 2-wire

Bei Ex-Ausführung DC 14-28 V

#### Load

 $4-20 \text{ mA} \leq \underline{U_B - U_{Bmin}}$  0.02 A

#### **Current input**

4-20 mA < 25 mA

# **Protective electrical measures**Short circuit proof and polarity pro-

tected

#### Electrical connection (protection)

Plug and junction box DIN 43650-A (IP 65)

## CE conformity (EMC)

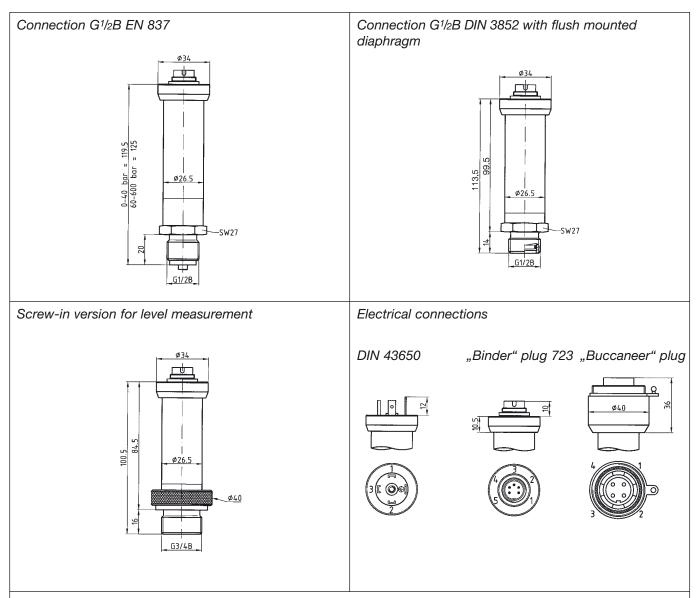
EN 61326

#### **Options**

- RS 232 (interface and software required)
- Ex version (II 1 G EEx ia IIC T4)
- Other process connections
- Other electrical connections
- Other seal materials

## Pressure transducers DMU 05

### Dimensions (in mm) and electrical connections



Pin assignment table

E	Electrical connection	s		
		DIN 43650	"Binder" plug 723 (5 poles)	"Binder" plug 723 (7 poles)
2-wire system:	Supply + Supply – Earth	1 2 Earth contact	3 4 5	3 1 2
RS 232 <sup>1)</sup>	RxD TxD CTS GND	-	-	4 5 6 7

<sup>1)</sup> Software, interface and cable must be ordered separately.