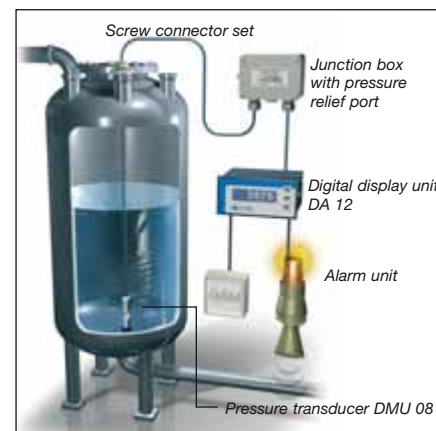


Pressure transducers DMU 08

Level probe – stainless steel version



Application

For electronic, continuous level measurement in wells, drilling holes, water reservoirs, containers or in waste water systems.

Description

The DMU 08 pressure transducers use silicon technology and feature calibrated, amplified sensor signals which are available as standardised voltage or current outputs.

Features

- Compact and robust stainless steel design
- Version with PUR or FEP cable
- Special calibration for all standard pressure units
- Integrated overload protection according to EN 61000-4-5

Accuracy of measurement

Deviation characteristics according to IEC 60770 – limit point setting (non-linearity, hysteresis, repeatability): $< \pm 0.35 \% \text{ FSO}$ (ranges 0/100 mbar to 0/400 mbar $< \pm 0.5 \% \text{ FSO}$)

Measuring ranges

0/100 mbar to 0/40 bar
relative pressure

Overpressure safety

Min. 2 x FS
(burst pressure min. 3 x FS)

Operating temperature range

Medium: $-10^{\circ}\text{C}/+70^{\circ}\text{C}$
Ambient: $-10^{\circ}\text{C}/+70^{\circ}\text{C}$
Storage: $-25^{\circ}\text{C}/+70^{\circ}\text{C}$
Ex-approved: max. $+60^{\circ}\text{C}$

Temperature error band

In compensated range
 $0-70^{\circ}\text{C} \leq 1 \% \text{ FSO}$
($\leq 0.25 \text{ bar} \leq 2 \% \text{ FSO}$)

Dynamic characteristics

Response time $< 10 \text{ ms}$

Materials

Housing: stainless steel 1.4571
(Ex-approved version: stainless steel 1.4435)
Diaphragm: stainless steel 1.4404
Seals: FKM (Viton)

Pressure transmission liquid

Silicone oil

Supply voltage

DC 12–36 V
Ex version DC 14–28 V

Output signal

4–20 mA, 2-wire

Bürde

$4-20 \text{ mA} \leq \frac{U_B - U_{Bmin}}{0,02 \text{ A}}$

Current input

4–20 mA $< 25 \text{ mA}$

Protective electrical measures

Short circuit proof and polarity protected

Electrical connection (protection)

PUR cable (IP 68)

CE conformity (EMC)

EN 61326

Accessories (options)

- Screw connector set
- Junction box
- Lightning protection
- Clamp
- Extension for weight

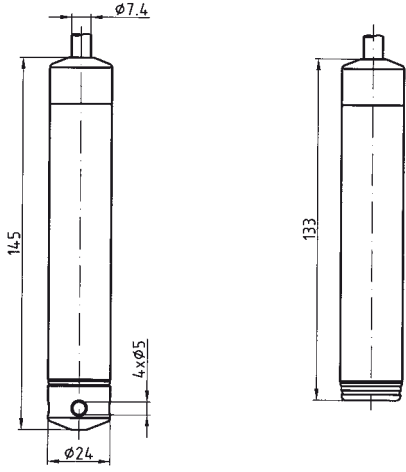
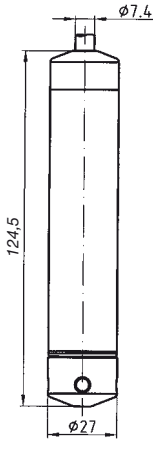
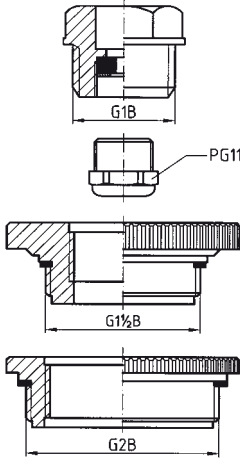
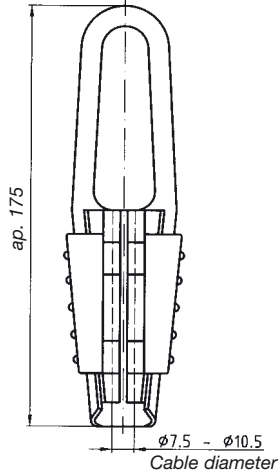
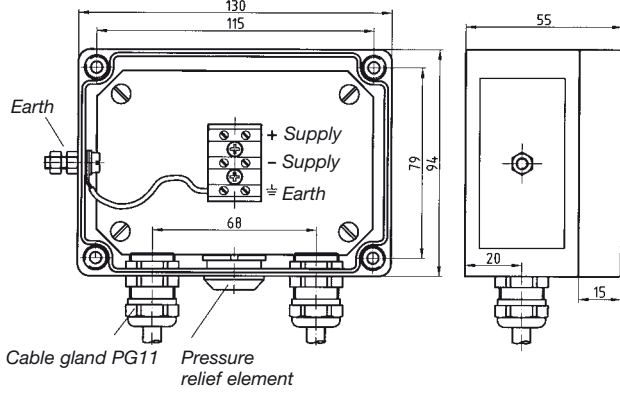
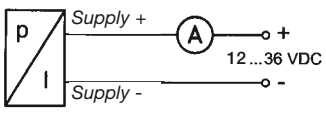
Options

- Ex version (II 1 G EEx ia IIC T4)
- FEP cable
- Higher operating temperature ranges

Please refer to chapter 1 for the complete „Level Measurement“ range.

Pressure transducers DMU 08

Dimensions (in mm) and electrical connections

<p>Standard version</p> 		<p>Ex version</p> 															
<p>Screw connector set</p> 	<p>Clamp</p> 	<p>Junction box with pressure relief port</p> 															
<p>Wiring diagram</p> <p>2-wire 4-20 mA</p> 		<p>Pin assignment table</p> <table><thead><tr><th colspan="3"></th><th>Cable colours (DIN 47100)</th></tr></thead><tbody><tr><td rowspan="3">2-wire system: (4-20 mA)</td><td>Supply</td><td>+</td><td>white</td></tr><tr><td>Supply</td><td>-</td><td>brown</td></tr><tr><td>Earth</td><td></td><td>Screen</td></tr></tbody></table>					Cable colours (DIN 47100)	2-wire system: (4-20 mA)	Supply	+	white	Supply	-	brown	Earth		Screen
			Cable colours (DIN 47100)														
2-wire system: (4-20 mA)	Supply	+	white														
	Supply	-	brown														
	Earth		Screen														

The units are supplied with a detailed wiring diagram.

Pressure transducers DMU 09

Level probe – plastic version



Application

For electronic, continuous level measurement in extremely aggressive liquids such as chemicals or waste water from waste collection plants.

Description

The DMU 09 pressure transducers use capacitance ceramic sensors and feature calibrated, amplified sensor signals which are available as standardised current outputs.

DMU 09 features:

- Chemical resistant plastic version made of PVC
- Highly resistant FEP cable
- Robust, insensitive ceramic diaphragm
- Special calibration for all standard pressure units (option)

Accuracy of measurement

Deviation characteristics according to IEC 60770 - limit point setting (non-linearity, hysteresis, repeatability): $< \pm 0,35 \% \text{ FSO}$

Measuring ranges

0/40 mbar to 0/10 bar relative pressure

Overpressure safety

$\leq 400 \text{ mbar min. } 8 \times \text{FS}$
 $> 400 \text{ mbar min. } 4 \times \text{FS}$

Operating temperature range

Medium: $0^\circ\text{C}/+50^\circ\text{C}$
 Ambient: $0^\circ\text{C}/+50^\circ\text{C}$
 Storage: $-10^\circ\text{C}/+50^\circ\text{C}$

Temperature error band

In compensated range
 $0-80^\circ\text{C} \leq 0.1 \% \text{ FSO}/10 \text{ K}$

Dynamic characteristics

Response time $< 200 \text{ ms}$

Materials

Housing: PVC
 Diaphragm: ceramic Al_2O_3 96 %
 Seals: FKM (Viton)

Output signal/supply voltage

4–20 mA DC 12–36 V
 2-wire

Load

$4-20 \text{ mA} \leq \frac{U_B - U_{Bmin}}{0,02 \text{ A}}$

Current input

4–20 mA $< 25 \text{ mA}$

Protective electrical measures

Short circuit proof and polarity protected

Electrical connection (protection)

FEP cable (IP 68)

CE conformity (EMC)

EN 61326

Accessories (optional)

- Screw connector set
- Junction box
- Lightning protection
- Clamp

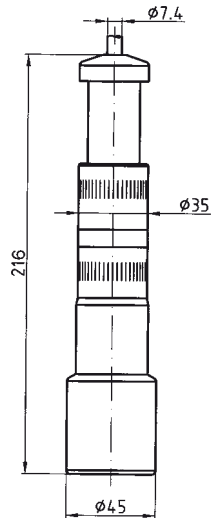
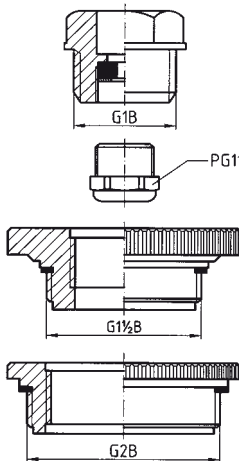
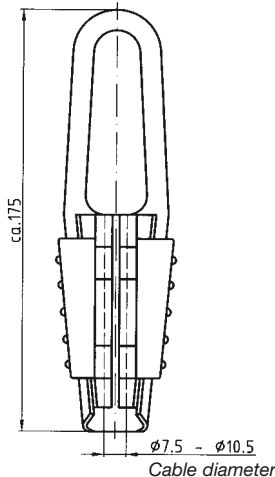
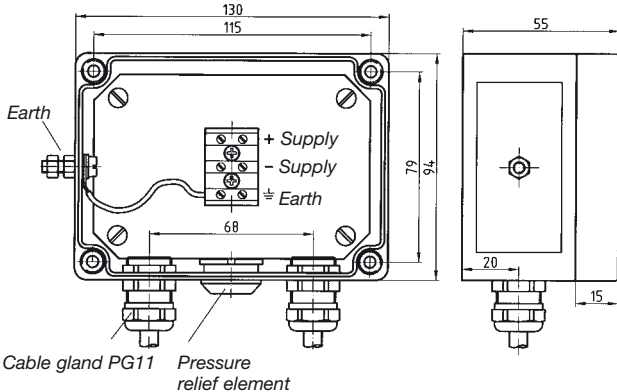
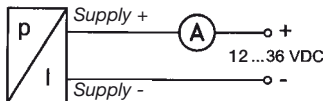
Options

- Other materials
- Flexible conduit cable protection

Please refer to chapter 1 for the complete „Level Measurement“ range.

Pressure transducers DMU 09

Dimensions (in mm) and electrical connections

																
<p>Screw connector set</p> 	<p>Clamp</p> 	<p>Junction box with pressure relief port</p> 														
<p>Wiring diagram</p> <p>2-wire 4-20 mA</p> 		<p>Pin assignment table</p> <table><tr><th colspan="3"></th><th>Cable colours (DIN 47100)</th></tr><tr><td rowspan="3">2-wire system:</td><td>Supply</td><td>+</td><td>white</td></tr><tr><td>(4-20 mA) Supply</td><td>-</td><td>brown</td></tr><tr><td>Earth</td><td></td><td>Screen</td></tr></table>				Cable colours (DIN 47100)	2-wire system:	Supply	+	white	(4-20 mA) Supply	-	brown	Earth		Screen
			Cable colours (DIN 47100)													
2-wire system:	Supply	+	white													
	(4-20 mA) Supply	-	brown													
	Earth		Screen													

The units are supplied with a detailed wiring diagram.