

Pressure transducers HydroFox® DMU 09

Level probe – for chemical applications



- Chemical-resistant plastic version
- Robust ceramic diaphragm without transmission liquid
- Highly resistant FEP cable
- Special calibration for all standard pressure units possible
- ATEX version (optional)



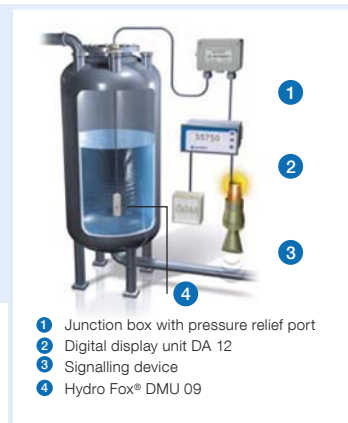
Page 393



Page 394



Page 401



- 1 Junction box with pressure relief port
- 2 Digital display unit DA 12
- 3 Signalling device
- 4 Hydro Fox® DMU 09

Application Electronic, continuous level measurement in extremely corrosive liquids, e.g. chemicals or waste water from landfill sites.

Description Pressure transducers HydroFox® convert physical pressure into an electrical signal proportional to the pressure. HydroFox® DMU 09 uses a capacitance ceramic measuring cell.

Technical specifications

Measuring accuracy

Deviation from the characteristic curve according to IEC 60770 – limit point calibration (non-linearity, hysteresis, repeatability): $\leq \pm 0.35\%$ FSO

Measuring ranges

Relative pressure: 0/40 mbar to 0/10 bar

Overpressure safety

≤ 400 mbar at least 5 x FS
 > 400 mbar at least 3 x FS

Operating temperature range

Medium: $-25/70\text{ }^{\circ}\text{C}$
 Ambient: $-25/70\text{ }^{\circ}\text{C}$
 Storage: $-25/70\text{ }^{\circ}\text{C}$

Temperature error band

In compensated range
 $0/70\text{ }^{\circ}\text{C} \pm 0.1\%$ FSO/10 K

Dynamic characteristics

Response time < 200 ms

Materials

Housing: PP
 Ex version: Stainless steel 316 L
 Diaphragm: Ultra-pure ceramic (Al_2O_3 99.9 %)
 Seals: FKM (Viton)

Output signal/supply voltage

4–20 mA / DC 9–32 V
 2-wire
 Ex version DC 14–28 V
 0–10 V DC 14–32 V

Load

4–20 mA: $R_{\max} = [(U_B - U_{B\min}) / 0.02 \text{ A}] \Omega$

Current input

4–20 mA < 21 mA

Electrical protection

Short circuit proof and protected against reverse polarity

Electrical connection/degree of protection

FEP cable (IP 68)
 With integrated breather tube for reference to the ambient atmospheric pressure


CE conformity

EMC Directive 2014/30/EU
 RoHS Directive 2011/65/EU
 PED 2014/68/EU

Accessories (options)

- Screw connector kit
- Junction box
- Anchor clamp

Options

- Housing PVDF
- Cable protection conduits
- FFKM seals
- ATEX version  (Ex II 1G bzw. II 1/2G Ex ia IIC/IIB T4 Ga or Ga/Gb Ex II 1D Ex ia IIIC T85°C Da)



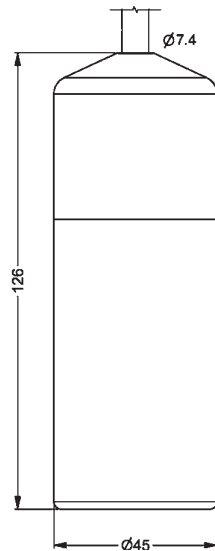
See chapter 5 for the complete "Level Measurement" range.
 See page 237 for prices.

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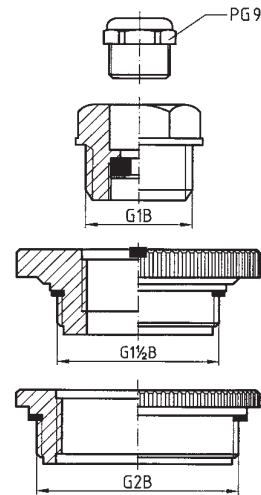
Dimensions (mm) and electrical connections

3

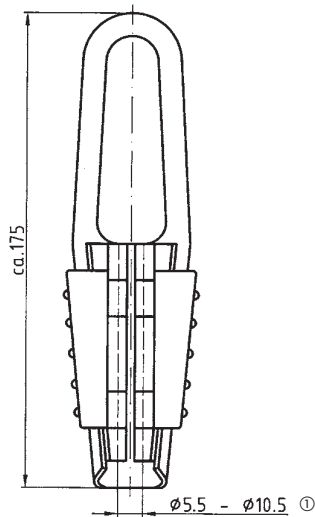
Standard version



Screw connector kit

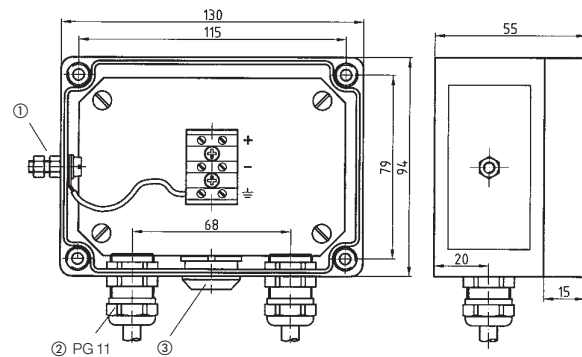


Anchor clamp



① Cable diameter

Junction box with pressure relief port



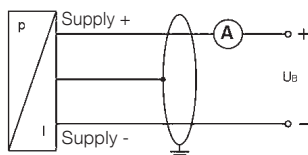
① Earth

② Cable gland PG 11

③ Pressure compensation element

Wiring diagram

2-wire 4–20 mA



Pin assignment table

	Cable colours (DIN 47100)
2-wire system: Supply + (4–20 mA) Supply – Earth	White Brown Yellow/green

The units are shipped with a detailed connection diagram.