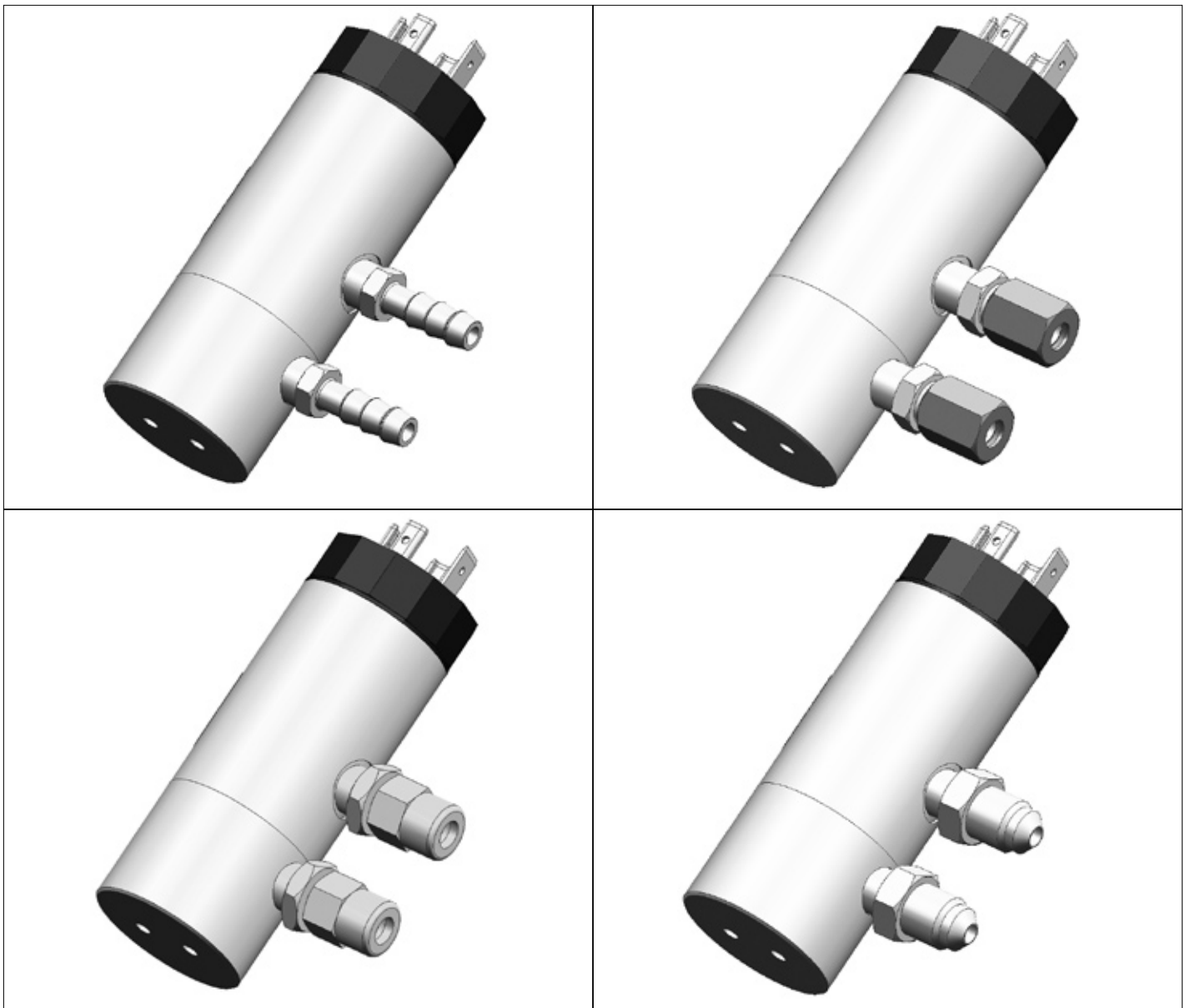


OEM Differential pressure transmitter

0 ... 10 bar



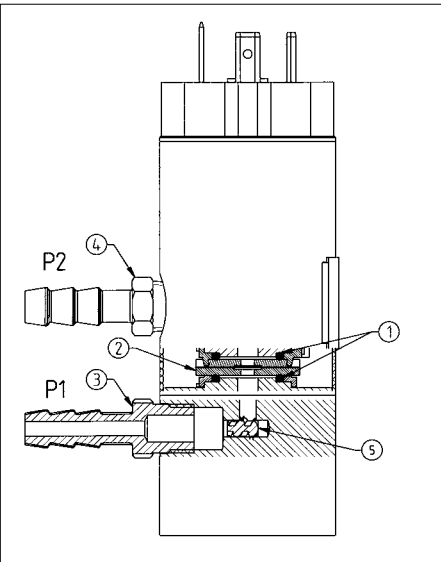
Huba Control

FEINE MESSIDEEN FÜR DRUCK UND STRÖMUNG
FOR FINE PRESSURE AND FLOW MEASUREMENT
LA FINESSE DES MESURES DE PRESSION ET DE DÉBIT

Technical overview

The differential pressure OEM transmitter Type 504 is manufactured using a unique ceramic measuring element. The design means that it is possible to have the media in contact with both sides of the element. This element produces a perfect measurement of the pressure without miscalculation.

The transmitters also have calibrated and amplified sensor signals, which are available as standardised voltage- or current outputs. The unit can be supplied with various pressure- and electrical connections, depending on the application required by the user.



Legend to cross-section drawing

- 1 Seals
- 2 Ceramic measuring element
- 3 P1 higher pressure
- 4 P2 lower pressure
- 5 Orifice Tip

The distinct advantages

- Very low temperature sensitivity
- High resistance to extreme temperatures
- No mechanical ageing
- No mechanical creepage
- Modular system and choice of materials to suit individual applications

Medium

Liquids and neutral gases

Pressure ranges

0 ... 2.5 – 10 bar

Overload

2.5 x Measuring range (fs)

System pressure

(P1 and P2 simultaneously) 25 bar

Rupture pressure

≤ 6 bar 4 x Measuring range (fs)
 > 6 bar 3 x Measuring range (fs)

Materials in contact with the medium

Pressure connection:
 Stainless steel 1.4305 / AISI 303
 Diaphragm: Ceramic Al₂O₃ (96%)
 Sealing: FPM, EPDM, NBR

Case material

Stainless steel 1.4305 / AISI 303

Temperature

Medium and ambience -15 ... +85 °C
 Storage temperature -40 ... +85 °C

Output

3-wire
 0 ... 5 VDC 11 ... 33 VDC
 1 ... 6 VDC 11 ... 33 VDC
 0 ... 10 VDC 18 ... 33 VDC
 Ratiom. 10 ... 90% 4.5 ... 6.0 VDC

Power supply

2-wire
 4 ... 20 mA 11 ... 33 VDC

Load

3-wire > 10 kOhm / < 100 nF

2-wire ≤ $\frac{\text{supply voltage} - 11 \text{ V}}{0.02 \text{ A}}$ [Ohm]

Current consumption

At nominal pressure
 3-wire
 0 ... 5 V < 2 mA
 1 ... 6 V < 2 mA
 0 ... 10 V < 3 mA
 10 ... 90% < 2 mA
 2-wire
 4 ... 20 mA ≤ 20 mA

Dynamic response

Response time < 5 ms
 Load cycle < 50 Hz

Electrical connections

Cable 1.5 m
 Connector DIN EN 175301-803-A

Phase-reversal protection

Short circuit proof and protected against polarity reversal. Each connection is protected against crossover up to max. supply voltage.

Protection standard

IP 65

Pressure connections

Pressure tube tip or screw fitting

Installation arrangement

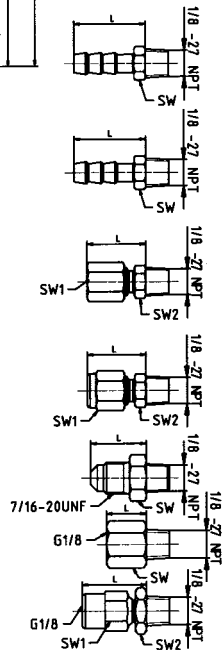
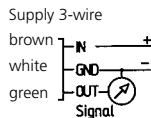
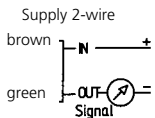
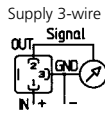
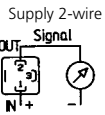
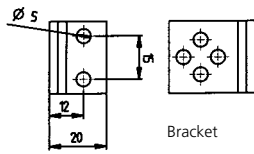
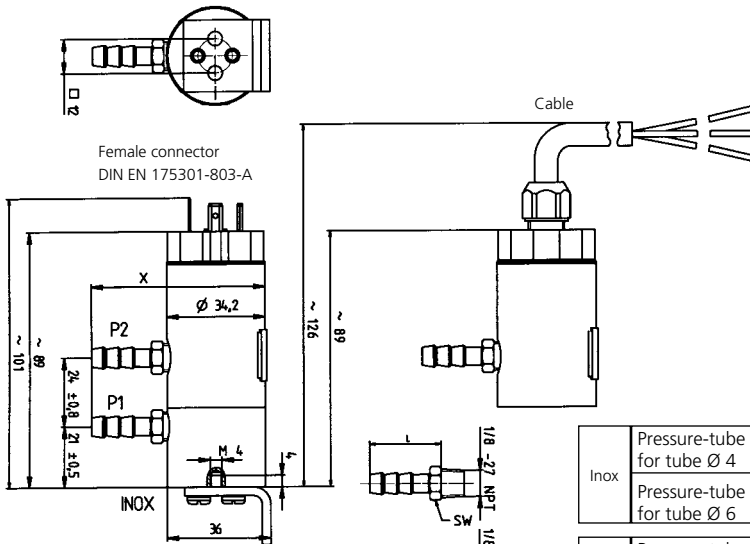
Unrestricted

Test / Admissions

Shock acc. IEC 68-2-27
 75 G, 11 ms half sine wave, all 3 directions.
 Free fall from 1 m on concrete (6x).
 Vibration acc. IEC 68-2-6
 5 G, 10 ... 500 Hz with amplitude
 ± 15 mm, 1 Octave / min. all 3 directions

Weight

approx. 390 g



Measure X

Inox	Pressure-tube tip for tube Ø 4	SW = 10	L = 28	L = ~ 64
	Pressure-tube tip for tube Ø 6	SW = 10	L = 33	L = ~ 69
CuZn vni	Pressure-tube tip for tube Ø 4	SW = 10	L = 28	L = ~ 64
	Pressure-tube tip for tube Ø 6	SW = 10	L = 33	L = ~ 69
Inox	Screw fitting for pipe on the outside Ø 6	SW1 = 12 SW2 = 10	L = ~ 28.5	L = ~ 64.5
	Screw fitting for pipe on the outside Ø 8	SW1 = 14 SW2 = 12	L = ~ 30.5	L = ~ 66.5
CuZn vni	Screw fitting for pipe on the outside Ø 6	SW1 = 12 SW2 = 10	L = ~ 28.5	L = ~ 64.5
	Screw fitting for pipe on the outside Ø 8	SW1 = 14 SW2 = 12	L = ~ 30.5	L = ~ 66.5
CuZn vni	Outside thread 7/16-20 UNF	SW = 14	L = ~ 19.5	L = ~ 55.5
Inox	Adapter G1/8 inside thread	SW = 14	L = ~ 14	L = ~ 50
CuZn	Adapter G1/8 outside thread with union nut	SW1 = 12 SW2 = 14	L = ~ 22.5	L = ~ 58.5

Electromagnetic compatibility

CE conformity (EMC) by application of harmonised standards: EN 61000-6-2, EN 61000-6-3 und EN 61326-1.

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