

Pressure Transmitter 981

for measuring low pressures of different media



Application

Pressure transmitter for monitoring overpressure and negative pressure, for liquid and gaseous, as well as aggressive media. The pressure measurement is relative to the atmospheric pressure.

Permissible Environmental Conditions

Storage and operating temperature -20°C to $+85^{\circ}\text{C}$
Media temperature 0 to 85°C
Humidity max. 95% rH., non-condensing

Membrane Material

NBR, Silicone, FKM, EPDM

Pressure Range

Please see order matrix
Other pressure ranges upon request

Maximum Operating Pressure

Depending on the pressure range,
please see order matrix

Linearity

Depending on the pressure range,
please see order matrix

Response Time

500 ms

Supply Voltage

| | |
|---------------|--------|
| 10 ... 30 VDC | 2-wire |
| 18 ... 30 VDC | 3-wire |

Supply Current

| | |
|--------------|--------|
| ≤ 21 mA | 2-wire |
| ≤ 50 mA | 3-wire |

Output Signal

| | |
|------------|--------|
| 4 - 20 mA | 2-wire |
| 0 - 10 VDC | 3-wire |

Load

| | |
|-----------------------------|--------|
| Max. 500 Ω at 24 VDC | 2-wire |
| Min. 1 k Ω | 3-wire |

Electrical Connection

M12 socket, 4 poles, A-coded

Protection Class

IP65 according to EN 60529

Conformity

RoHS Directive, EMC Directive

Accuracy Specifications

According to EN 60770, reference temperature: 23°C

Mounting Position

Mounting in any position

Weight

Approx. 100 gr

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| Type | Pressure range | Max. positive working pressure | Max. negative working pressure | Accuracy FS |
|--------|----------------|--------------------------------|--------------------------------|-------------|
| 981.01 | +/- 100 mbar | 900 mbar | -1 bar | ≤ 2 % |
| 981.02 | +/- 50 mbar | 900 mbar | -1 bar | ≤ 2 % |
| 981.03 | 0 - 25 mbar | 900 mbar | -1 bar | ≤ 3 % |
| 981.04 | 0 - 50 mbar | 900 mbar | -1 bar | ≤ 2 % |
| 981.05 | 0 - 100 mbar | 900 mbar | -1 bar | ≤ 1 % |
| 981.06 | 0 - 150 mbar | 900 mbar | -1 bar | ≤ 1 % |
| 981.07 | 0 - 300 mbar | 900 mbar | -1 bar | ≤ 1 % |
| 981.08 | 0 - 600 mbar | 900 mbar | -1 bar | ≤ 1 % |

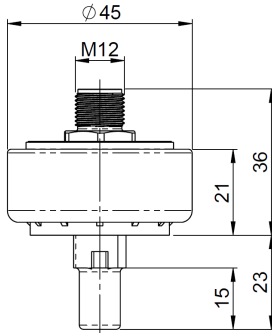
| | | | | Pressure range | ----- | ----- | Membrane | Pressure connection | Output signal | Display | Electr. connection | |
|---------------------|-----------------------------|-------------|--------|----------------|----------|----------|----------|---------------------|---------------|----------|--------------------|----------|
| Order Matrix | | | | 981.0 | X | 0 | 0 | X | X | X | X | X |
| Pressure range | +/- 100 mbar | | | 1 | 0 | 0 | | | | | | |
| | +/- 50 mbar | | | 2 | 0 | 0 | | | | | | |
| | 0 - 25 mbar | | | 3 | 0 | 0 | | | | | | |
| | 0 - 50 mbar | | | 4 | 0 | 0 | | | | | | |
| | 0 - 100 mbar | | | 5 | 0 | 0 | | | | | | |
| | 0 - 150 mbar | | | 6 | 0 | 0 | | | | | | |
| | 0 - 300 mbar | | | 7 | 0 | 0 | | | | | | |
| | 0 - 600 mbar | | | 8 | 0 | 0 | | | | | | |
| Membrane material | NBR | | | | | | 1 | | | | | |
| | EPDM | | | | | | 2 | | | | | |
| | Silicone | | | | | | 3 | | | | | |
| | FKM / FPM | | | | | | 4 | | | | | |
| Pressure connection | PA6 | Hose nipple | 5.0 mm | | | | | W | | | | |
| | PA6 | Hose nipple | 6.0 mm | | | | | A | | | | |
| | PA6 | Hose nipple | 6.5 mm | | | | | B | | | | |
| | PA6 | Hose nipple | 10 mm | | | | | C | | | | |
| | PA6 | Thread | G 1/8 | | | | | D | | | | |
| | PA6 | Thread | M10x1 | | | | | E | | | | |
| | PPS | Hose nipple | 6.5 mm | | | | | F | | | | |
| | PPS | Hose nipple | 10 mm | | | | | G | | | | |
| | PVDF | Thread | G 1/8 | | | | | J | | | | |
| | PVDF | Thread | M10x1 | | | | | H | | | | |
| | Brass | Thread | G 1/2 | | | | | S | | | | |
| | Brass | Thread | G 1/4 | | | | | L | | | | |
| | Brass (nickel plated) | Thread | G 1/4 | | | | | V | | | | |
| | Brass | Thread | G 1/8 | | | | | M | | | | |
| | Brass | Thread | G 3/8 | | | | | O | | | | |
| | Brass | Thread | M10x1 | | | | | N | | | | |
| | V2A | Thread | M10x1 | | | | | P | | | | |
| | V2A | Thread | G 1/8 | | | | | Q | | | | |
| V2A | Thread | G 1/4 | | | | | R | | | | | |
| Output signal | 4 ... 20 mA, 2-wire, linear | | | | | | | | 2 | | | |
| | 0 ... 10 V, 3-wire, linear | | | | | | | | 7 | | | |
| Display | no | | | | | | | | | 0 | | |
| Electr. connection | M12 plug, 4 poles, A-Coded | | | | | | | | | | 8 | |

PA = polyamide, PVDF = polyvinyl difluoride, PPS = polyphenylene sulfide, brass = CW617N, V2A = stainless steel

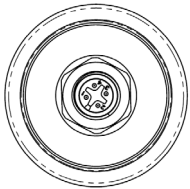
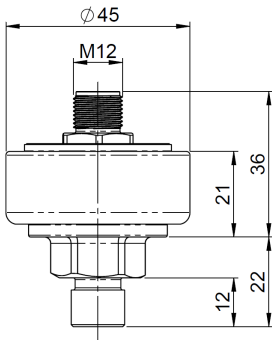
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981 with hose connection

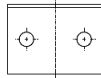
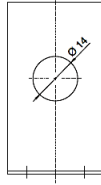


981 with threaded connection

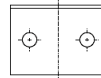
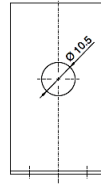


Mounting brackets

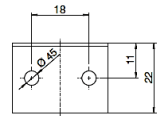
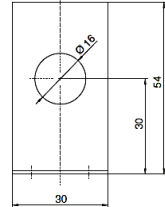
6403



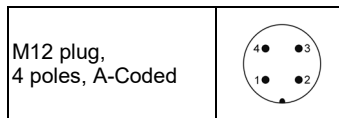
6404



6405



Pin assignment



2-wire

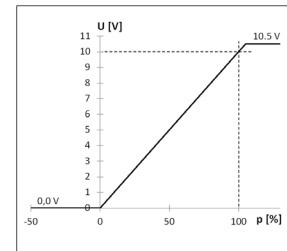
| | |
|---|------------------------------|
| 1 | Supply voltage (10...30 VDC) |
| 2 | Not connected |
| 3 | Output signal (4...20 mA) |
| 4 | Not connected |

3-wire

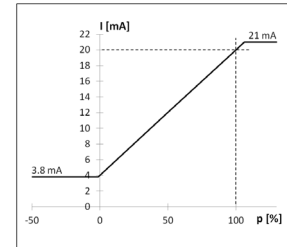
| | |
|---|------------------------------|
| 1 | Supply voltage (18...30 VDC) |
| 2 | Output signal (0...10 V) |
| 3 | Ground (GND) |
| 4 | Not connected |

Analog output signal

0 – 10 V



4 – 20 mA



Accessories

| | Article No |
|--|-------------|
| Mounting bracket L-shape for pressure connection G1/4 | 6403 |
| Mounting bracket L-shape for pressure connection G1/8 and M10x1 | 6404 |
| Mounting bracket L-shape for pressure connections with hose connection | 6405 |
| Clamping spring for mounting with hose connections | 6333 |
| Connecting cable 2 meters with M12 socket, straight, 4 poles, open end | 9976 |

