



## Pressure Transmitter 981

Analogue pressure transmitter (pressure sensor) for low pressures of various media



D-EN-981-20220214

- Can be used as a hydrostatic level sensor
- For low pressure areas
- For liquids and gases



## Pressure Transmitter 981

Analogue pressure transmitter (pressure sensor) for low pressures of various media

### Application

Analogue pressure transmitter monitoring overpressure, vacuum or differential pressure of liquid and gaseous – also aggressive – media. The pressure measurement is carried out in difference to the atmospheric pressure (relative pressure).

Typical application: level monitoring

### Ambient conditions

Storage and operating temperature:  $-20^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .

Temperature of media up to  $85^{\circ}\text{C}$  depending on material of pressure connection and diaphragm.

Humidity max.: 95% rH., non-condensing

### Diaphragm material

Depending on media: NBR, Silicone, FKM (Viton®), EPDM. Others upon request.

### Pressure range

See order matrix.

Further pressure ranges on request.

### Maximum operating pressure

Depending on the pressure range.

See order matrix.

### Linearity error

Depending on the pressure range.

See order matrix.

### Response time

500 ms

### Supply voltage

10 ... 30 VDC 2-wire

18 ... 30 VDC 3-wire

### Power consumption

$\leq 21$  mA 2-wire

$\leq 50$  mA 3-wire

### Output signal

4 - 20 mA 2-wire

0 - 10 VDC 3-wire

### Load

Max. 500  $\Omega$  at 24 VDC 2-wire

Min. 10 k $\Omega$  3-wire

### Electrical connection

Circular connector M12, 4 poles, A-coding

### Protection class

IP65 according to EN 60529

### Conformity

RoHS Directive, EMC Directive

### Accuracy statement

According to EN60770, reference temperature  $23^{\circ}\text{C}$

### Mounting position

Mounting in any position

### Weight

Approx. 100 g



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Pressure connection						
Tube connection			Threaded connection			
5,0 mm	6,5 mm	10,0 mm	M10x1	G1/8	G1/4	G1/2
PA	PA, PPS	PA, PPS	PA, PVDF, MS, V <sub>2</sub> A	PA, PVDF, MS, V <sub>2</sub> A	MS, V <sub>2</sub> A	MS

PA = polyamide, PVDF = polyvinylidendifluoride, PPS = polyphenylensulfide, MS = brass, V<sub>2</sub>A = stainless steel

Upon request pressure connections of other sizes, other plastics or brass nickel-plated are available.

Viton® is a registered trademark of DuPont Dow Elastomers. Accuracy specifications according to EN 60770. Reference temperature: 23 °C

Type	Pressure range	Max. operating overpressure	Max. operating vacuum	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 %

Accessories	ID-No.
L-shaped mounting bracket for pressure connection G1/4	6403
L-shaped mounting bracket for pressure connection G1/8 and M10x1	6404
L-shaped mounting bracket for pressure connection with hose connector	6405
Clamping spring for mounting pressure connections with hose connectors	6333
Connection cable 2 meters with M12 socket, straight, 4-pin, open end	9976

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Order matrix					Pressure range	.....	.....	Diaphragm	Pressure connection	Output signal	Display	Elec. connection	
					981.0	x	0	0	x	x	x	0	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						
Diaphragm material	NBR						1						
	EPDM						2						
	Silicone						3						
	FKM / FPM						4						
Pressure connection	PA6	hose connector	5,0 mm					W					
	PA6	hose connector	6,0 mm					A					
	PA6	hose connector	6,5 mm					B					
	PA6	hose connector	10,0 mm					C					
	PA6	thread	G 1/8					D					
	PA6	thread	M10x1					E					
	PPS	hose connector	6,5 mm					F					
	PPS	hose connector	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					
	stainless steel	thread	M10x1					P					
stainless steel	thread	G 1/8					Q						
stainless steel	thread	G 1/4					R						
Output signal	4-20 mA, 2-wire, linear									2			
	0-10 V, 3-wire, linear									7			
Display	without										0		
Elec. connection	M12 connector, 4-pin, A-coded											8	

PA = Polyamide, PVDF = Polyvinyl difluoride, PPS = Polyphenylene sulfide, brass = CW617N

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## Pressure Transmitter 981

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### 981 with tube connection

### Mounting brackets

#### 6403

#### 6404

#### 6405

### 981 with threaded connection

### Connection assignments

Circular connector M12, 4 poles, A-conding

2-wire	
1	Supply voltage (10 – 30 VDC)
2	Not used
3	Output signal (4 – 20 mA)
4	Not used

3-wire	
1	Supply voltage (18 – 30 VDC)
2	Output signal (0 – 10 V)
3	Ground (GND)
4	Not used

### Analog output signal

0 – 10 V

4 – 20 mA

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### Important instructions!

Technical changes and errors reserved.

Pictures can be similar.

The operating instructions belonging to this device must be observed! Download at [www.schmidt-messtechnik.com](http://www.schmidt-messtechnik.com).