

# 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  $-20^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$   
Media temperature 0 to  $85^{\circ}\text{C}$   
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

$\leq 21$ 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. 1 k $\Omega$	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:  $23^{\circ}\text{C}$

## 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 %

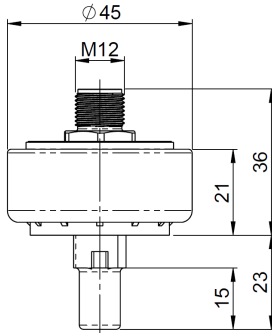
				Pressure range	-----	-----	Membrane	Pressure connection	Output signal	Display	Electr. connection	
<b>Order Matrix</b>				<b>981.0</b>	<b>X</b>	<b>0</b>	<b>0</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Pressure range	+/- 100 mbar			1	0	0						
	+/- 50 mbar			2	0	0						
	0 - 25 mbar			3	0	0						
	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

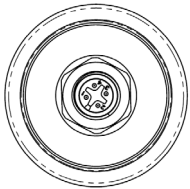
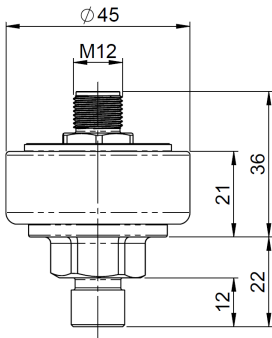
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## 981 with hose connection

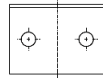
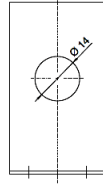


## 981 with threaded connection

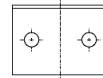
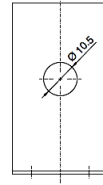


## Mounting brackets

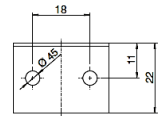
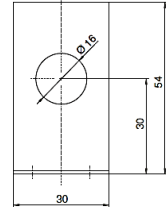
6403



6404

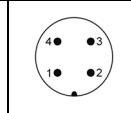


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## Pin assignment

M12 plug, 4 poles, A-Coded



### 2-wire

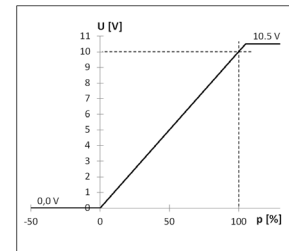
1	Supply voltage (10...30 VDC)
2	Not connected
3	Output signal (4...20 mA)
4	Not connected

### 3-wire

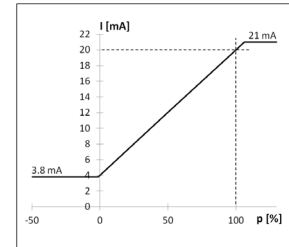
1	Supply voltage (18...30 VDC)
2	Output signal (0...10 V)
3	Ground (GND)
4	Not connected

## Analog output signal

0 – 10 V



4 – 20 mA



## Accessories

Mounting bracket L-shape for pressure connection G1/4	<b>6403</b>
Mounting bracket L-shape for pressure connection G1/8 and M10x1	<b>6404</b>
Mounting bracket L-shape for pressure connections with hose connection	<b>6405</b>
Clamping spring for mounting with hose connections	<b>6333</b>
Connecting cable 2 meters with M12 socket, straight, 4 poles, open end	<b>9976</b>

## Article No



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