

PD111

The PD111 is a pressure transmitter designed to convert vacuum or gauge pressure in an electrical signal of 4-20 mA. This transmitter is made of stainless steel AISI316L, equipped with a silicon measuring cell, and a laser-welded membrane that requires no sealing. The internal electronics are well-isolated with a potting compound, which provides additional protection against internal condensation allowing the PD111 to be installed in environments with extreme humidity levels (up to 90%).

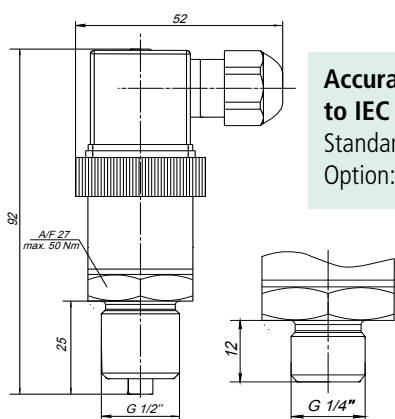
Functions and features:

- Wide variety of measuring ranges
- Laser-welded diaphragm (no sealing required)
- Silicon sensor
- Low temperature influence ($\leq 0.1\%$ / 10 °C)
- Long-term stability ($<0.2\%$ / year)
- Compact design
- Overload limit: 200 % FS

Areas of application:

- Pneumatics
- Hydraulics
- Machinery and plant engineering
- Energy
- Building technology
- Chemistry and petrochemistry
- Environmental industry

Dimensions:



Accuracy according to IEC 60770
 Standard: 0.5 % FSO
 Option: 0.25 % FSO

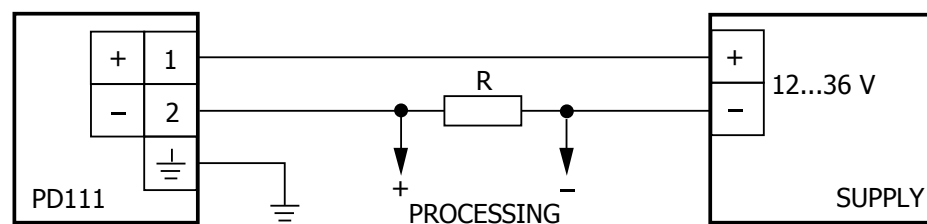


PRESSURE TRANSMITTERS

Output signal 4-20 mA	
Laser-welded diaphragm	
Protection against internal condensation	
Additional polynomial digital temperature compensation	
Cost effective	
IP code	
Ambient temperature	
For general industrial applications	

Technical data:

Supply / Output signal	
Power supply	12...36 V DC
Output signal	4...20 mA
Performance	
Accuracy	standart: ± 0.5 % FSO option: ± 0.25 % FSO
Permissible load	0...1200 ohm
Influence effects	supply: 0.01 % FSO / 10 V; load: 0.05 % FSO / kohm
Temperature stability	$\leq \pm 0.1$ % FSO / 10 °C
Response time	≤ 100 ms
Permissible temperatures	
Permissible temperatures	medium: -40...100 °C environment: -40...80 °C storage: -40...80 °C
Electrical protection	
Short-circuit protection	yes
Reverse polarity protection	yes
Electromagnetic compatibility	emission and immunity according to EN 61326
Mechanical stability	
Vibration	9 g RMS (25...2000 Hz) according to DIN EN 60068-2-6
Shock	480 g / 1 ms according to DIN EN 60068-2-27
Materials	
Pressure connection	stainless steel 304 L
Enclosure	stainless steel 304 L
Diaphragm	stainless steel 316 L
Media wetted parts	pressure connection, diaphragm
Miscellaneous	
Current consumption	max. 70 mA
Weight	approx. 400 g
Installation position	any
Operational life	> 500 000 hours
CE-conformity	EMC Directive: 2004/108/EC
Wiring diagram	



Pin configuration	
Supply +	1
Supply -	2
Shield	ground pin

Ordering code:

PD111 X - XXXX - X - X

Input [bar]									
0...-1	V	1	P	0	B				
0...0.4	G	4	0	0	M				
0...0.6	G	6	0	0	M				
0...1	G	1	P	0	B				
0...1.6	G	1	P	6	B				
0...2.5	G	2	P	5	B				
0...4	G	4	P	0	B				
0...6	G	6	P	0	B				
0...10	G	0	1	0	B				
0...16	G	0	1	6	B				
0...25	G	0	2	5	B				
0...40	G	0	4	0	B				
0...60	G	0	6	0	B				
0...100	G	1	0	0	B				
-0.5...0.5*	C	5	0	0	M				
-0.8...0.8*	C	8	0	0	M				
-1...1*	C	1	P	0	B				
-1...3*	C	3	P	0	B				
-1...5	C	5	P	0	B				
-1...9*	C	9	P	0	B				
-1...15*	C	0	1	5	B				
-1...24*	C	0	2	4	B				
Accuracy									
0.5 %						5			
0.25%						2			
Pressure connection									
G 1/2"							7		
G 1/4"							8		

V – vacuum, G – gauge, C – combined

* Available only with accuracy 0.5% and process connection G1/2"

PRESSURE TRANSMITTERS

PD121

The PD121 Pressure Transmitter features a flush diaphragm made of stainless steel AISI 316L and a silicon measuring cell; it converts pressure into an electrical signal of 4-20 mA. The flush diaphragm enables easy cleaning, which is essential for the use of sensors in the food and beverage industries. Depending on the device variant, we offer transmitters for gauge or vacuum pressure, as well as universal devices capable of measuring both negative and positive pressure. The PD121 transmitters are applied for pressure measurement in liquid, viscous, pasty, adhesive, crystallizing, and polluted media compatible with stainless steel AISI 316L / 1.4435 (AISI 304L / 1.4307).



Functions and features:

- Flush diaphragm
- Wide variety of measuring ranges
- Laser-welded diaphragm (no sealing)
- Silicon sensor
- Low temperature influence: $\leq 0.1\%$ / $10\text{ }^\circ\text{C}$
- Good long term stability: $< 0.2\%$ / year
- Compact design
- Overload limit: 200 % FS
- Easy to clean
- Level measurement

Areas of application:

- Suitable for hygienic application
- General industrial applications
- Food and beverage industry
- Environmental industry
- Paints and varnishes

Output signal 4-20 mA

4-20
mA

Flush diaphragm



Level measurement in open containers



Protection against internal condensation



Additional polynomial digital temperature compensation



Cost effective



IP code

IP65

Ambient temperature

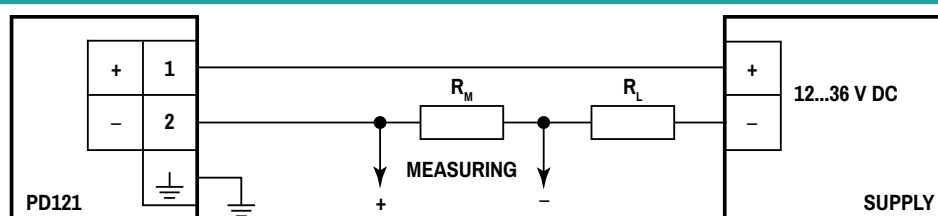


For viscous and particle-laden media



Technical Data:

Supply / Output signal	
Power supply	12...36 V DC
Output signal	4...20 mA
Performance	
Accuracy	standard: ± 0.25 % FSO ± 0.5 % FSO (0...0.16 bar, 0...0.25 bar)
Permissible load	0...1000 ohm
Influence effects	supply: 0.01 % FSO / 10 V; load: 0.05 % FSO / kohm
Temperature stability	$\leq \pm 0.1$ % FSO / 10 °C
Response time	≤ 100 ms
Permissible temperatures	
Permissible temperatures	medium: -40...100 °C environment: -40...80 °C storage: -40...80 °C
Electrical protection	
Short-circuit protection	yes
Reverse polarity protection	yes
Electromagnetic compatibility	emission and immunity according to EN 61326
Mechanical stability	
Vibration	9 g RMS (25...2000 Hz) according to DIN EN 60068-2-6
Shock	480 g / 1 ms according to DIN EN 60068-2-27
Materials	
Pressure connection	stainless steel 304 L
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Diaphragm	stainless steel 316 L
Media wetted parts	pressure connection, diaphragm
Miscellaneous	
Current consumption	max. 70 mA
Weight	approx. 400 g
Installation position	any
Operational life	> 500 000 hours
CE-conformity	EMC Directive: 2004/108/EC
Wiring diagram	



Pin configuration	
Supply +	1
Supply -	2
Shield	ground pin

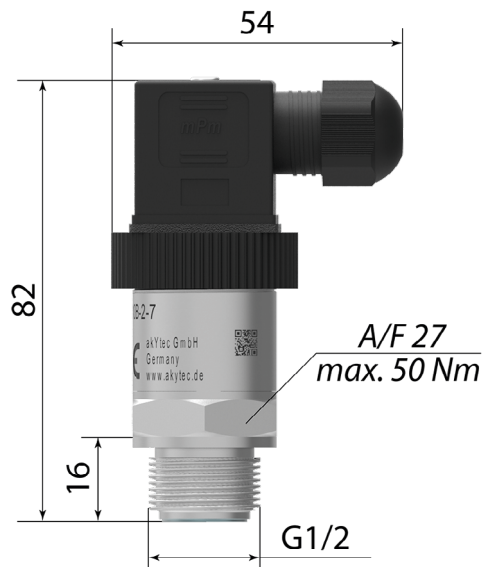
Ordering code:

PD121 X - XXXX - X - X

Input	[bar]								
	0...0.4	G	4	0	0	M			
	0...0.6	G	6	0	0	M			
	0...1	G	1	P	0	B			
	0...10	G	0	1	0	B			
Accuracy	0.25%							2	
Pressure connection	G 1/2"								7

V – vacuum, G – gauge, C – combined

Dimensions:



Accuracy according to IEC 60770
Standard: $\pm 0.5\%$ FSO