

PD121

Pressure transmitter for viscous and pasty media

The PD121 pressure transmitter is equipped with a flush process connection, which not only allows liquid, viscous, pasty, adhesive, crystallizing, or polluted media to move freely across the diaphragm without forming any dead volume but also makes this device particularly easy to clean. These two factors are essential for the pressure measurement in the food and beverage industry and other similar applications where viscous and pasty media are ubiquitous. Depending on the device variant of the PD121, six different measuring ranges of gauge pressure can be converted into a corresponding electrical signal of 4-20 mA: 0...160 mbar, 0...250 mbar, 0...400 mbar, 0...600 mbar, 0...1 bar, and 0...10 bar.

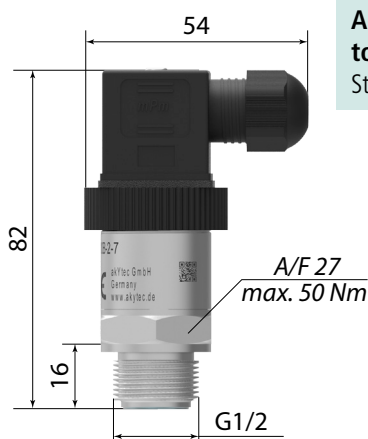
Functions and features:

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

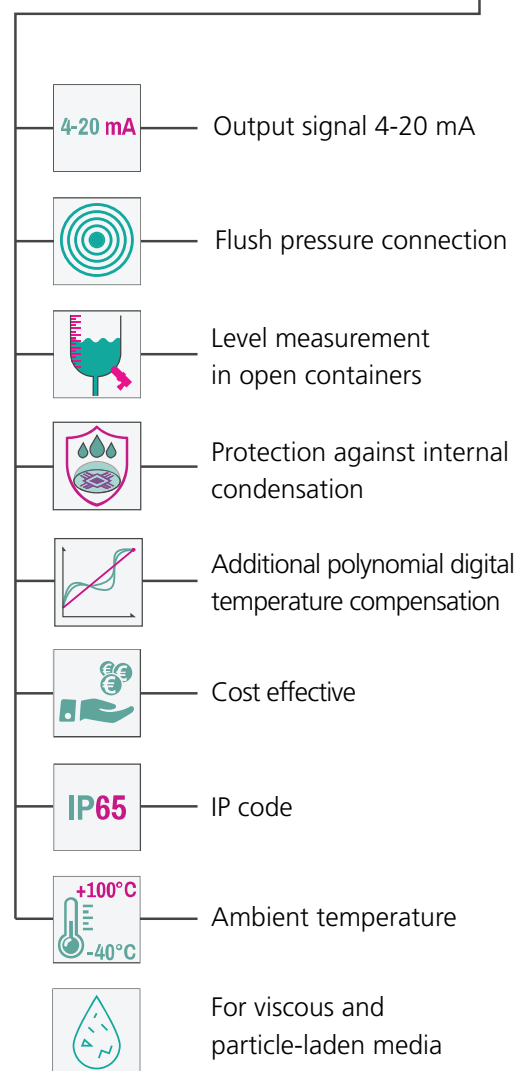
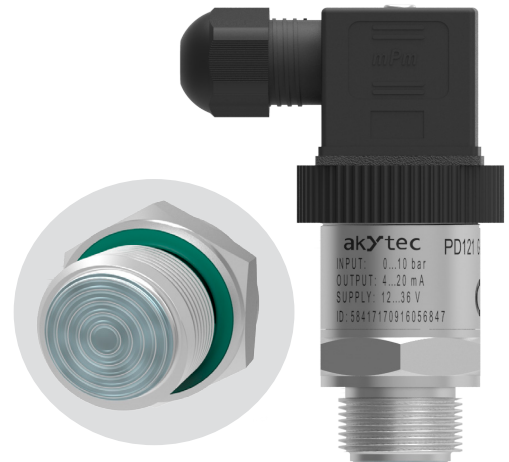
Areas of application:

- General industrial applications
- Food and beverage industry
- Environmental industry
- Paints and varnishes

Dimensions:



Accuracy according to IEC 60770
Standard: 0.25 % FSO

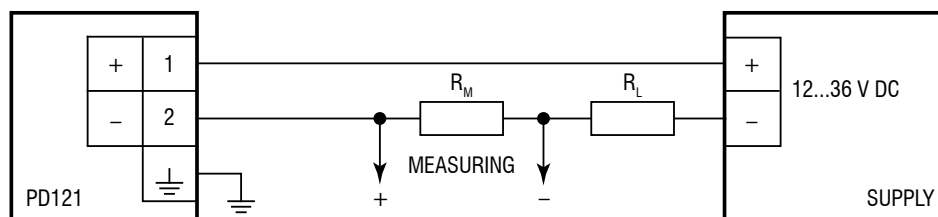


Pressure transmitter for viscous and pasty media

Technical Data:

Measuring ranges						
Nominal pressure, bar	0.16	0.25	0.4	0.6	1	10
Overpressure, bar	0.7	0.7	2	2	2	20
Burst pressure, bar	1.4	1.4	4	4	4	40
Vacuum resistance	$P_N \geq 1$ bar: unlimited vacuum resistance $P_N < 1$ bar: on request					
Supply / Output signal						
Power supply	12...36 V DC					
Output signal	4...20 mA					
Performance						
Accuracy	± 0.5 % FSO (0.16, 0.25 bar) or ± 0.25 % FSO					
Permissible load	0...1200 ohm					
Influence effects	supply: 0.01 % FSO / 10 V; load: 0.05 % FSO / 1 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 (2-wire)



Pin configuration

Supply +	1
Supply -	2
Shield	ground pin

PD121

Pressure transmitter for viscous and pasty media

Ordering code:

PD121 X - X X X X - X - X

Input [bar]	
0...0.16*	G 1 6 0 M
0...0.25*	G 2 5 0 M
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

Process connection	
G 1/2"	7

G – gauge

* 0.5 % accuracy only