

Small and cost-optimised: PT / PU pressure transmitters



Generate a precise analogue signal even where space is at a premium

- Compact design (AF19) with process connection G 1/4
- Fast reaction: 1 millisecond response time
- Measuring accuracy < ± 0.5 %, repeatability < ± 0.05 %</p>
- Easy connection via M12 connector
- Robust low-cost solution with welded stainless steel housing









Miniaturisation for industrial applications

The new PT/PU pressure sensors have a thin film measuring cell directly welded with the process connection. This technology guarantees high accuracy in a very compact housing with only 19 mm across flats at a cost-optimised price / performance ratio.

Applications

With the sealless design of the process connection the sensors can be used not only in hydraulic applications but also in inert gases. In industrial applications the laser labelling on the housing is also advantageous. Even in adverse environmental conditions, the sensor remains permanently identifiable. Another advantage: the fast output – with analogue transmission, the signal follows the pressure value within one millisecond.

The high vibration and shock resistance as well as protection rating IP 67 or IP 69K complete the list of requirements for use in industrial applications.



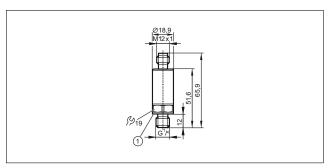
Pressure monitoring on a high-speed pump

Process sensors

Pressure sensors

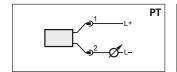


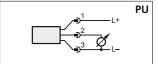
Dimensions



1) FKM seal / DIN 3869-14

Wiring diagram





Accessories

Туре	Description	Order no.
	Adapters; G 1/4 - G 1/2, High-grade stainless steel (316Ti/1.4571)	E30135

Connection technology

	Туре	Description	Order no.	
.2014		Socket, M12, 2 m black, PUR cable	EVC001	
		Socket, M12, 5 m black, PUR cable	EVC002	
otice. · 04	0	Socket, M12, 2 m black, PUR cable	EVC004	
prior no		Socket, M12, 5 m black, PUR cable	EVC005	
ifm article no. 78000591 - We reserve the right to make technical alterations without prior notice 04.2014				
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Measuring range Relative pressure [bar]	P _{overload} max. [bar]	P _{burst} min. [bar]	Order no.			
Output function 420 mA						
06	15	200	PT5415			
010	25	300	PT5404			
016	40	450	PT5414			
025	60	600	PT5403			
040	80	800	PT5443			
0100	200	1000	PT5402			
0160	320	1100	PT5412			
0250	500	1200	PT5401			
0400	800	1700	PT5400			
0600	1200	2400	PT5460			
Output function 010V						
06	15	200	PU5415			
010	25	300	PU5404			
016	40	450	PU5414			
025	60	600	PU5403			
040	80	800	PU5443			
0100	200	1000	PU5402			
0160	320	1100	PU5412			
0250	500	1200	PU5401			
0400	800	1700	PU5400			
0600	1200	2400	PU5460			

Common technical data						
Operating voltage	PT [V DC] PU [V DC]	8.536 1636				
Reverse polarity protection	•					
Accuracy / deviation (in % of the span) Linearity error Linearity Hysteresis Repeatability Long-term stability Temperature coefficient in the temperature rang (in % of the span per 10 TEMPCO of zero + span	< ± 0.5 < ± 0.1 BFSL / < ± 0.2 LS < ± 0.2 < ± 0.05 < ± 0.1 < ± 0.1 (-2590°C) < ± 0.2 (-4025°C)					
Medium temperature	[°C]	-4090				
Protection		IP 67 / IP 69K				
Materials wetted parts		FKM, high-grade stainless steel (17-4 PH/1.4542)				

Step response time

[ms]