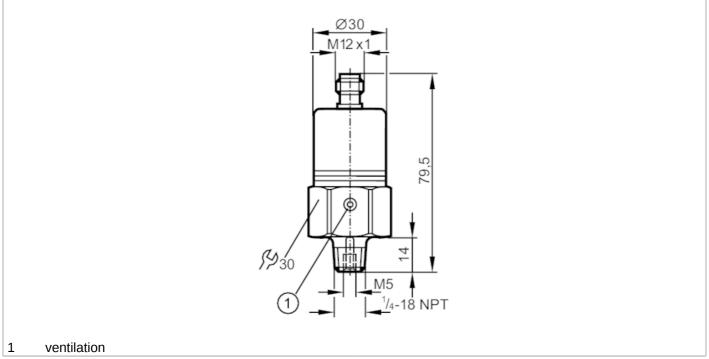
PX9119

Pressure transmitter with ceramic measuring cell



PA-0-1PRBN14-B-DVG/US/ /V



$\mathsf{C} \in \operatorname{C}_{\operatorname{Listed}}^{\operatorname{U}_{\operatorname{US}}} \mathsf{E} \mathsf{H}$

Product characteristics				
Output signal		analog signal		
Measuring range	[psi]	-14.50		
Process connection		threaded connection 1/4 NPT external thread Internal threadM5		
Application				
System		gold-plated contacts		
Application		for industrial applications		
Media		liquids and gases		
Medium temperature	[°C]	-2590		
Pressure rating	[psi]	145		
Min. bursting pressure	[psi]	450		
Type of pressure		relative pressure; vacuum		
Electrical data				
Operating voltage	[V]	1632 DC		
Current consumption	[mA]	< 18		
Min. insulation resistance	[MΩ]	100; (500 V DC)		
Protection class		III		
Reverse polarity protection		yes		
Inputs / outputs				
Number of inputs and outputs		Number of analog outputs: 1		

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[% of the span] [% of the span] Long-term stability [% of the span] [% of the span] (* ± 0,05; (per 6 months)) Temperature coefficient zero 0,15; (080 °C) [% of the span / 10 K] 0,2; (080 °C) Temperature coefficient span 0,2; (080 °C) [% of the span / 10 K] 0,2; (080 °C) Reaction times 3 Step response time analogue output [ms] Operating conditions 3 Operating conditions -2580 Storage temperature [°C] -40100 Protection IP 65 Tests / approvals EN 61000-4-2 ESD 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated 30 V/m EN 61000-4-4 Burst 2 kV EN 61000-4-6 HF conducted 10 V eradiation of interference according to the automotive directive 2004/104/EC / CISP R 2 noise immunity according to the automotive directive 2004/104/EC / CISP R 2	Outputs				
Number of analog outputs 1 Analog voltage output [V] Min. load resistance [Q] Overload protection yes Measuring/setting range [psi] Accuracy / deviations -14.50 Repeatability [% of the span] Characteristics deviation [% of the span] [% of the span] <0,1; (with temperature fluctuations < 10 K)	Total number of outputs		1		
Analog voltage output [M] Min. load resistance [Ω] Overload protection yes Measuring/setting range [ps] Measuring/setting range [ps] Accuracy / deviations Repeatability Repeatability [% of the span] Characteristics deviation < ± 0.25 (BFSL) / < ± 0.5 (LS); (BFSL = Best Fit Straight Line; LS = limit value set	Output signal		analog	signal	
Min. load resistance [Ω] 2000 Overload protection yes	Number of analog outputs				
Overload protection yes Measuring/setting range [psi] Measuring range [psi] Accuracy / deviations Repeatability [% of the span] Characteristics deviation < 0,1; (with temperature fluctuations < 10 K)	Analog voltage output [V]		100		
Measuring/setting range [psi] -14.50 Accuracy / deviations Repeatability (% of the span) < 0,1; (with temperature fluctuations < 10 K)	Min. load resistance	[Ω]	20	00	
Measuring range [psi] -14.50 Accuracy / deviations Repeatability (% of the span) < 0.1; (with temperature fluctuations < 10 K)	Overload protection		ye	es	
Accuracy / deviations Repeatability [% of the span] Characteristics deviation [% of the span] Long-term stability [% of the span] Long-term stability [% of the span] Temperature coefficient zero 0,15; (080 °C) point [% of the span / 10 K] Temperature coefficient zero 0,2; (080 °C) [% of the span / 10 K] 0,2; (080 °C) Reaction times 0,2; (080 °C) Step response time analogue output [ms] Operating conditions 3 Ambient temperature [°C] Protection IP 65 Tests / approvals EN 61000-4-2 ESD 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated 30 V/m EN 61000-4-4 Burst 2 kV EN 61000-4-4 Burst 2 kV EN 61000-4-6 HF conducted 10 V eradiation of interference according to the automotive directive 2004/104/EC / ISO 1145 HF radiated 100 V/m	Measuring/setting range				
Repeatability [% of the span] < 0,1; (with temperature fluctuations < 10 K)	Measuring range	[psi]	-14.	50	
Characteristics deviation (% of the span) Long-term stability (% of the span) Temperature coefficient zero point 0,15; (080 °C) [% of the span / 10 K] 0,2; (080 °C) Temperature coefficient span (% of the span / 10 K] 0,2; (080 °C) Reaction times 0,2; (080 °C) Step response time analogue (ms] output 3 Operating conditions 3 Ambient temperature [°C] -2580 Storage temperature [°C] -40100 Protection IP 65 Tests / approvals EN 61000-4-2 ESD 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated 30 V/m EN 61000-4-6 HF conducted 10 V according to the automotive directive 2004/104/EC / ISO 1145; HF radiated 100 V/m	Accuracy / deviations				
[% of the span] $< \pm 0.25$ (BFSL) / $< \pm 0.5$ (LS); (BFSL = Best Fit Straight Line; LS = limit value setLong-term stability [% of the span] $< \pm 0.05$; (per 6 months)Temperature coefficient zero point [% of the span / 10 K] 0.15 ; (080 °C)Temperature coefficient span [% of the span / 10 K] 0.2 ; (080 °C)Reaction times 0.2 ; (080 °C)Step response time analogue output[ms]Operating conditions3Ambient temperature (°C) -2580 Storage temperature (°C) -40100 ProtectionIP 65Tests / approvalsEN 61000-4-2 ESD $4 \text{ kV CD / 8 kV AD}$ ENCEN 61000-4-3 HF radiated according to the automotive directive 2004/10/4/EC / CISP 12ENCradiation of interference directive 2004/10/4/EC / CISP 12Noise immunityaccording to the automotive directive 2004/10/4/EC / ISO 11455HF radiated100 V/m	Repeatability [% of	the span]	< 0,1; (with temperature fluctuations < 10 K)		
[% of the span] < ± 0,05; (per 6 months)	Characteristics deviation		$< \pm 0.25$ (BFSL) / $< \pm 0.5$ (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)		
point0,15; (080 °C)[% of the span / 10 K]0,2; (080 °C)Temperature coefficient span [% of the span / 10 K]0,2; (080 °C)Reaction times3Step response time analogue output[ms]3Operating conditions3Ambient temperature[°C]Ambient temperature[°C]Protection-2580Storage temperature[°C]Protection-2580Tests / approvalsEN 61000-4-2 ESDEMC4 kV CD / 8 kV ADEMCEN 61000-4-3 HF radiatedAmbient temperature2 kVIn 61000-4-6 HF conducted10 Vaccording to the automotive directive 2004/104/EC / CISPR 2Ambient temperature10 VEMCA kV CD / 8 kV ADEMCEN 61000-4-6 HF conductedAmbient temperature2 kVEMCA king to the automotive directive 2004/104/EC / CISPR 2Ambient temperature10 V			< ± 0,05; (per 6 months)		
[% of the span / 10 K]0,2; (080 °C)Reaction timesStep response time analogue output[ms]Operating conditionsAmbient temperature[°C]Ambient temperature[°C]Storage temperature[°C]ProtectionIP 65Tests / approvalsEN 61000-4-2 ESD4 kV CD / 8 kV ADEMCEN 61000-4-3 HF radiated30 V/mEMCIP 61000-4-6 HF conducted10 VAmbient temperatureIP 61000-4-6 HF conducted10 VIP 61000-4-6 HF conducted10 V	point		0,15; (0	0,15; (080 °C)	
Reaction times Step response time analogue output [ms] 3 Operating conditions Ambient temperature [°C] -2580 Storage temperature [°C] -40100 Protection IP 65 Tests / approvals EN 61000-4-2 ESD 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated 30 V/m EN 61000-4-4 Burst 2 kV EN 61000-4-6 HF conducted 10 V en 61000-4-7 HF radiated 100 V/m			0,2; (080 °C)		
Step response time analogue output[ms]3Operating conditions		-			
Ambient temperature [°C] 2580 Storage temperature [°C] -40100 Protection IP 65 Tests / approvals ENS EN 61000-4-2 ESD 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated 30 V/m EN 61000-4-4 Burst 2 kV EN 61000-4-6 HF conducted 10 V radiation of interference according to the automotive directive 2004/104/EC / CISPR 2 noise immunity According to the automotive directive 2004/104/EC / ISO 11452 HF radiated 100 V/m			3		
Storage temperature [°C] Protection IP 65 Tests / approvals EN 61000-4-2 ESD 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated 30 V/m EN 61000-4-4 Burst 2 kV EN 61000-4-6 HF conducted 10 V radiation of interference according to the automotive directive 2004/104/EC / CISPR 2 noise immunity according to the automotive directive 2004/104/EC / ISO 11452	Operating conditions				
Protection IP 65 Tests / approvals EN 61000-4-2 ESD 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated 30 V/m 2 kV EN 61000-4-6 HF conducted 10 V 2 kV EMC radiation of interference according to the automotive directive 2004/104/EC / CISPR 2 EMC HF radiated 100 V/m	Ambient temperature	[°C]	-2580		
Tests / approvals EN 61000-4-2 ESD 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated 30 V/m EN 61000-4-4 Burst 2 kV EN 61000-4-6 HF conducted 10 V radiation of interference according to the automotive directive 2004/104/EC / CISPR 2 noise immunity according to the automotive directive 2004/104/EC / ISO 11452 HF radiated 100 V/m	Storage temperature	[°C]	-40100		
EMCEN 61000-4-2 ESD4 kV CD / 8 kV ADEMCEN 61000-4-3 HF radiated30 V/mEMCEN 61000-4-4 Burst2 kVEMCradiation of interference10 Vaccording to the automotive directive 2004/104/EC / CISPR 2noise immunityaccording to the automotive directive 2004/104/EC / ISO 11452HF radiated100 V/m	Protection		IP 65		
EMCEN 61000-4-3 HF radiated30 V/mEMCEN 61000-4-4 Burst2 kVEMCEN 61000-4-6 HF conducted10 Vradiation of interferenceaccording to the automotive directive 2004/104/EC / CISPR 2noise immunityaccording to the automotive directive 2004/104/EC / ISO 11452HF radiated100 V/m	Tests / approvals				
EMC EN 61000-4-4 Burst 2 kV EMC EN 61000-4-6 HF conducted 10 V radiation of interference according to the automotive directive 2004/104/EC / CISPR 2 noise immunity according to the automotive directive 2004/104/EC / ISO 11452 HF radiated 100 V/m			EN 61000-4-2 ESD	4 kV CD / 8 kV AD	
EMC EN 61000-4-6 HF conducted 10 V radiation of interference according to the automotive directive 2004/104/EC / CISPR 2 noise immunity according to the automotive directive 2004/104/EC / ISO 11452 HF radiated 100 V/m			EN 61000-4-3 HF radiated	30 V/m	
EMC radiation of interference according to the automotive directive 2004/104/EC / CISPR 2 noise immunity according to the automotive directive 2004/104/EC / ISO 11452 HF radiated 100 V/m			EN 61000-4-4 Burst	2 kV	
EMC radiation of interference directive 2004/104/EC / CISPR 2 noise immunity according to the automotive HF radiated 100 V/m			EN 61000-4-6 HF conducted		
HF radiated directive 2004/104/EC / ISO 11452	EMC		radiation of interference	according to the automotive directive 2004/104/EC / CISPR 25	
			noise immunity	according to the automotive directive 2004/104/EC / ISO 11452-2	
pulse resistance ISO 7637-2 / severity level 3			HF radiated		
			pulse resistance	ISO 7637-2 / severity level 3	
Shock resistanceDIN IEC 68-2-2750 g (11 ms)					
Vibration resistance DIN IEC 68-2-6 20 g (102000 Hz)	Vibration resistance				
MTTF [years] 531	MTTF	[years]	531		
Pressure equipment directive sound engineering practice; can be used for group 2 fluids; group 1 fluids on requ	Pressure equipment directive		sound engineering practice; can be used for group 2 fluids; group 1 fluids on request		

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PA-0-1PRBN14-B-DVG/US/ /V

Mechanical data Weight [g] 212.5 Material stainless steel (1.4404 / 316L); FKM; PA; EPDM/X Materials (wetted parts) stainless steel (1.4305 / 303); ceramics; FKM Min. pressure cycles 100 million Process connection threaded connection 1/4 NP external thread Internal threadM5 Restrictor element integrated no (can be retrofitted) Remarks Pack quantity Pack quantity 1 pcs. Electrical connection Connector: 1 x M12; Contacts: gold-plated 2 1 2 1 3 2 3 2 2 2 2 2 2 2 2 2 3 2 3 2 4 2 3 2 3 2 4 2 2 2 3 2 4 2 4 2 4 4	
Material stainless steel (1.4404 / 316L); FKM; PA; EPDM/X Materials (wetted parts) stainless steel (1.4305 / 303); ceramics; FKM Min. pressure cycles 100 million Process connection threaded connection 1/4 NPT external thread Internal threadM5 Restrictor element integrated no (can be retrofitted) Remarks Pack quantity Pack quantity 1 pcs. Electrical connection 2 2 3	
Min. pressure cycles 100 million Process connection threaded connection 1/4 NPT external thread Internal threadM5 Restrictor element integrated no (can be retrofitted) Remarks 1 pcs. Pack quantity 1 pcs. Electrical connection Connector: 1 x M12; Contacts: gold-plated 2 1	
Process connection threaded connection 1/4 NPT external thread Internal threadM5 Restrictor element integrated no (can be retrofitted) Remarks Pack quantity Pack quantity 1 pcs. Electrical connection Connector: 1 x M12; Contacts: gold-plated	
Restrictor element integrated no (can be retrofitted) Remarks 1 pcs. Pack quantity 1 pcs. Electrical connection Connector: 1 x M12; Contacts: gold-plated 2 1	
Remarks Pack quantity 1 pcs. Electrical connection Connector: 1 x M12; Contacts: gold-plated 2 1 3 4	
Pack quantity 1 pcs. Electrical connection Connector: 1 x M12; Contacts: gold-plated 2 1 3 4	
Electrical connection Connector: 1 x M12; Contacts: gold-plated $2 \xrightarrow{3}{4}$	
Connector: 1 x M12; Contacts: gold-plated $2 \xrightarrow{3}{4}$	
Connector: 1 x M12; Contacts: gold-plated $2 \xrightarrow{3}{4}$	
2 3 Connection	
2 3 Connection 1 1 + 2 - - - - - - - - - - - - -	
3 4 Connection	
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