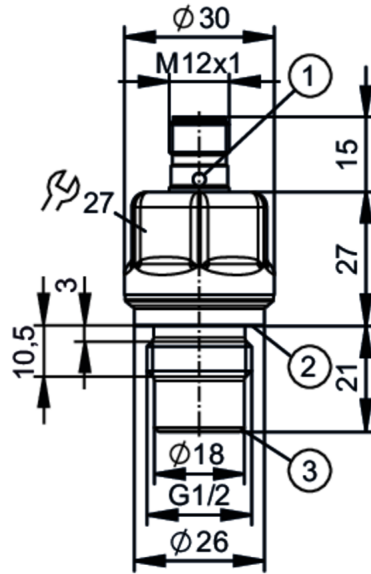


PL1502



Flush pressure transmitter

PL-100-REA12-A-DKG/US/ /



- 1 LED
- 2 Gasket DIN EN ISO 1179-2
- 3 area for metal sealing



IO-Link



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1		
Measuring range	0...100 bar	0...1450 psi	0...10 MPa
Process connection	threaded connection G 1/2 external thread		

Application

System	gold-plated contacts		
Measuring element	ceramic-capacitive pressure measuring cell		
Temperature monitoring	yes		
Application	Industrial flush pressure transmitters, analog PL; for industrial applications		
Media	viscous media and liquids with suspended particles; Liquids; other media on request		
Medium temperature [°C]	-25...110; (flush mount zero-leak using metal-to-metal seal. For permissible temperatures of other sealing versions, see sealing materials under "Accessories")		
Min. bursting pressure	400 bar	5800 psi	40 MPa
Pressure rating	250 bar	3625 psi	25 MPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		
No dead space	yes		

Electrical data

Operating voltage [V]	9.6...30 DC
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
Integrated watchdog	yes

2-wire

Current consumption [mA]	3.5...21.5
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Flush pressure transmitter

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Power-on delay time	[s]	< 1	
3-wire			
Current consumption	[mA]	< 30	
Power-on delay time	[s]	< 0.5	
Inputs / outputs			
Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1		
Outputs			
Total number of outputs	2		
Output signal	analog signal; IO-Link (configurable)		
Number of digital outputs	1; (IO-Link)		
Number of analog outputs	1		
Analog current output	[mA]	4...20; (scalable; 1:5)	
Max. load	[Ω]	(Ub - 9,6 V) / 21,5 mA; 670 Ω (Ub = 24 V)	
Short-circuit proof	yes		
Overload protection	yes		
Measuring/setting range			
Measuring range	0...100 bar	0...1450 psi	0...10 MPa
Analog start point	0...80 bar	0...1160 psi	0...8 MPa
Analog end point	20...100 bar	290...1450 psi	2...10 MPa
In steps of	0.02 bar	1 psi	0.002 MPa
Factory setting	ASP = 0.0 bar	AEP = 100 bar	
	ASP = 0.0 MPa	AEP = 10 MPa	
	ASP = 0.0 psi	AEP = 1450 psi	
Temperature monitoring			
Measuring range	-25...110 °C		-13...230 °F
Accuracy / deviations			
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation	[% of the span]	< ± 0,5; (linearity incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1)	
Linearity deviation	[% of the span]	< ± 0,15; (Turn down 1:1)	
Hysteresis deviation	[% of the span]	< ± 0,15; (Turn down 1:1)	
Long-term stability	[% of the span]	< ± 0,1; (Turn down 1:1; per year)	
Temperature coefficient zero point	[% of the span / 10 K]	< ± 0,1 (-25...85 °C) < ± 0,3 (85...110 °C)	
Temperature coefficient span	[% of the span / 10 K]	< ± 0,1 (-25...85 °C) < ± 0,3 (85...110 °C)	
Temperature monitoring			
Accuracy	[K]	± 2.5 K + (0.045 x (ambient temperature - medium temperature))	
Reaction times			
Damping process value dAP	[s]	0...99.99	



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Damping for the analog output dAA	[s]	0...99.99
2-wire		
Step response time analog output	[ms]	12
3-wire		
Step response time analog output	[ms]	3
Temperature monitoring		
Dynamic response T05 / T09	[s]	< 10 / < 25; (DIN EN 60751 water; > 0,9 m/s)
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles		Smart Sensor ED2: Identification and Diagnosis (0x4000), Measurement Data Channel (0x800A)
SIO mode		no
Required master port class		A; (when pin 2 not connected: B)
Min. process cycle time	[ms]	3.5
IO-Link resolution pressure	[bar]	0.02
IO-Link resolution temperature	[K]	0.2
IO-Link process data (cyclical)	Function	bit length
	pressure	16
	temperature	16
	device status	4
IO-Link functions (acyclical)		application specific tag; internal temperature
Supported DeviceIDs	Type of operation	DeviceID
	default	1439
Operating conditions		
Ambient temperature	[°C]	-25...90
Storage temperature	[°C]	-40...100
Protection		IP 67; IP 68; IP 69
Tests / approvals		
EMC	DIN EN 61326-1	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF	[years]	427
UL approval	Enclosure type	Type 1
	UL approval number	J052
	File number UL	E174189
Mechanical data		
Weight	[g]	115.8
Housing		tubular
Dimensions	[mm]	Ø 30 / L = 63

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Flush pressure transmitter

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Material	stainless steel (1.4435 / 316L); stainless steel (1.4404 / 316L); PA; PTFE; FKM
Materials (wetted parts)	stainless steel (1.4435 / 316L); Al2O3 (ceramics); surface characteristics : Ra < 0,4 / Rz 4; PTFE; (FKM for sealing with seal DIN EN ISO 1179-2, see operating instructions)
Min. pressure cycles	100 million
Tightening torque [Nm]	25
Process connection	threaded connection G 1/2 external thread

Displays / operating elements

Display	readiness for operation	2 LED, green
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Accessories

Items supplied	Gasket: G1/2, FKM DIN EN ISO1179-2 (-15...110°C), E30492
Accessories (optional)	Gasket: G1/2, FKM DIN EN ISO1179-2 (-15...110°C), E30492
	Gasket: G1/2, EPDM DIN EN ISO1179-2 (-25...110°C), E30451
	Gasket: G1/2, FFKM DIN EN ISO1179-2 (-5...110°C), E30513

Remarks

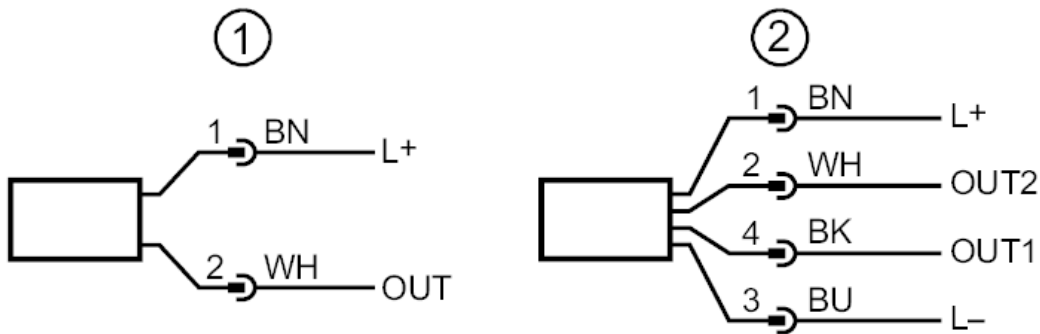
Pack quantity	1 pcs.
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Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection



- 1
- connection for 2-wire operation (analog)
- 2
- connection for 3-wire operation (analog / IO-Link)
OUT1: IO-Link
OUT2: analog output