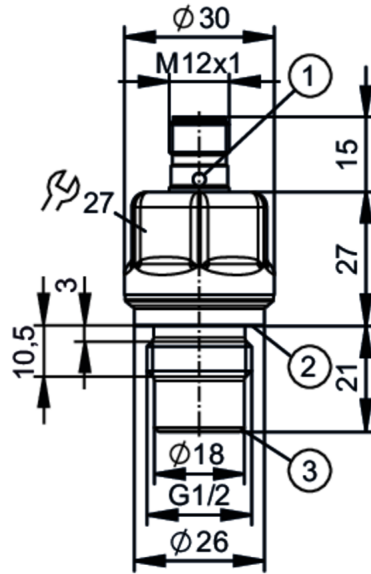




Flush pressure transmitter

PL-040-REA12-A-DKG/US/ /



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



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1		
Measuring range	-1...40 bar	-14.5...580 psi	-0.1...4 MPa
Process connection	threaded connection G 1/2 external thread		

Application

Special feature	Gold-plated contacts		
Measuring element	ceramic-capacitive pressure measuring cell		
Temperature monitoring	yes		
Application	flush mountable for industrial applications; 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	300 bar	4350 psi	30 MPa
Pressure rating	175 bar	2538 psi	17 MPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure; vacuum		
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 analogue outputs: 1		
Outputs			
Total number of outputs	2		
Output signal	analogue signal; IO-Link (configurable)		
Number of digital outputs	1; (IO-Link)		
Number of analogue outputs	1		
Analogue 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	-1...40 bar	-14.5...580 psi	-0.1...4 MPa
Analogue start point	-1...32 bar	-15...464 psi	-0.1...3.2 MPa
Analogue end point	7...40 bar	102...580 psi	0.7...4 MPa
In steps of	0.01 bar	1 psi	0.001 MPa
Factory setting	ASP = 0.0 bar	AEP = 40.0 bar	
	ASP = 0.0 MPa	AEP = 4 MPa	
	ASP = 0.0 psi	AEP = 580 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]	< ± 0,8; (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))	
Response times			
Damping process value dAP	[s]	0...99.99	



Flush pressure transmitter

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Damping for the analogue output dAA	[s]	0...99.99
2-wire		
Step response time analogue output	[ms]	12
3-wire		
Step response time analogue 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 type		A; (when pin 2 not connected: B)
Min. process cycle time	[ms]	3.5
IO-Link resolution pressure	[bar]	0.01
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	1432
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 no.	J056
	File number UL	E174189
Mechanical data		
Weight	[g]	114.3
Materials		stainless steel (316L/1.4435); stainless steel (316L/1.4404); PA; PTFE; FKM

PL1543



Flush pressure transmitter

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Materials (wetted parts)	stainless steel (316L/1.4435); 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	operating status	2 LED, green
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Accessories

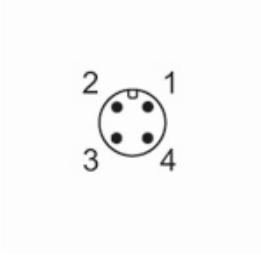
Items supplied	Gasket: G1/2, FKM DIN EN ISO1179-2 (-15...110°C), E30492
Accessories (optional)	Gasket: G1/2, FKM DIN EN ISO1179-2 (-15...110°C), E30492
	Gasket: G1/2, EPDM DIN EN ISO1179-2 (-25...110°C), E30451
	Gasket: G1/2, FFKM DIN EN ISO1179-2 (-5...110°C), E30513
	O-ring: 16,4 x 1, FKM (-15...110°C), E30510
	O-ring: 16,4 x 1, EPDM (-25...110°C), E30511
	O-ring: 16,4 x 1, FFKM (-5...110°C), E30512

Remarks

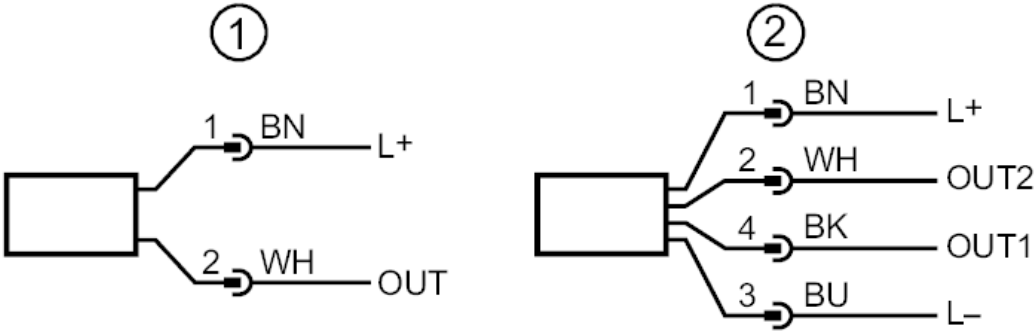
Pack quantity	1 pcs.
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Electrical connection

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



Connection



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