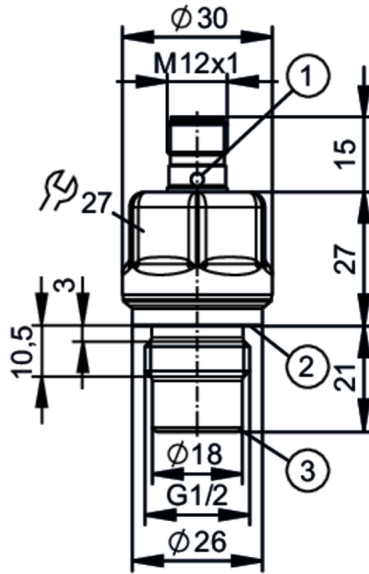


PL1502



Flush pressure transmitter

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



- 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 analog outputs: 1		
Measuring range	0...100 bar	0...1450 psi	0...10 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	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. burst 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

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

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		
Number of digital outputs		1; (IO-Link)		
Number of analog outputs		1		
Analog current output	[mA]	4...20; (scalable; 1:5)		
Max. load	[Ω]	(U _b - 9,6 V) / 21,5 mA; 670 Ω (U _b = 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)		
Zero-point stabilization	[% of the span]	0,15; (IO-Link; analog output; (see operating instructions zero-point behavior))		
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))		

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Reaction times		
Damping process value dAP	[s]	0...99.99
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 / <45; (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	Common - I&D	Identification and Diagnosis
	Function	Measurement data, standard resolution
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
Embedded software included		yes
UL approval	UL approval number	J052
	File number UL	E174189
Embedded Software entwickelt nach		ISO 13849-1 : 2015 (clause 4.6.2)

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Flush pressure transmitter

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

Mechanical data		
Weight	[g]	115.8
Housing		tubular
Dimensions	[mm]	Ø 30 / L = 63
Material		stainless steel (1.4435 / 316L); stainless steel (1.4404 / 316L); PA; PTFE; FKM
Materials (wetted parts)		stainless steel (1.4435 / 316L); Al ₂ O ₃ (ceramics) surface characteristics: Ra < 0,4 µm / Rz = 4 µm; 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

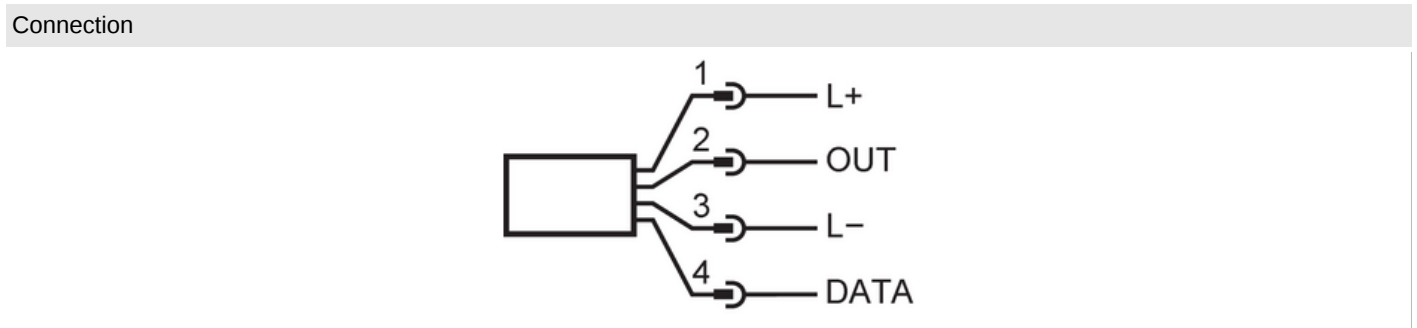
Displays / operating elements		
Display	readiness for operation	2 LED, green

Accessories		
Items supplied		Gasket: G1/2, FKM DIN EN ISO1179-2 (-15...110°C), E30492
Accessories (optional)		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.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



2-wire		
1	L+	
2	OUT	AO

3-wire		
1	L+	
2	OUT	AO
3	L-	
4	DATA	IO-Link

AO: analog output; DATA: data interface