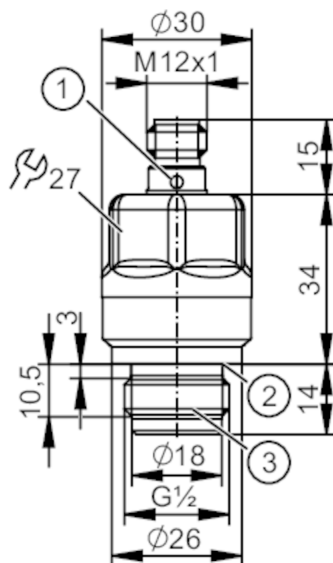


PL1307



Flush pressure transmitter

PL-001-REG12-A-DKG/US/ I



- 1 LED
- 2 Gasket DIN EN ISO 1179-2
- 3 threaded pin based on DIN EN ISO 1179-2



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1			
Measuring range	-0.05...1 bar	-50...1000 mbar	-0.73...14.5 psi	-5...100 kPa
Process connection	threaded connection G 1/2 external thread - 14 mm			

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]	-15...110; (max. -25...110°C; for permissible temperatures of other sealing materials, see "Accessories")		
Min. burst pressure	40000 mbar	580 psi	4000 kPa
Pressure rating	20000 mbar	290 psi	2000 kPa
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			
Number of digital outputs		1; (IO-Link)			
Number of analogue outputs		1			
Analogue current output		[mA]	4...20; (scalable; 1:10)		
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		-0.05...1 bar	-50...1000 mbar	-0.73...14.5 psi	-5...100 kPa
Analogue start point		-50...800 mbar	-0.725...11.6 psi	-5...80 kPa	
Analogue end point		150...1000 mbar	2.18...14.5 psi	15...100 kPa	
In steps of		1 mbar	0.005 psi	0.1 kPa	
Factory setting		ASP = 0.0 mbar	AEP = 1000 mbar		
		ASP = 0.0 psi	AEP = 14.5 psi		
		ASP = 0.0 kPa	AEP = 100 kPa		
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 stabilisation		[% of the span]		0,15; (IO-Link; analogue output; (see operating instructions zero-point behaviour))	
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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Response times		
Damping process value dAP	[s]	0...99.99
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 / <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 type	A; (when pin 2 not connected: B)	
Min. process cycle time	[ms]	3.5
IO-Link resolution pressure	[mbar]	0.2
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	1864
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]	407
Embedded software included	yes	
UL approval	UL approval no.	J050
	File number UL	E174189
Embedded software developed in accordance with	ISO 13849-1 : 2015 (clause 4.6.2)	

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Mechanical data		
Weight	[g]	139.2
Housing		cylindrical
Dimensions	[mm]	Ø 30 / L = 63
Materials		stainless steel (316L/1.4435); stainless steel (316L/1.4404); PA; PTFE; FKM
Materials (wetted parts)		stainless steel (316L/1.4435); Al2O3 (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 - 14 mm

Displays / operating elements		
Display	Display unit	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

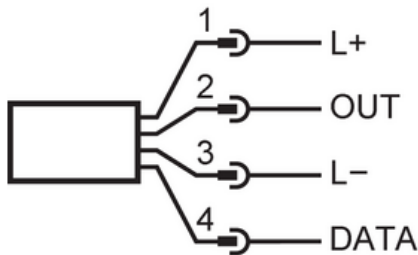
Remarks		
Pack quantity		1 pcs.

Electrical connection

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



Connection



2-wire

1	L+	
2	OUT	AO

3-wire

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

AO: analogue output; DATA: data interface