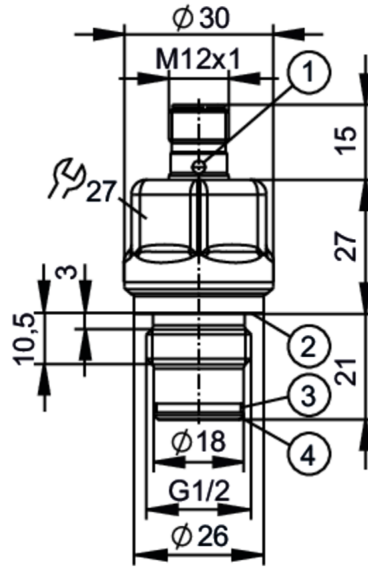


# PL1504



## Flush pressure transmitter

PL-010-REA12-A-DKG/US/ /



- 1 LED
- 2 Sealing DIN EN ISO 1179-2
- 3 groove for O-ring 16.4 x 1.0
- 4 area for metal sealing



### Product characteristics

Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1 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		
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	175 bar	2538 psi	17 MPa
Pressure rating	70 bar	1015 psi	7 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	
<b>Outputs</b>			
Total number of outputs		2	
Output signal		analogue signal; IO-Link (configurable)	
Analogue current output	[mA]	4...20; (scalable; 1:5)	
Max. load	[Ω]	(U <sub>b</sub> - 9,6 V) / 21,5 mA; 670 Ω (U <sub>b</sub> = 24 V)	
Short-circuit proof		yes	
Overload protection		yes	
<b>Measuring/setting range</b>			
Measuring range		-1...10 bar	-14.5...145 psi
Analogue start point		-1...8 bar	-14.5...116 psi
Analogue end point		1...10 bar	14.5...145 psi
In steps of		0.002 bar	0.2 psi
Factory setting		ASP = 0.0 bar	AEP = 10.0 bar
		ASP = 0.0 psi	AEP = 145.0 psi
		ASP = 0.0 MPa	AEP = 1.0 MPa
Temperature monitoring			
Measuring range		-25...110 °C	-13...230 °F
<b>Accuracy / deviations</b>			
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))	
<b>Response times</b>			
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	

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## Flush pressure transmitter

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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)
<b>Interfaces</b>		
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 [kPa]		0.002
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	1437
<b>Operating conditions</b>		
Ambient temperature [°C]		-25...90
Storage temperature [°C]		-40...100
Protection		IP 67; IP 68; IP 69
<b>Tests / approvals</b>		
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.	J050
	File number UL	E174189
<b>Mechanical data</b>		
Weight [g]		85.3
Materials		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

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## Flush pressure transmitter

PL-010-REA12-A-DKG/US/ I

### 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

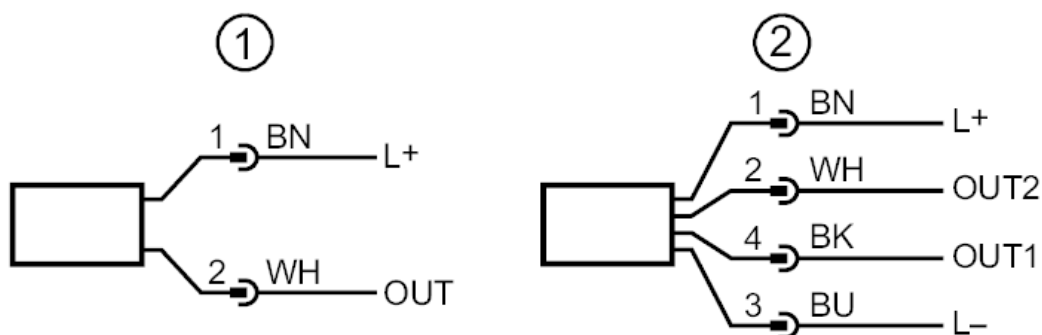
Pack quantity	1 pcs.
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### Electrical connection

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