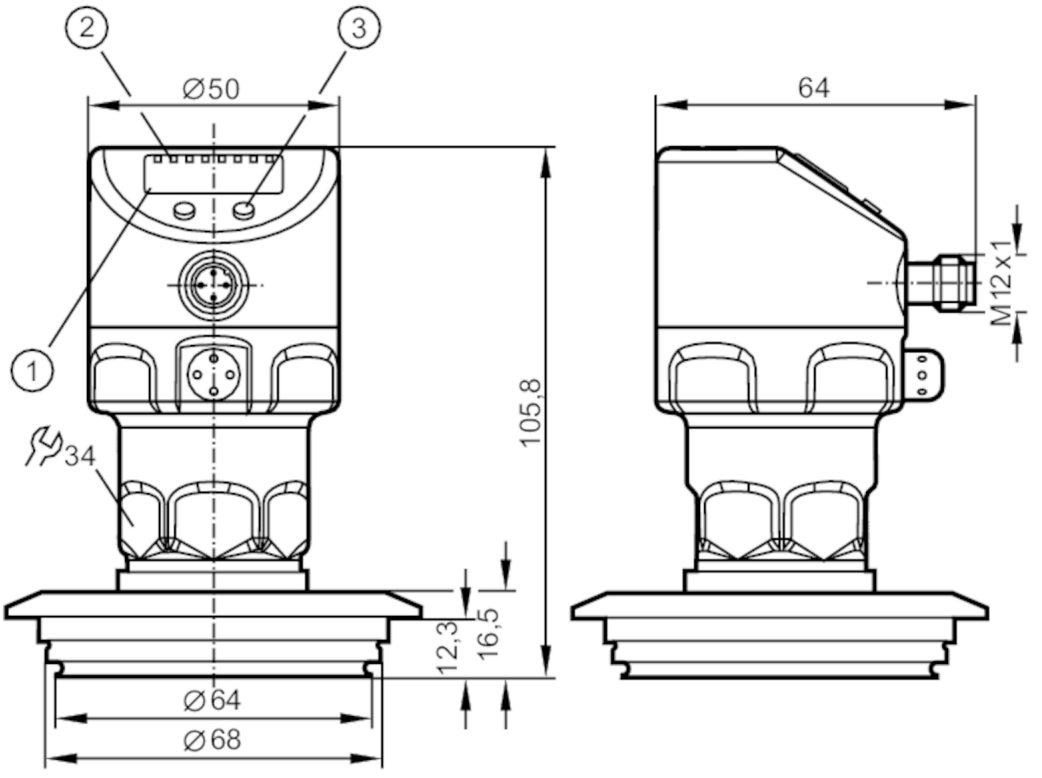
PH5007

Flush pressure sensor with display

PH-001BREA01-MFRKG/US/ /P

Status Archive



1 alphanumeric display 4-digit
2 status LEDs
3 programming button

CE

Application		
Application		hygienic systems
Media		viscous media and liquids with suspended particles; liquids and gases
Medium temperature	[°C]	-25...125; (145 max. 1h)
Pressure rating	[mbar]	10000
Min. bursting pressure	[mbar]	30000
Type of pressure		relative pressure
Electrical data		
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Integrated watchdog		yes
2-wire		
Operating voltage	[V]	20...32 DC
Current consumption	[mA]	3.6...21
Power-on delay time	[s]	1

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3-wire		
Operating voltage	[V]	18...32 DC
Current consumption	[mA]	< 45
Power-on delay time	[s]	0.5
Outputs		
Total number of outputs		2
Output signal		switching signal; analogue signal; IO-Link; (configurable)
Electrical design		PNP/NPN
Number of digital outputs		2
Output function		normally open / normally closed; (parameterisable)
Number of analogue outputs		1
Analogue current output	[mA]	4...20, invertible; (scalable)
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
2-wire		
Max. load	[Ω]	300
3-wire		
Max. voltage drop switching output DC	[V]	2
Permanent current rating of switching output DC	[mA]	250
Switching frequency DC	[Hz]	125
Max. load	[Ω]	(Ub - 10 V) / 20 mA
Measuring/setting range		
Measuring range	[mbar]	-50...1000
Set point SP	[mbar]	-48...1000
Reset point rP	[mbar]	-50...998
Analogue start point	[mbar]	-50...750
Analogue end point	[mbar]	200...1000
In steps of	[mbar]	1
Accuracy / deviations		
Switch point accuracy	[% of the span]	< ± 0,2; (Turn down 1:1)
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation	[% of the span]	< ± 0,2; (Turn down 1:1 linearity, incl. hysteresis and repeatability limit value setting to DIN 16086)
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		< ± 0,1; (Turn down 1:1; per year)

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[% of the span]			
Temperature coefficient zero point [% of the span / 10 K]		< ± 0,05; (0...70 °C)	
Temperature coefficient span [% of the span / 10 K]		< ± 0,15; (0...70 °C)	
Response times			
Damping for the switching output dAP	[s]	0...30	
Damping for the analogue output dAA	[s]	0.01...99.99	
2-wire			
Step response time analogue output	[ms]	45	
3-wire			
Min. response time of switching output (dAP)	[ms]	3	
Step response time analogue output	[ms]	7	
Interfaces			
Transmission type		COM2 (38,4 kBaud)	
Operating conditions			
Ambient temperature	[°C]	-25...80	
Storage temperature	[°C]	-40...100	
Protection		IP 67; IP 68; IP 69K	
Tests / approvals			
EMC		EN 61000-4-2 ESD	4 kV CD / 8 kV AD
		EN 61000-4-3 HF radiated	10 V/m
		EN 61000-4-4 Burst	2 kV
		EN 61000-4-5 Surge	0,5/1 kV
		EN 61000-4-6 HF conducted	10 V
Shock resistance		DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance		DIN IEC 68-2-6	20 g (10...2000 Hz)
Mechanical data			
Weight	[g]	788.6	
Materials		stainless steel (1.4404 / 316L); FKM; PTFE; PBT; PEI; PFA	
Materials (wetted parts)		ceramics (99.9 % Al2O3); PTFE; stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4	
Min. pressure cycles		100 million	
Process connection		Varivent Form N, DN40 (1,5"), D = 68; Form N	
Displays / operating elements			
Display		Display unit	LED, green
		switching status	LED, yellow
		function display	alphanumeric display, 4-digit
		measured values	alphanumeric display, 4-digit
Display unit		mbar; kPa; psi; inH2O; mWS; % of the span	

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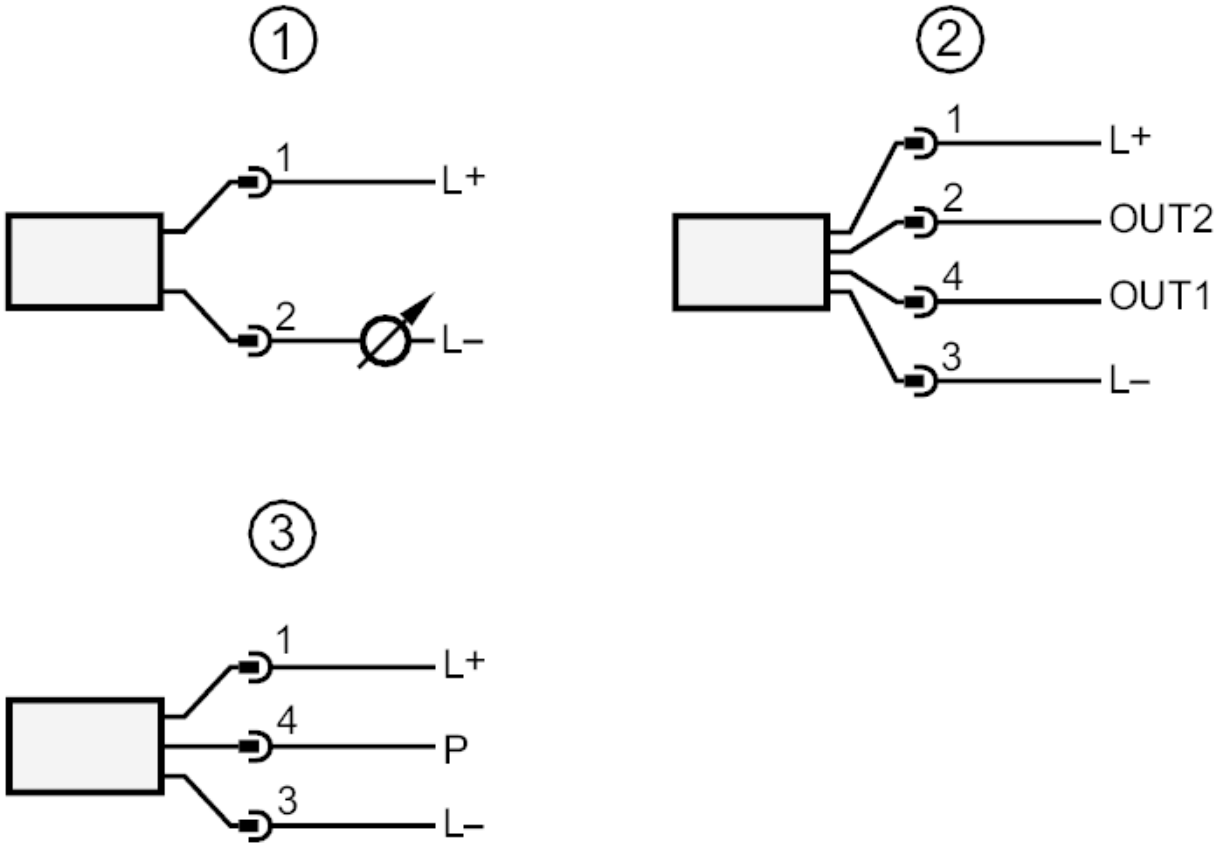
Remarks

Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated

Connection



1	connection for 2-wire operation
2	connection for 3-wire operation :
OUT1	switching output
OUT2	switching output
	analogue output
3	connection for IO-Link parameter setting (P = communication via IO-Link)

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