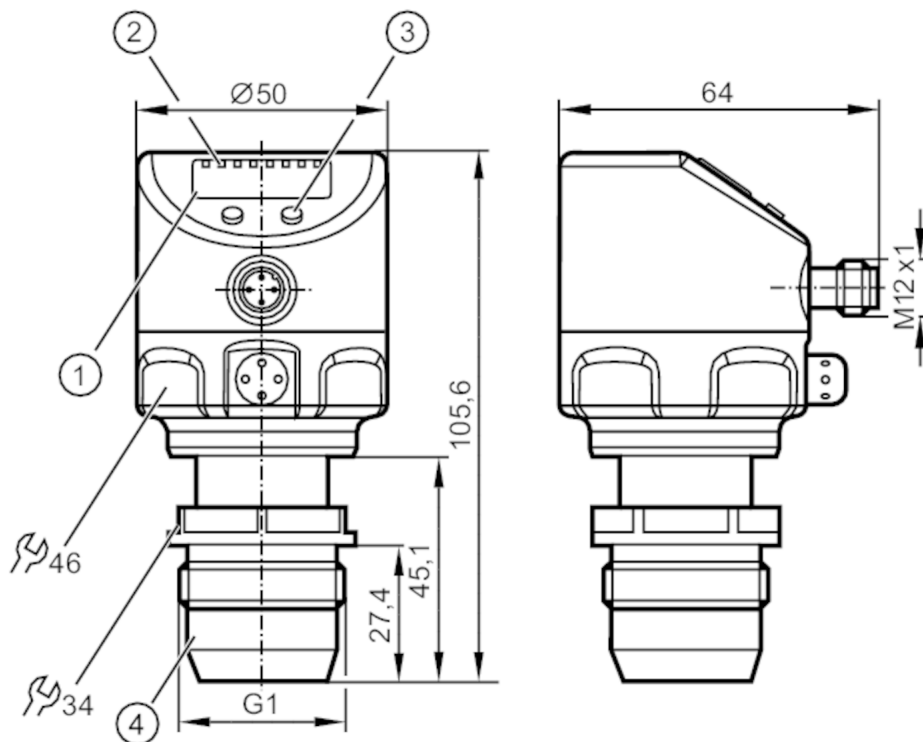


PI2815



Combined pressure sensor

PI-006-REA01-MFRKG/US/ IP



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

ACS EC 1935/2004 EHEDG Certified

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	30 bar	3000 kPa	435 psi
Min. bursting pressure	100 bar	10000 kPa	1450 psi
Type of pressure	relative pressure		
No dead space	yes		

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	
Inputs / outputs			
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
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		-1...6 bar	-100...600 kPa -14.5...87 psi
Set point SP		-0.99...6 bar	-99...600 kPa -14.4...87 psi
Reset point rP		-1...5.99 bar	-100...599 kPa -14.5...86.9 psi
Analogue start point		-1...4.5 bar	-100...450 kPa -14.5...65.3 psi
Analogue end point		0.5...6 bar	50...600 kPa 7.3...87 psi
In steps of		0.005 bar	0.5 kPa 0.1 psi
Factory setting			SP1 = 1.5 bar rP1 = 1.38 bar
			SP2 = 4.5 bar rP2 = 4.380 bar
			ASP = 0.0 bar AEP = 6.0 bar
Accuracy / deviations			
Switch point accuracy		< ± 0,2; (Turn down 1:1)	
	[% of the span]		
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation		< ± 0,2; (Turn down 1:1 linearity, incl. hysteresis and repeatability limit value setting to DIN 16086)	
	[% of the span]		
Linearity deviation		< ± 0,15; (Turn down 1:1)	
	[% of the span]		
Hysteresis deviation		< ± 0,15; (Turn down 1:1)	



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	[% of the span]	
Long-term stability		$< \pm 0,1$; (Turn down 1:1; per year)
	[% of the span]	
Temperature coefficient zero point		$< \pm 0,05$; (0...70 °C)
	[% of the span / 10 K]	
Temperature coefficient span		$< \pm 0,15$; (0...70 °C)
	[% of the span / 10 K]	

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
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3-wire

Min. response time of switching output (dAP)	[ms]	3
Step response time analogue output	[ms]	7

Interfaces

Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.0
IO-Link device ID		728 d / 00 02 d8 h
Profiles		no profile
SIO mode		yes
Required master port type		A
Process data analogue		1
Process data binary		2
Min. process cycle time	[ms]	2.3

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)
MTTF	[years]	154

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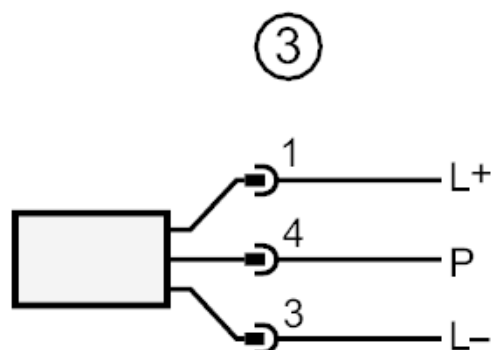
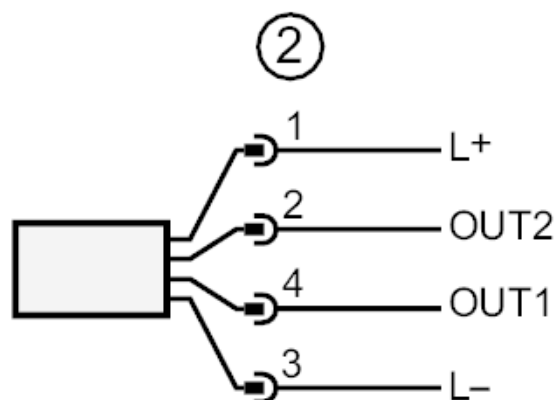
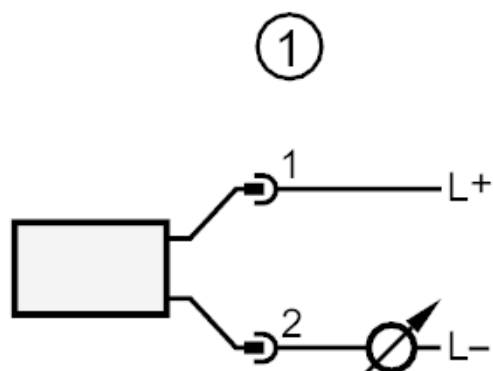
Mechanical data		
Weight	[g]	377.7
Materials	stainless steel (1.4404 / 316L); FKM; PTFE; PBT; PEI; PFA	
Materials (wetted parts)	ceramics (99.9 % Al2O3); PTFE; stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4	
Min. pressure cycles	100 million	
Process connection	threaded connection G 1 external thread sealing cone	
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	bar; kPa; psi; % of the span	
Remarks		
Remarks	Attention: The unit must only be installed in a process connection for G1 sealing cone. The G1A sealing cone of the unit is only suited for adapters with metal end stop.	
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; Contacts: gold-plated		
		



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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) |