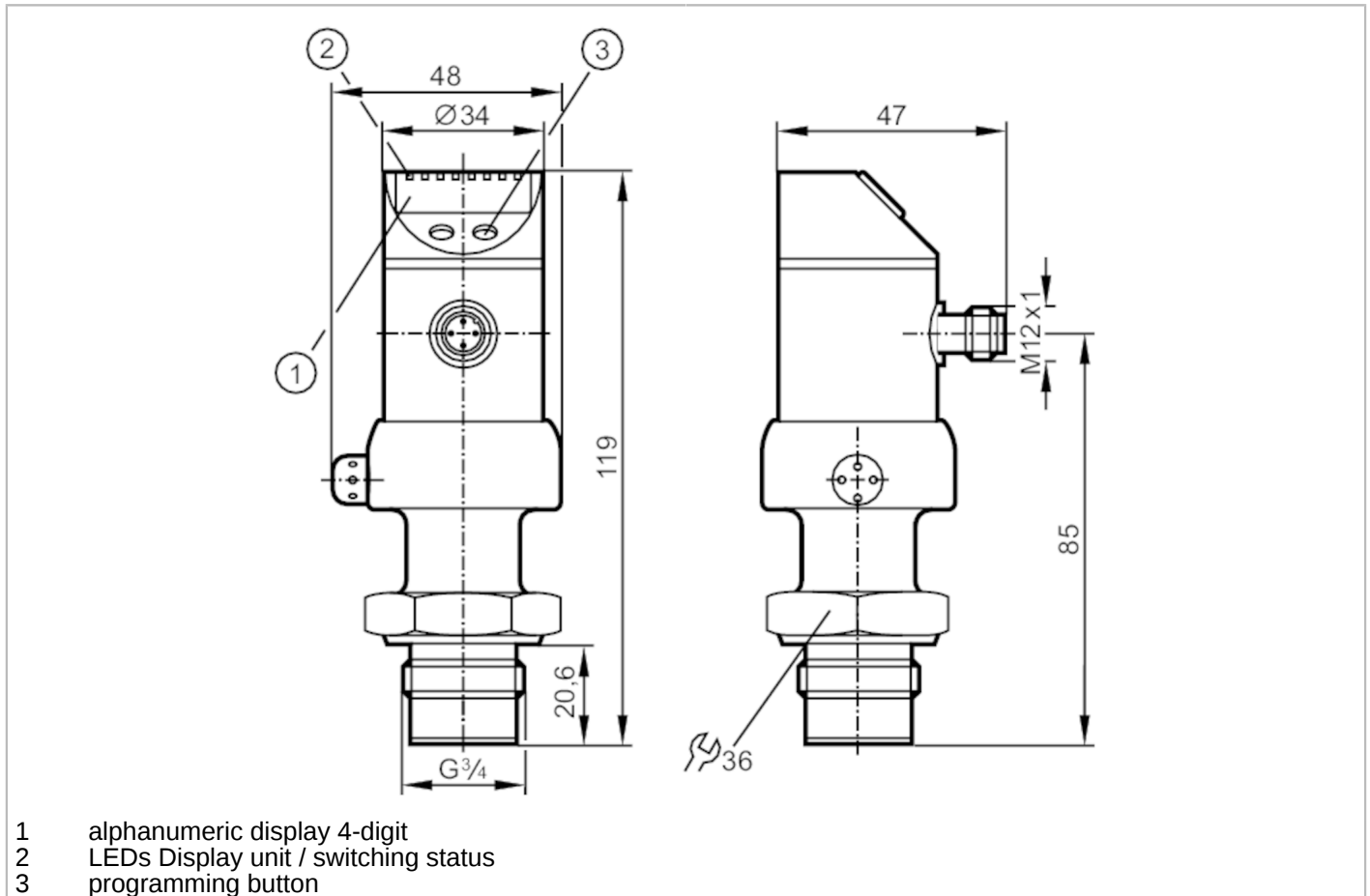


PI7993



Flush pressure sensor with display

PI-025-REB34-QFRKG/US/ IP



Product characteristics

Output signal	switching signal		
Measuring range	-1...25 bar	-14.4...362.7 psi	-0.1...2.5 MPa
Process connection	threaded connection G 3/4 external thread		

Application

Special feature	Gold-plated contacts		
Application	food and beverage industry		
Installation	freely rotatable housing 350°		
Media	viscous media and liquids with suspended particles; liquids and gases		
Medium temperature [°C]	-25...125; (145 max. 1h)		
Pressure rating	100 bar	1450 psi	10 MPa
Min. bursting pressure	200 bar	2900 psi	20 MPa
Type of pressure	relative pressure; vacuum		
No dead space	yes		



Flush pressure sensor with display

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Electrical data			
Operating voltage	[V]	18...32 DC	
Current consumption	[mA]	< 50	
Min. insulation resistance	[MΩ]	100; (500 V DC)	
Protection class		III	
Reverse polarity protection		yes	
Power-on delay time	[s]	0.5	
Integrated watchdog		yes	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2	
Outputs			
Total number of outputs		2	
Output signal		switching signal	
Electrical design		PNP/NPN	
Number of digital outputs		2	
Output function		normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC	[V]	2	
Permanent current rating of switching output DC	[mA]	250	
Switching frequency DC	[Hz]	85	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Measuring range		-1...25 bar	-14.4...362.7 psi
Set point SP		-0.96...25 bar	-13.8...362.7 psi
Reset point rP		-1...24.96 bar	-14.4...362.1 psi
In steps of		0.02 bar	0.3 psi
Factory setting			SP1 = 6.24 bar
			SP2 = 18.74 bar
			rP1 = 5.74 bar
			rP2 = 18.30 bar
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	[% of the span]	< ± 0,1; (Turn down 1:1; per year)	
Temperature coefficient zero point		< ± 0,05; (0...70 °C)	

PI7993



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	[% of the span / 10 K]	
Temperature coefficient span		< ± 0,15; (0...70 °C)
	[% of the span / 10 K]	

Response times

Response time	[ms]	< 6
Damping for the switching output dAP	[s]	0...100

Software / programming

Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit; zero point; span
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Operating conditions

Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67; 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]	178

Mechanical data

Weight	[g]	375
Materials		stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE
Materials (wetted parts)		ceramics (99.9 % Al ₂ O ₃); PTFE; stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4
Min. pressure cycles		100 million
Process connection		threaded connection G 3/4 external thread

Displays / operating elements

Display	Display unit	4 x LED, green
	switching status	2 x LED, yellow
	measured values	alphanumeric display, 4-digit
	parameter setting	alphanumeric display, 4-digit
Display unit		bar; psi; MPa; % of the span

Remarks

Pack quantity	1 pcs.
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Electrical connection

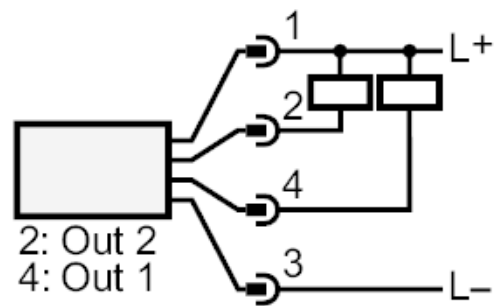
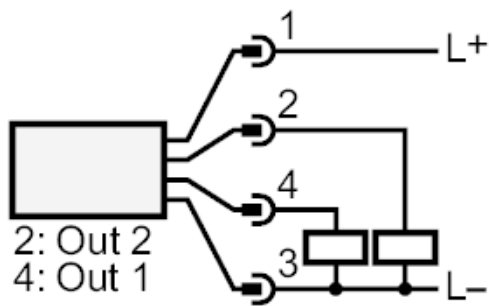
Connector: 1 x M12; Contacts: gold-plated

PI7993



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OUT1	switching output
	Diagnostic output
OUT2	switching output