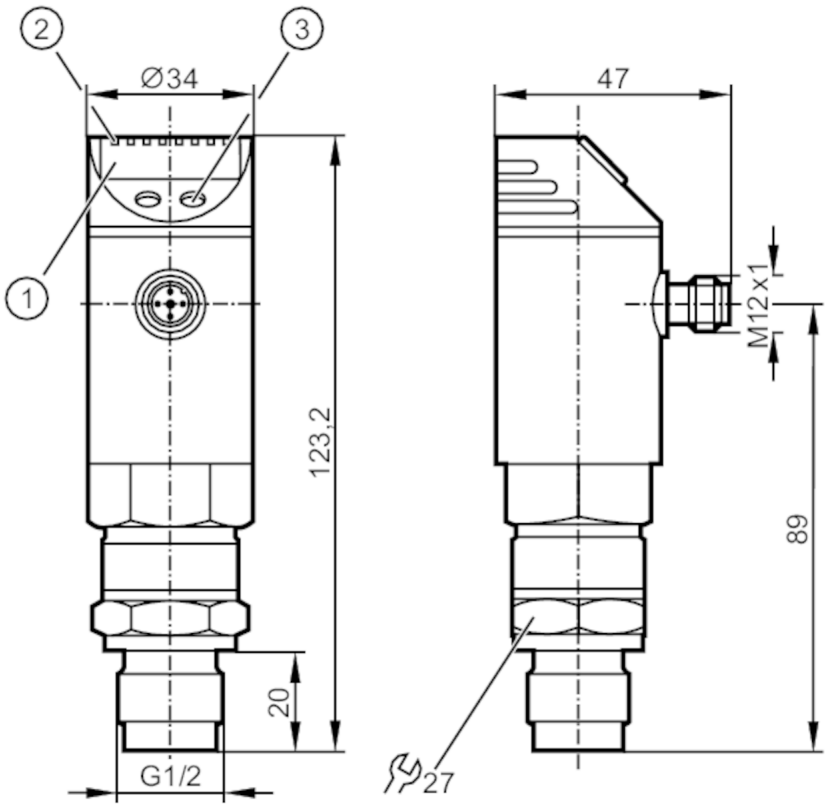
PY2033

Pressure sensor with display

PN-025-RDR12-MFRKG/US/ /V



1 alphanumeric display 4-digit
2 LEDs Display unit / switching status
3 programming button

Product characteristics				
Number of inputs and outputs		Number of digital outputs: 2; Number of analogue outputs: 1		
Measuring range		-1...25 bar	-14.5...362.5 psi	-0.1...2.5 MPa
Process connection		threaded connection G 1/2 external thread		
Application				
Special feature		Gold-plated contacts		
Application		flush mountable for industrial applications; for industrial applications		
Media		liquids and gases		
Medium temperature	[°C]	-20...125		
Min. burst pressure		200 bar	2900 psi	20 MPa
Pressure rating		100 bar	1450 psi	10 MPa
Type of pressure		relative pressure		
No dead space		yes		
Electrical data				
Operating voltage	[V]	18...32 DC; (to SELV/PELV)		
Current consumption	[mA]	< 35		
Min. insulation resistance	[MΩ]	100; (500 V DC)		
Protection class		III		
Reverse polarity protection		yes		

PY2033

Pressure sensor with display

PN-025-RDR12-MFRKG/US/ /V

Power-on delay time	[s]	0.3		
Integrated watchdog		yes		
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; (configurable)		
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]	< 500		
Number of analogue outputs		1		
Analogue current output	[mA]	4...20; (scalable 1:4)		
Max. load	[Ω]	(Ub - 10 V) / 20 mA		
Analogue voltage output	[V]	0...10; (scalable 1:4)		
Min. load resistance	[Ω]	2000		
Short-circuit protection		yes		
Type of short-circuit protection		pulsed		
Overload protection		yes		
Measuring/setting range				
Measuring range		-1...25 bar	-14.5...362.5 psi	-0.1...2.5 MPa
Set point SP		-0.8...25 bar	-11.5...362.5 psi	-0.08...2.5 MPa
Reset point rP		-0.9...24.9 bar	-13...361 psi	-0.09...2.49 MPa
Analogue start point		-1...18.75 bar	-14.5...272 psi	-0.1...1.88 MPa
Analogue end point		5.25...25 bar	76...362.5 psi	0.53...2.5 MPa
In steps of		0.05 bar	0.5 psi	0.01 MPa
Factory setting			SP1 = 6.25 bar	rP1 = 5.75 bar
			SP2 = 18.75 bar	rP2 = 18.25 bar
			ASP = 0.00 bar	AEP = 25.00 bar
Accuracy / deviations				
Switch point accuracy	[% of the span]	< ± 0,4; (Turn down 1:1)		
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)		
Characteristics deviation	[% of the span]	< ± 0,3 (BFSL) / < ± 0,6 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line; LS = limit value setting)		
Linearity deviation	[% of the span]	< ± 0,5; (Turn down 1:1)		
Hysteresis deviation	[% of the span]	< ± 0,1; (Turn down 1:1)		
Long-term stability	[% of the span]	< ± 0,1; (Turn down 1:1; per year)		

PY2033

Pressure sensor with display

PN-025-RDR12-MFRKG/US/ /V

Temperature coefficient zero point [% of the span / 10 K]		< ± 0,25; (0...80 °C)	
Temperature coefficient span [% of the span / 10 K]		< ± 0,25; (0...80 °C)	
Response times			
Response time	[ms]	< 1.5	
Damping process value dAP	[s]	0.01...4	
Damping for the analogue output dAA	[s]	0.01...4	
Max. response time analogue output	[ms]	3	
Software / programming			
Parameter setting options		hysteresis / window; normally open / normally closed; switching logic; current/voltage output; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit; zero point; span	
Operating conditions			
Ambient temperature	[°C]	-25...80	
Storage temperature	[°C]	-40...100	
Protection		IP 65	
Tests / approvals			
EMC		DIN EN 61000-6-2	
		DIN EN 61000-6-3	
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]	167	
Mechanical data			
Weight	[g]	390	
Housing		cylindrical	
Dimensions	[mm]	Ø 34 / L = 123.2	
Materials		stainless steel (304/1.4301); stainless steel (316L/1.4435); PC; PBT; PEI; PTFE	
Materials (wetted parts)		stainless steel (316L/1.4435)	
Min. pressure cycles		10 million	
Process connection		threaded connection G 1/2 external thread	
Fill fluid for pressure transmission		NEOBEE (food grade, FDA compliant)	
Displays / operating elements			
Display		Display unit	3 x LED, green
		switching status	2 x LED, yellow
		function display	alphanumeric display, 4-digit
		measured values	alphanumeric display, 4-digit
Remarks			
Pack quantity		1 pcs.	

PY2033

Pressure sensor with display

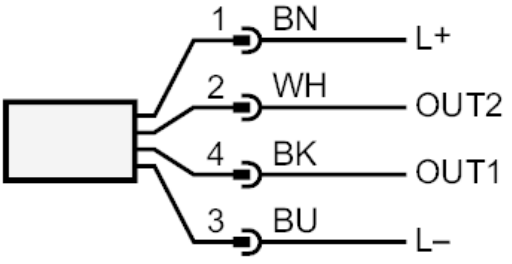
PN-025-RDR12-MFRKG/US/ /V

Electrical connection

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



Connection



OUT1	switching output
OUT2	switching output analogue output
	Core colours :
BK =	black
BN =	brown
BU =	blue
WH =	white