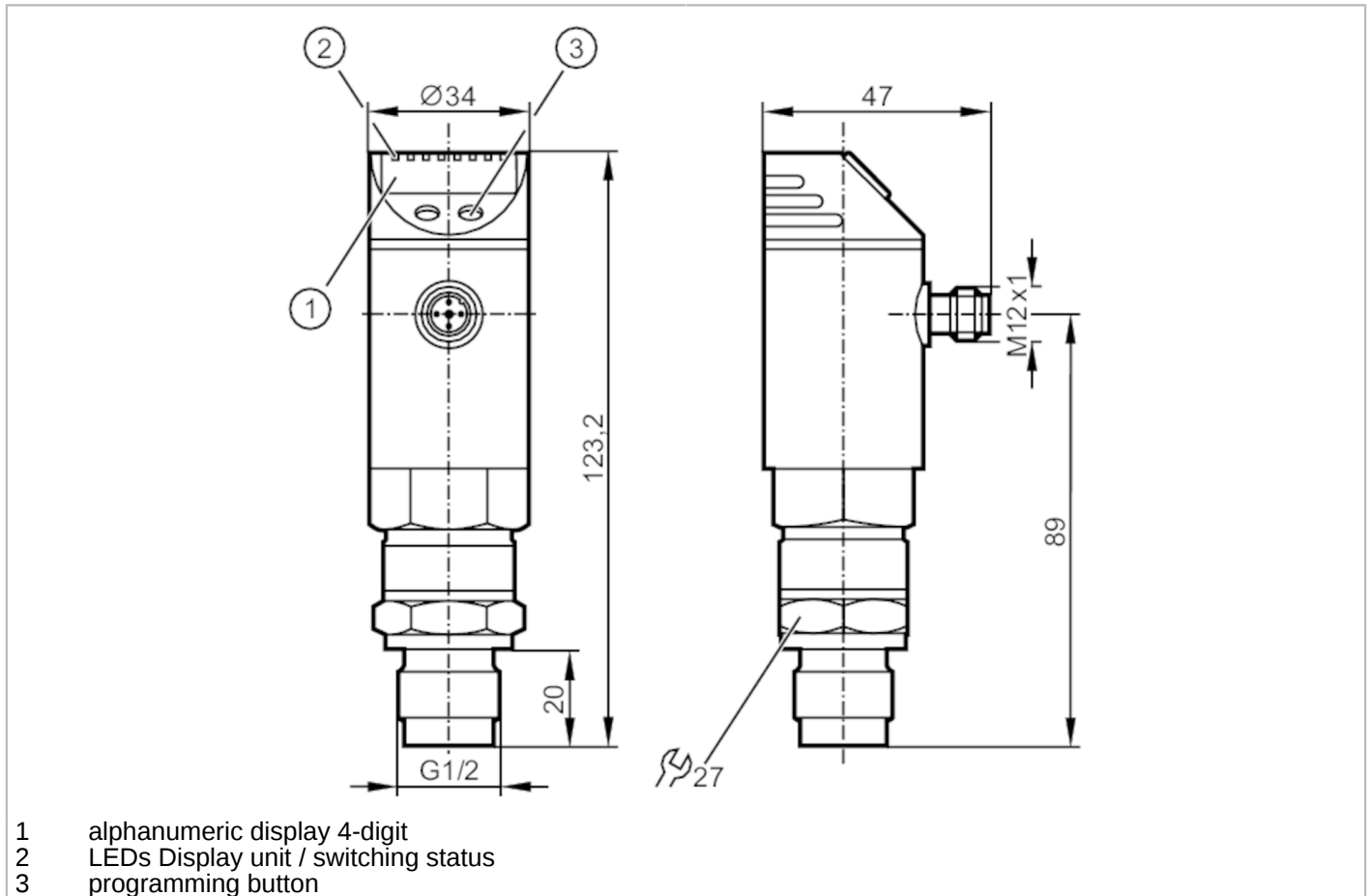


PY2033



Pressure sensor with display

PN-025-RDR12-MFRKG/US/ IV



Product characteristics			
Output signal	switching signal; analogue signal; (configurable)		
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		
Media	liquids and gases		
Medium temperature [°C]	-25...80		
Pressure rating	100 bar	1450 psi	10 MPa
Min. bursting pressure	200 bar	2900 psi	20 MPa
Type of pressure	relative pressure		
No dead space	yes		



Pressure sensor with display

PN-025-RDR12-MFRKG/US/ IV

Electrical data	
Operating voltage [V]	18...32 DC; (according to EN 50178 SELV/PELV)
Current consumption [mA]	< 35
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
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]	(U _b - 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	< ± 0,3 (BFSL) / < ± 0,6 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line; LS = limit value setting)

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	[% of the span]	
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)
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 for the switching output 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
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Operating conditions

Ambient temperature	[°C]	-25...80
Note on ambient temperature		Medium temperature: ≤ 160 °C
Ambient temperature	[°C]	-25...65
Note on ambient temperature		Medium temperature: ≤ 200 °C
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]	167.14

Mechanical data

Weight	[g]	404.5
Materials		stainless steel (1.4301 / 304); stainless steel (1.4435 / 316L); PC; PBT; PEI; PTFE
Materials (wetted parts)		stainless steel (1.4435 / 316L)
Min. pressure cycles		10 million
Process connection		threaded connection G 1/2 external thread
Fill fluid for pressure transfer		NEOBEE (food grade, FDA compliant)

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Pressure sensor with display

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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

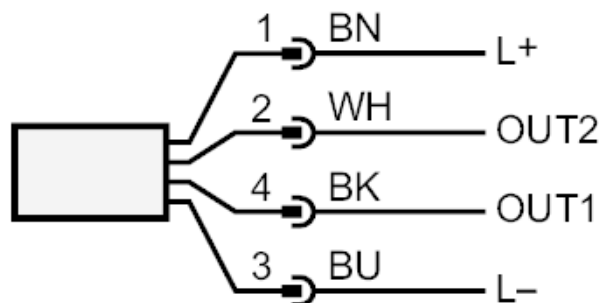
Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



OUT1 switching output

OUT2 switching output

analogue output

Core colours :

BK = black

BN = brown

BU = blue

WH = white