

PY7003

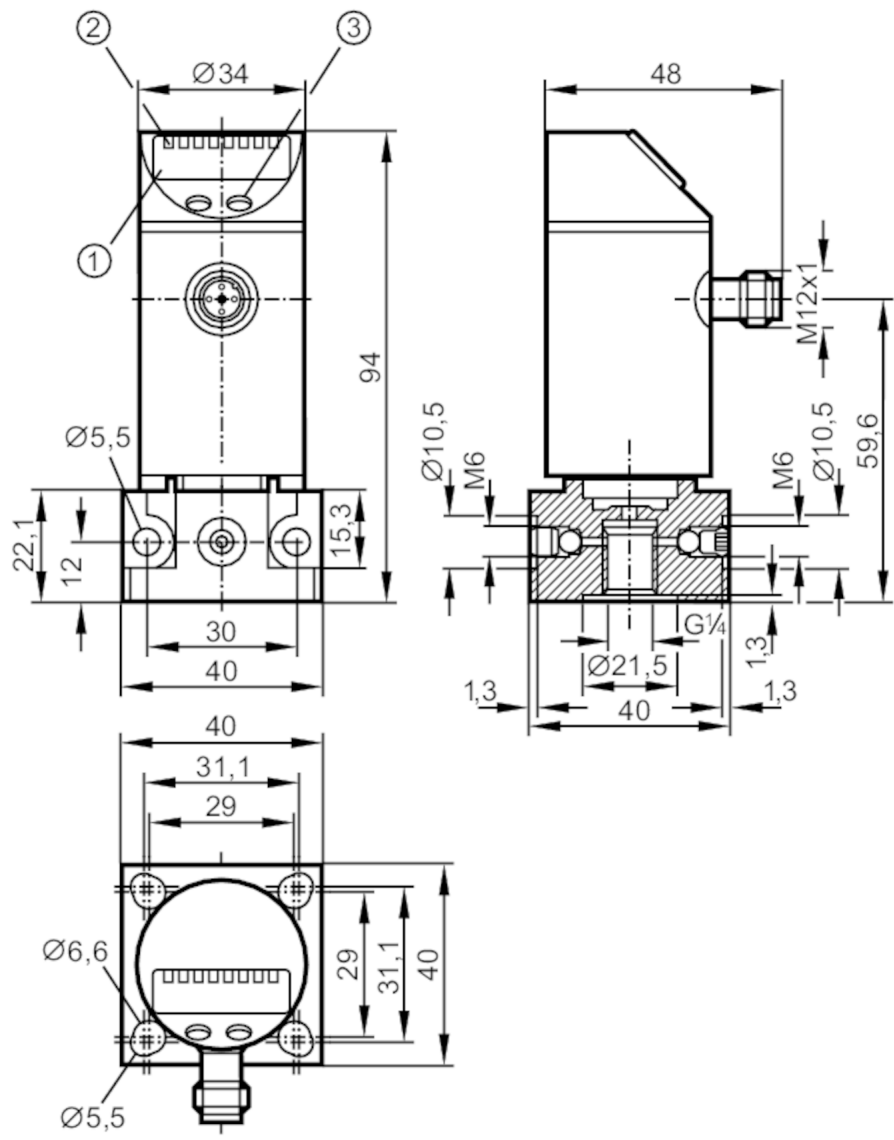


Pressure sensor with display

PN-025-RBR14-KG /US/ /V

Article no longer available - archive entry

Alternative articles: PN7593 + E30063 or PN7093 + E30003
When selecting an alternative article and accessories please note that technical data may differ!



- 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	
Measuring range		0...25 bar	0...363 psi
Measuring range [MPa]		0...2.5	
Process connection		flange internal thread:G 1/4; internal thread:M6	



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Application		
Special feature	Gold-plated contacts	
Design	with flange adapter	
Media	liquids and gases	
Medium temperature [°C]	-25...80	
Min. bursting pressure	350 bar	5075 psi
Min. bursting pressure [MPa]	35	
Pressure rating	150 bar	2175 psi
Pressure rating [MPa]	15	
Type of pressure	relative pressure	
Electrical data		
Operating voltage [V]	18...36 DC; (to SELV/PELV)	
Current consumption [mA]	< 50	
Min. insulation resistance [MΩ]	100; (500 V DC)	
Protection class	III	
Reverse polarity protection	yes	
Overvoltage protection	yes; (< 40 V)	
Power-on delay time [s]	0.3	
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; IO-Link; (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]	< 170	
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
Measuring/setting range		
Measuring range	0...25 bar	0...363 psi
Measuring range [MPa]	0...2.5	
Set point SP	0.2...25 bar	4...362 psi
Set point SP [MPa]	0.02...2.5	
Reset point rP	0.1...24.9 bar	2...360 psi
Reset point rP [MPa]	0.01...2.49	
In steps of	0.1 bar	2 psi
In steps of [MPa]	0.01	

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Factory setting	SP1 = 6.3 bar	rP1 = 5.8 bar
	SP2 = 18.8 bar	rP2 = 18.3 bar

Accuracy / deviations

Switch point accuracy [% of the final value]	< ± 0,5
Repeatability [% of the final value]	< ± 0,1; (with temperature fluctuations < 10 K)
Characteristics deviation [% of the final value]	< ± 0,5
Hysteresis deviation [% of the final value]	< ± 0,25
Long-term stability [% of the final value]	< ± 0,05

Response times

Delay time programmable dS, dr	[s] 0; 0,2...50
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Software / programming

Parameter setting options	hysteresis / window; normally open / normally closed; diagnostic function; switching logic; switch-on/switch-off delay; Damping; Display unit
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Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9 CDV	
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
Supported DeviceIDs	Type of operation	DeviceID
	default	310

Operating conditions

Ambient temperature	[°C]	-20...80
Storage temperature	[°C]	-40...100
Protection		IP 65

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)
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

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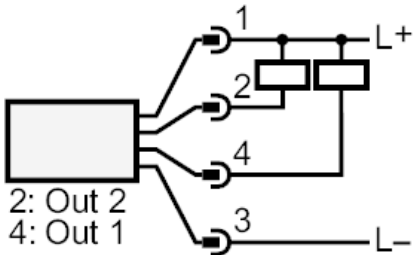
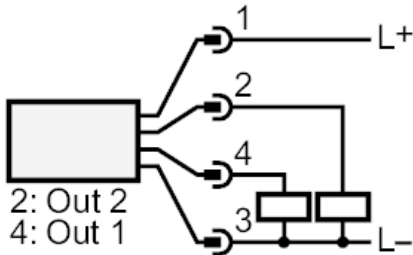
Mechanical data		
Weight	[g]	370.5
Materials	stainless steel (304/1.4301); PC; PBT; PEI; FKM; PTFE	
Materials (wetted parts)	steel (1.4104 / 430F); ceramics; FKM	
Min. pressure cycles	100 million	
Process connection	flange internal thread:G 1/4; internal thread:M6	
Restrictor element integrated	no	

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; coding: A; Contacts: gold-plated



OUT1 switching output
OUT2 switching output
 Diagnostic output