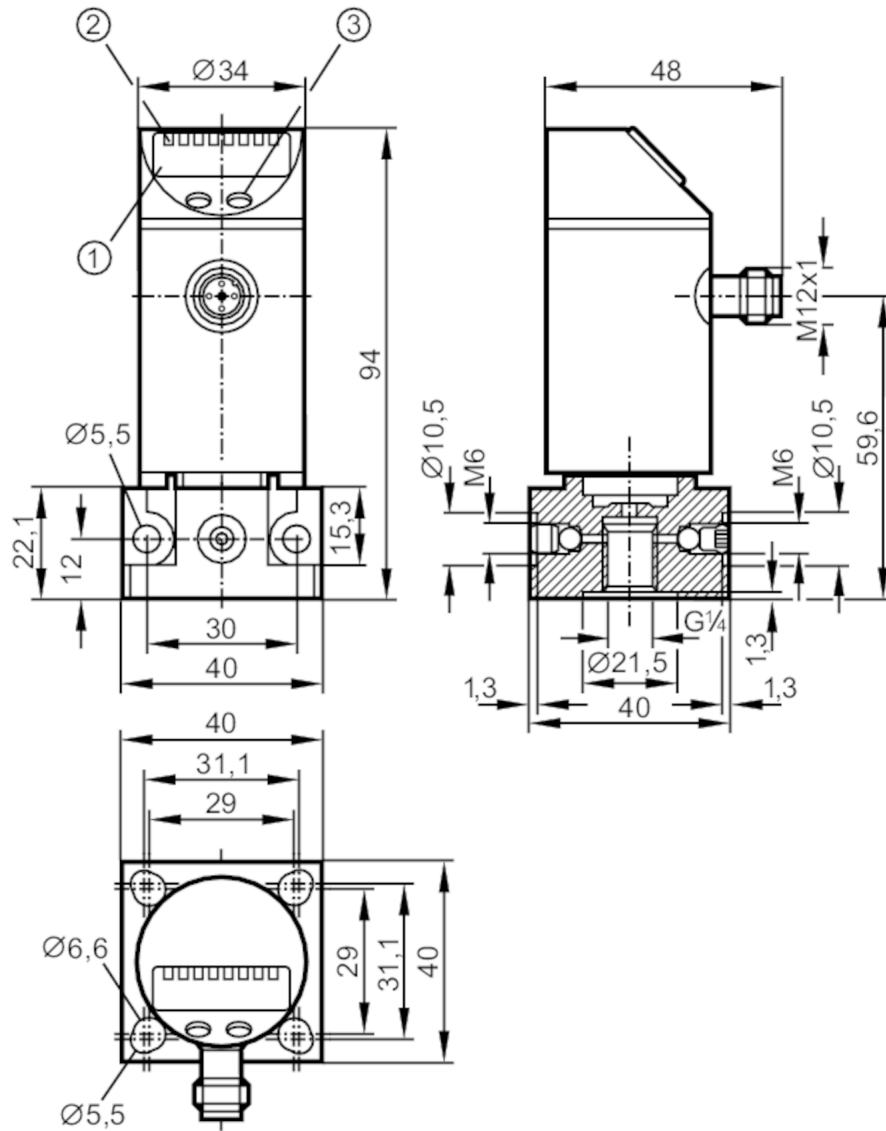


# PY7003



## Pressure sensor with display

PN-025-RBR14-KG /US/ IV



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

CE ENEC IO-Link

### Product characteristics

Output signal	switching signal; IO-Link; (configurable)		
Measuring range	0...25 bar	0...363 psi	0...2.5 MPa
Process connection	flange internal thread:G 1/4; internal thread:M6		

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## Pressure sensor with display

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Application			
Special feature	Gold-plated contacts		
Design	with flange adapter		
Media	liquids and gases		
Medium temperature [°C]	-25...80		
Pressure rating	150 bar	2175 psi	15 MPa
Min. bursting pressure	350 bar	5075 psi	35 MPa
Type of pressure	relative pressure		
Electrical data			
Operating voltage [V]	18...36 DC; (according to EN 50178 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	0...2.5 MPa
Set point SP	0.2...25 bar	4...362 psi	0.02...2.5 MPa
Reset point rP	0.1...24.9 bar	2...360 psi	0.01...2.49 MPa
In steps of	0.1 bar	2 psi	0.01 MPa
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	< ± 0,1; (with temperature fluctuations < 10 K)		

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	[% of the final value]	
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
IO-Link device ID	310 d / 00 01 36 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]	-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)
MTTF	[years]	220
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

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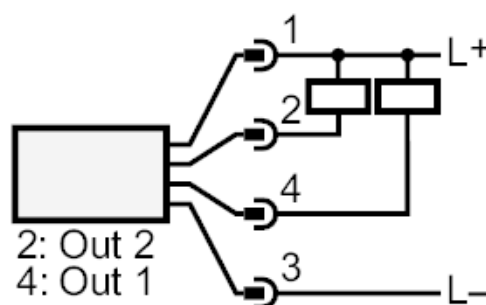
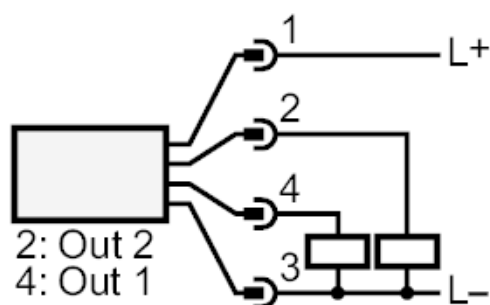
Mechanical data	
Weight [g]	370.5
Materials	stainless steel (1.4301 / 304); PC; PBT; PEI; FKM; PTFE
Materials (wetted parts)	steel (1.4104 / 430F); ceramics; FKM
Min. pressure cycles	100 million
Process connection	flange internal thread:G 1/4; internal thread:M6
Restrictor element integrated	no

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; Contacts: gold-plated



- OUT1            switching output
- OUT2            switching output
- Diagnostic output