

# PE7004

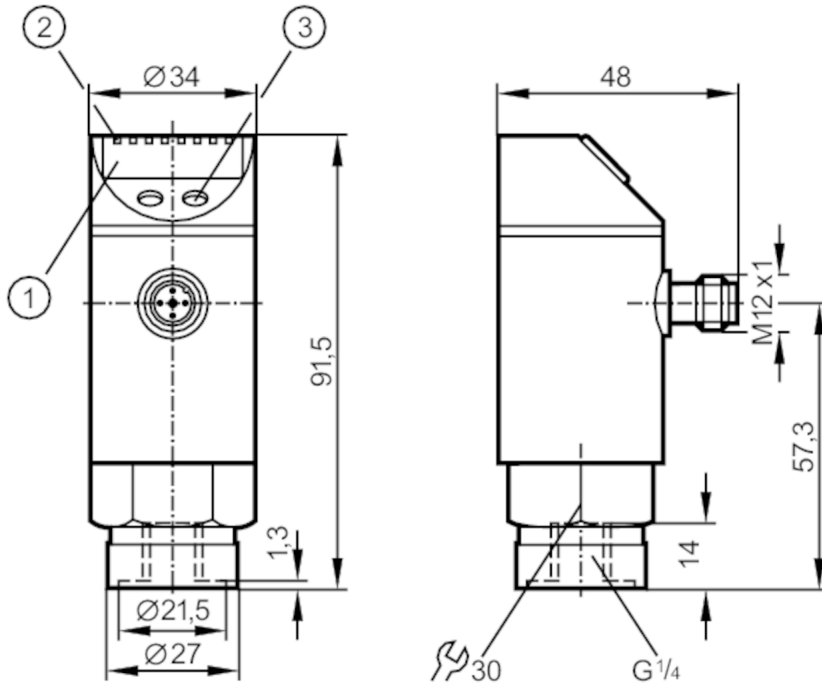


## Pressure sensor with display

PE-010-RDR14-QFRKG/US/ /E

Discontinued article

Alternative article: PE2094 or PE2594 When selecting an alternative article and accessories please note that technical data may differ! – When selecting an alternative article and accessories please note that technical data may differ! – Discontinuation date: 31.03.2019



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / Switching status
- 3 Programming button



### Product characteristics

Output signal	switching signal; IO-Link; (configurable)			
Measuring range	-1...10 bar	-14.5...145 psi	-100...1000 kPa	-0.1...1 MPa
Process connection	threaded connection G 1/4 Internal thread			

### Application

System	gold-plated contacts			
Application	for industrial applications			
Media	liquids and gases			
Cannot be used for	oils			
Medium temperature [°C]	-25...80			
Pressure rating	75 bar	1087 psi	7.5 MPa	
Min. bursting pressure	150 bar	2175 psi	15 MPa	
Type of pressure	relative pressure			

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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 / closed; (configurable)			
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		yes (non-latching)			
Measuring/setting range					
Measuring range		-1...10 bar	-14.5...145 psi	-100...1000 kPa	-0.1...1 MPa
Set point SP		-0.9...10 bar	-12...145 psi		-0.09...1 MPa
Reset point rP		-0.95...9.95 bar	-13...144 psi		-0.095...0.995 MPa
In steps of		0.05 bar	1 psi		0.005 MPa
Factory setting			SP1 = 2.50 bar		rP1 = 2.30 bar
			SP2 = 7.50 bar		rP2 = 7.30 bar
Accuracy / deviations					
Switch point accuracy	[% of the span]	< ± 0,5			
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)			
Characteristics deviation	[% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)			
Hysteresis deviation	[% of the span]	< ± 0,25			
Long-term stability	[% of the span]	< ± 0,05; (per 6 months)			
Temperature coefficient zero point	[% of the span / 10 K]	0,2; (-20...80 °C)			
Temperature coefficient span		0,2; (-20...80 °C)			

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[% of the span / 10 K]

Reaction times		
Delay time programmable dS, dr [s]	0; 0,2...50	
Software / programming		
Parameter setting options	hysteresis / window; normally open / closed; Diagnostic function; switching logic; switch-on/switch-off delay; Damping; Display unit	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
IO-Link device ID	311 d / 00 01 37 h	
Profiles	no profile	
SIO mode	yes	
Required master port class	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 67	
Tests / approvals		
EMC	EN 61000-6-2	
	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]	237	
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight [g]	261.5	
Material	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; EPDM/X; PTFE	
Materials (wetted parts)	stainless steel (1.4404 / 316L); ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); Sealing of the measuring cell: EPDM	
Min. pressure cycles	100 million	
Process connection	threaded connection G 1/4 Internal thread	
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		
Notes	Discontinued article	
Pack quantity	1 pcs.	

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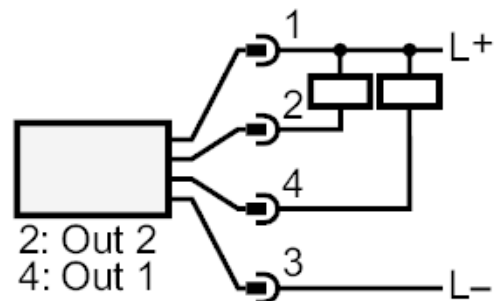
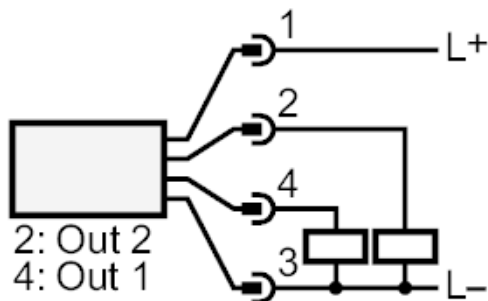


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### Electrical connection

Connector: 1 x M12; Contacts: gold-plated



OUT1	Switching output
OUT2	Switching output
	Diagnostic output

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