

PY9954



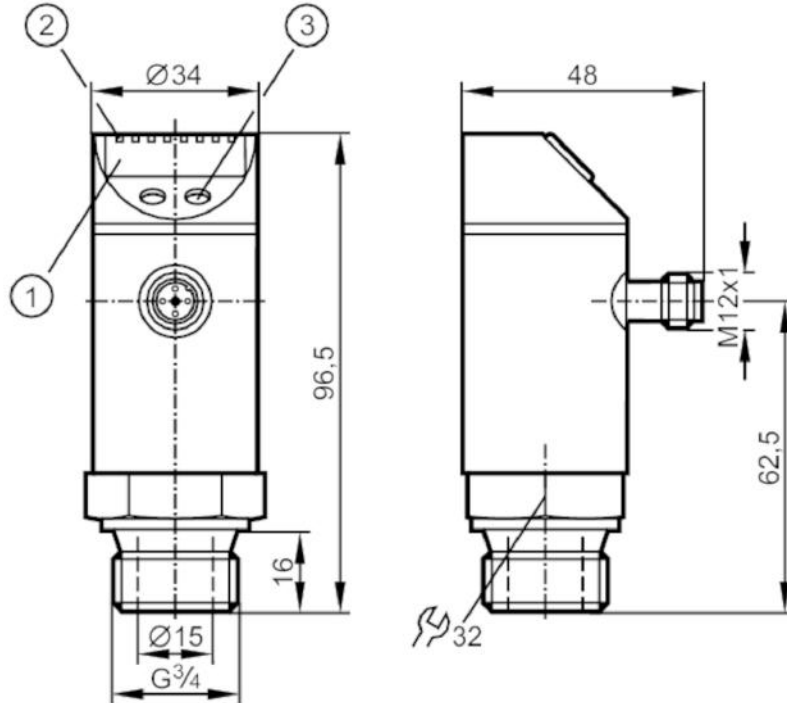
Pressure sensor with display

PY-010-RER34-MFPKG/US/ IV

phase-out article

Alternative articles: PY9964

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: 1; Number of analogue outputs: 1		
Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Process connection	threaded connection G 3/4 external thread		

Application

Special feature	Gold-plated contacts		
Application	food and beverage industry		
Media	viscous media and liquids with suspended particles; liquids and gases		
Medium temperature [°C]	-25...80		
Min. bursting pressure	150 bar	2175 psi	15 MPa
Pressure rating	75 bar	1087 psi	7.5 MPa
Type of pressure	relative pressure		
No dead space	yes		

Electrical data

Operating voltage [V]	18...36 DC; (to SELV/PELV)		
Current consumption [mA]	< 50		
Min. insulation resistance [MΩ]	100; (500 V DC)		

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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: 1; Number of analogue outputs: 1
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Outputs

Total number of outputs	2
Output signal	switching signal; analogue signal; (configurable)
Electrical design	PNP
Number of digital outputs	1
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
Number of analogue outputs	1
Analogue current output [mA]	4...20
Max. load [Ω]	($U_b - 10 \text{ V}$) / 20 mA
Analogue voltage output [V]	0...10
Min. load resistance [Ω]	2000
Short-circuit protection	yes
Type of short-circuit protection	pulsed

Measuring/setting range

Measuring range	-1...10 bar	-14.5...145 psi	-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

Accuracy / deviations

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

Response times

Delay time programmable dS, dr [s]	0; 0,2...50
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Max. response time analogue output [ms]

3

Software / programming

Parameter setting options

hysteresis / window; normally open / normally closed; switch-on/ switch-off delay; Damping; Display unit; current/voltage output

Operating conditions

Ambient temperature [°C]

-20...80

Storage temperature [°C]

-40...100

Protection

IP 67

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)

Mechanical data

Weight [g]

282.5

Housing

cylindrical

Dimensions [mm]

Ø 34 / L = 96.5

Materials

stainless steel (304/1.4301); stainless steel (316L/1.4404); PC; PBT; PEI; FKM; PTFE

Materials (wetted parts)

stainless steel (316L/1.4404); ceramics (99.9 % Al₂O₃); FKM

Min. pressure cycles

100 million

Process connection

threaded connection G 3/4 external thread

Displays / operating elements

Display

Display unit

3 x LED, green

switching status

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



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Connection

