

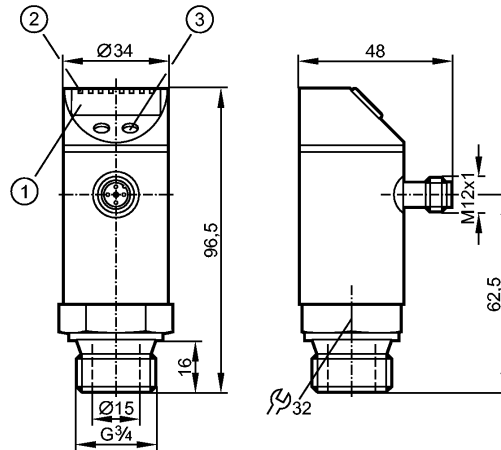


PY9954

PY-010-RER34-MFPKG/US/ IV



Pressure sensors



- 1: 4-digit alphanumeric display
- 2: LEDs (display unit / switching status)
- 3: Programming button



Product characteristics

Combined pressure sensor

Quick disconnect

no dead space

Function programmable

Process connection: G 3/4 A

Switching output,
analogue output (0 bar = 4 mA / 0 V; 10 bar = 20 mA / 10 V)

4-digit alphanumeric display

Measuring range: -1...10 bar / -14.5...145 psi / -0.1...1.0 MPa

Application

Application	Type of pressure: relative pressure Hygienic systems, viscous media and liquids with suspended particles Liquids and gases		
Pressure rating	75 bar	1087 psi	7.5 MPa
Bursting pressure min.	150 bar	2175 psi	15 MPa
Medium temperature [°C]	-25...80		

Electrical data

Electrical design	DC PNP
Operating voltage [V]	18...36 DC 1)
Current consumption [mA]	< 50
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes
Overvoltage protection [V]	up to 40 V

Outputs

Output	Switching output, analogue output (0 bar = 4 mA / 0 V; 10 bar = 20 mA / 10 V)
Output function	normally open / closed programmable; 4...20 mA or 0...10 V
Current rating [mA]	250
Voltage drop [V]	< 2



PY9954

PY-010-RER34-MFPKG/US/ /V



Pressure sensors

Short-circuit protection	yes (non-latching)		
Switching frequency [Hz]	≤ 170		
Analog output	4...20 mA / 0...10 V		
Max. load [Ω]	4...20 mA: max. (UB - 10) x 50; 0...10 V: min. 2000		

Measuring / setting range

Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1.0 MPa
Setting range			
Set point, SP	-0.90...10.00 bar	-12...145 psi	-0.090...1.000 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

Deviations (% of value of measuring range)			
Switch point accuracy	< ± 0.5		
Characteristics deviation	< ± 0.5		
Hysteresis	< ± 0.25		
Repeatability	< ± 0.1		
Long-term stability	< ± 0.05		
in the temperature range [°C]	-20...80		

Reaction times

Power-on delay time [s]	0.3		
Delay time programmable dS, dr [s]	0; 0.2...50		
Response time analog output [ms]	< 3		
Integrated watchdog	yes		

Software / programming

Programming options	hysteresis / window function; N.O. / N.C; on delay, off delay; damping; display unit; current / voltage output		
---------------------	--	--	--

Environment

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

Process connection	G ¾ A		
Materials (wetted parts)	stainless steel 316L / 1.4404; ceramics (99.9 % Al ₂ O ₃); FPM (Viton)		
Housing materials	stainless steel (304S15); stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PEI; FPM (Viton); PTFE		
Switching cycles min.	100 million		
Weight [kg]	0.281		

Displays / operating elements



PY9954

PY-010-RER34-MFPKG/US/ /V



Pressure sensors

Display

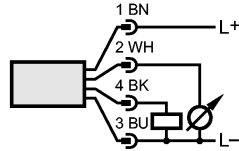
Display unit 3 x LED green
 Switching status LED yellow
 Function display 4-digit alphanumeric display
 Measured values 4-digit alphanumeric display

Electrical connection

Connection

M12 connector; gold-plated contacts

Wiring



Remarks

Remarks

1) to EN50178, SELV, PELV
 *) linearity, incl. hysteresis and repeatability;
 (limit value setting to DIN 16086)
 **) with temperature fluctuations < 10 K
 ***) in % of value of measuring range / 6 months

Pack quantity

[piece]

1