

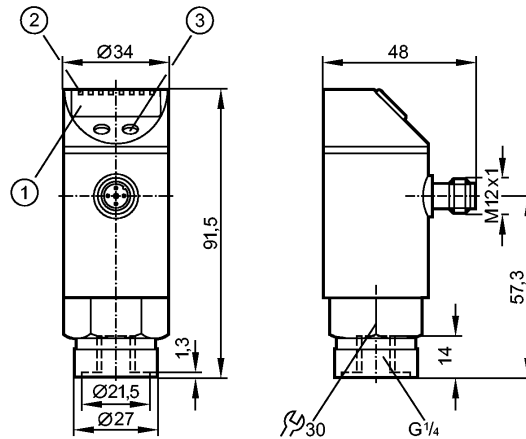


PE7006

PE-2.5-RDR14-QFRKG/US/IE



Pressure sensors



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



Product characteristics

Electronic pressure monitor

Quick disconnect

Sealing of the measuring cell: EPDM

Function programmable

Process connection: G 1/4 I

2 outputs

OUT1 = switching output

OUT2 = switching output or diagnostic output

4-digit alphanumeric display

Measuring range: 0...2.5 bar / 0...36.3 psi / 0...250 kPa

Application

Application	Type of pressure: relative pressure Liquids and gases Cannot be used for oils		
Pressure rating	20 bar	290 psi	2000 kPa
Bursting pressure min.	50 bar	725 psi	5000 kPa
Medium temperature [°C]	-25...80		

Electrical data

Electrical design	DC PNP/NPN
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	2 outputs OUT1 = switching output OUT2 = switching output or diagnostic output
Output function	2 x normally open / closed programmable or 1 x normally open / closed programmable + 1 x normally closed (diagnostic function)



PE7006

PE-2.5-RDR14-QFRKG/US/ /E



Pressure sensors

Current rating	[mA]	250
Voltage drop	[V]	< 2
Short-circuit protection		yes (non-latching)
Switching frequency	[Hz]	≤ 170

Measuring / setting range			
Measuring range	0...2.5 bar	0...36.3 psi	0...250 kPa
Setting range			
Set point, SP	0.02...2.50 bar	0.4...36.2 psi	2...250 kPa
Reset point, rP	0.01...2.49 bar	0.2...36.0 psi	1...249 kPa
in steps of	0.01 bar	0.2 psi	1 kPa
Factory setting		SP1 = 0.63 bar; rP1 = 0.58 bar SP2 = 1.88 bar; rP2 = 1.83 bar	

Accuracy / deviations	
Accuracy / deviations (in % of the span)	
Switch point accuracy	< ± 0.5
Characteristics deviation *)	< ± 0.25 (BFSL) / < ± 0.5 (LS)
Hysteresis	< ± 0.25
Repeatability **)	< ± 0.1
Long-term stability ***)	< ± 0.05
Temperature coefficients (TEMPCO) in the temperature range -20...80° C (in % of the span per 10 K)	
Greatest TEMPCO of the zero point	0.2
Greatest TEMPCO of the span	0.2

Reaction times	
Power-on delay time	[s] 0.3
Delay time programmable dS, dr	[s] 0; 0.2...50
Integrated watchdog	yes

Software / programming	
Programming options	hysteresis / window function; N.O. / N.C; diagnostic function; output polarity; on delay, off delay; damping; display unit

Interfaces	
IO-Link Device	
Transfer type	COM2 (38.4 kBaud)
IO-Link revision	1.1
IO-Link Device ID	312 d / 00 01 38 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

Environment	
Ambient temperature	[°C] -20...80 (UB < 32 V) / -20...60 (UB > 32 V)
Storage temperature	[°C] -40...100
Protection	IP 67

Tests / approvals



PE7006

PE-2.5-RDR14-QFRKG/US/ /E



Pressure sensors

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	

Mechanical data		
Process connection	G ¼ I	
Materials (wetted parts)	stainless steel 316L / 1.4404; ceramics (99.9 % Al ₂ O ₃); EPDM	
Housing materials	stainless steel (304S15); stainless steel 316L / 1.4404; PC; PBT; PEI; FPM; EPDM/X; PTFE	
Switching cycles min.	100 million	
Weight [kg]	0.261	

Displays / operating elements	
Display	Display unit 3 x LED green Switching status 2 x LED yellow Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display

Electrical connection	
Connection	M12 connector; gold-plated contacts

Wiring

Programming of the output function
 -----OUT1-----
 Hno = hysteresis / normally open
 Hnc = hysteresis / normally closed
 Fno = window function / normally open
 Fnc = window function / normally closed
 -----OUT2-----
 Hno = hysteresis / normally open
 Hnc = hysteresis / normally closed
 Fno = window function / normally open
 Fnc = window function / normally closed
 dESI = diagnostic function (normally closed)

Remarks	
Remarks	1) to EN50178, SELV, PELV *) BFSL = Best Fit Straight Line / LS = Limit Value Setting **) with temperature fluctuations < 10 K ***) in % of value of measuring range / 6 months

Pack quantity [piece]	1
-----------------------	---