

PE3001



Pressure sensor with display

PE-250-SDR14-MFPKG/US/ /E

phase-out article

Alternative articles: PE2091 or PE2591
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	0...250 bar	0...3625 psi	0...25 MPa
Process connection	threaded connection G 1/4 internal thread		
Application			
Special feature	Gold-plated contacts		
Application	for industrial applications		
Media	liquids and gases		
Conditionally suitable for	use in gases at pressures > 25 bar only on request		
Cannot be used for	oils		
Medium temperature [°C]	-25...80		
Min. bursting pressure	850 bar	12300 psi	85 MPa
Pressure rating	400 bar	5800 psi	40 Mpa
Type of pressure	relative pressure		
Electrical data			
Operating voltage [V]	18...36 DC; (to SELV/PELV)		
Current consumption [mA]	< 50		



Pressure sensor with display

PE-250-SDR14-MFPKG/US/ /E

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: 1; Number of analogue outputs: 1
------------------------------	---

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]	500
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	0...250 bar	0...3625 psi	0...25 MPa
Set point SP	2...250 bar	40...3620 psi	0.2...25 MPa
Reset point rP	1...249 bar	20...3600 psi	0.1...24.9 MPa
In steps of	1 bar	20 psi	0.1 MPa
Factory setting		SP1 = 63 bar	rP1 = 58 bar

Accuracy / deviations

Switch point accuracy	[X21]	< ± 0,5
Repeatability	[X21]	< ± 0,1; (with temperature fluctuations < 10 K)
Characteristics deviation	[X21]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)
Hysteresis deviation	[X21]	< ± 0,25
Long-term stability	[X21]	< ± 0,05; (per 6 months)
Temperature coefficient zero point	[X22]	0,2; (0...80 °C)
Temperature coefficient span	[X22]	0,2; (0...80 °C)

Response times

Delay time programmable dS, dr	[s]	0; 0,2...50
--------------------------------	-----	-------------

PE3001



Pressure sensor with display

PE-250-SDR14-MFPKG/US/ /E

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)

MTTF [ANN]

213

Pressure Equipment Directive

Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request

Mechanical data

Weight [g]

262.5

Materials

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

Materials (wetted parts)

stainless steel (1.4404 / 316L); ceramics; 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

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



PE3001



Pressure sensor with display

PE-250-SDR14-MFPKG/US/ /E

Connection

