



Flush Pressure Sensor PF2054

URL:<https://www.sxplc.com/flush-pressure-sensor-pf2054>

Product data sheet

Product Characteristics

Total number of inputs and outputs

Number of digital outputs: 2; Number of analog outputs: 1

Measuring range

-0.5...10 bar .10 bar

-7... .145 psi .145 psi

-50.... .1000 kPa

-0.05... .1 MPa .1 MPa

System connections

Threaded connection Aseptoflex Male thread Aseptoflex

Aseptoflex

Special features

Gold-plated contacts

Aseptoflex

Flush mountable, suitable for the food and beverage industry.

Mounting

Rotatable housing 350°

Media

Viscous media or liquids containing particles; liquid and gaseous media

Temperature [°C]

-25.....80

Burst pressure min.

150 bar

2175 psi

15000 kPa

Compressive Strength

50 bar

725 psi

5000 kPa

Pressure

Relative Pressure

Flush Mount

Yes

Electrical data

Operating voltage [V]

20.... .30 DC

Current loss [mA]

< 60

Insulation resistance min.

100; (500 V DC)

Protection class

III

Inverted phase protection

yes

Power-on delay time [s]

0.2

Watchdog Integrated Watchdog Circuit

Yes

Total Inputs/Outputs

Total number of inputs and outputs

Number of digital outputs: 2; Number of analog outputs: 1

Outputs

Number of outputs

2

Output signals

Switching signal; Analog signal; (Configurable)

Electrical design

PNP/NPN

Number of digital outputs

2

Output function

Normally open/closed; (parameterizable)

Switching output DC voltage drop maximum value [V]

2

Continuous current load of switching output DC [mA]

250

Switching frequency DC [Hz]

< 170

Number of analog outputs

1

Analog current output [mA]

4... 20; (adjustable range 1:4)

Maximum load value [Ω]

$(U_b - 10 \text{ V}) / 20 \text{ mA}$

Analog voltage output [V]

0... 10; (adjustable range 1:4)

Minimum load resistance [Ω]

2000

Short circuit protection

yes

Short-circuit protection type

Pulse

Overload protection

Yes

Measuring/setting range

Measuring range

-0.5.... .10 bar

-7.... .145 psi

-50.... .1000 kPa

-0.05... .1 MPa .1 MPa

Switching point, SP

-0.45... .9.99 bar .9.99 bar

-7.... .145 psi

-45.... .999 kPa

Recovery point, rP

-0.5... .9.94 bar .9.94 bar

-7....144 psi .144 psi

-50.... .994 kPa

Measured value starting point

-0.5... .7.49 bar .7.49 bar

-7... .109 psi .109 psi

-50... .749 kPa .749 kPa

Measured value endpoint

2... .9.99 bar .9.99 bar

29... .145 psi .145 psi

200... .999 kPa .999 kPa

Setting step

0.01 bar

1 psi

1 kPa

Factory setting

SP1 = 2.50 bar

rP1 = 2.30 bar

ASP = 0.00 bar

AEP = 9.99 bar

Accuracy / Deviation

Repeatability [% of measuring range value]

$< \pm 0,1$; (Temperature fluctuations < 10 K; Turn down 1:1)

Characteristic curve deviation [% of measuring range value] $< \pm 0,6$; (Turn down 1:1 for temperature fluctuations < 10 K)

$< \pm 0,6$; (Turn down 1:1 , linearity including hysteresis and repeatability, limit values according to DIN EN IEC 62828-1)

Deviation from linearity [% of measuring range value]

$< \pm 0,5$; (Turn down 1:1)

Hysteresis [% of measured range value] $< \pm 0,1$; (Turn down 1:1)

$< \pm 0,1$; (Turn down 1:1)

Stability over time [% of measured range] $< \pm 0,1$; (Turn down 1:1)

$< \pm 0,1$; (Turn down 1:1; per year)

Temperature coefficient zero [% of measured range value / 10 K] $< \pm 0,1$; (Turn down 1:1; annually)

$< \pm 0,1$; (0..... .80 °C)

Temperature coefficient range [% of measuring range value / 10 K] $< \pm 0,2$; (0...80 °C)

$< \pm 0,2$; (0... 80 °C) 80 °C)

Reaction time

Response time [ms]

< 3

Damping process value dAP [s]

0... 4

Used for mode

Damping step for analog output (dAA) [s]

0 - 0,1 - 0,5 - 2

Maximum analog output response time [ms]

3

Software / Programming

Parameter setting

Hysteresis/Window; Normally open/closed; Output polarity; Current/voltage output; Damping;

Adaptation of display value; Display can be rotated and closed; Display unit; Zero point; Measuring

range value

Operating conditions

Ambient temperature [°C]

-25.... .80

Storage temperature [°C]

-40.... .100

Enclosure protection class

IP 67

Approvals/Tests

EMC Electromagnetic Compatibility

EN 61000-4-2 ESD

4 kV CD / 8 kV AD

EN 61000-4-3 HF EMF radiation

10 V/m

EN 61000-4-4 Burst

2 kV

EN 61000-4-6 Conducted immunity for RF field induction

10 V

Shock resistance

DIN IEC 68-2-27

50 g (11 ms)

Vibration

DIN IEC 68-2-6

20 g (10.....2000 Hz)

MTTF [years]

181

Mechanical and technical data

Weight [g]

279.65

Material

Stainless steel (1.4404 / 316L); PBT; PC; PEI; EPDM/X; FKM

Material (wetted parts)

Ceramic (99.9 % Al₂O₃); Stainless steel (1.4435 / 316L); Surface characteristic value: Ra < 0,4 / Rz 4;

PTFE

Switching life

100 million

System connections

Threaded connection Aseptoflex Male thread Aseptoflex

Displays/operating elements

Display

Switching status

2 x LED, red

Function display

7-segment LED display

Measured values

7-segment LED display

Display units

bar; psi; kPa

Comments

Note

The 3A certification is only valid if an adapter with a 3A certificate is used for the installation.

Note

Do not use for new projects. ; No other adapter accessories

Packaging unit

1 piece

Electrical Connection

Connector: 1 x M12; Translator: A; Contacts: gold-plated

