



sensor-PM1708

URL:<https://www.sxplc.com/sensor-pm1708>

Product data sheet

Product characteristics

Number of inputs and outputs

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

Measuring range

-0.0125...0.25 bar

-12.5...250 mbar

-0.182...3.626 psi

-1.25...25 kPa

Process connection

threaded connection G 1 external thread Aseptoflex Vario

Application

System

gold-plated contacts

Measuring element

ceramic-capacitive pressure measuring cell

Temperature monitoring

no

Application

flush mountable for the food and beverage industry

Media

viscous media and liquids with suspended particles; liquids and gases

Medium temperature [°C]

-25...150

Min. bursting pressure

30000 mbar

435 psi

3000 kPa

Pressure rating

6000 mbar

84 psi

600 kPa

Vacuum resistance [mbar]

-1000

Type of pressure

relative pressure

No dead space

yes

MAWP (for applications according to CRN) [bar]

10

Electrical data

Operating voltage [V]

18...30 DC

Min. insulation resistance [MΩ]

100; (500 V DC)

Protection class

III

Reverse polarity protection

yes

Measuring principle

hydrostatic

Integrated watchdog

yes

2-wire

Current consumption [mA]

3.5...21.5

Power-on delay time [s]

1

3-wire

Current consumption [mA]

< 45

Power-on delay time [s]

0.5

Inputs / outputs

Number of inputs and outputs

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

Outputs

Total number of outputs

2

Output signal

analog signal; IO-Link; (configurable)

Number of digital outputs

1; (IO-Link)

Number of analog outputs

1

Analog current output [mA]

4...20; (scalable)

Max. load [Ω]

700; ($U_b = 24 \text{ V}$; $(U_b - 9 \text{ V}) / 21.5 \text{ mA}$)

Short-circuit proof

yes

Overload protection

yes

Measuring/setting range

Measuring range

-0.0125...0.25 bar

-12.5...250 mbar

-0.182...3.626 psi

-1.25...25 kPa

Analog start point

-12.5...200 mbar

-0.182...2.9 psi

-1.25...20 kPa

Analog end point

37.5...250 mbar

0.544...3.626 psi

3.75...25 kPa

In steps of

0.1 mbar

0.002 psi

0.01 kPa

Factory setting

ASP = 0.0 mbar

AEP = 250 mbar

Accuracy / deviations

Repeatability [% of the span]

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

Characteristics deviation [% of the span]

$< \pm 0,2$; (linearity incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1)

Linearity deviation [% of the span]

$< \pm 0,15$; (Turn down 1:1)

Hysteresis deviation [% of the span]

$< \pm 0,15$; (Turn down 1:1)

Long-term stability [% of the span]

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

Total deviation over temperature range

Temperature range

total deviation

-25...15 °C

Characteristics deviation $\pm 0,1$ % of the span / 10 K

15...80 °C

Characteristics deviation

80...150 °C

Characteristics deviation $\pm 0,15$ % of the span / 10 K

Notes on the accuracy / deviation

for further details see section Diagrams and graphs

Reaction times

Damping for the analog output dAA [s]

0...4

2-wire

Step response time analog output [ms]

30

3-wire

Step response time analog output [ms]

7

Interfaces

Communication interface

IO-Link

Transmission type

COM2 (38,4 kBaud)

IO-Link revision

1.1

SDCI standard

IEC 61131-9

Profiles

Digital Measuring Sensor (0x000A), Identification and Diagnosis (0x4000)

SIO mode

no

Required master port class

A

Process data analog

3

Min. process cycle time [ms]

3.2

IO-Link resolution pressure [mbar]

0.05

IO-Link functions (acyclical)

application specific tag; internal temperature

Supported DeviceIDs

Type of operation

DeviceID

default

669

Operating conditions

Ambient temperature [°C]

-25...80

Storage temperature [°C]

-40...100

Protection

IP 67; IP 68; IP 69K

Tests / approvals

EMC

DIN EN 61000-6-2

DIN 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]

323

Note on approval

Factory certificate available as download at www.factory-certificate.ifm

UL approval

UL approval number

J021

Mechanical data

Weight [g]

273.45

Material

stainless steel (1.4404 / 316L); PBT

Materials (wetted parts)

ceramics (99.9 % Al₂O₃); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; PTFE

Min. pressure cycles

100 million

Tightening torque [Nm]

35

Process connection

threaded connection G 1 external thread Aseptoflex Vario

Remarks

Pack quantity

1 pcs.

Electrical connection

Connection

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

