

Flush Diaphragm Pressure Sensor

Description

XDB102-2(A) series flush diaphragm pressure sensors adopt MEMS silicon die, and combined with our company's unique design and production process. The production of each product has adopted strict aging, screening and testing processes, to ensure excellent quality and high reliability, and to provide high-quality products for the long-term use of customers.

The product uses flush membrane thread installation structure, easy to clean, high reliability, suitable for food, hygiene or viscous medium pressure measurement.

Features

- ◆ CE conformity
- ◆ Range: -100kPa...0kPa ~ 20kPa...35MPa
- ◆ Wide temperature compensation 0℃~70℃
- ◆ 2 times overload pressure
- ◆ Provide OEM, flexible customization
- ◆ G1/2, NPT1/2, M20*1.5 various pressure connection

Typical applications

- ◆ Typically for using in chemical & process engineering, food industry, and pulp & paper and mining.



Specifications

| Structure condition | | | |
|-------------------------|---|----------------------------|--|
| Rear thread | M24*1 Internal thread | Housing/Diaphragm material | SS 316L |
| Pin wire | Gold-plated karaf/100mm silicone rubber wire | Back pressure tube | SS 316L (gauge and negative pressure only) |
| Seal ring | Nitrile rubber | | |
| Electrical condition | | | |
| Power supply | ≤2.0 mA DC | Impedance input | 3kΩ ~ 6 kΩ |
| Impedance output | 4kΩ ~ 6 kΩ | Response | (10%~90%) :<1ms |
| Insulation resistance | 100MΩ,100V DC | Over pressure | 2 times FS, (0C/0B/0A/02 5times FS) |
| Environment condition | | | |
| Media applicability | Fluid that is not corrosive to stainless steel and nitrile rubber | Shock | No change at 10gRMS, (20 ~ 2000)Hz |
| Impact | 100g, 11ms | Position | Deviate 90° from any direction, zero change ≤ ±0.05%FS |
| Basic condition | | | |
| Environment temperature | (25±1)℃ | Humidity | (50%±10%)RH |
| Atmospheric pressure | (86~106) kPa | Power supply | (1.5±0.0015) mA DC |

All tests are in accordance with relevant national standards, including GB / T2423-2008, GB / T8170-2008, GJB150.17A-2009, etc., and also comply with the Company's "Pressure Sensor Enterprise Standards" provisions of the relevant content.

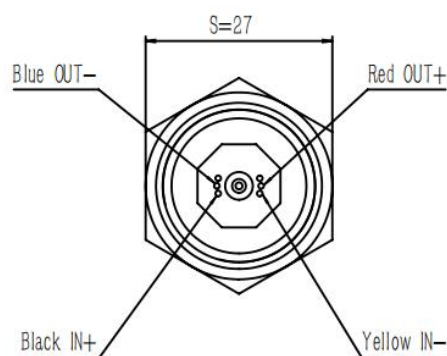
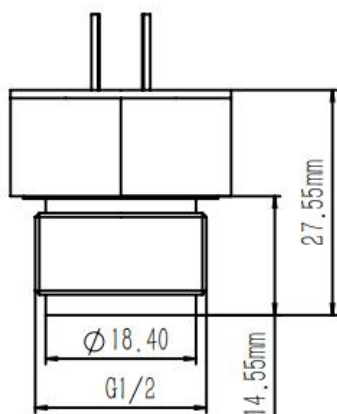
Parameter (@1.5 mA DC)

| Item | Min. | Typ. | Max. | Units |
|---------------------------|-------------------|-------|--------|--------------|
| Linearity | | ±0.15 | ±0.2 | %FS, B F S L |
| Repeatability | | ±0.05 | ±0.075 | %FS |
| Hysteresis | | ±0.05 | ±0.075 | %FS |
| Zero output | | | ±2.0 | mV DC |
| FS output | 45 | 130 | | mV DC |
| Compensated temp. range | 0~70 (0A/0B 0~60) | | | ℃ |
| Working temp. range | -40~125 | | | ℃ |
| Storage temp. range | -55~150 | | | ℃ |
| Zero temp. error | | ±0.75 | ±1.0 | %FS @ 25 ℃ |
| Full temp. error | | ±0.75 | ±1.0 | %FS @ 25 ℃ |
| Long term stability error | | ±0.1 | | %FS/year |

Note:1. The above performance indicators are tested under the benchmark conditions.

2. The temperature range for temperature drift test is the compensation temperature range.

Dimension (unit: mm)



Electrical connection

| Pin | Electrical connection | Wire color | | |
|-----|-----------------------|------------|--|--|
| 4 | +IN | Black | | |
| 5 | -OUT | Blue | | |
| 11 | +OUT | Red | | |
| 12 | -IN | Yellow | | |

Ordering information

| XDB102-2 (A) | | | | | | | | |
|--------------------------------------|------------|-------------------|-----------------------|---|-------------------------|---------------|--|--|
| | Range code | Measurement range | Pressure type | Range code | Measurement range | Pressure type | | |
| | 0B | 0~20kPa | G | 10 | 0~1MPa | G / A | | |
| | 0A | 0~35kPa | G | 12 | 0~2MPa | G / A | | |
| | 02 | 0~70kPa | G | 13 | 0~3.5MPa | G / A | | |
| | 03 | 0~100kPa | G / A | 14 | 0~7MPa | A / S | | |
| | 07 | 0~200kPa | G / A | 15 | 0~15MPa | A / S | | |
| | 08 | 0~350kPa | G / A | 17 | 0~20MPa | A / S | | |
| | 09 | 0~700kPa | G / A | 18 | 0~35MPa | A / S | | |
| | | | | | | | | |
| | | Code | Pressure type | | | | | |
| | | G | Gauge pressure | | | | | |
| | | A | Absolute pressure | | | | | |
| | | S | Sealed gauge pressure | | | | | |
| | | | Code | Electrical connection | | | | |
| | | | 1 | Gold-plated kovar pin | | | | |
| | | | 2 | 100mm Silicone rubber leads | | | | |
| | | | | Code | Other specifications | | | |
| | | | | C1 | M20*1.5 External thread | | | |
| | | | | C3 | G 1/2 External thread | | | |
| Y | | | | Gauge pressure type can be used to measure negative pressure ^① | | | | |
| XDB102-2(A) -03-G-1-3 the whole spec | | | | | | | | |

#98 Rongyang Rd, Songjiang, SH, 201613, CHINA

+86 19921910756

www.xdbsensor.com

+86 021 37623075

info@xdbsensor.com

Xidibei Sensor & Control