



principle and characteristics

PN52B series pressure (level) transmitters use capacitive pressure core working, high and low pressure side of the isolation diaphragm and filling fluid to transfer the process pressure to the filling fluid, and then the filling fluid to transfer the pressure to the sensor diaphragm in the center of the sensor. The sensing diaphragm is a tensified elastic element whose displacement varies with the pressure applied (for a gauge transducer, atmospheric pressure is applied as on the low pressure side of the sensing diaphragm). The adiabatic pressure transmitter maintains a reference pressure at all times on the low pressure side. The maximum displacement of the sensing diaphragm is 0.1 mm, and the displacement is proportional to the pressure. The capacitive plates on both sides detect the position of the sensing diaphragm. The capacitance difference between the sensing diaphragm and the capacitor plate is converted to the corresponding current or digital HART output signal.

technical specification

- ◆ Measuring range: 0... 5000 kpa can be customized
- ◆ Display unit: LCD LCD screen
- ◆ Power supply voltage: 12... 36VDC
- ◆ Output signal: 4... 20mA,HART
- ◆ Measuring accuracy: 0.5,0.2% F.S.
- ◆ Repeatability: ≤0.1% full scale
- ◆ Measuring hysteresis: ≤ ± 0.01% full scale
- ◆ Stability: < 0.01%/ year
- ◆ medium temperature: -30.. 300 °C
- ◆ Ambient temperature: -30... 85 °C
- ◆ Electrical connection: Fastener, M20*1.5, NPT1/2
- ◆ Protection grade: IP65
- ◆ Explosion-proof mark: flameproof type EXDIICT6,
- ◆ intrinsically safe EXIA IICT6

Main features

- ◆ Stainless steel and Hastelloy Cr process isolation diaphragm
- ◆ Single isolation diaphragm design
- ◆ stable performance, high precision, high temperature resistance
- ◆ A variety of optional filling fluid can meet the requirements of different occasions
- ◆ Range, zero external continuous adjustable
- ◆ Adjustable damping and high pressure resistance application

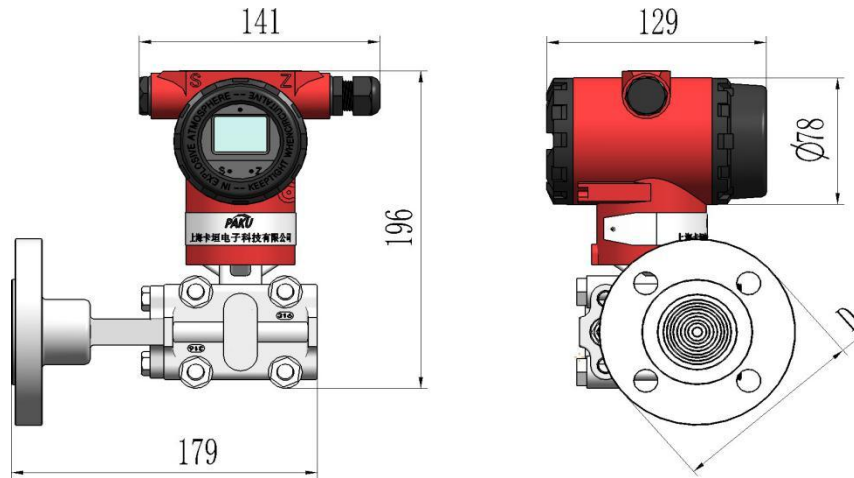
Mainly used for liquid and gas measurement such as: food, chemical, paper, medicine and other hygienic cleaning requirements of high temperature requirements, high viscosity medium and corrosion resistance needs occasions

Range of code

| code | range | code | range | code | range |
|------|---------------|------|-------------|------|---------|
| GP1 | -100...0kPa | GP7 | 0...500kPa | GL5 | 0...5m |
| GP2 | -100...100kPa | GP8 | 0...2500kPa | GL6 | 0...6m |
| GP3 | -100...500kPa | GP9 | 0...5000kPa | GL10 | 0...10m |
| GP4 | 0...35kPa | GL1 | 0...1m | GL15 | 0...15m |
| GP5 | 0...100kPa | GL2 | 0...2m | GL20 | 0...20m |
| GP6 | 0...250kPa | GL3 | 0...3m | GL25 | 0...25m |

Note: 1 bar = 0.1 MPa = 100 kpa = 1.0197 kg/cm²

dimension figure



Selection table

| PN52B- | GP1 | 4 | D2 | M2 | L30 | A | A | specification |
|--------|-------|---|----|----|------|---|----|--|
| PN52B- | | | | | | | | PN52B series pressure (liquid level) transmitter |
| | GP | | | | | | | Optional range (see range table) |
| | GM01 | | | | | | | Range: 0–1.0 MPa |
| | GM1.6 | | | | | | | Range: 0–1.6 MPa |
| | GM2.5 | | | | | | | Range: 0–2.5 MPa |
| | GM4.0 | | | | | | | Range: 0–4.0 MPa |
| | GM10 | | | | | | | Range: 0 to 10 mpa |
| | GL | | | | | | | Liquid level range (see range table) |
| | | 4 | | | | | | Output 4... 20mA |
| | | H | | | | | | Output 4... 20mA+HART |
| | | | D2 | | | | | DN25 flange installation |
| | | | D5 | | | | | DN50 flange installation |
| | | | D8 | | | | | DN80 flange installation |
| | | | K5 | | | | | Clamp type (50.5mm outside diameter) |
| | | | | G | | | | Self- Clinching Fasteners |
| | | | | M2 | | | | Electrical interface M20*1.5 inner teeth |
| | | | | N2 | | | | Electrical interface NPT1/2 inner teeth |
| | | | | | LA50 | | | Inserting barrel length 50 (mm) – optional |
| | | | | | | A | | Liquid stainless steel diaphragm 316L |
| | | | | | | B | | Liquid polytetrafluoroethylene PTFE |
| | | | | | | C | | Hastelloy alloy C coating |
| | | | | | | D | | Monel metal |
| | | | | | | | A | standard form |
| | | | | | | | B | flame-proof type |
| | | | | | | | C | intrinsic safety type |
| | | | | | | | A1 | LCD display header |
| | | | | | | | B1 | No display header |

* The type selection table is only for technical selection, and the corresponding type of the factory model is reflected by the code.