

# Diaphragm type low pressure gauge

**Model: P428, Screwed process connection**

**Model: P429, "I" type flange process connection**

Spec. sheet no. PD04-04

## Service intended

P428 and P429 series are consisted of diaphragms which are designed to protect device and designed to isolate pressure gauge from corrosive, contaminative and viscous pressure media.



## Nominal diameter

100 and 150 mm

## Accuracy

±1.5 % of full scale

## Scale range (kPa, mbar)

-1 ~ 0 to -35 ~ 0 kPa

0.5 to ±15 kPa

0 ~1 to 0 ~ 35 kPa

## Working temperature

Ambient : -20 ~ 65 °C

Fluid : Max. 100 °C

## Temperature effect

Accuracy at temperature above and below the reference temperature (20 °C) will be effected by approximately ±0.8 % per 10 °C of full scale



## Standard features

### Process connection

Model P428 : PT and NPT, others feasible

Model P429 : Flanges to ANSI, JIS or other standard

### Diaphragm

316L SS

### Upper flange (Gauge side)

Stainless steel (304SS, 316SS)

### Certificates

ATEX Ex II GD c IIc TX

### Under flange (Process side)

Stainless Steel (304SS, 304L SS, 316SS, 316L SS)

Monel, Hastelloy-C

### Option

Diaphragm : PTFE lining

Under flange : PTFE lining PTFE coating

**WISE**<sup>®</sup>

**1. Base model**

- P428** Screwed process connection diaphragm  
**P429** "I" type flange process connection diaphragm

**2. Nominal diameter (mm)**

- XA** 100  
**XB** 150

**3. Upper flange and diaphragm material**

- B** 304SS and 316L SS  
**H** 304SS and 316L SS + PTFE Sheet  
**J** 316SS and 316L SS  
**Q** 316SS and 316L SS + PTFE Sheet

**4. Process connection type**

- XXX** Refer to process connection type table

**5. Unit**

- J** kPa  
**S** mbar

**6. Range**

- XXX** Refer to pressure unit and range table

**7. Under flange material**

- BX** 304SS  
**CX** 316SS  
**EX** 316L SS  
**51** 316L SS + coating  
**RX** 304SS + coating  
**PX** 304SS + lining (Only P429)  
**SX** 316SS + coating  
**QX** 316SS + lining (Only P429)  
**50** 316L SS + lining (Only P429)  
**ZZ** Other

**8. Option**

- 0** None  
**1** Accessories  
**4** Electropolished under flange

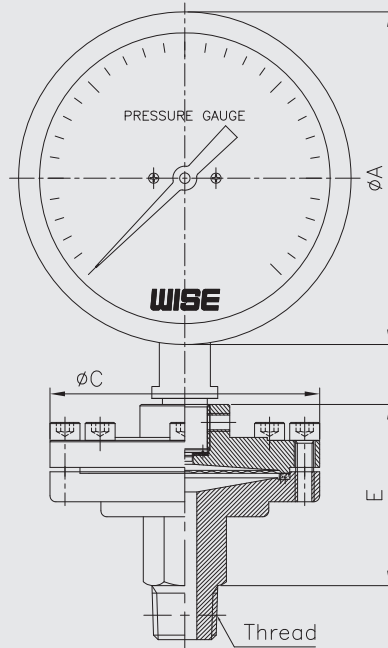
**Sample ordering code**

|      |    |   |     |   |     |    |   |
|------|----|---|-----|---|-----|----|---|
| 1    | 2  | 3 | 4   | 5 | 6   | 7  | 8 |
| P428 | XA | B | XXX | H | XXX | BX | 0 |

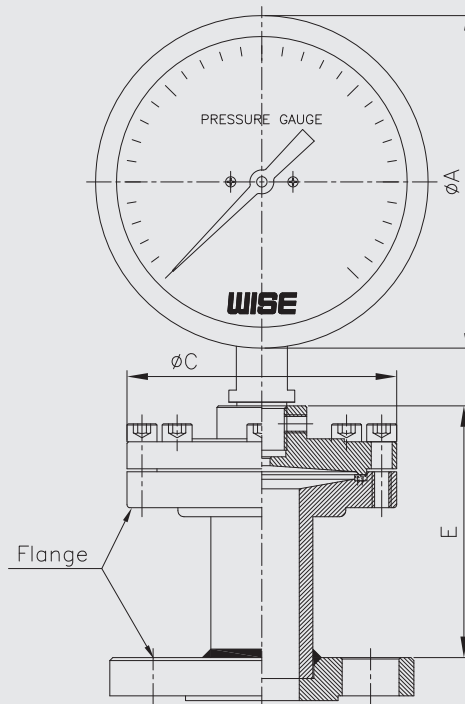


## P428, P429 : Type of mounting

Code P428



Code P429



Dimensions (mm)

| Available code | Dial size  | A     | C (Below 20 mbar) | E $\pm 2$ |
|----------------|------------|-------|-------------------|-----------|
| P428           | $\phi 100$ | 111   | 100(140)          | 60        |
|                | $\phi 150$ | 150.6 | 100(140)          | 60        |
| P429           | $\phi 100$ | 111   | 100(140)          | 83        |
|                | $\phi 150$ | 150.6 | 100(140)          | 83        |

## Pressure unit and range table

| Range and code | Unit and code |            | Nominal diameter |        |
|----------------|---------------|------------|------------------|--------|
|                | S : mbar      | J : kPa    | 100 mm           | 150 mm |
| 503            | -350 ~ 0      | -35 ~ 0    | O                | O      |
| 400            | -300 ~ 0      | -30 ~ 0    | O                | O      |
| 502            | -250 ~ 0      | -25 ~ 0    | O                | O      |
| 401            | -200 ~ 0      | -20 ~ 0    | O                | O      |
| 402            | -150 ~ 0      | -15 ~ 0    | O                | O      |
| 403            | -100 ~ 0      | -10 ~ 0    | O                | O      |
| 405            | -50 ~ 0       | -5 ~ 0     | O                | O      |
| 406            | -40 ~ 0       | -4 ~ 0     | O                | O      |
| 407            | -30 ~ 0       | -3 ~ 0     | O                | O      |
| 408            | -20 ~ 0       | -2 ~ 0     | O                | O      |
| 472            | -150 ~ 150    | -15 ~ 15   | O                | O      |
| 470            | -100 ~ 100    | -10 ~ 10   | O                | O      |
| 413            | -50 ~ 50      | -5 ~ 5     | O                | O      |
| 415            | -40 ~ 40      | -4 ~ 4     | O                | O      |
| 417            | -30 ~ 30      | -3 ~ 3     | O                | O      |
| 418            | -25 ~ 25      | -2.5 ~ 2.5 | O                | O      |
| 419            | -20 ~ 20      | -2 ~ 2     | O                | O      |
| 421            | -10 ~ 10      | -1 ~ 1     | O                | O      |
| 422            | -5 ~ 5        | -0.5 ~ 0.5 | O                | O      |
| 457            | 0 ~ 10        | 0 ~ 1      | O                | O      |
| 460            | 0 ~ 20        | 0 ~ 2      | O                | O      |
| 462            | 0 ~ 30        | 0 ~ 3      | O                | O      |
| 464            | 0 ~ 40        | 0 ~ 4      | O                | O      |
| 465            | 0 ~ 50        | 0 ~ 5      | O                | O      |
| 469            | 0 ~ 100       | 0 ~ 10     | O                | O      |
| 515            | 0 ~ 150       | 0 ~ 15     | O                | O      |
| 437            | 0 ~ 200       | 0 ~ 20     | O                | O      |
| 517            | 0 ~ 250       | 0 ~ 25     | O                | O      |
| 518            | 0 ~ 300       | 0 ~ 30     | O                | O      |
| 519            | 0 ~ 350       | 0 ~ 35     | O                | O      |

O : Available    X : Not available

## Pressure unit and range table

| 8 <sup>th</sup> character |                 | 9 <sup>th</sup> , 10 <sup>th</sup> character |                 |                |                      |
|---------------------------|-----------------|--|-----------------|----------------|----------------------|
| Code                      | Connection size | For model P428                               |                 | For model P429 |                      |
|                           |                 | Code   | Connection type | Code           | Flange rating        |
| C *                       | ¼" (8A)         | PF   | PF              | AC             | B16.5 Class 150 RF   |
| D *                       | ⅜" (10A)        | AB   | PT              | AE             | B16.5 Class 150 FF   |
| E                         | ½" (15A)        | AA   | NPT             | AD             | B16.5 Class 150 RFSF |
| F                         | ¾" (20A)        | FF   | BSPT            | AF             | B16.5 Class 300 RF   |
| G                         | 1" (25A)        | GG   | BSPF            | AH             | B16.5 Class 300 FF   |
| H                         | 1¼" (32A)       | HH   | NPS             | AG             | B16.5 Class 300 RFSF |
| J                         | 1½" (40A)       | JJ   | M               | AJ             | B16.5 Class 600 RF   |
| K                         | 2" (50A)        |  |                 | AL             | B16.5 Class 600 FF   |
| L                         | 2½" (65A)       |  |                 | AK             | B16.5 Class 600 RFSF |
| M                         | 3" (80A)        |  |                 | KL             | JIS 10K RF           |
| N                         | 4" (100A)       |  |                 | KN             | JIS 10K FF           |
| Z                         | Other           |  |                 | KM             | JIS 10K RFSF         |
|                           |                 |  |                 | KP             | JIS 20K RF           |
|                           |                 |  |                 | KR             | JIS 20K FF           |
|                           |                 |  |                 | KQ             | JIS 20K RFSF         |
|                           |                 |  |                 | KC             | JIS 30K RF           |
|                           |                 |  |                 | KU             | JIS 30K FF           |
|                           |                 |  |                 | KJ             | JIS 30K RFSF         |
|                           |                 |  |                 | ZZ             | Other                |

\* Code C and D, only available with model P428

Large empty rectangular area for writing or drawing.