

Low pressure gauge

Model : P421 series

Spec. sheet no. PD04-02

Service intended

P421 series are designed to measure low, vacuum or compound pressure. These models have a stainless steel measuring element which consists of two formed diaphragms and diaphragms are welded together.



Nominal diameter

100 and 150 mm

Accuracy

±1.0% of full scale

±1.5% of full scale

Scale range (kPa, mbar)

-50 ~ 0 to -1 ~ 0 kPa

-15 ~ 15 to -0.5 ~ 0.5 kPa

0 ~ 1 to 0 ~ 35 kPa

Working pressure

Steady : 75% of full scale

Over range protection : 130% of full scale

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 ±0.6% per 10°C of full scale



Standard features

Pressure connection

Stainless steel (316SS)

Movement

Brass

Element

Stainless steel (316L SS)

Pressure chamber : Up to 35 kPa

Dial

White aluminium with black graduations

Case

Stainless steel (304SS)

Pointer

Black painted aluminium alloy

Cover

Stainless steel (304SS)

Process connection

¼", ⅜", ½" PT, NPT and PF

Window

Safety glass

Optional

Internal zero adjustment (Only 100 mm)

WISE®

1. Base model

P421 Low pressure gauge

2. Nominal diameter (mm)

4 100
6 150

3. Type of mounting

A Bottom connection, direct
B Bottom connection, surface, case mounting plate
F Center back connection, direct
H Center back connection, flush, case center mounting plate

4. Accuracy

3 ±1.0% of full scale
4 ±1.5% of full scale

5. Process connection

C 1/4"
D 3/8"
E 1/2"

6. Connection type

B PF
C PT
D NPT
Z Other

7. Unit

J kPa
S mbar

8. Range

XXX Refer to pressure unit and range table

9. Pressure connection material and dial color

3 316SS and 2 colors
4 316L SS and 2 colors
7 316SS and 3 colors
8 316L SS and 3 colors

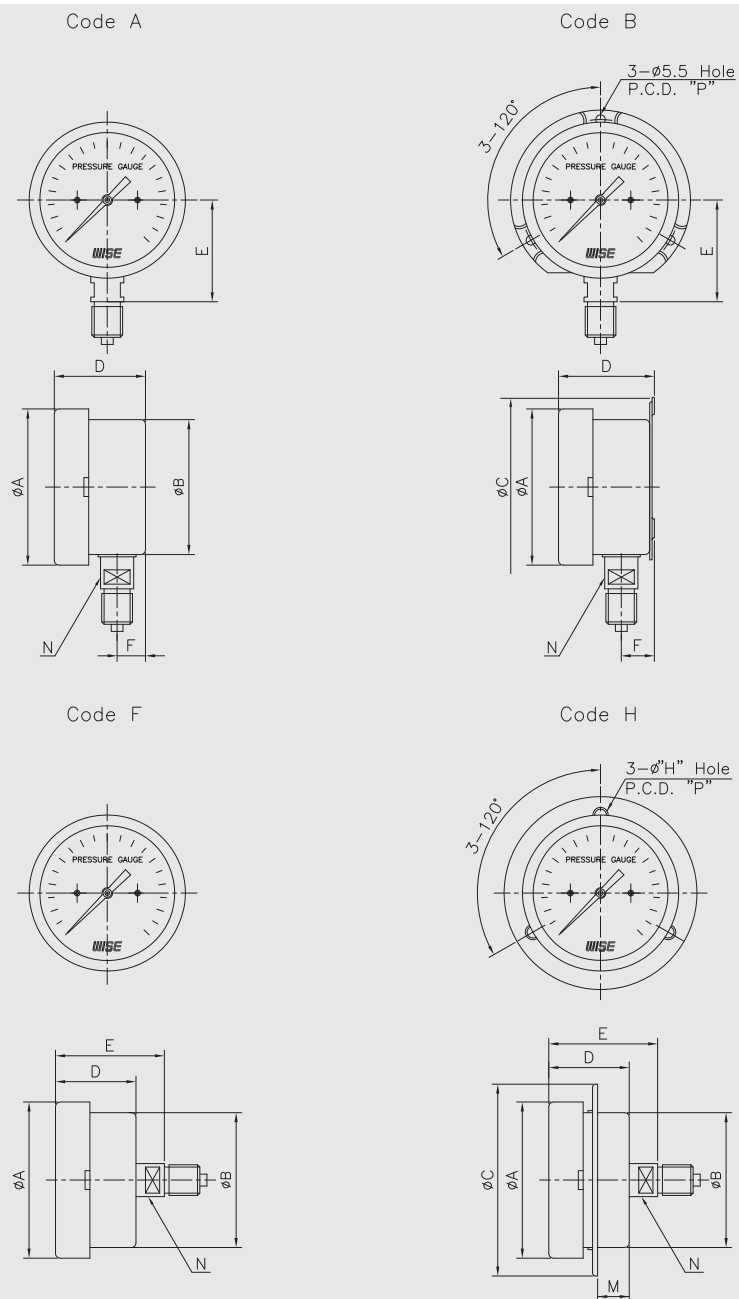
10. Option

0 None
1 Accessories

| | | | | | | | | | |
|------|---|---|---|---|---|---|-----|---|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| P421 | 4 | A | 3 | E | C | J | XXX | 3 | 0 |

Sample
ordering code

P421 : Type of mounting



Dimensions (mm)

| Dial size | Available code | A | B | C | D ± 2 | E ± 2 | F ± 1 | P | H | M | N |
|-----------|----------------|-------|-------|-----|-----------|-----------|-----------|-----|-----|------|----|
| 100 | A | 111 | 100 | | 59 | 73.5 | 13.7 | | | | 17 |
| | B | 111 | | 128 | 62 | 73.5 | 16.7 | 115 | | | 17 |
| | F | 111 | 100 | | 61 | 84 | | | | | 22 |
| | H | 111 | 100 | 132 | 61 | 84 | | 116 | 4.8 | 34 | 22 |
| 150 | A | 168.5 | 153.4 | | 62.5 | 105.5 | 27 | | | | 17 |
| | B | 168.5 | | 178 | 66.5 | 105.5 | 31 | 165 | | | 17 |
| | F | 168.5 | 153.4 | | 62.5 | 85.5 | | | | | 22 |
| | H | 168.5 | 153.8 | 195 | 62.5 | 85.5 | | 178 | 5.5 | 37.5 | 22 |

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 |
| 409 | -10 ~ 0 | -1 ~ 0 | X | 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 | X | O |
| 457 | 0 ~ 10 | 0 ~ 1 | X | 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