

Differential pressure gauge with bellows element

Model: P670 series

Spec. sheet no. PD06-04

Service intended

P670 differential pressure gauge series are designed to measure differential pressure from 4 kPa to 2.0 MPa at static pressure of 4 and 10 MPa. A set of two stainless steel bellows mounted on a force balance allows direct reading of the actual differential pressure.



Nominal diameter

100, 160 mm

Accuracy

±1.0% of full scale

±1.6% of full scale

Scale range (MPa, kPa, bar)

0 ~ 4 kPa, 6 kPa, 10 kPa (P671 model)

0 ~ 25 kPa to 0 ~ 0.25 MPa (P672 model)

0 ~ 0.4 MPa to 0 ~ 2.0 MPa (P673 model)

Static pressure

P671 : Max. 4 MPa

P672 and P673 : Max. 10 MPa

Working temperature

Ambient : -20 ~ 65°C

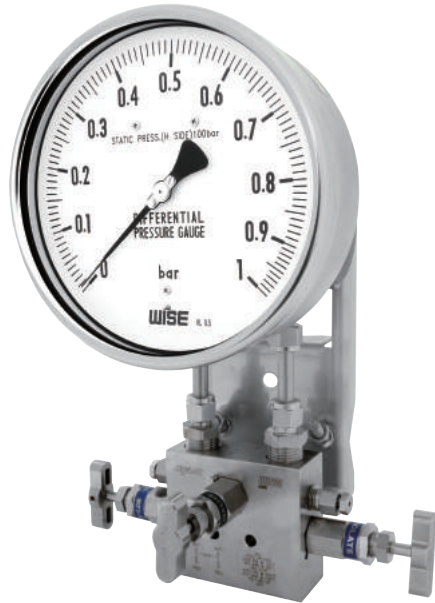
Fluid : Max. 100°C

Degree of protection

EN60529/IEC529/IP67

Temperature effect

Accuracy at temperature above and below the reference temperature (20°C) will be effected by approximately ±0.5% per 10°C of full scale



Standard features

Pressure connection

Stainless steel (316L SS), Monel and Hastelloy-C

Element

Bellows

Stainless steel (316L SS), Monel and Hastelloy-C

Case and cover

Stainless steel (304SS)

Window

Safety glass

Dial

White aluminium with black graduations

Filling liquid for differential cell

Silicone oil

Pointer

Black painted aluminium alloy (Zero adjustable)

Process connection

¼" NPT(F)

½" NPT(F) at 3-way and 5-way manifold valve

Standard accessories

Mounting bracket for 2" pipe

mounting with silver gray finished steel

Option

- Remote seal - Not available with less than 40 kPa of differential pressure range
- Mounting bracket with 316SS for 2" pipe
- 3-way and 5-way manifold valve
- 3-way and 5-way manifold valve (Monel)
- Accuracy ±0.5% of full scale

1. Base model

- P671** Lower range differential pressure gauge
(4, 6 and 10 kPa)
- P672** Higher range differential pressure gauge
(25 kPa ~ 0.25 MPa)
- P673** Higher range differential pressure gauge
(0.4 MPa ~ 2.0 MPa)

2. Nominal diameter (mm)

- 4** 100
- 6** 160

3. Type of mounting

- D** Bottom connection, mounting bracket for 2" pipe
- L** Bottom connection, flush, case center mounting plate

4. Accuracy

- 2** ±0.5% of full scale (Optional)
- 3** ±1.0% of full scale (Optional)
- 4** ±1.6% of full scale (Standard)

5. Process connection

- C** ¼" NPT(F)
- E** ½" NPT(F), only at 3-way and 5-way manifold valve

6. Mounting bracket

- D** Standard bracket
- E** 304SS mounting bracket
- F** 316SS mounting bracket
- W** Wall mounting bracket (316SS)
- N** None

7. Unit

- H** bar
- I** MPa
- J** kPa
- S** mbar

8. Range

- XXX** Refer to pressure unit and range table

9. Element and flange material

- 1** 316L SS
- 2** Monel
- 3** Hastelloy-C

10. Option

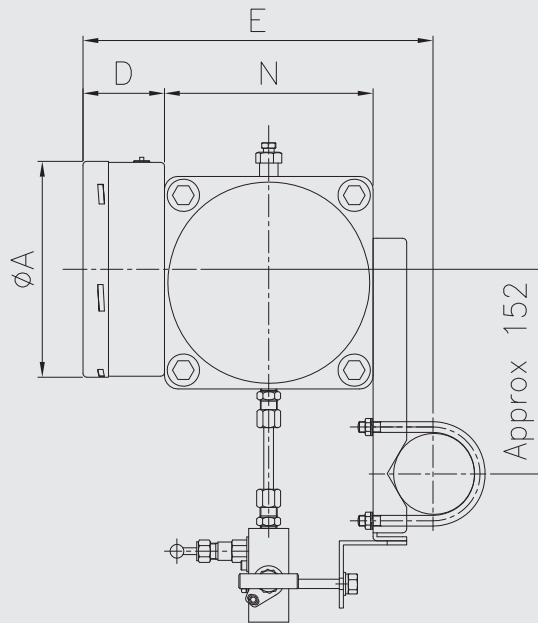
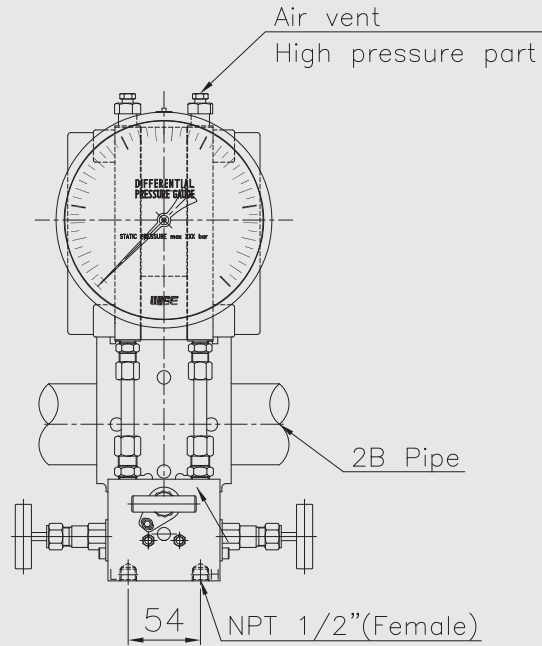
- 0** None
- 1** Manifold valve
- 2** Glycerin filling
- 3** Manifold valve and glycerin filling
- 6** Silicone filling
- 7** Manifold valve and silicone filling

| | | | | | | | | | |
|------|---|---|---|---|---|---|-----|---|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| P671 | 6 | D | 4 | E | D | H | XXX | 1 | 0 |

Sample
ordering code

P67X : Type of mounting (1/3)

Code:(D) P671



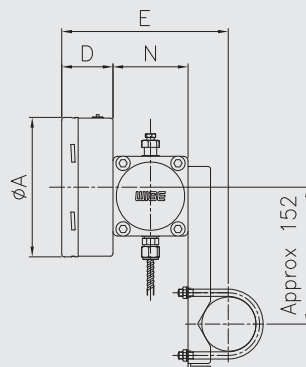
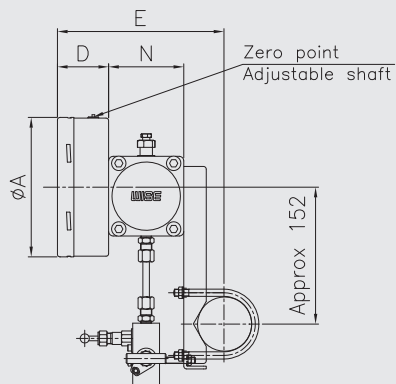
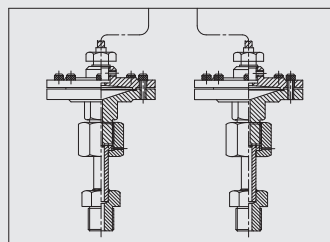
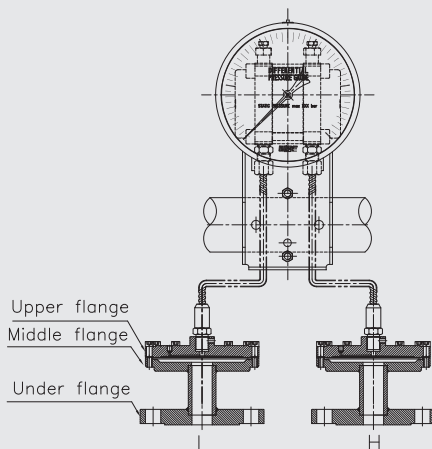
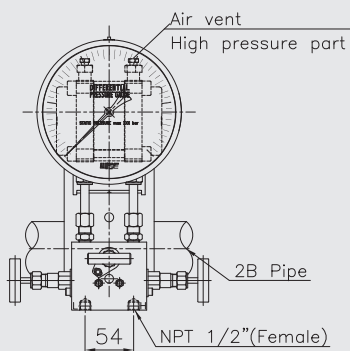
dimensions(mm)

| Model | Range | Dial size | A | D±2 | E±2 | N |
|-------|---------|-----------|-------|------|-------|-----|
| P671 | ≤ 10kPa | φ100 | 101.3 | 58 | 260 | 155 |
| | | φ160 | 160.6 | 60.5 | 262.5 | |

P67X : Type of mounting (2/3)

Code:(D) P672, P673

Code:(D) P672, P673(Remote seal)



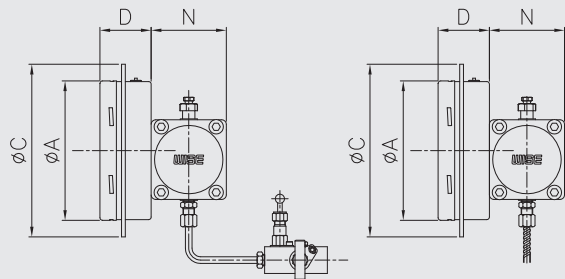
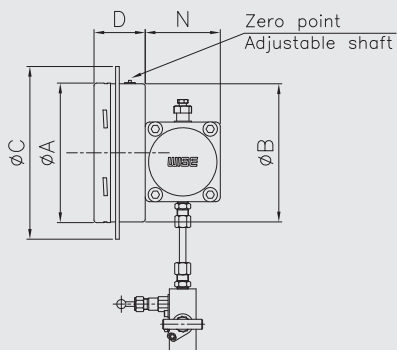
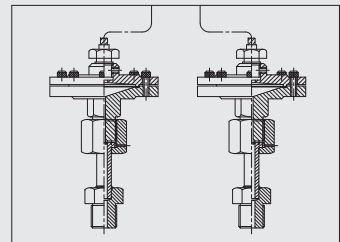
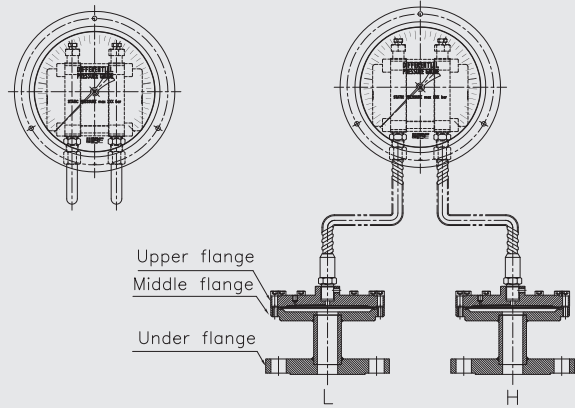
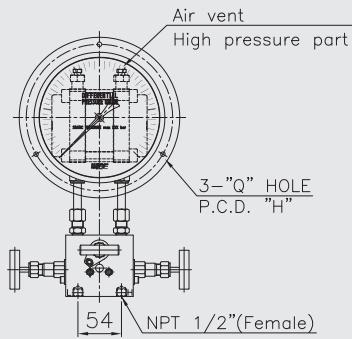
dimensions(mm)

| Model | Range | Dial size | A | D ±2 | E ±2 | N |
|------------|---------|-----------|-------|------|-------|------|
| P672, P673 | > 10kPa | φ100 | 101.3 | 58 | 187.5 | 83.5 |
| | | φ160 | 160.6 | 60.5 | 190 | |

P67X : Type of mounting (3/3)

Code:(L) P672, P673

Code:(L) P672, P673(Remote seal)



dimensions(mm)

| Model | Range | Dial size | A | B ± 2 | C | D ± 2 | N | H | Q |
|------------|---------|-------------------|-------|-----------|-----|-----------|------|-------------|-----|
| P672, P673 | > 10kPa | $\varnothing 100$ | 101.3 | 101 | 132 | 58 | 83.5 | 115~116 | 4.8 |
| | | $\varnothing 160$ | 160.6 | 162 | 192 | 60.5 | | 175.5~176.5 | 5.5 |

Pressure unit and range table

| Range and code | Unit and code | | | | | Model | Max. static pressure |
|----------------|---------------|----------|---------|----------|--|-------|----------------------|
| | J : kPa | S : mbar | H : bar | I : MPa | | | |
| 065 | 0 ~ 4 | 0 ~ 40 | X | X | | P671 | 4 MPa |
| 067 | 0 ~ 6 | 0 ~ 60 | X | X | | | |
| 070 | 0 ~ 10 | 0 ~ 100 | X | X | | | |
| 118 | 0 ~ 25 | 0 ~ 250 | X | X | | P672 | 10 MPa |
| 121 | 0 ~ 40 | 0 ~ 400 | X | X | | | |
| 125 | 0 ~ 60 | 0 ~ 600 | X | X | | | |
| 041 | 0 ~ 100 | X | 0 ~ 1 | 0 ~ 0.1 | | | |
| 133 | 0 ~ 160 | X | 0 ~ 1.6 | 0 ~ 0.16 | | | |
| 042 | 0 ~ 200 | X | 0 ~ 2 | 0 ~ 0.2 | | P673 | 10 MPa |
| 134 | 0 ~ 250 | X | 0 ~ 2.5 | 0 ~ 0.25 | | | |
| 044 | 0 ~ 400 | X | 0 ~ 4 | 0 ~ 0.4 | | | |
| 045 | 0 ~ 600 | X | 0 ~ 6 | 0 ~ 0.6 | | | |
| 047 | 0 ~ 1,000 | X | 0 ~ 10 | 0 ~ 1 | | | |
| 143 | X | X | 0 ~ 16 | 0 ~ 1.6 | | | |
| 051 | X | X | 0 ~ 20 | 0 ~ 2 | | | |

X : Not available