

# Differential pressure gauge with bellows element

## Model: P670 series

Spec. sheet no. PD06-05

### Service intended

P670 differential pressure gauge series are designed to measure differential pressure from 4 kPa to 2.0 MPa at Max.working pressure of 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 and 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)

### Max. working pressure (Static pressure)

Max. 10 MPa

### Working temperature

Ambient: -20~65 °C

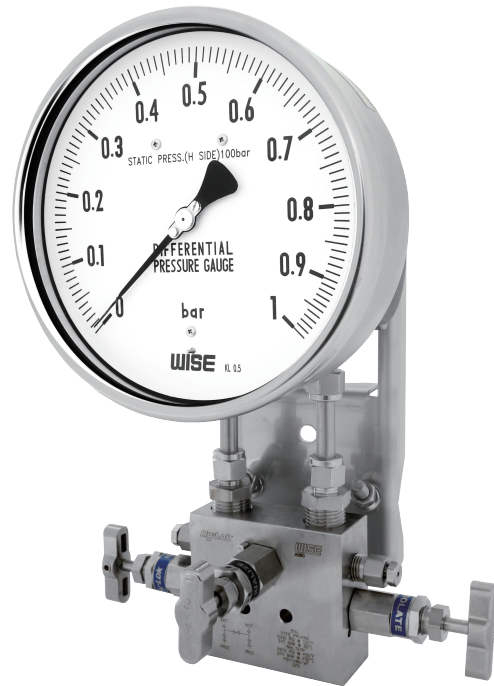
Fluid: Max. 100 °C

### 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

1/4" NPT(F)

1/2" 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

**WISE**®

**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**

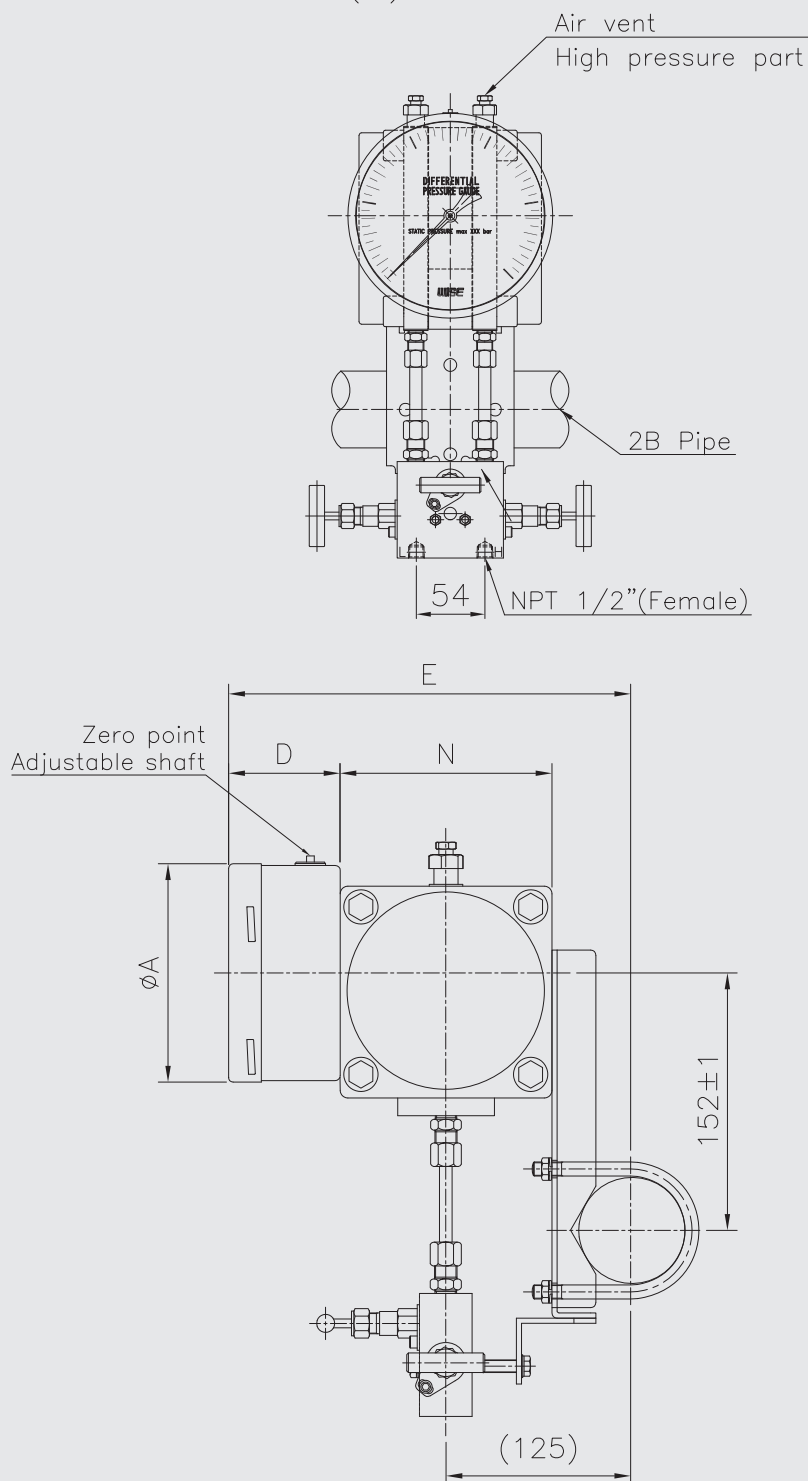
- 0** None
- 1** Manifold valve
- 2** Glycerin filling
- 3** Manifold valve and glycerin filling
- 6** Silicone filling
- 7** Manifold valve and silicone filling

**Sample ordering code**

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

## P67X : Type of mounting (1/3)

Code:(D) P671

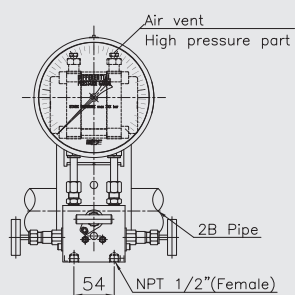


dimensions(mm)

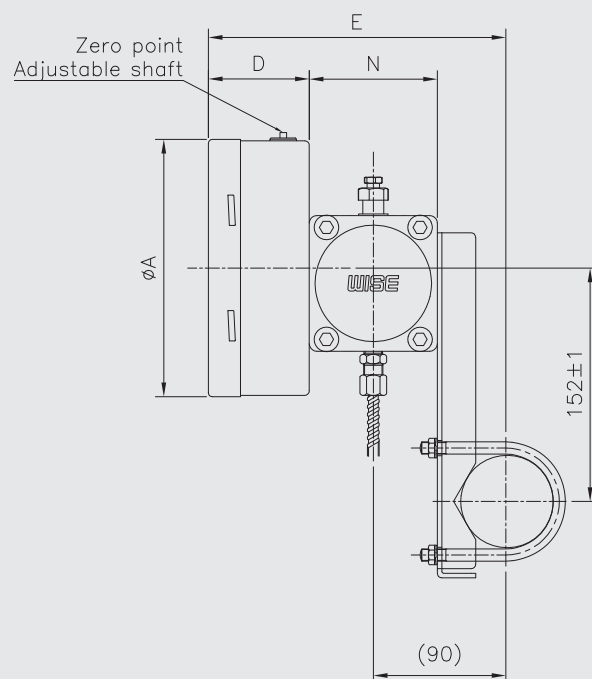
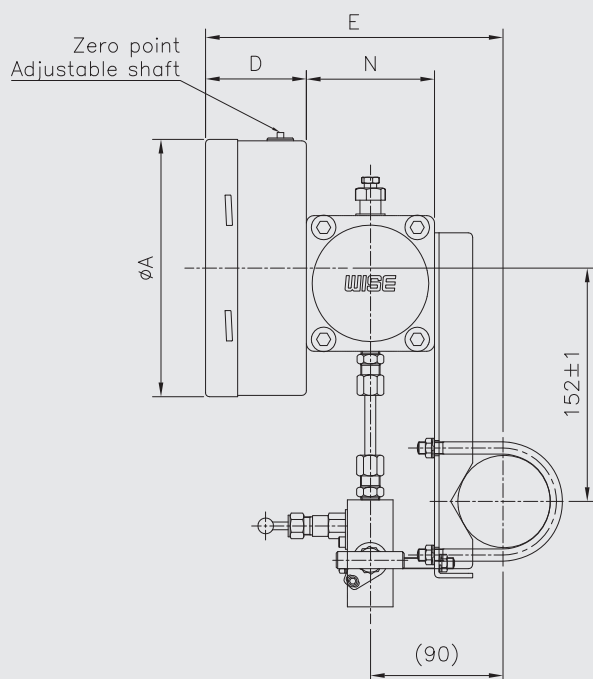
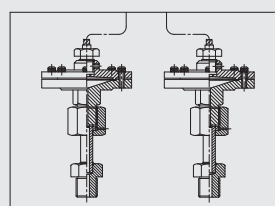
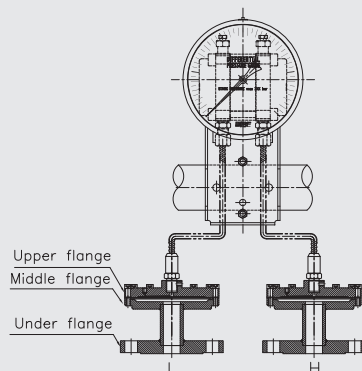
| Model | Dial size | A     | D±2  | E±2   | N    |
|-------|-----------|-------|------|-------|------|
| P671  | ø100      | 101.3 | 58   | 187.5 | 83.5 |
|       | ø160      | 160.6 | 60.5 | 190   |      |

## P67X : Type of mounting (2/3)

Code:(D) P672, P673



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

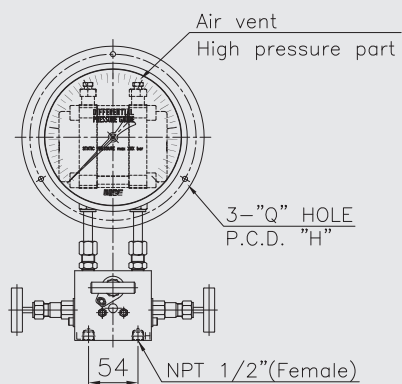


dimensions(mm)

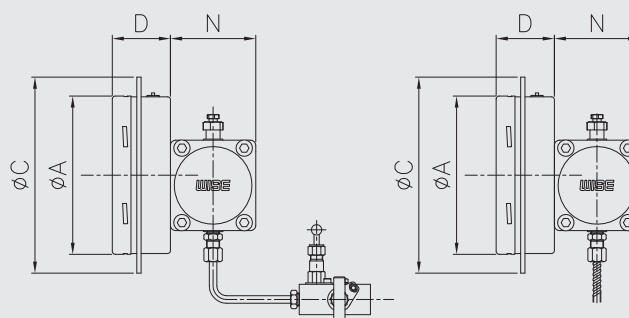
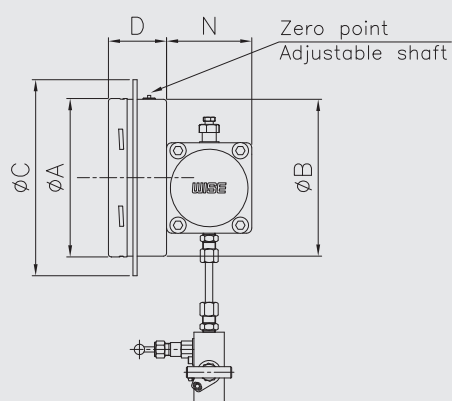
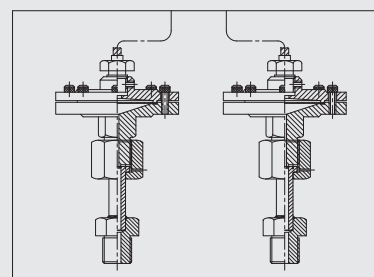
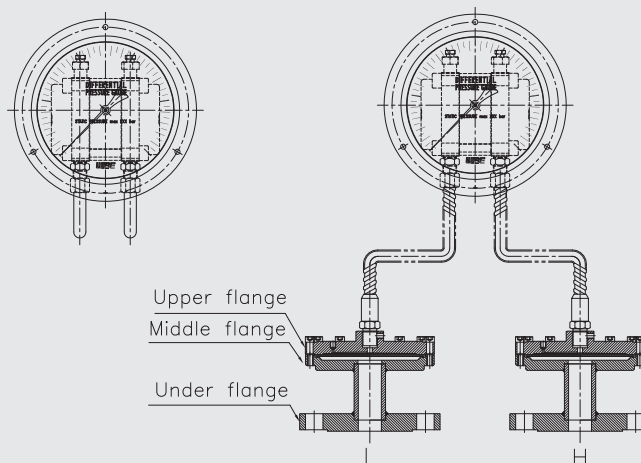
| Model      | Dial size  | A     | D $\pm 2$ | E $\pm 2$ | N    |
|------------|------------|-------|-----------|-----------|------|
| P672, P673 | $\phi 100$ | 101.3 | 58        | 187.5     | 83.5 |
|            | $\phi 160$ | 160.6 | 60.5      | 190       |      |

## P67X : Type of mounting (3/3)

Code:(L) P672, P673



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



dimensions(mm)

| Model      | Dial size  | A     | B $\pm$ 2 | C   | D $\pm$ 2 | N    | H           | Q   |
|------------|------------|-------|-----------|-----|-----------|------|-------------|-----|
| P672, P673 | $\phi$ 100 | 101.3 | 101       | 132 | 58        | 83.5 | 115~116     | 4.8 |
|            | $\phi$ 160 | 160.6 | 160.6     | 192 | 60.5      |      | 175.5~176.5 | 5.5 |

## Pressure unit and range table

| Range and code | Unit and code |          |         |          |       |                      |
|----------------|---------------|----------|---------|----------|-------|----------------------|
|                | J : kPa       | S : mbar | H : bar | I : MPa  | Model | Max. static pressure |
| 065            | 0 ~ 4         | 0 ~ 40   | X       | X        | P671  | 10 MPa               |
| 067            | 0 ~ 6         | 0 ~ 60   | X       | X        |       |                      |
| 070            | 0 ~ 10        | 0 ~ 100  | X       | X        |       |                      |
| 118            | 0 ~ 25        | 0 ~ 250  | X       | X        | P672  |                      |
| 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  |       |                      |
| 134            | 0 ~ 250       | X        | 0 ~ 2.5 | 0 ~ 0.25 |       |                      |
| 044            | 0 ~ 400       | X        | 0 ~ 4   | 0 ~ 0.4  | P673  |                      |
| 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