

# Crimped-on-ring case pressure gauge

## Model : P255-fully stainless steel construction

Spec. sheet no. PD02-10

### Service intended

P255 liquid filled series are suitable for applications with high dynamic pressure loads or vibrations. It is suitable for corrosive environments and gaseous or liquid media that will not obstruct the pressure system. Suitable for machinery industry and parts for various facilities and equipments.

### Nominal diameter

63, 80 and 100 mm

### Accuracy

63 and 80 mm :  $\pm 1.6$  % of full scale  
100 mm :  $\pm 1.0$  % of full scale

### Scale range (MPa, kPa, bar)

63 and 80 mm : -0.1 ~ 0 to 0 ~ 100 MPa  
100 mm : -0.1 ~ 0 to 0 ~ 200 MPa

### Working pressure

Steady : 75 % of full scale  
Over range protection : 130 % of full scale

### Working temperature

Ambient : -40 ~ 65 °C  
-20 ~ 65 °C (With glycerin filling)  
-40 ~ 65 °C (With silicone filling)  
Fluid : Max. 200 °C  
Max. 100 °C (With glycerin filling)  
Max. 100 °C (With silicone filling)

### Degree of protection

EN60529/IEC529/IP67

### Temperature effect

Accuracy at temperature above and below the reference temperature (20 °C) will be effected by approximately  $\pm 0.4$  % per 10 °C of full scale



## Standard features

### Pressure connection

Stainless steel (316SS)

### Element

63 and 80 mm :  $\leq 0.3$  MPa : C type bourdon tube (316SS)  
 $\geq 0.4$  and  $< 6$  MPa : C type bourdon tube (304SS)  
 $\geq 6$  MPa : Helical type bourdon tube (316SS)  
100 mm :  $\leq 0.1$  MPa : C type bourdon tube (316SS)  
 $\geq 0.2$  and  $< 10$  MPa : C type bourdon tube (304SS)  
 $\geq 10$  MPa : Helical type bourdon tube (316SS)

### Case and cover

Stainless steel (304SS)  
Crimp ring type

### Window

Safety glass

### Movement

Stainless steel

### Dial

White aluminium with black graduations

### Pointer

Black painted aluminium alloy

### Process connection

63 mm :  $\frac{1}{4}$ " PT, NPT and PF  
80 mm :  $\frac{1}{4}$ ",  $\frac{3}{8}$ " PT, NPT and PF  
100 mm :  $\frac{1}{4}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ " PT, NPT and PF

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**1. Base model****P255** Crimp-on-ring case pressure gauge**2. Nominal diameter (mm)**

- 2** 63
- 3** 80
- 4** 100

**3. Type of mounting**

- A** Bottom connection, direct
- B** Bottom connection, surface, case mounting plate
- F** Center back connection, direct, only available with diameter 63 mm
- G** Lower back connection, direct
- H** Center back connection, case center mounting plate, only available with diameter 63 mm
- I** Center back connection, cover mounting with bracket, only available with diameter 63 mm
- L** Lower back connection, flush, case center mounting plate
- W** Lower back connection, flush, cover mounting bracket

**4. Accuracy**

- 3** ±1.0 % of full scale, only available with diameter 100 mm
- 4** ±1.6 % of full scale, only available with diameter 63 and 80 mm

**5. Process connection**

- C** ¼"
- D** ⅜", not available with diameter 63 mm
- E** ½", not available with diameter 63 and 80 mm
- P** ⅛" (UNF)

**6. Connection type**

- B** PF
- C** PT
- D** NPT
- E** UNF
- F** BSPT
- G** BSP
- Z** Other

**7. Unit**

- H** bar
- I** MPa
- J** kPa
- Z** Other

**8. Range****XXX** Refer to pressure unit and range table**9. Pressure connection material and dial color**

- 3** 316SS and 2 colors
- 7** 316SS and 3 colors

**10. Option**

- 0** None
- 8** Silicone filling
- 9** Glycerin filling

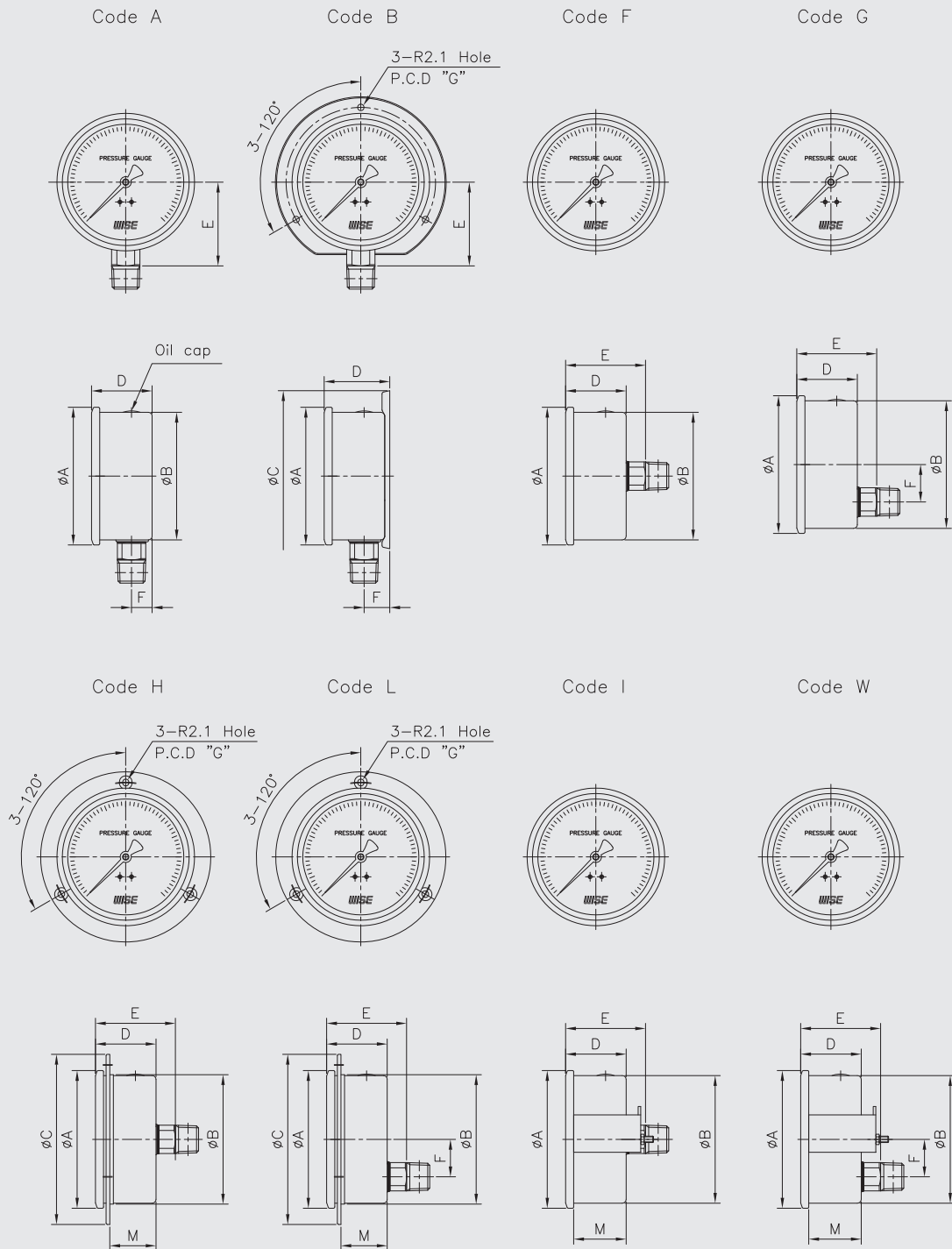
**Sample ordering code**

|             |          |          |          |          |          |          |            |          |          |
|-------------|----------|----------|----------|----------|----------|----------|------------|----------|----------|
| 1           | 2        | 3        | 4        | 5        | 6        | 7        | 8          | 9        | 10       |
| <b>P255</b> | <b>2</b> | <b>A</b> | <b>4</b> | <b>C</b> | <b>D</b> | <b>H</b> | <b>XXX</b> | <b>3</b> | <b>9</b> |



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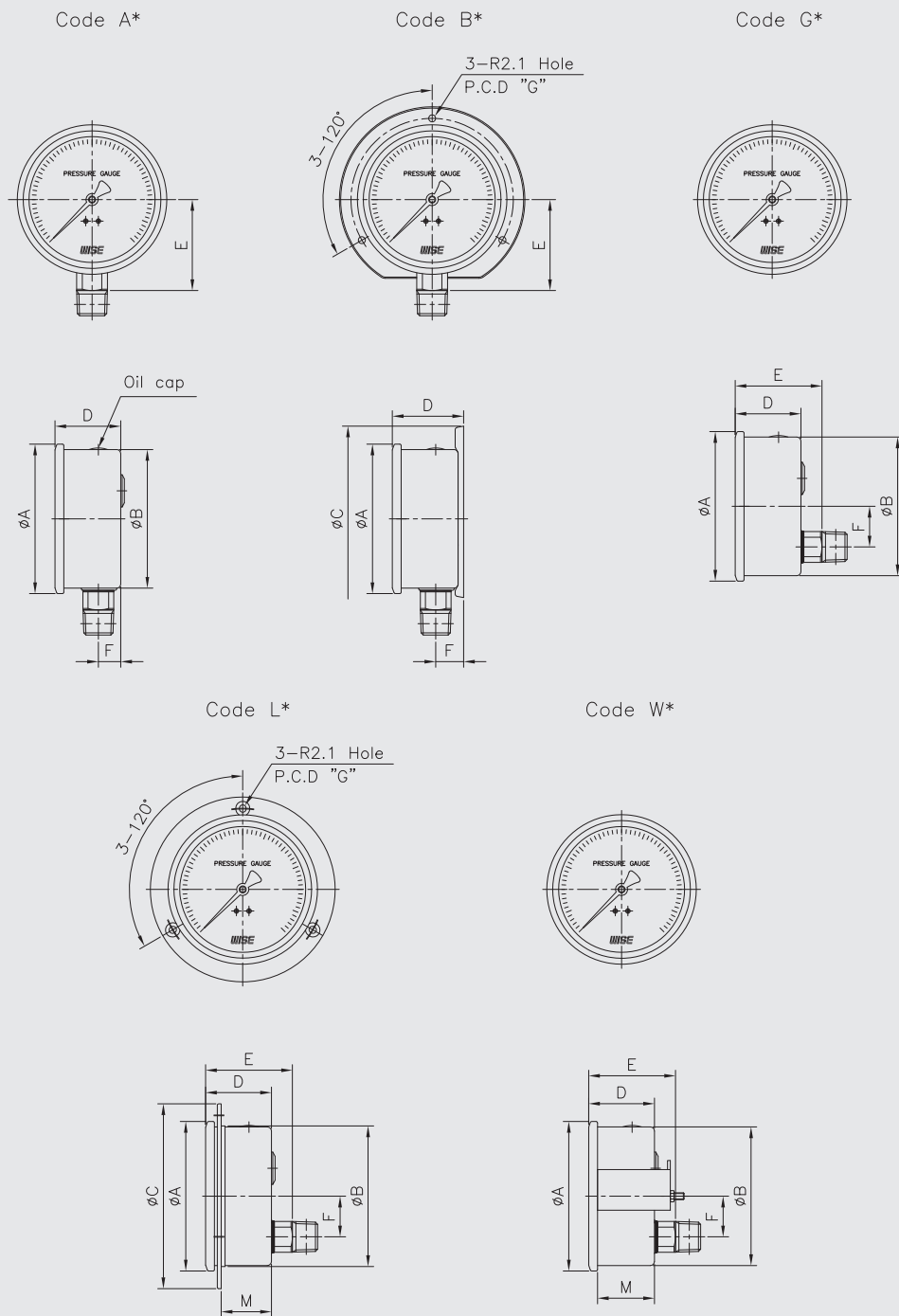
## P255 : Type of mounting (1/2)



Dimensions (mm)

| Dial size | Available code | A    | B    | C  | D $\pm 2$ | E $\pm 2$ | F $\pm 1$ | M    | G     |
|-----------|----------------|------|------|----|-----------|-----------|-----------|------|-------|
| 63        | A              | 67.8 | 62   |    | 34        | 41.7      | 11        |      |       |
|           | B              | 67.8 |      | 85 | 37        | 41.7      | 15        |      | 74~75 |
|           | F              | 67.8 | 62   |    | 34        | 45        |           |      |       |
|           | G              | 67.8 | 62   |    | 34        | 45        | 13        |      |       |
|           | H              | 67.8 | 64.5 | 92 | 34        | 45        |           | 22   | 77~78 |
|           | L              | 67.8 | 64.5 | 92 | 34        | 45        | 13        | 22   | 77~78 |
|           | I              | 67.8 | 62   |    | 34        | 45        |           | 26.5 |       |
|           | W              | 67.8 | 62   |    | 34        | 45        | 13        | 26.5 |       |

## P255 : Type of mounting (2/2)



Dimensions (mm)

| Dial size | Available code | A     | B     | C   | D $\pm 2$ | E $\pm 2$ | F $\pm 1$ | M    | G         |
|-----------|----------------|-------|-------|-----|-----------|-----------|-----------|------|-----------|
| 80        | A*             | 84.8  | 78.5  |     | 36        | 50.5      | 12        |      |           |
|           | B*             | 84.8  |       | 108 | 39.5      | 50.5      | 15.5      |      | 95        |
|           | G*             | 84.8  | 78.5  |     | 36        | 50        | 22        |      |           |
|           | L*             | 84.8  | 80.8  | 112 | 36        | 50        | 22        | 26.8 | 94.5~95.5 |
|           | W*             | 84.8  | 78.5  |     | 36        | 50        | 22        | 31.5 |           |
| 100       | A*             | 106.8 | 99    |     | 47        | 65        | 16        |      |           |
|           | B*             | 106.8 |       | 133 | 51        | 65        | 19.4      |      | 116       |
|           | G*             | 106.8 | 99    |     | 47        | 62        | 29        |      |           |
|           | L*             | 106.8 | 100.4 | 132 | 47        | 62        | 29        | 36   | 115~116   |
|           | W*             | 106.8 | 99    |     | 47        | 62        | 29        | 40.5 |           |

## Pressure unit and range table

| Range and code | Unit and code |            |                | 63 mm | 80 mm | 100 mm |
|----------------|---------------|------------|----------------|-------|-------|--------|
|                | H : bar       | I : MPa    | J : kPa        |       |       |        |
| 026            | -1 ~ 0        | -0.1 ~ 0   | -100 ~ 0       | O     | O     | O      |
| 040            | 0 ~ 0.5       | 0 ~ 0.05   | 0 ~ 50         | X     | X     | O      |
| 041            | 0 ~ 1         | 0 ~ 0.1    | 0 ~ 100        | O     | O     | O      |
| 042            | 0 ~ 2         | 0 ~ 0.2    | 0 ~ 200        | O     | O     | O      |
| 043            | 0 ~ 3         | 0 ~ 0.3    | 0 ~ 300        | O     | O     | O      |
| 044            | 0 ~ 4         | 0 ~ 0.4    | 0 ~ 400        | O     | O     | O      |
| 045            | 0 ~ 6         | 0 ~ 0.6    | 0 ~ 600        | O     | O     | O      |
| 047            | 0 ~ 10        | 0 ~ 1      | 0 ~ 1,000      | O     | O     | O      |
| 050            | 0 ~ 15        | 0 ~ 1.5    | X              | O     | O     | O      |
| 051            | 0 ~ 20        | 0 ~ 2      | X              | O     | O     | O      |
| 052            | 0 ~ 25        | 0 ~ 2.5    | X              | O     | O     | O      |
| 054            | 0 ~ 35        | 0 ~ 3.5    | X              | O     | O     | O      |
| 055            | 0 ~ 50        | 0 ~ 5      | X              | O     | O     | O      |
| 057            | 0 ~ 70        | 0 ~ 7      | X              | O     | O     | O      |
| 058            | 0 ~ 100       | 0 ~ 10     | X              | O     | O     | O      |
| 059            | 0 ~ 150       | 0 ~ 15     | X              | O     | O     | O      |
| 062            | 0 ~ 250       | 0 ~ 25     | X              | O     | O     | O      |
| 064            | 0 ~ 350       | 0 ~ 35     | X              | O     | O     | O      |
| 066            | 0 ~ 500       | 0 ~ 50     | X              | O     | O     | O      |
| 067            | 0 ~ 600       | 0 ~ 60     | X              | O     | O     | O      |
| 068            | 0 ~ 700       | 0 ~ 70     | X              | O     | O     | O      |
| 070            | 0 ~ 1,000     | 0 ~ 100    | X              | O     | O     | O      |
| 074            | 0 ~ 1,600     | 0 ~ 160    | X              | X     | X     | O      |
| 075            | 0 ~ 2,000     | 0 ~ 200    | X              | X     | X     | O      |
| 027            | -1 ~ 1        | -0.1 ~ 0.1 | -100 ~ 100     | O     | O     | O      |
| 028            | -1 ~ 2        | -0.1 ~ 0.2 | -100 ~ 200     | O     | O     | O      |
| 029            | -1 ~ 3        | -0.1 ~ 0.3 | -100 ~ 300     | O     | O     | O      |
| 030            | -1 ~ 4        | -0.1 ~ 0.4 | -100 ~ 400     | O     | O     | O      |
| 031            | -1 ~ 6        | -0.1 ~ 0.6 | -100 ~ 600     | O     | O     | O      |
| 032            | -1 ~ 10       | -0.1 ~ 1   | -100 ~ 1,000   | O     | O     | O      |
| 033            | -1 ~ 15       | -0.1 ~ 1.5 | -100 ~ 1.5 MPa | O     | O     | O      |
| 034            | -1 ~ 20       | -0.1 ~ 2   | -100 ~ 2 MPa   | O     | O     | O      |

O : Available X : Not available

Large empty rectangular area for writing or drawing.