

# DG85

## Differential Pressure Gauge

### Overview

This differential pressure gauge is designed for detecting air filter pressure drop used in an air-conditioning system to monitor extremely low pressure measurement.

Application includes not only for differential pressure measurement but also for flow and low pressure measurements, etc.

### Features

- Incorporates diaphragm made of silicone rubber with small hysteresis characteristic.
- Higher proof pressure.
- External zero adjustable.
- For wall mounting type, high and low pressure measuring functions can be alternately switched by exchanging each side of fitting.



Square Case

RoHS

### Specifications 1

#### Media:

Air and non-corrosive gas  
Not for use with media containing foreign matters

#### Design and Construction:

Sealed Case Type

#### Mounting:

Panel mounting, Wall mounting, Square case  
\*Installation in outer case optionally available upon request.

#### Position Orientations:

Upward-facing horizontal, 45°Upward, Vertical, 45°Downward, Downward-facing horizontal  
\*Downward-facing horizontal is not available where 100Pa full scale range and below are the requirements.

#### Size:

φ85

#### Connection:

φ6 Brass pipe fitting, φ8 Brass pipe fitting,  
φ7 (Rotary) Barb fitting

#### Wetted parts:

Diaphragm	Silicon rubber
Case	Polyacetal resin
Cover glass	Methacrylate resin
Others	Aluminum alloy, phosphor bronze, brass, neoprene, and NBR

#### Differential pressure range:

0 to 50Pa → 0 to 100kPa,  
10 to 0 to 40Pa → 3 to 0 to 3kPa

#### Proof pressure for sensing element\* (Proof pressure for the single port):

10 to 150kPa  
(Depending on specified differential pressure ranges.)  
\*Same proof pressure applied for negative pressure measurements (Vacuumed at L pressure side)

#### Proof pressure for enclosure (applying pressure at two ports):

200kPa

#### Operating temperature range:

-20 to 60°C (Non-freezing)

#### Accuracy:

±5%F.S., ±2.5%F.S. or ±1.5%F.S.  
(Depending on specified differential pressure ranges.)  
JIS B7505-1 specifies that lower and upper 10% of the scale and 5% around "centered zero" has 1.5 times greater accuracy than specified accuracy.

#### Temperature error:

Less than 1% of maximum rated pressure (At 10 to 30°C)

#### Scale angle:

250° wide-angle scale (Scale length: Approx. 180mm)

#### Case finish:

Black

#### Weight:

Approx. 480g

#### Accessories: (Option)

Pulsation restrictor

It will be placed in the middle of process between higher and lower pressure when pressure gauge is subjected to rapid pressure fluctuations.

Model number: FS80-00□

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## Differential Pressure Gauge

### Specifications 2

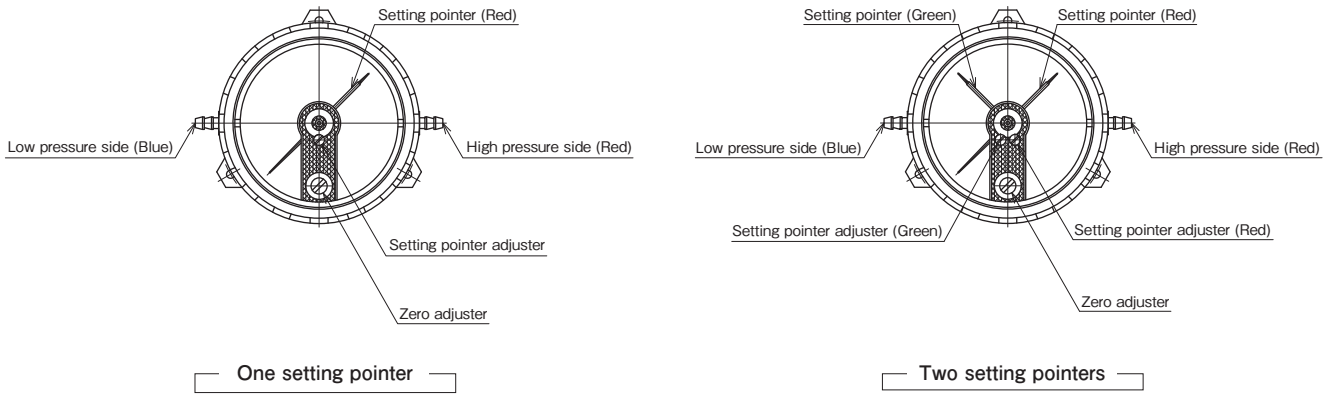
#### Setting pointer

One or two setting pointers are available upon request. Select corresponding ordering code in the model number configuration when ordering.

#### Fitting

There is no indication for high pressure (Red) and low pressure (Blue) marked on included fittings with panel mount gauge. Standard specification comes with right pressure port for high pressure.

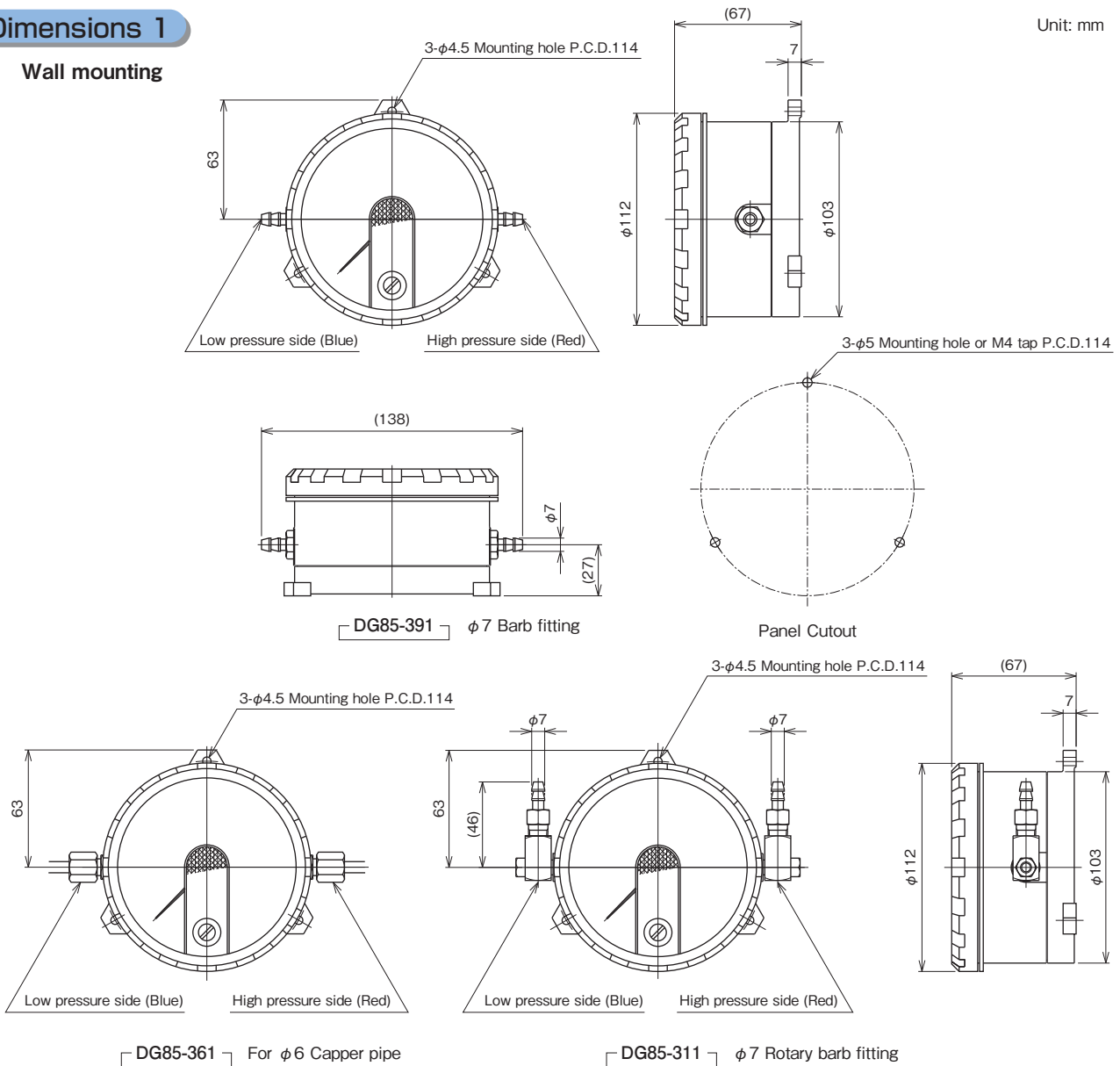
For wall mounting type, high and low pressure measuring functions can be alternately switched by exchanging each side of fitting.



### Dimensions 1

#### Wall mounting

Unit: mm



\* For wall mounting type, high and low pressure measuring functions can be alternately switched by exchanging each side of fitting.

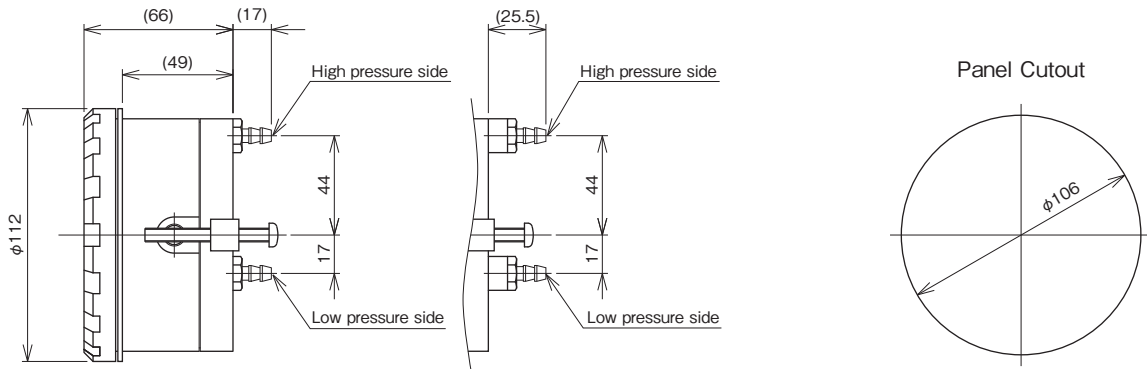
# DG85

## Differential Pressure Gauge

### Dimensions 2

Unit: mm

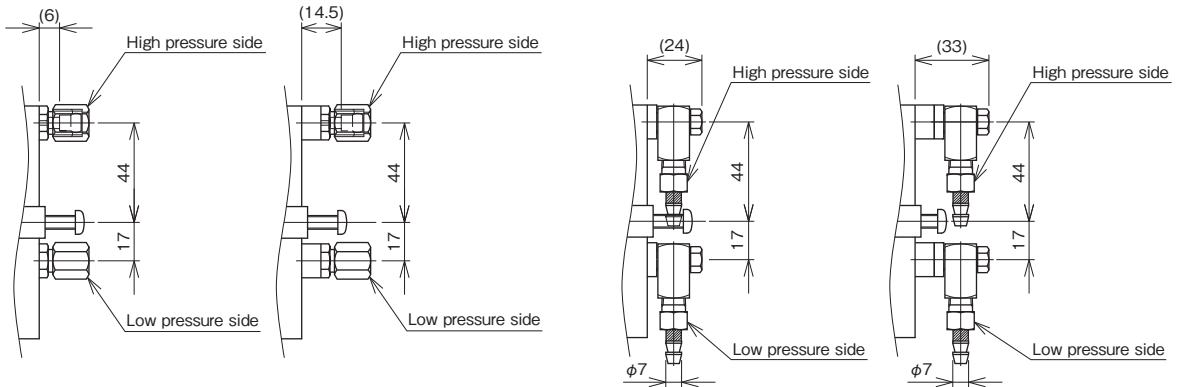
#### Panel mounting



DG85-291

φ 7 Barb fitting

For the range 0 to 10kPa and above,  
or 1 to 0 to 1kPa and above.



DG85-261

φ 6 Brass pipe fitting

For the range 0 to 10kPa and above,  
or 1 to 0 to 1kPa and above.

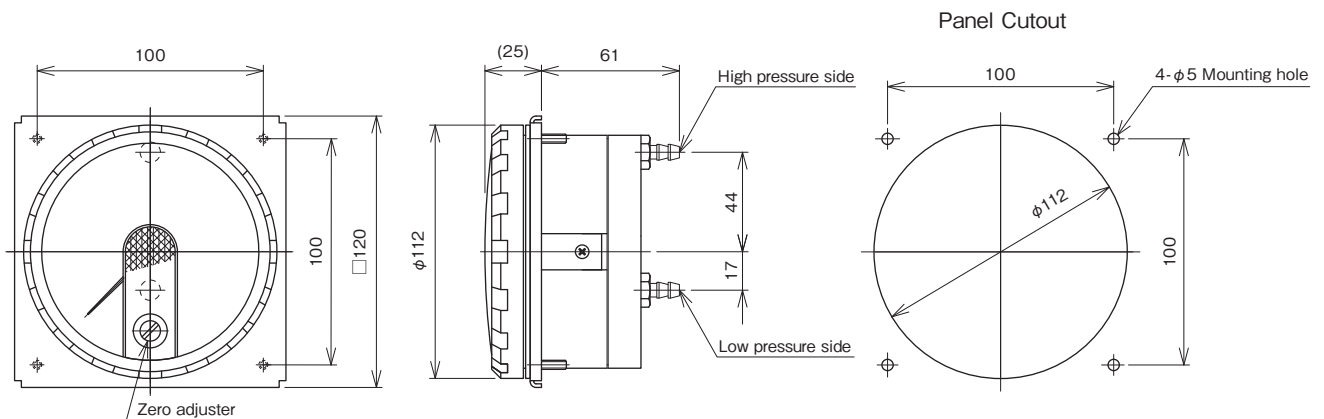
DG85-211

φ 7 Rotary barb fitting

For the range 0 to 10kPa and above,  
or 1 to 0 to 1kPa and above.

\* For panel mount gauge, there is no indication for high pressure (Red) and low pressure (Blue) marked on included fittings.

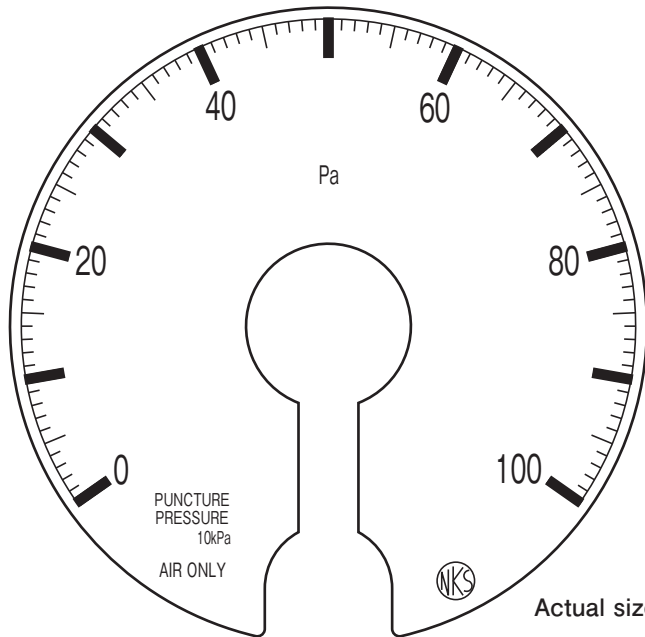
#### Square Case



\* For more details, please contact us.

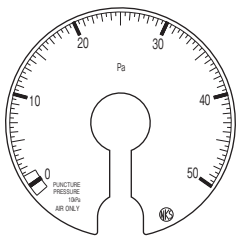
### Dial Faces 1

#### Positive Pressure Range

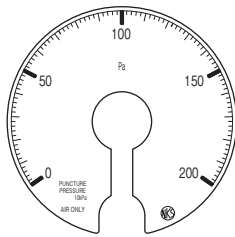


Differential pressure range	Minor graduation
0 to 100Pa	1Pa
0 to 0.1kPa	0.001kPa

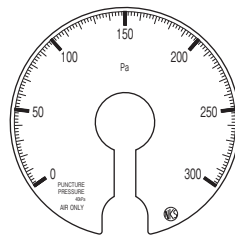
Actual size



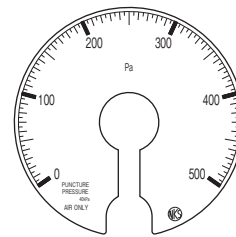
Differential pressure range	Minor graduation
0 to 50Pa	0.5Pa
0 to 0.05kPa	0.0005kPa



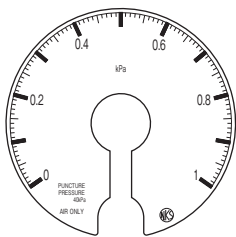
Differential pressure range	Minor graduation
0 to 200Pa	2Pa
0 to 0.2kPa	0.002kPa



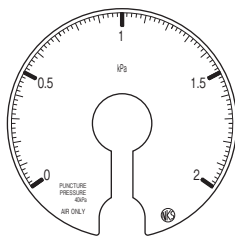
Differential pressure range	Minor graduation
0 to 300Pa	2Pa
0 to 0.3kPa	0.002kPa



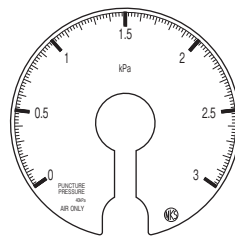
Differential pressure range	Minor graduation
0 to 500Pa	5Pa
0 to 0.5kPa	0.005kPa



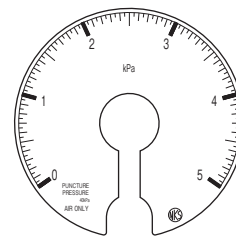
Differential pressure range	Minor graduation
0 to 1kPa	0.01kPa



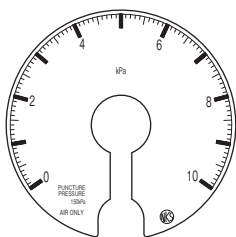
Differential pressure range	Minor graduation
0 to 2kPa	0.02kPa



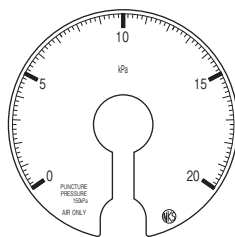
Differential pressure range	Minor graduation
0 to 3kPa	0.02kPa



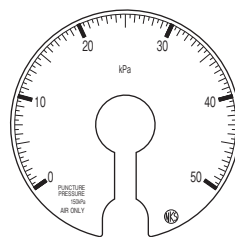
Differential pressure range	Minor graduation
0 to 5kPa	0.05kPa



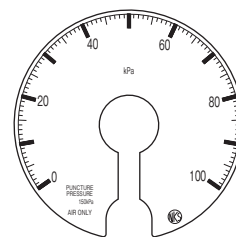
Differential pressure range	Minor graduation
0 to 10kPa	0.1kPa



Differential pressure range	Minor graduation
0 to 20kPa	0.2kPa



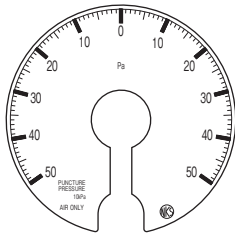
Differential pressure range	Minor graduation
0 to 50kPa	0.5kPa



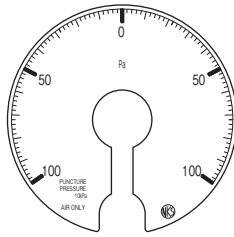
Differential pressure range	Minor graduation
0 to 100kPa	1kPa

### Dial Faces 2

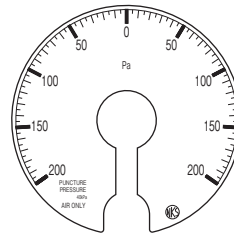
#### Zero Centered Dial



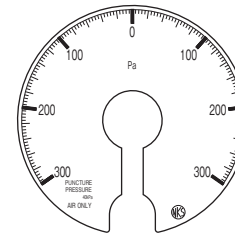
Differential pressure range	Minor graduation
50 to 0 to 50Pa	1Pa
0.05 to 0 to 0.05kPa	0.001kPa



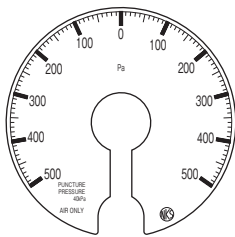
Differential pressure range	Minor graduation
100 to 0 to 100Pa	2Pa
0.1 to 0 to 0.1kPa	0.002kPa



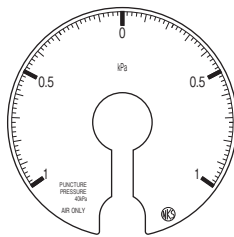
Differential pressure range	Minor graduation
200 to 0 to 200Pa	5Pa
0.2 to 0 to 0.2kPa	0.005kPa



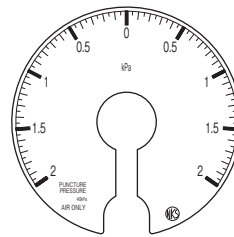
Differential pressure range	Minor graduation
300 to 0 to 300Pa	4Pa
0.3 to 0 to 0.3kPa	0.004kPa



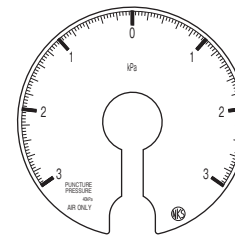
Differential pressure range	Minor graduation
500 to 0 to 500Pa	10Pa
0.5 to 0 to 0.5kPa	0.01kPa



Differential pressure range	Minor graduation
1 to 0 to 1kPa	0.02kPa



Differential pressure range	Minor graduation
2 to 0 to 2kPa	0.05kPa

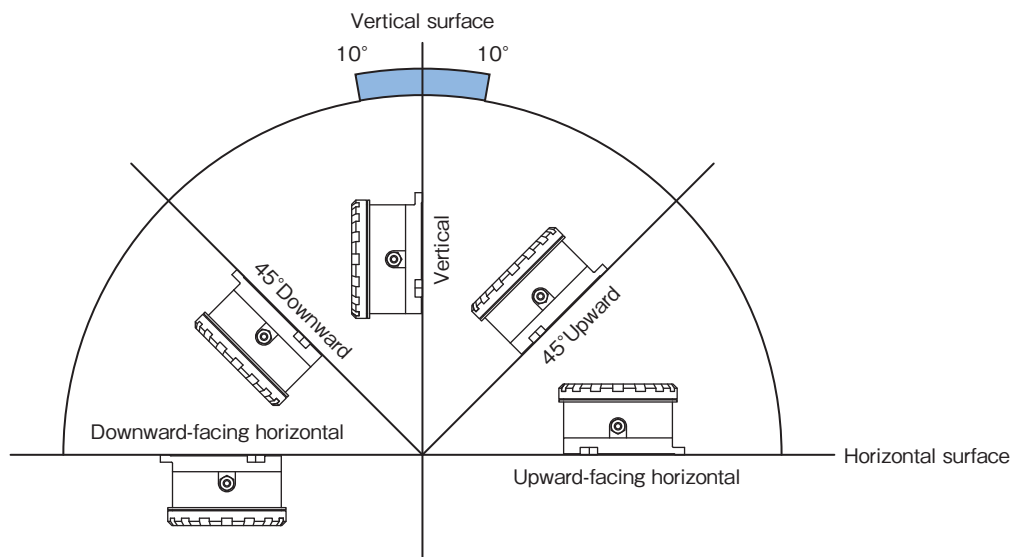


Differential pressure range	Minor graduation
3 to 0 to 3kPa	0.04kPa

### Position Orientations

No need to specify tilt angle for use in (  ) zone.

Downward-facing horizontal is not available where 100Pa full scale range and below are the requirements.



Consult factory for other position orientations when ordering.

