

# DG55 · 56 · 57 · 58

## Differential Pressure Gauge

### Overview

This compact differential pressure gauge can measure other various measuring units other than pressure to monitor level or flow measurements. Contact switch is utilized mainly for alarm or pressure control application throughout relay contact.

### Features

- Easy pressure reading with large dial scale
- Reliable low differential pressure measurement with high pressure proof



\*Reference pressure is the pressure to reference, or less fluctuating pressure side. Proof pressure against single port means the maximum over differential pressure.

### Specifications 1

#### Model:

DG55 · 57 General fine differential pressure gauge  
DG56 · 58 Fine differential pressure switch

#### Media:

Gases or liquids (DG57 · 58), Gases (DG55 · 56)

#### Operating environment:

Install in location where no gases or liquids may exist that have the potential to become flammable or ignitable under normal operating condition (for DG56 · 58)

#### Mounting:

Panel mounting

#### Size:

φ200

#### Connection:

G3/8B, G1/2B, 1/2NPT

#### Wetted parts:

General type

DG55 · 56 Bellows C5212R Gasket NBR, Fluororubber  
Pressure container C3604BD Spring SUS304

DG57 · 58 Bellows SUS316L Gasket NBR, Fluororubber  
Pressure container SUS316 Spring SUS304  
SS400

Corrosion resistant type

Bellows SUS316L Gasket NBR, Fluororubber  
Pressure container SUS316 Spring SUS304

#### Differential pressure range:

DG55 · 56 0 to 15→0 to 50kPa  
DG57 · 58 0 to 100kPa→0 to 1MPa

#### Reference pressure:

DG55 · 56 0 to 3MPa  
DG57 · 58 0 to 8MPa

#### Proof pressure for single port:

DG55 · 56 3MPa  
DG57 · 58 8MPa

#### Operating temperature range:

-5 to 40°C (Non-freezing)

#### Accuracy:

±2%F.S.  
(±3%F.S. for 30kPa and below (DG55 · 56))

#### Case material · finish:

AC7A · Black

#### Manifold valve: (Option)

Three-way valve in combination with stop valve both for high and low pressure, and equalizing valve. It prevents from overpressure, reversed pressure during zero point monitoring, zero adjustment operation or when the process starts its operation.

#### Custom dial: (Option)

Custom letters, colored circle and customer's logo

#### Weight:

Approx. 11kg to 17.9kg

### Specifications 2

#### Minimum scale:

Differential pressure range	Minimum scale	
0 to 15kPa	0.5kPa	
0 to 20	0.5	
0 to 30	1	DG55
0 to 40	1	DG56
0 to 50	1	
0 to 100	2	
0 to 200	5	
0 to 300	10	DG57
0 to 400	10	DG58
0 to 600	20	
0 to 1MPa	0.02MPa	

#### Electrical rating (DG56 · 58):

Rating			Withstand voltage	Insulation resistance
	Load resistance	Inductive load ※		
100V AC	0.5A	0.05A	1000V AC Between terminal and case 1 minute	500V AC 100MΩ and above Between each terminal and case
100V DC	0.05A	0.01A		
· For inductive load power factor 0.6 and above (AC) Time constant 7ms and below (DC)				
※Ensure the use of contact protecting diode.				

\*Ensure the use of protection circuit against inrush current caused by the use of inductive load or long cable (dozens of meters).

### Specifications for DG56 · 58 differential pressure switch

#### Setting accuracy:

±2%F.S. (DG56 ±3%F.S. for 30kPa and below)

#### Repeatability:

±1%F.S.

#### Deadband:

Fixed 2%F.S. and below (DG56 ±3%F.S. for 30kPa and below)

#### Temperature coefficient:

±0.05%F.S./°C

#### Switch:

Contact switch (Open low-contact pressure)

Adjust setting value to normally-open for the normal pressure condition because it generates indication error when switch is operated.

#### Number of contacts:

One contact or two contacts ※Ensure the use of normally-open

#### Setting method:

Internally adjustable

#### Electrical wire outlet:

Conduit type G3/4, G1/2,  
Rc1/2, 1/2NPT  
Gland JIS 20b

### Switch action and wirings

#### DG56 · 58 Differential pressure switch

Model	Switch action	Mark	Diagram of switch action	Wiring terminal number	Setting pointer
DG56 DG58	Upper limit with one contact	H	When differential pressure goes up and reaches at set point, switch operates and turn circuit ON. 	① — ②	Black pointer
	Lower limit with one contact	L	When differential pressure goes down and reaches at set point, switch operates and turn circuit ON. 	① — ②	Black pointer
	Upper and lower limit with two contacts	HL	Combination of upper and lower limit with two contacts without independent operation due its common use of electrode terminal.	① — ② ② — ③	Black pointer Red pointer

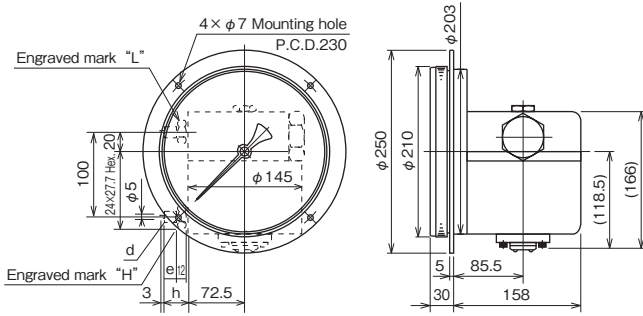
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## Differential Pressure Gauge

### Dimensions

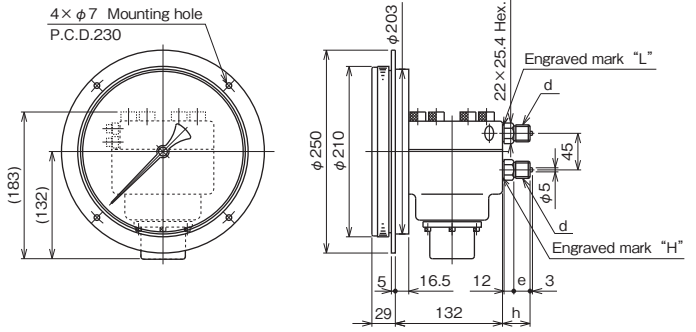
Unit: mm

DG55



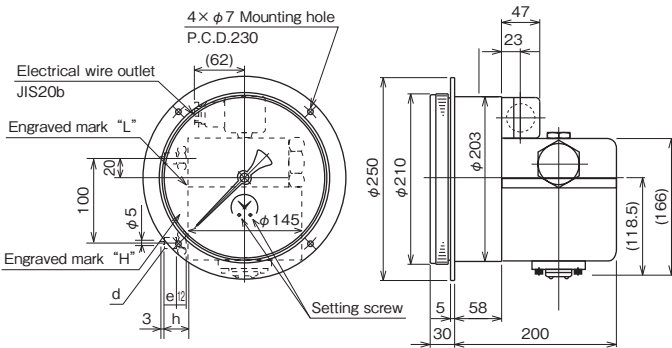
Model number	d	e	h
DG55-23□	G 3/8 B	18	34
-24□	G 1/2 B	20	36

DG57



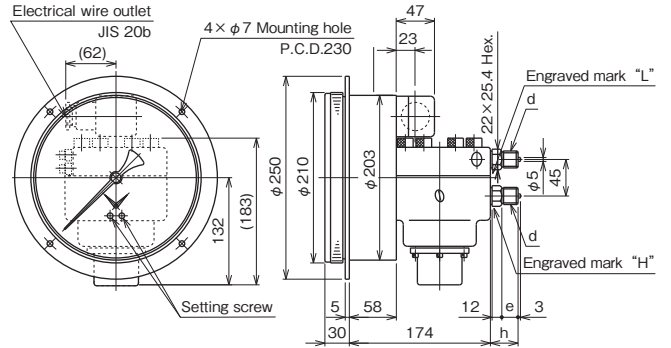
Model number	d	e	h
DG57-23□	G 3/8 B	18	32
-24□	G 1/2 B	20	34

DG56



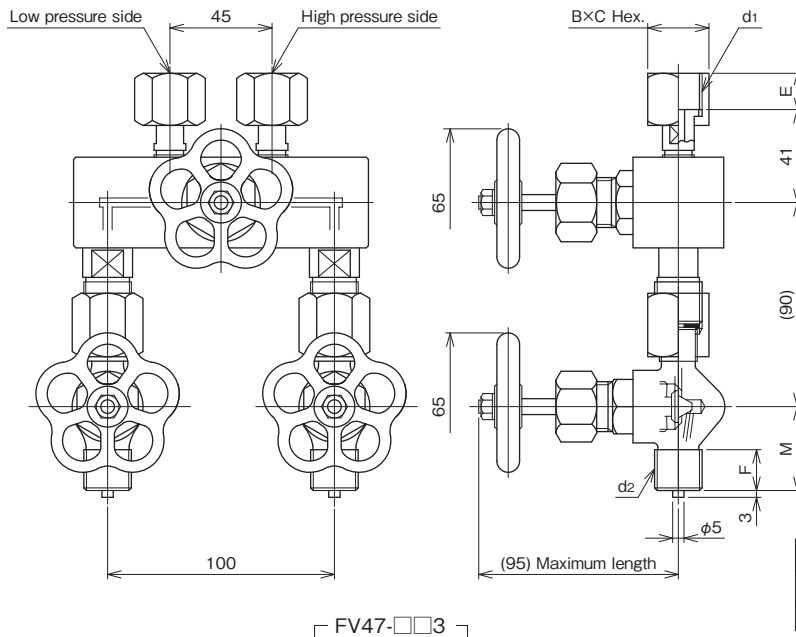
Model number	d	e	h
DG56-□3□	G 3/8 B	18	34
-□4□	G 1/2 B	20	36

DG58



Model number	d	e	h
DG58-□3□	G 3/8 B	18	32
-□4□	G 1/2 B	20	34

### Manifold valve: (Option)



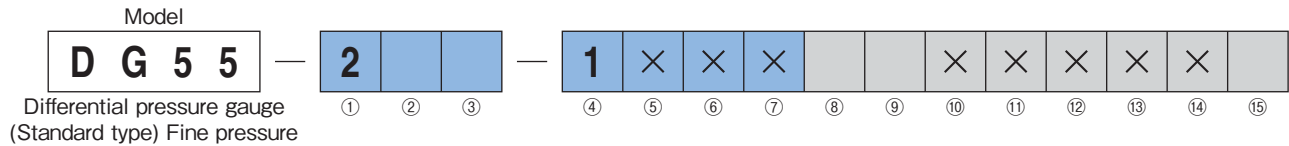
Model number	d1 × d2	B × C	E	F	M
FV47-333	G 3/8 × G 3/8 B	22 × 25.4	14	16	35
-443	G 1/2 × G 1/2 B	27 × 31.2	16	18	37

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## Differential Pressure Gauge

### Model number configuration

Please specify the model, each requiring specification and differential pressure range to order.



Model number		Product specifications	Additional specifications (Optional)
① Mounting	2	Panel mounting	
② Connection	3	G3/8B	
	4	G1/2B	
	M	1/2NPT	
③ Wetted parts	1	General use Bellows: C5212R, Gasket: NBR, Fluororubber, Pressure container: C3604BD, Spring: SUS304	
	3	Corrosion resistant Bellows: SUS316L, Gasket: NBR, Fluororubber, Pressure container: SUS316, Spring: SUS304	
④ Differential pressure range	1	0 to 15, 20, 30, 40, 50kPa	
	⑧ Treatment	0	Not required
	1	Use no oil	
	2	Use no water	
	3	Use no oil & water	
⑨ Other additional spec.	0	Not required	
	1	Required (Specify required additional spec.) Custom dial [Note] (Separate order) Manifold valve FV47-333 G3/8×G3/8B FV47-443 G1/2×G1/2B	
⑮ Documents	0	Not required	
	1	Required (Documents available upon request) Datasheet (Drawing / Specifications) Instruction manual Inspection procedure Mill test report Calibration test report (One-part one sheet) Inspection / Traceability certificate Strength calculation Attending inspection	

Please specify differential pressure range and unit of measure along with corresponding ordering code.

• Specify reference pressure and reference side (L or H) when ordering.

[Scope of manufacturing]

• Reference pressure: 3MPa

• Indication accuracy: ±2%F.S.  
(±3%F.S. for 30kPa and below)

[Note] Custom dial: Custom letters, colored circle and customer's logo

• Overpressure safety valve

\* Specify code "X" to refer N/A

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## Differential Pressure Gauge

### Model number configuration

Please specify the model, each requiring specification and differential pressure range to order.

Model

D	G	5	6	—	2			—	1	0			×	×	×	×	×			
					①	②	③		④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮

Differential pressure gauge (with Switch) Fine pressure

Model number	Product specifications	Additional specifications (Optional)
① Mounting	2	Panel mounting
② Connection	3	G3/8B
	4	G1/2B
	M	1/2NPT
③ Wetted parts	1	General use Bellows: C5212R, Gasket: NBR, Fluororubber, Pressure container: C3604BD, Spring: SUS304
	3	Corrosion resistant Bellows: SUS316L, Gasket: NBR, Fluororubber, Pressure container: SUS316, Spring: SUS304
④ Differential pressure range	1	0 to 15, 20, 30, 40, 50kPa
	⑤ Contact	A H : Upper limit with one contact B L : Lower limit with one contact C HL : Upper and lower limit with two contacts
⑥ Switch	0	Standard (Micro switch)
⑦ Electrical wire outlet	7	JIS 20b For gland
	B	G1/2 For conduit type
	C	G3/4 (Standard) For conduit type
	J	Rc1/2 For conduit type
	K	1/2NPT female For conduit type
		Others
⑧ Treatment	0	Not required
	1	Use no oil
	2	Use no water
	3	Use no oil & water
⑨ Other additional spec.	0	Not required
	1	Required (Specify required additional spec.) Custom dial [Note] (Separate order) Manifold valve FV47-333 G3/8×G3/8B FV47-443 G1/2×G1/2B
⑮ Documents	0	Not required
	1	Required (Documents available upon request) Datasheet (Drawing / Specifications) Instruction manual Inspection procedure Mill test report Calibration test report (One-part one sheet) Inspection / Traceability certificate Strength calculation Attending inspection

Please specify differential pressure range and unit of measure along with corresponding ordering code.

• Specify reference pressure and reference side (L or H) when ordering.

[Scope of manufacturing]  
• Reference pressure: 3MPa

• Indication accuracy: ±2%F.S.  
(±3%F.S. for 30kPa and below)

[Note] Custom dial: Custom letters, colored circle and customer's logo

• Overpressure safety valve

○As setting scale on dial includes setting error, ensure the use of master gauge and reference pressure gauge to maintain accurate setting.

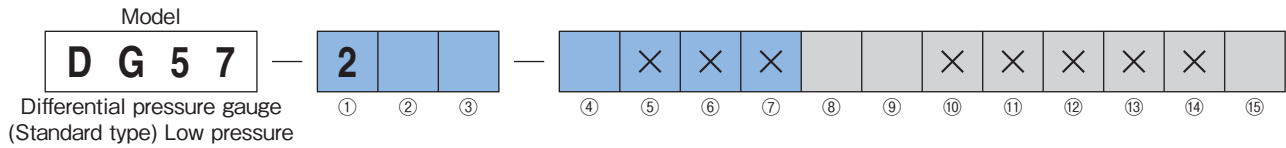
\* Specify code "X" to refer N/A

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## Differential Pressure Gauge

### Model number configuration

Please specify the model, each requiring specification and differential pressure range to order.



Model number		Product specifications	Additional specifications (Optional)
① Mounting	2	Panel mounting	
② Connection	3	G3/8B	
	4	G1/2B	
	M	1/2NPT	
③ Wetted parts		General use Bellows: SUS316L, Gasket: NBR, Fluororubber, Pressure container: SUS316, SS400, Spring: SUS304	
	3	Corrosion resistant Bellows: SUS316L, Gasket: NBR, Fluororubber, Pressure container: SUS316, Spring: SUS304	
④ Differential pressure range	1	0 to 100, 200, 300, 400, 600kPa	
	2	0 to 1MPa	
⑧ Treatment	0	Not required	
	1	Use no oil	
	2	Use no water	
	3	Use no oil & water	
⑨ Other additional spec.	0	Not required	
	1	Required (Specify required additional spec.) Custom dial [Note] (Separate order) Manifold valve FV47-333 G3/8×G3/8B FV47-443 G1/2×G1/2B	
⑮ Documents	0	Not required	
	1	Required (Documents available upon request) Datasheet (Drawing / Specifications) Instruction manual Inspection procedure Mill test report Calibration test report (One-part one sheet) Inspection / Traceability certificate Strength calculation Attending inspection	

Please specify differential pressure range and unit of measure along with corresponding ordering code.

• Specify reference pressure and reference side (L or H) when ordering.

[Scope of manufacturing]

• Reference pressure: 8MPa

• Indication accuracy: ±2%F.S.

[Note] Custom dial: Custom letters, colored circle and customer's logo

• Overpressure safety valve

\* Specify code "X" to refer N/A

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## Differential Pressure Gauge

### Model number configuration

Please specify the model, each requiring specification and differential pressure range to order.

Model

**D G 5 8** — **2** — **0** — × — × — × — × — × — ×

Differential pressure gauge (with Switch) Low pressure

Model number		Product specifications	Additional specifications (Optional)
① Mounting	2	Panel mounting	
② Connection	3	G3/8B	
	4	G1/2B	
	M	1/2NPT	
③ Wetted parts	1	General use Bellows: SUS316L, Gasket: NBR, Fluororubber, Pressure container: SUS316, SS400, Spring: SUS304	
	3	Corrosion resistant Bellows: SUS316L, Gasket: NBR, Fluororubber, Pressure container: SUS316, Spring: SUS304	
④ Differential pressure range	1	0 to 100, 200, 300, 400, 600kPa	
	2	0 to 1MPa	
⑤ Contact	A	H : Upper limit with one contact	
	B	L : Lower limit with one contact	
	C	HL : Upper and lower limit with two contacts	
⑥ Switch	0	Standard (Micro switch)	
⑦ Electrical wire outlet	7	JIS 20b	For gland
	B	G1/2	For conduit type
	C	G3/4 (Standard)	For conduit type
	J	Rc1/2	For conduit type
	K	1/2NPT female	For conduit type
			Others
⑧ Treatment	0	Not required	
	1	Use no oil	
	2	Use no water	
	3	Use no oil & water	
⑨ Other additional spec.	0	Not required	
	1	Required (Specify required additional spec.) Custom dial [Note] (Separate order) Manifold valve FV47-333 G3/8×G3/8B FV47-443 G1/2×G1/2B	
⑮ Documents	0	Not required	
	1	Required (Documents available upon request) Datasheet (Drawing / Specifications) Instruction manual Inspection procedure Mill test report Calibration test report (One-part one sheet) Inspection / Traceability certificate Strength calculation Attending inspection	

Please specify differential pressure range and unit of measure along with corresponding ordering code.

• Specify reference pressure and reference side (L or H) when ordering.

[Scope of manufacturing]

• Reference pressure: 8MPa

• Indication accuracy: ±2%F.S.

[Note] Custom dial: Custom letters, colored circle and customer's logo

• Overpressure safety valve

○As setting scale on dial includes setting error, ensure the use of master gauge and reference pressure gauge to maintain accurate setting.

\* Specify code "X" to refer N/A