

DG93 · 94

Fine Differential Pressure Gauge

Overview

This differential pressure gauge designed for 4kPa and below low pressure range can measure other various measuring units other than pressure to monitor level or flow measurements.

Features

- Pressure sensing element is stainless-steel bellows so that it can feature high corrosion resistance.
- 270° dial scale angle helps for easy reading.
- $\pm 1.5\%$ F.S. high accuracy ($\pm 2\%$ F.S. for DG94)
- Comes standard with air vent.
- Selectable upper connection mounting or lower connection mounting available for easy installation
- Since lead switch is used, switch action part is not influenced by external environment with long life and high reliability (DG94).



*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:

DG93 General fine differential pressure gauge
DG94 Fine differential pressure switch

Media:

Gases or liquids (Same process media against H, L ports)
When process media is fluid, error can be generated because of its incomplete ventilation.

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 DG94)

Mounting:

2B pipe, wall mounting

Size:

$\phi 150$

Connection:

Rc1/4

Wetted parts:

Pressure container SCS14
Bellows SUS316L
Sealing part NBR

Differential pressure range:

0 to 1 → 0 to 4kPa

Reference pressure:

0 to 500kPa

Proof pressure for single port:

20kPa

Operating temperature range:

-5 to 40°C (Non-freezing)

Accuracy:

$\pm 1.5\%$ F.S. (DG93)
 $\pm 2\%$ F.S. (DG94)

Dial scale angle:

270° (DG93)
250° (DG94)

Case material · finish:

AC7A · Black

Zero adjustment:

Internally adjustable

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.

Weight: (Option)

Custom letters, colored circle and customer's logo

Weight:

Approx. 6.3kg to Approx. 8.3kg

DG93·94

Fine Differential Pressure Gauge

Specifications 2

Electrical rating (DG94):

Switch	Rating	Withstand voltage	Insulation resistance	Description
Lead switch	125V AC 0.2A 200V DC 0.25A 100V DC 0.7A (Load resistance)	Between non-continuous terminal strip 400V AC 1 minute Between terminal and case 600V AC 1 minute	500V DC 100MΩ and above Between each terminal and case	<ul style="list-style-type: none"> Ensure the use of protection circuit when capacity load, lamp or long cable are in use carrying inductive load or surge current (Inrush current). Not available for 200V AC use

Specifications for DG94 pressure switch

Setting accuracy:

±2%F.S.

Repeatability:

±1%F.S.

Deadband:

Fixed 5%F.S. and below

Temperature coefficient:

±0.05%F.S./°C

Switch:

Lead switch

Number of contacts:

One contact or two contacts

Setting method:

Internally adjustable

Electrical wire outlet:

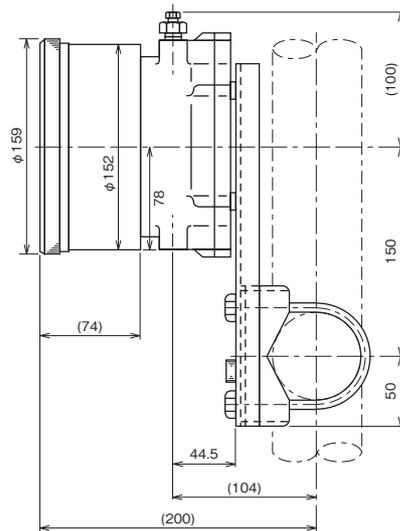
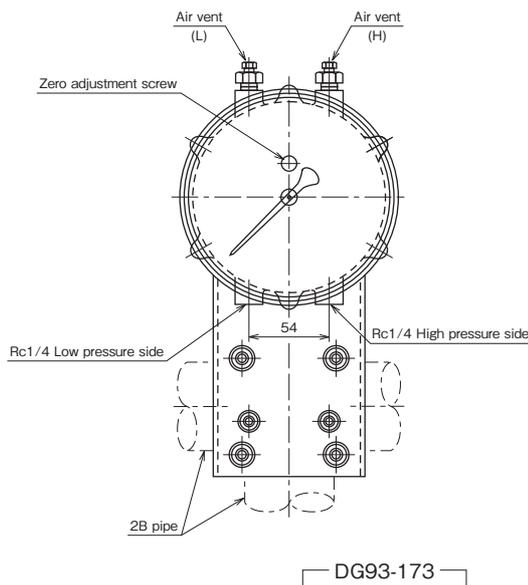
Conduit type G3/4, G1/2, Rc1/2, 1/2NPT

Gland JIS 20b

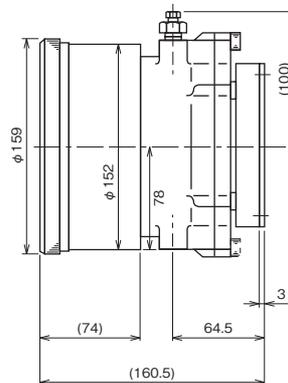
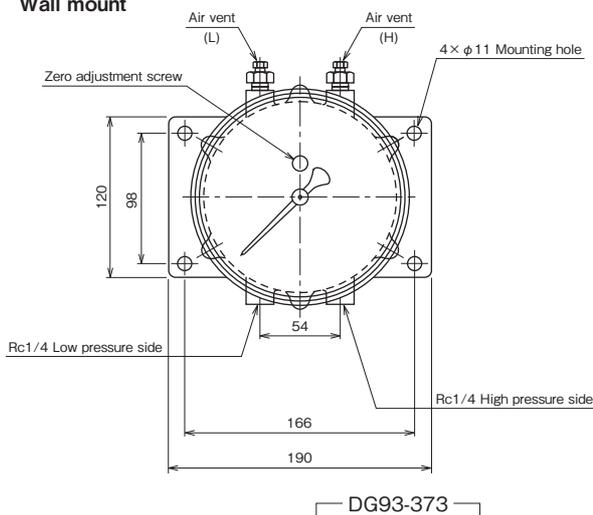
Dimensions 1

Unit: mm

2B pipe



Wall mount



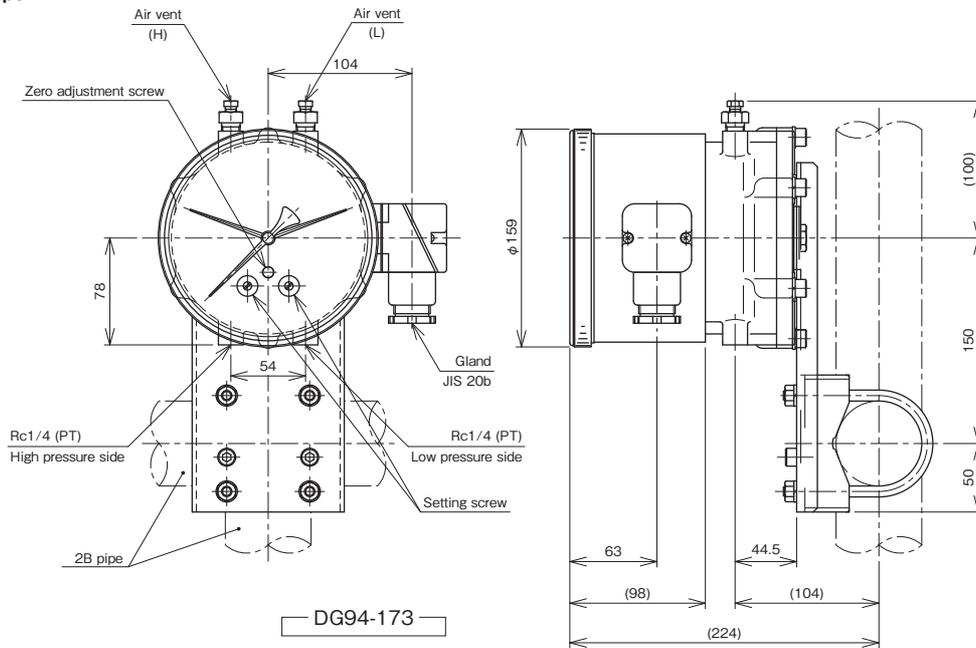
DG93·94

Fine Differential Pressure Gauge

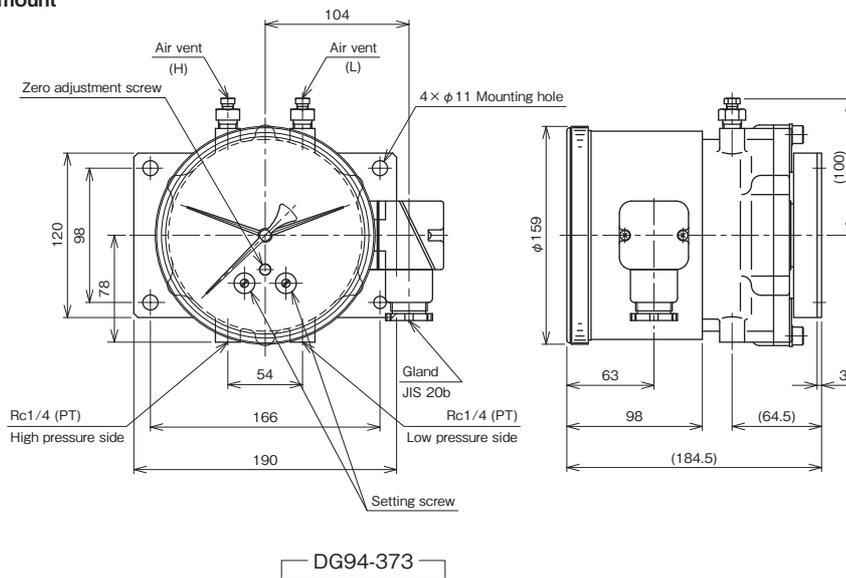
Dimensions 2

Unit: mm

2B pipe

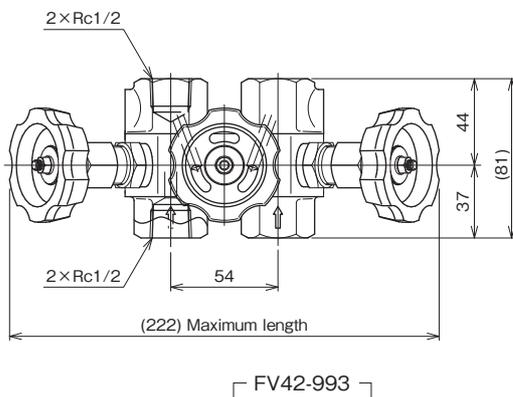


Wall mount

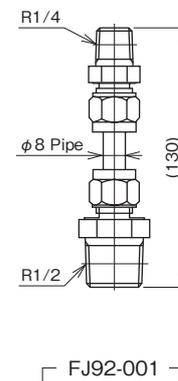


Manifold valve: (Option)

* Need 2 pcs of FJ92-001 to mate to diff. P. gauge.



Manifold adapter: (Option)



DG93·94

Fine Differential Pressure Gauge

Model number configuration

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

Model

D G 9 3 — **7 3** — **X X X** — **X X X X X**

Fine Differential Pressure Gauge ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number		Product specifications		Additional specifications (Optional)	
① Type	1	2B pipe			
	3	Wall mounting			
② Connection	7	Rc1/4			
	3	Pressure container: SCS14 Bellows : SUS316L Sealing part : NBR			
③ Wetted parts	1	0 to 1			
	2	0 to 2			
	3	0 to 3			
	4	0 to 4			
④ Differential pressure range (kPa)	0	Not required			
	1	Use no oil			
	2	Use no water			
	3	Use no oil & water			
⑤ Treatment	0	Not required			
	1	Required (Specify required additional spec below.) Custom dial [Note 1] (Separate order) Manifold valve FV42-993 Rc1/2 FV42-995 Certified by the Minister of Trade and Industry FV42-DD3 1/2NPT Adapter for FV42 FJ92 (Need 2 pcs) FV42 Use no oil and water standard (No labeled)			
⑥ Other additional spec.	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 Attending inspection			
⑦ 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 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.

[Note 1] Custom dial: Custom letters, colored circle and customer's logo

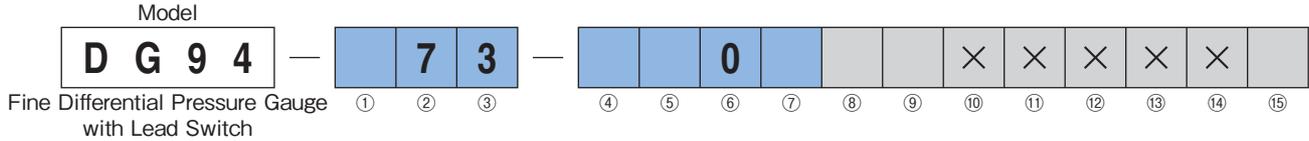
* Specify code "X" to refer N/A

DG93·94

Fine 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 Type	1	2B pipe		
	3	Wall mounting		
② Connection	7	Rc1/4		
③ Wetted parts	3	Pressure container: SCS14		
		Bellows : SUS316L Sealing part : NBR		
④ Differential pressure range (kPa)	1	0 to 1		
	2	0 to 2		
	3	0 to 3		
	4	0 to 4		
⑤ Switch action	A	H : Upper limit with one contact		
	B	L : Lower limit with one contact		
	C	HL: Upper and lower limit with two contacts		
	D	2H: Upper limit with two contacts		
	E	2L : Lower limit with two contacts		
⑥ Switch type	0	Standard (Lead 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 below.) Custom dial [Note 1] (Separate order) Manifold valve FV42-993 Rc1/2 FV42-995 Certified by the Minister of Trade and Industry FV42-DD3 1/2NPT Adapter for FV42 FJ92 (Need 2 pcs) FV42 Use no oil and water standard (No labeled)		
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 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]

• Indication accuracy: $\pm 2\%$ F.S.

• Setting accuracy: $\pm 2\%$ F.S.

[Note 1] Custom dial: Custom letters, colored circle and customer's logo

• Zero adjustment screw, air vent, filter

* Specify code "X" to refer N/A