

GD1_

Duplex Pressure Gauge

Overview

This pressure gauge features two pressure connections to measure simultaneously two different pressures for limited space instead of installing two pressure gauges. It can be used for railway application to measure both air tank pressure and break cylinder pressure with one indicator.

Features

- Features two pointers to read two different pressures for easy comparison
- Saves space and number of pressure gauges where there is limited space

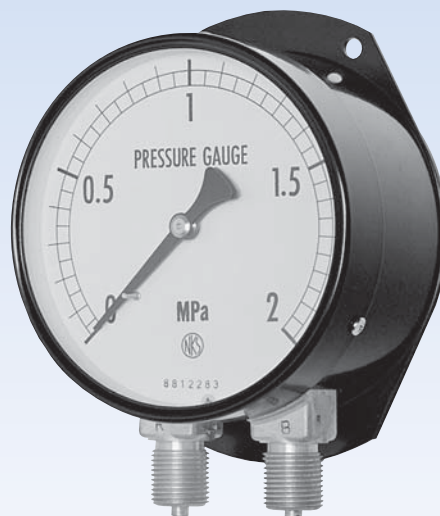
*To maximize performance, select full scale pressure range to indicate normal operating pressure which comes to conditions below.

For constant pressure : The maximum operating pressure should not exceed three-quarters of the full-scale range.

For fluctuating pressure: The maximum operating pressure should not exceed two-thirds of the full-scale range.

Select appropriate wetted parts compatible with process fluid (gas and liquid) which the gauge will be subjected.

Please refer to JIS B 7505-1 for details.



Specifications 1

Media:

Gases, liquids

Size:


φ 75, φ 100, φ 150, □110

Type:

Stem ·····  B type
(Mounting hole)



C type
(Mounting hole)

Panel ·····  D type
(Mounting clamp, mounting hole)
Square type
(Mounting bolt, mounting clamp)

* Consult us for railway application type can be made.

Connection:

G1/4B, G3/8B, Rc1/4

Wetted parts:

General type

Bourdon tube C6872 (SUS316 for 5MPa and above)

Socket φ 75, φ 100 ·····C3771

φ 150, □110 ·····CAC203

Corrosion resistant type (φ 75 not available)

Bourdon tube SUS316

Socket SUS316

Pressure range:

0 to 0.2 → 0 to 35MPa

-0.1 to 0.1 → -0.1 to 2MPa

(Varies depending on model number)

Operating temperature range:

-5 to 45°C

Accuracy:

±1.5%F.S.

Blow out protection:

Blow out protection is used to protect window being blown up in case of high pressure leak happen from the failure of bourdon tube.

The disc breaks and releases inner over pressure.

Caution To maintain appropriate performance, space wider than 10mm against wall behind installing gauge is needed. Modification toward disk and plug, blocking out the disk are prohibited.

Case material · finish:

ADC12 (φ 150 AC7A) · Black

Treatment: (Option)

Use no oil and water ····· Oil/Water used in manufacturing the gauges had been flushed out & no oil/water residue remained inside its wetted parts.

Customized dial: (Option)

Capacity scale, dual scale, characters, circled dial

Verification standard inspection mark: (Option)

(φ 150 not available)

Consult us for available model and ranges.

Weight:

Approx. 0.6kg to 1.4kg

Specifications 2

Minimum scale:

Minimum scale	Pressure range MPa	Size	
		75	100·□110·150
	0 to 0.2	0.01	0.005
	to 0.3	0.01	0.01
	to 0.4	0.02	0.01
	to 0.6	0.02	0.02
	to 1	0.05	0.02
	to 1.5	0.05	0.05
	to 2	0.1	0.05
	to 2.5	0.1	0.05
	to 3.5	0.1	0.1
	to 5	—	0.1
	to 7	—	0.2
	to 10	—	0.2

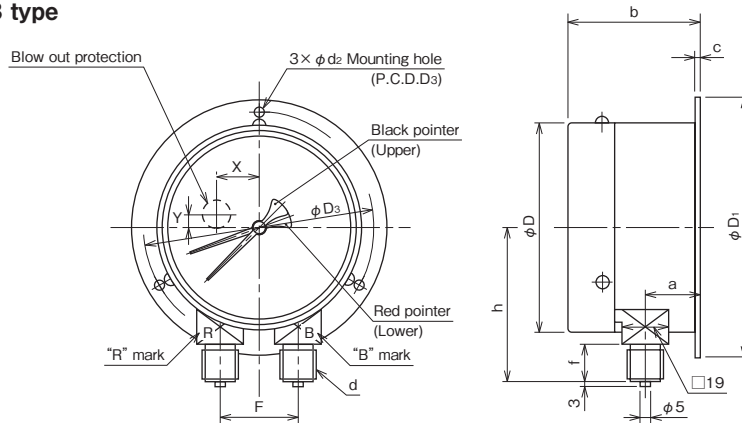
Minimum scale	Pressure range MPa	Size	
		75	100·□110·150
	0 to 15	—	0.5
	to 25	—	0.5
	* to 35	—	1
	-0.1 to 0.1	0.01	0.005
	to 0.2	0.01	0.01
	to 0.3	0.02	0.01
	to 0.4	0.02	0.01
	to 0.6	0.02	0.02
	to 1	0.05	0.02
	to 1.5	0.05	0.05
	to 2	0.1	0.05

* Only $\phi 150$ available

Dimensions 1

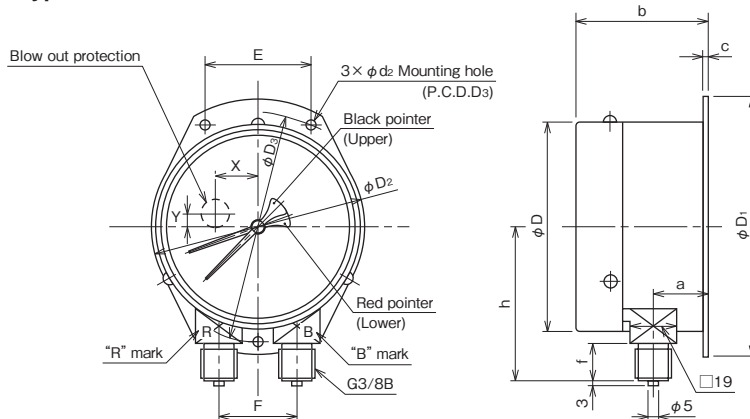
Unit: mm

B type



Size	Connection type d	Model number	Case dimension										Socket	
			D	D ₁	D ₃	F	a	b	c	d ₂	X	Y	f	h
75	T·G3/8B	GD10-23□	78	98	88	30	23	55	2.5	4.5	10	12	18	70
100	T·G3/8B	GD11-23□	103	128	115	35	28	65	2.5	5.5	22	5	18	75
150	T·G3/8B	GD12-23□	153	178	165	35	49	89	2.5	5.5	0	35	18	110

C type

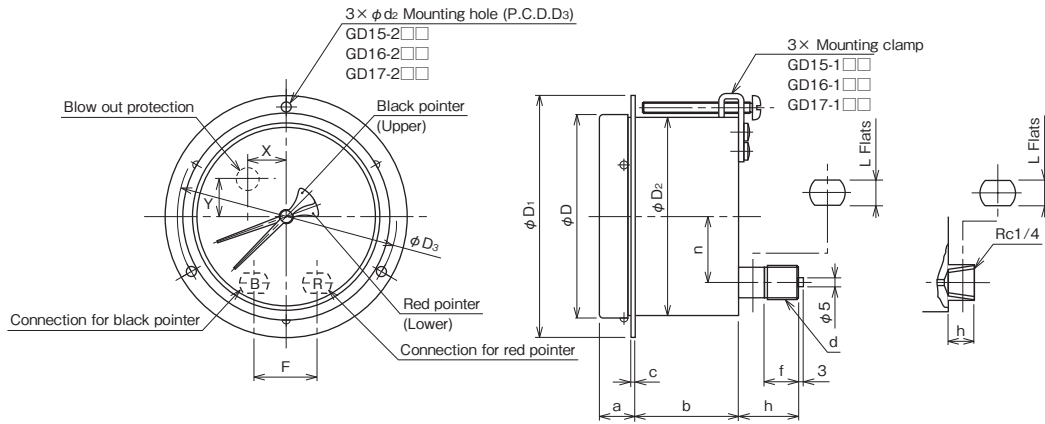


Size	Connection type d	Model number	Case dimension										Socket			
			D	D ₁	D ₂	D ₃	E	F	a	b	c	d ₂	X	Y	f	h
75	T·G3/8B	GD10-33□	78	98	79	88	40	30	23	55	2.5	4.5	10	12	18	70
100	T·G3/8B	GD11-33□	103	128	105	115	50	35	28	65	2.5	5.5	22	5	18	75

Dimensions 2

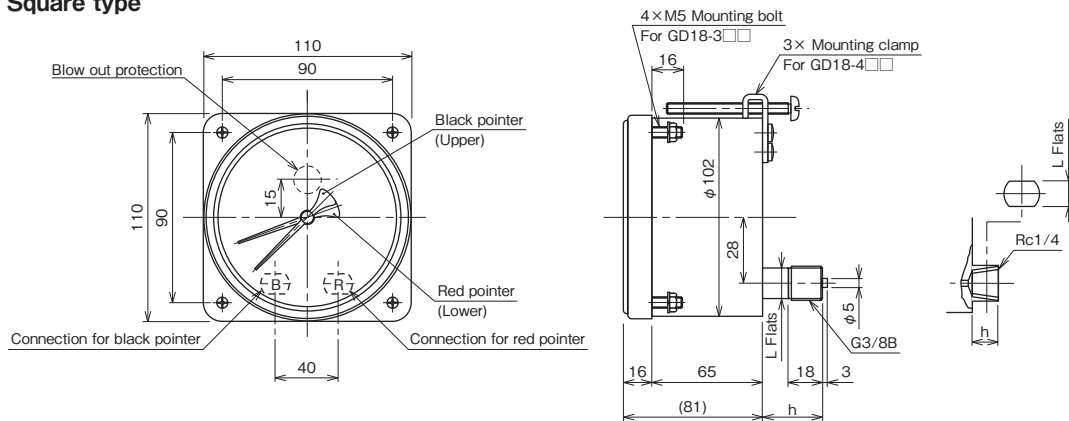
Unit: mm

D type



Size	Connection type d	Model number	Case dimension											Socket			
			D	D ₁	D ₂	D ₃	F	a	b	c	d ₂	n	X	Y	f	L	h
75	U·G1/4B	GD15-□21	78	98	77	88	25	20	48	2	4.5	25	15	10	16	12	28
100	U·G3/8B	GD16-□3□	103	128	102	115	40	21	59	2.5	5.5	28	20	10	18	14	30
	U·Rc1/4	GD16-□71													—	17	12
150	U·G3/8B	GD17-□3□	153	178	152	165	35	24	67	2.5	5.5	55	20	10	18	14	30
	U·Rc1/4	GD17-□71													—	17	12

Square type



Connection type d	Model number	Socket	
		L	h
U·G3/8B	GD18-□3□	14	30
U·G3/8B	GD18-□71	17	12

Verification standard inspection mark

About duplex pressure gauge with verification standard inspection mark:

Nagano Keiki is possible to mark 「Verification standard inspection mark printed for approved products instead of the conventional verification mark.

Type approval number:

Brass-made bourdon tube X952
SUS-made bourdon tube X9618

Designated manufacturing business operator number:

272001

Model number configuration

Please specify the model number, each specs and the range for ordering.

Model

G D 1 — **1** — **0 0 0** × × × × ×

Duplex Pressure Gauge (φ75)

Model number		Product specifications		Additional specifications (Optional)	
Type	0 Stem 5 Panel				
① Type	1	Stem	Panel		
	2	B type (Mounting hole)	D type (Mounting hole)		
	3	C type (Mounting hole)	D type (Mounting hole)		
② Connection	2	G1/4B	GD15のみ		
	3	G3/8B	GD10のみ		
③ Wetted parts	1	General type			
④ Pressure range (MPa)	2	-0.1 to 0.1, 0.2, 0.3, 0.4, 0.6, 1, 1.5, 2 Compound range			
	3	0 to 0.2, 0.3, 0.4, 0.6, 1, 1.5, 2, 2.5, 3.5			
⑤ Accuracy	0	Standard (±1.5%F.S.)			
⑥ Pointer	0	Standard			
⑦ Window	0	Standard			
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 (Documents available upon request) Custom dial [Remarks 1], Case finish Accessories [Remarks 2], Verification standard inspection [Remarks 3]			
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 pressure range and unit of measure along with corresponding ordering code.

[Scope of manufacturing]

[Remarks 1] Capacity scale, dual scale, characters, circled dial

[Remarks 2] Accessories: G3/8 union nut, leather packing and ring

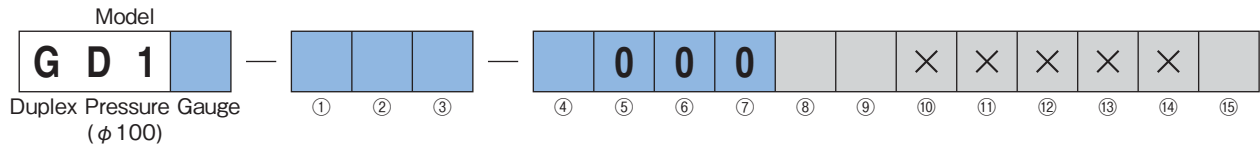
[Remarks 3] Consult us for available model number and pressure ranges.

· Weight: φ75 Approx. 0.6kg

* Specify code "X" to refer N/A

Model number configuration

Please specify the model number, each specs and the range for ordering.



Model number		Product specifications	Additional specifications (Optional)
Type	1	Stem	
	6	Panel	
① Type	1	D type (Mounting clamp)	
	2	D type (Mounting hole)	
	3		
② Connection	3	G3/8B	
	7	Rc1/4 GD16 Wetted parts: General type only	
③ Wetted parts	1	General type	
	3	Corrosion resistant type	
④ Pressure range (MPa)	1	20 to 100kPa (Receiver) GD16 For Connection Rc1/4 only	
	2	-0.1 to 0.1, 0.2, 0.3, 0.4, 0.6, 1, 1.5, 2 Compound range	
	3	0 to 0.2, 0.3, 0.4, 0.6, 1, 1.5, 2, 2.5, 3.5	
	4	0 to 5, 7, 10	
	5	0 to 15, 25	
⑤ Accuracy	0	Standard (±1.5%F.S.)	
⑥ Pointer	0	Standard	
⑦ Window	0	Standard	
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 (Documents available upon request) Custom dial [Remarks 1], Case finish Accessories [Remarks 2], Verification standard inspection [Remarks 3] (for 3.5MPa and below with general wetted parts)	
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 pressure range and unit of measure along with corresponding ordering code.

[Scope of manufacturing]

[Remarks 1] Capacity scale, dual scale, characters, circled dial

[Remarks 2] Accessories: G3/8 union nut, leather packing and ring

[Remarks 3] Consult us for available model number and pressure ranges.

· Weight: φ 100 Approx. 0.9kg

* Specify code "X" to refer N/A

Model number configuration

Please specify the model number, each specs and the range for ordering.

Model
G D 1 8 — —

Duplex Pressure Gauge (□110) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number		Product specifications	Additional specifications (Optional)
① Type	3	□110 Mounting bolt (Panel)	
	4	□110 Mounting clamp (Panel)	
② Connection	3	G3/8B	Wetted parts: General type only
	7	Rc1/4	
③ Wetted parts	1	General type	
	3	Corrosion resistant type	
④ Pressure range (MPa)	1	20 to 100kPa (Receiver)	For Connection Rc1/4 only
	2	-0.1 to 0.1, 0.2, 0.3, 0.4, 0.6, 1, 1.5, 2	Compound range
	3	0 to 0.2, 0.3, 0.4, 0.6, 1, 1.5, 2, 2.5, 3.5	
	4	0 to 5, 7, 10	
	5	0 to 15, 25	
⑤ Accuracy	0	Standard (±1.5%F.S.)	
⑥ Pointer	0	Standard	
⑦ Window	0	Standard	
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 (Documents available upon request) Custom dial [Remarks 1], Case finish Accessories [Remarks 2], Verification standard inspection [Remarks 3] (for 3.5MPa and below with general wetted parts)	
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 pressure range and unit of measure along with corresponding ordering code.

[Scope of manufacturing]

[Remarks 1] Capacity scale, dual scale, characters, circled dial

[Remarks 2] Accessories: G3/8 union nut, leather packing and ring

[Remarks 3] Consult us for available model number and pressure ranges.

• Weight: □110 Approx. 0.8kg

* Specify code "X" to refer N/A