

Thin pressure gauge

G401-W Series

Thin, compact design ideal for incorporating devices.

Suitable for filter regulator, regulator, and pressure switch (P4000-W).

● Connection: O ring seal, set screw

JIS symbol



Specifications

Descriptions		G401-W
Working fluid		Compressed air
Fluid temperature °C		5 to 60
Ambient temperature °C		5 to 60
Precision Class		JIS Class 3 equivalent ($\pm 3\%$ F.S. at 5 to 35°C)
Shape		Square shaped, set screw
Length of display section		$\varnothing 26$
Material	Housing	PBT Resin
	Lens	Polycarbonate resin
Pressure range MPa		0 to 0.4
		0 to 1.0
Connection		O ring seal, set screw
Weight g		11

How to order

G401 - **W** - **0P** - **P04**

(Standard white series)

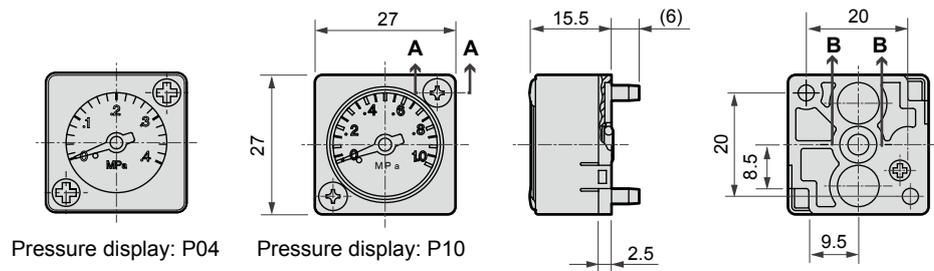
● **A** Connection

● **B** Pressure display

Symbol	Descriptions
A Connection	
Blank	Set screw for metal (nominal 3 tapping screw) (R3000, 4000, 8000 Series provided as standard) (R3100, 4100, 8100 Series provided as standard)
OP	Set screw for resin (nominal 3 tapping screw) (R1000, W1000 Series provided as standard)
B Pressure display [MPa]	
P04	0 to 0.4MPa
P10	0 to 1.0MPa

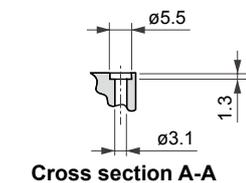
Dimensions and parts material

● G401



Pressure display: P04

Pressure display: P10



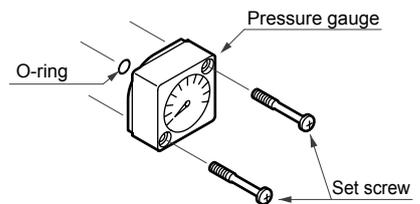
Cross section A-A



Cross section B-B

Part name:	Material
Bourdon tube	Phosphor bronze
Case	PBT Resin
Lens	Polycarbonate resin

● Pressure gauge assembly



* Tighten the mounting screw to 0.6 N·m or less.

Applications





Pressure gauge with safety mark

G40D / G50D Series

Green zone and red zone for easy management.

● Port size: Rc1/8 to Rc1/4

JIS symbol



Specifications

Descriptions	G40D, G50D	
	P10	P04
Working fluid	Compressed air	
Full scale MPa	1	0.4
Safety mark setting range MPa	0.15 to 1.0	0.06 to 0.4
Maximum setting range MPa	0.45	0.18
Ambient temperature °C	5 to 60	
Fluid temperature °C	5 to 60	
Port size R	1/8, 1/4	
Precision	JIS Class 3 equivalent ($\pm 3\%$ F.S. at 5 to 35°C)	
Weight g	G40D: 85	G50D: 100

How to order

G40D - 8 - P10

A Model no.

B Port size

C Pressure display

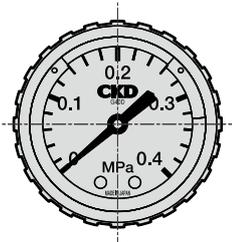
Symbol	Descriptions
A Model no.	
G40D	Pressure gauge with safety mark
G50D	Pressure gauge with safety mark
B Port size	
6	R1/8
8	R1/4
C Pressure display	
P10	For 0 to 1.0MPa
P04	For 0 to 0.4MPa

⚠ Cautions for model No. selection

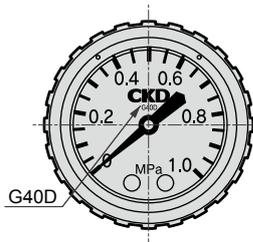
* Designate R1/4 when mounting on F.R.L. Series.

* Designate G40D-8 when selecting for F.R.L. 1000 Series.

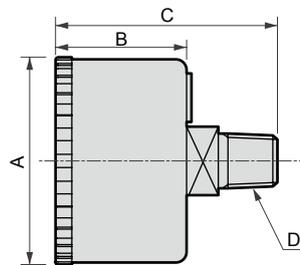
Dimensions and parts material



Pressure display: P04

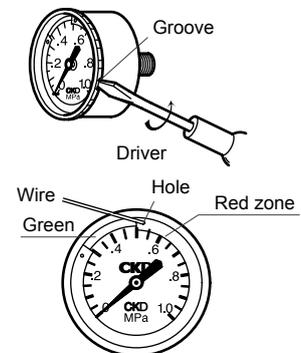


Pressure display: P10



How to adjust pressure range

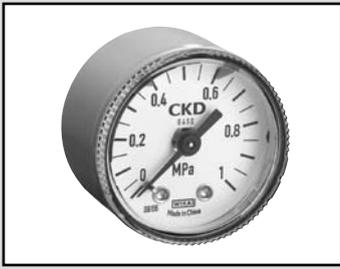
When opening the transparent case



Remove the transparent cover and insert a wire to the hole in red zone to move the red zone. After the adjustment, always supply compressed air after assembling the transparent cover.

Part name:	Material
Bourdon tube, stock	Brass
Housing	Steel sheet+paint
Lens	Polyamide resin
Mark section	PBT Resin

Model no.	A	B	C	D
G40D-6	∅	26.5	44	R1/8
G40D-8	42.5		46	R1/4
G50D-6	∅	27.5	44	R1/8
G50D-8	52.5		46	R1/4



Pressure gauge with limit mark

G45D Series

Easy visual inspection with green arrow.

● Port size: Rc1/8 to Rc1/4

JIS symbol



Specifications

Descriptions		G45D
Working fluid		Compressed air
Fluid temperature °C		5 to 60
Ambient temperature °C		5 to 60
Precision	Note 1	JIS Class 2.5 equivalent
Shape		Back side thread
Length of display section		ø39
Material	Stud	Brass
	Housing	Steel sheet+paint (white)
	Lens	Polyamide resin
	Mark section	Polyacetal resin
Pressure range MPa		0 to 0.2 0 to 0.4 0 to 1.0
(Setting range)		
Port size		R1/8, 1/4
Weight	g	74

Note 1: The guaranteed display accuracy temperature is 20 ± 15°C.

How to order

G45D - 6 - P04

A Model no.

B Port size

C Pressure display

Symbol	Descriptions
A Model no.	
G41D	Pressure gauge with limit mark
B Port size Note 1	
6	R1/8
8	R1/4
C Pressure display	
P02	0 to 0.2MPa
P04	0 to 0.4MPa
P10	0 to 1.0MPa

⚠ Cautions for model No. selection

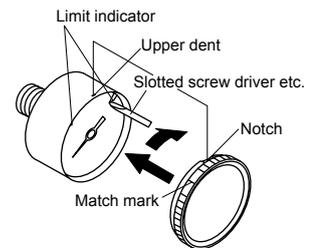
Note 1: NPT thread and G tread are custom orders.

How to adjust

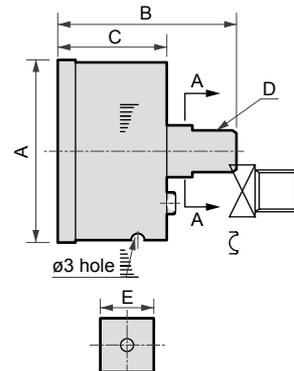
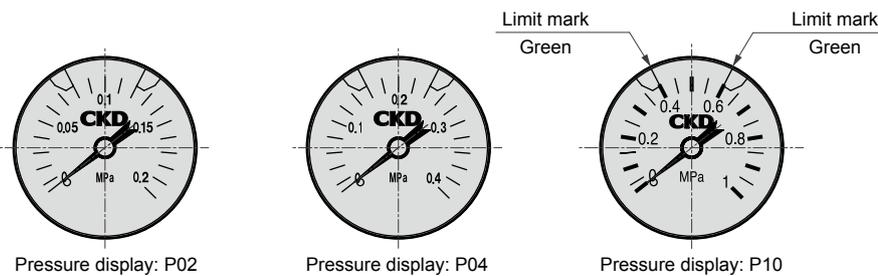
Turn the clear case counterclockwise and pull forward.

Move the green arrow with a slotted driver to set the limit mark. After the adjustment, always supply compressed air after assembling the transparent cover.

Do not bend other indicators and scale when setting the limit mark.



Dimensions



Cross section A-A

Model no.	A	B	C	D	E
G45D-6	ø39	41.5	26	R1/8	14
G45D-8	ø39	44.5	26	R1/4	14



Pressure gauge with limit mark

G41D Series

Easy visual inspection with green arrow.

● Port size: Rc1/8 to Rc1/4

JIS symbol



Specifications

Descriptions		G41D
Working fluid		Compressed air
Fluid temperature °C		5 to 60
Ambient temperature °C		5 to 60
Precision Note 1 Class		JIS Class 3 equivalent ($\pm 3\%$ F.S. at 5 to 35°C)
Shape		Back side thread
Length of display section		$\phi 42$
Material	Stud	Brass
	Housing	Stainless steel
	Lens	Polycarbonate resin
	Mark section	Polyacetal resin
Pressure range MPa (setting range)		0 to 0.2 0 to 0.4 0 to 1.0
Port size Note 1		R1/8, 1/4
Weight g		82

Note 1: The guaranteed display accuracy temperature is $20 \pm 15^\circ\text{C}$.

How to order

G41D - 6 - P04

A Model no.

B Port size

C Pressure display

Symbol	Descriptions
A Model no.	
G41D	Pressure gauge with limit mark
B Port size Note 1	
6	R1/8
8	R1/4
C Pressure display	
P02	0 to 0.2MPa
P04	0 to 0.4MPa
P10	0 to 1.0MPa

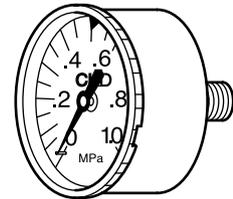
⚠ Cautions for model No. selection

Note 1: NPT thread and G tread are custom orders.

How to adjust

Remove the transparent cover, then move the green arrow with a screw driver, etc.

After the adjustment, always supply compressed air after assembling the transparent cover.



Remove the transparent cover by turning it counterclockwise and pulling it off.

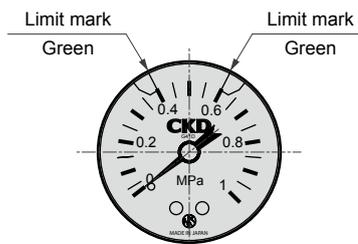
Dimensions



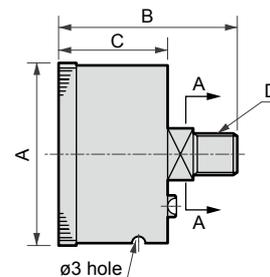
Pressure display: P02



Pressure display: P04



Pressure display: P10



Model no.	A	B	C	D	E
G41D-6	$\phi 42$	40.5	24.5	R1/8	12
G41D-8	$\phi 42$	44.5	24.5	R1/4	14



Cross section A-A



General purpose pressure gauge

G49D / G59D Series

● Port size: Rc1/8 to Rc1/4

JIS symbol



Specifications

Descriptions	G49D	G59D
Working fluid	Compressed air	
Fluid temperature °C	5 to 60	
Ambient temperature °C	5 to 60	
Precision Note 1	JIS Class 3 equivalent (±3%F.S. at 5 to 35°C)	
Shape	Back side thread	
Length of display section	ø42	ø52
Material	Stud	Brass Note 2
	Housing	Steel sheet+chrome plating
	Lens	Glass
Pressure range MPa	0 to 0.2 0 to 0.4 0 to 1.0 0 to 2.0	
Port size R	1/8, 1/4	
Weight g	86	115

Clean specification (Catalog No. CB-033SA)

● Dust generation preventing structure for use in cleanrooms

G49D - - **P9※**

G59D - - **P9※**

Copper and PTFE free specification (Page 179)

G49D - - **P6**

G59D - - **P6**

Note 1: The guaranteed display accuracy temperature is 20 ± 15°C.

Note 2: The material of the Bourdon's tube is phosphor bronze only for pressure indication "P20."

How to order

G49D - 6 - P02

A Model no.

B Port size

C Pressure display

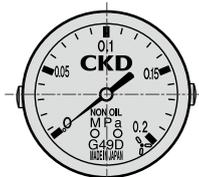
Symbol	Descriptions
A Model no.	
G49D	
G59D	
B Port size Note 2	
6	R1/8
8	R1/4
C Pressure display (MPa) Note 1	
P02	0 to 0.2
P04	0 to 0.4
P10	0 to 1.0
P20	0 to 2.0

⚠ Cautions for model No. selection

Note 1: Consult with CKD for indications other than MPa.

Note 2: NPT thread are custom orders.

Dimensions



Pressure display: P02



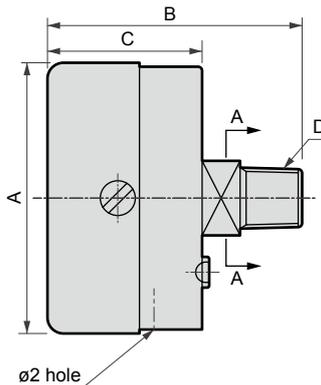
Pressure display: P04



Pressure display: P10



Pressure display: P20



Cross section A-A

Model no.	A	B	C	D	E
G49D-6	ø43.5	40.5	24.5	R1/8	12
G49D-8	ø43.5	44	24.5	R1/4	14
G59D-6	ø52	44.5	28	R1/8	12
G59D-8	ø52	46.5	28	R1/4	14
G49D-6-P6	ø42.8	43.5	27.5	R1/8	12
G59D-8-P6	ø51.8	52.5	30	R1/4	14



Pressure gauge for panel mount

G53D Series

JIS symbol



Main features

- Pressure gauge for panel mount
- M3 female thred port provided as standard

Specifications

Model no.		G53D
Working fluid		Compressed air
Fluid temperature	°C	5 to 60
Ambient temperature	°C	-5 to 60 (to be unfrozen)
Precision	Note 1	JIS Class 3 equivalent ($\pm 3\%$ F.S.)
Shape		Back side thread
Length of display section		$\phi 52$
Material	Stud	Brass
	Housing	Steel sheet+chrome plating
	Lens	Glass
Pressure range	MPa	0 to 0.2 0 to 0.4 0 to 1.0
Port size	R	1/8 (with M5 female thread), 1/4 (with M5 female thread)
Weight	g	100

Note 1: The guaranteed display accuracy temperature is $20 \pm 15^\circ\text{C}$.

How to order

G53D - 8 - P02

Model no.

A Port size

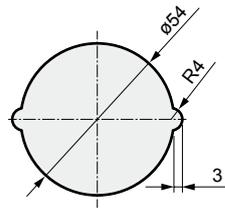
B Pressure display

Symbol	Descriptions
A Port size Note 1	
6	Rc1/8, M5 female thread
8	Rc1/4, M5 female thread
B Pressure display MPa Note 2	
P02	0 to 0.2
P04	0 to 0.4
P10	0 to 1.0

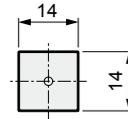
⚠ Cautions for model No. selection

Note 1: Consult with CKD when ordering NPT thread.
 Note 2: Consult with CKD for indications other than MPa.

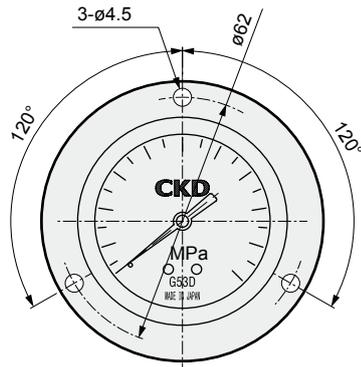
Dimensions



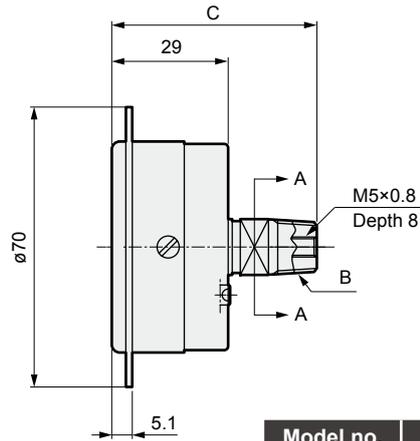
Panel cut dimensions



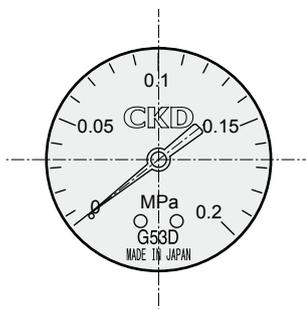
Cross section A-A



Scale indication



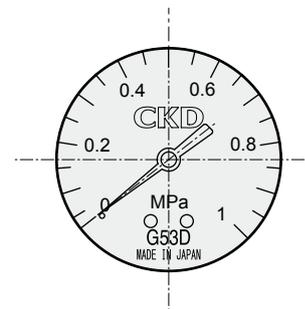
Model no.	B	C
G53D-6	Rc1/8	48
G53D-8	Rc1/4	51



Pressure display: P02



Pressure display: P04



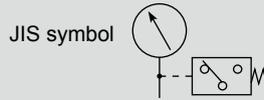
Pressure display: P10

⚠ Safety precautions

- Check that no impact or vibration is applied directly to the product.
- Repeated and sudden increase and decrease in pressure and pressure pulsation must be avoided because it could adversely affect the life of the pressure gauge.
Ease the pressure fluctuation in the circuit.



Pressure gauge with switch G52D Series



Main features

- Introducing a pressure switch function to the analog pressure gauge
- Optional non polarized connector
- Optional operation indicator light

Specifications

Descriptions		Pressure gauge
Working fluid		Compressed air
Fluid temperature °C		5 to 60
Ambient temperature °C		-5 to 60 (to be unfrozen)
Precision Note 1		JIS Class 3 equivalent (±3% F.S.)
Shape		Back side thread
Material	Stud	Brass
	Bourdon tube	Phosphor bronze
	Housing	Steel sheet+chrome plating
	Lens	Polycarbonate resin
	Setting needle	ABS resin (green)
Pressure range Note 2		0 to 1.0MPa
Port size		R 1/4
Weight		g 150

Note 1: The guaranteed display accuracy temperature is 20 ± 15°C.

Note 2: Do not apply pressure beyond max.indicated pressure. Otherwise, malfunctioning may occur.

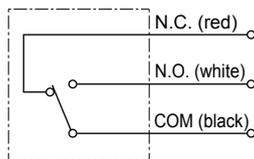
Descriptions		Pressure switch
Pressure switch setting range		0.1 to 0.8 MPa
Hysteresis		0.07MPa
Contact configuration		Without indicator light: 1ab (NO, NC), with indicator light: 1a (NO)
Setting indicator margin of error		±0.05MPa
Lead wire length		300mm
Electric connection		Without light: lead wire 3 pcs. With light:M12 connector (4 pin)
Indicator light		LED (load current: 8 to 30 mA)

Microswitch rated

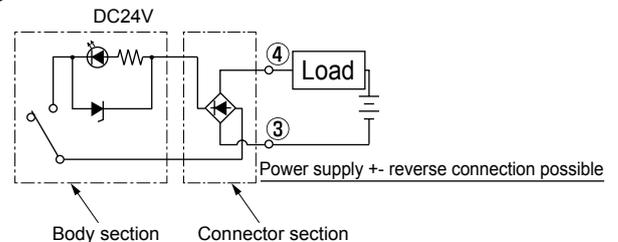
Load	Resistance load	
Rated voltage	DC30V	AC125V
Working current range	0.1 to 1A	0.1 to 1A

Wiring drawing

○ Without light



○ With light, LED



How to order

G52D - 8 - P10 - 3N

Model no.

B Port size

C Pressure display

D Option

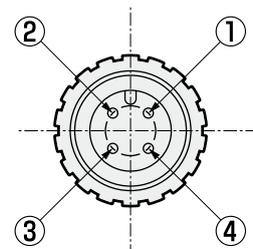
Symbol	Descriptions
B Port size	Note 1
8	R1/4
C Pressure display MPa	Note 2
P10	0 to 1.0
D Option	
Blank	Without light
3N	LED (DC24V) Not polarized

⚠ Cautions for model No. selection

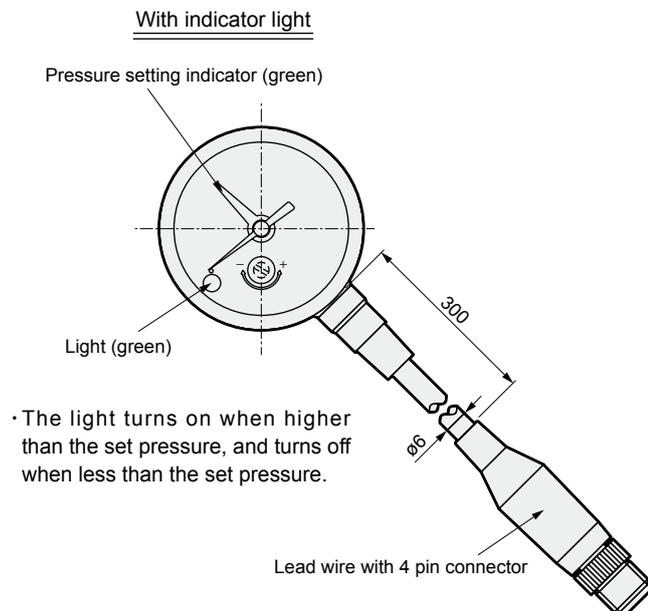
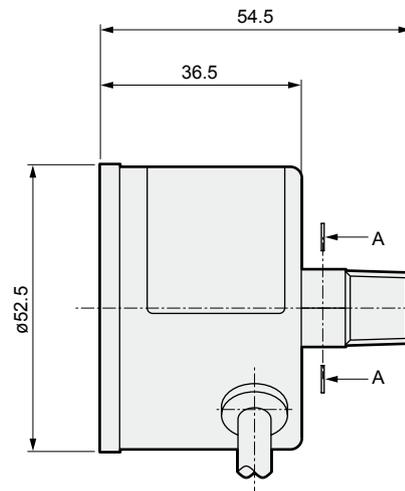
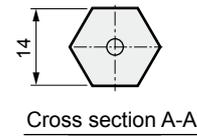
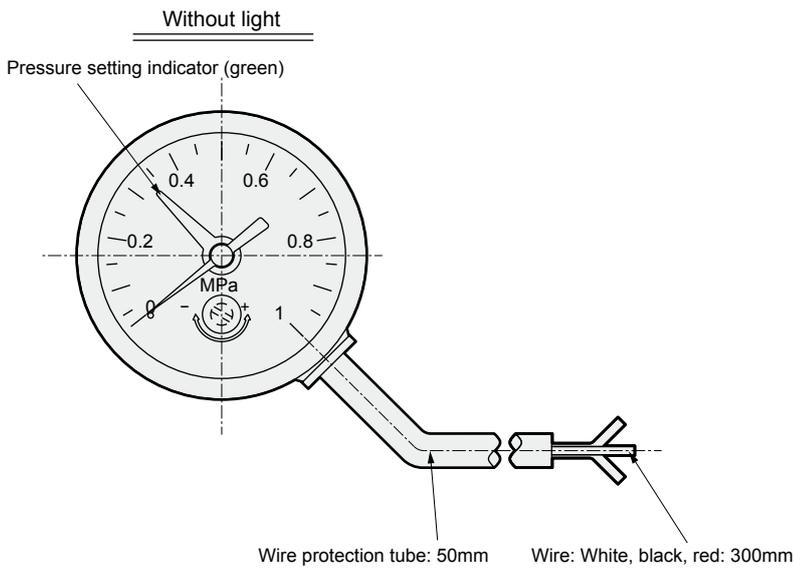
Note 1: Consult with CKD when ordering NPT thread.

Note 2: Consult with CKD for indications other than MPa.

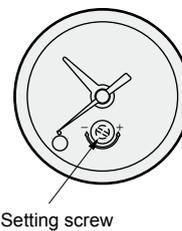
Terminal layout of male connector



Dimensions



How to set setting indicator



○ Pass a slotted screwdriver (width 2.9mm) through the rubber cap on the lens, and turn the setting screw to set the setting needle to the required pressure.

- * When turning the setting screw.
- Minus (-) side (clockwise)
→ Decreased set pressure range
- Plus (+) side (counterclockwise)
→ Increased set pressure range

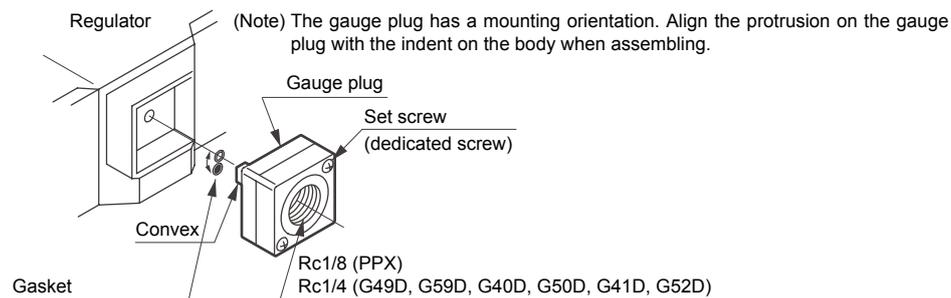
Safety precautions

- Do not apply impact or vibration directly to the product.
- Repeated and sudden increase and decrease in pressure and pressure pulsation must be avoided because it could adversely affect the life of the pressure gauge. Ease the pressure fluctuation in the circuit.
- The pressure switch uses disable operation if set pressure cannot be reached. Set the pressure switch value so that the setting indicator turns clockwise. If the setting indicator passes the setting position, turn the setting indicator counterclockwise once, then reset.
- Set the setting with a difference of 0.1 MPa or more from the working pressure (including pressure drop). Malfunctions could result if the difference is small. Refer to the drawings above for details on setting the setting needle. When using the pressure switch in the normal open state, the switch may not turn on when the pressure drops unless a pressure, to which the set indication error (± 0.05 MPa), hysteresis (0.07 MPa), and indicated accuracy ($\pm 3\%$ F/S) have been added, has been applied.
- Add the pressure gauge's indication accuracy to the maximum value of the setting indicator and indicator's error (set indicator error).
- When the DC light is used, the internal voltage drop is to be 4 V or less and load current 8 to 30 mA at 24 VDC.
- Wire the lead so that the repeated bending strain and tensile strength are not applied to the wire. Otherwise, braking faults may occur.

Pressure Gauge series

Gauge Plug Assembly (gauge plug, gasket, set screw assembly)

Use when mounting the pressure gauge.



If the gasket is turned 180° as shown in the drawing, regulator pressure flows to the pressure gauge.

- * Tighten the pressure gauge with a torque of 10 to 15N·m.
- * This can also be used to measure the pressure inside the regulator externally.
- * Contact CKD for NPT or G thread.

Gauge plug assembly model no.	Applicable model	Applicable pressure gauge
R1000-W-G-PLUG	1000-W Series	G49D, G59D, G40D, G50D, G41D, G52D
R1000-W-T6-PLUG		PPX
R3000-W-G-PLUG	2000-W, 3000-W, 4000-W,	G49D, G59D, G40D, G50D, G41D, G52D
R3000-W-T6-PLUG	6000-W, 8000-W	PPX