

General Industrial Pressure Gauges



This product is produced based on quality system of the International Organization for Standardization

OUTLINE

This is a pressure gauge in which pressure is transmitted to a pointer through elastic deformation (or movement) of a Bourdon tube. Its construction is simple and it is easy to use. The measuring range of pressure is extensive. It can be applicable to extensive and various fields.

FEATURES

- This pressure gauge is easy to read and easy to use.
- This pressure gauge is provided with wider pressure measuring ranges. When anticorrosion is required, we are pleased to comply with such requirements.
- * In case of selecting pressure gauge, choose the pressure range which can be used in between 30~65% of full scale, so that the gauge can give its full capacity.
- * Also should be confirmed whether the wetted parts material is suitable for the fluid or not.
- * For oxygen service, please order us "USE NO OIL".
- * For acetylene service, please order us "USE NO OIL" with corrosion proof.

SPECIFICATION 1


Fluid:

Gas or liquid

Size:

60 DIA. (Model:AA□□), 75 DIA.(Model:AC□□)
 100 DIA. (Model:AE□□), 150 DIA.(Model:AG□□)
 200 DIA. (Model:AJ□□),

Mounting:

Stem ...  Type A



Type B(Mounting hole), Type C

Stem ...  Type D(Mounting clamp, Mounting hole)

* Brass case is available.

Connection:

G1/4B(PF), G3/8B(PF), G1/2B(PF), 1/2NPT
 R1/4(PT), R3/8(PT), R1/2(PT)

* For other connections, please contact us.

Wetted parts material:

Wetted parts means generally Bourdon tube and socket, and these parts contact with fluid(gas or liquid)directly.

Purpose	Socket	Bourdon tube
General use	YBcC3, C3604BD or 316 st.st. (Depending on pressure range)	C6872T or 316 st.st. (Depending on pressure range, performance)
Ammonia use	316 st.st.	316 st.st.
Corrosion-proof use	316 st.st.	316 st.st.

Pressure range:

0 ~ 30kPa → 0 ~ 100MPa (0 ~ 0.3 → 0 ~ 1000kgf/cm²)

-0.1 ~ 0 → -0.1~2MPa

(76cmHg ~ 0kgf/cm² → 76cmHg ~ 20kgf/cm²)

* About detail, refer to the table of minimum graduation in SPECIFICATION 4.

Accuracy

±1.5% F.S.

SPECIFICATION 2

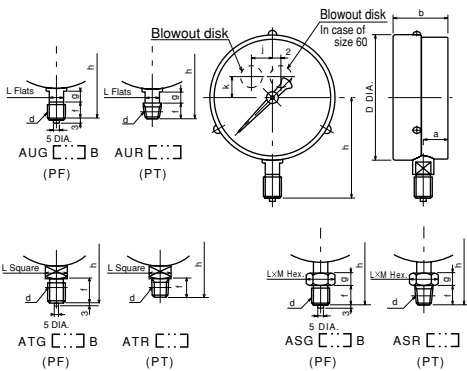
Mounting Dimensions: (Unit: mm)

Stem

Type...Socket is mounted on pipe directly. (Stem mounting)

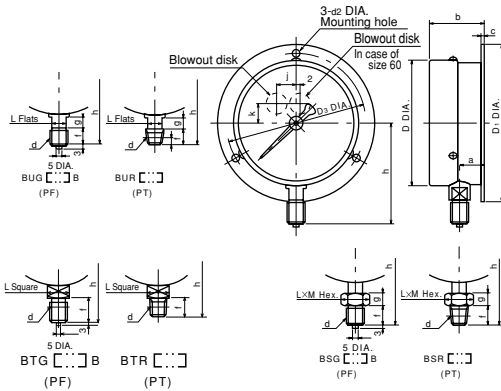
Weight:

Size	Weight(g)
60	Approx. 200
65	400
100	600
150	900
200	1200



Size	Shape of connection	Case					Connection					Type No.
		D	a	b	j	k	f	g	L	M	h	
60	T	65	11.5	32	—	8	16	—	17	—	58	AA10-1□□
	G1/4B R1/4											
75	U	78	16	40	15	10	18	12	14	—	70	AC10-1□□
	G3/8B R3/8											
100	U	103	20	45	20	10	18	12	14	—	82	AE10-1□□
	S											
150	U	153	20	50	20	10	18	12	14	—	110	AG10-1□□
	S											

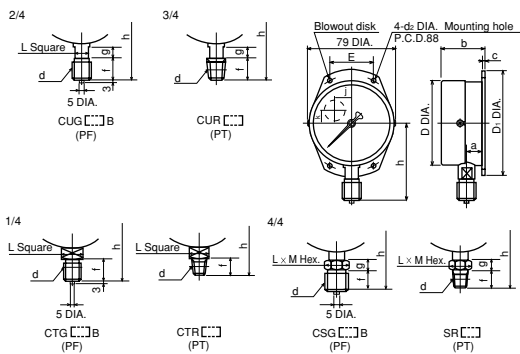
Type B...Fixed the back flange on panel by screw. (Surface mounting)



Size	Shape of connection	Case					Connection					Type No.				
		D	D ₁	D ₂	a	b	c	d ₂	j	k	f		g	L	M	h
60	T	65	80	72	11.5	32	2	4.5	—	8	16	—	17	—	58	AA10-2□□
	G1/4B R1/4															
75	U	78	98	88	16	40	2	4.5	15	10	18	12	14	—	70	AC10-2□□
	G3/8B R3/8															
100	U	103	128	115	20	45	2.5	5.5	20	10	18	12	14	—	82	AE10-2□□
	S															
150	U	153	178	165	20	50	2.5	5.5	20	10	18	12	14	—	110	AG10-2□□
	S															
200	U	204	235	220	24	58.5	2.5	5.5	20	10	20	15	17	—	152	AJ10-2□□

For surface mounting, please provide the hole with 25mm dia on the wall for blowout disc purpose.

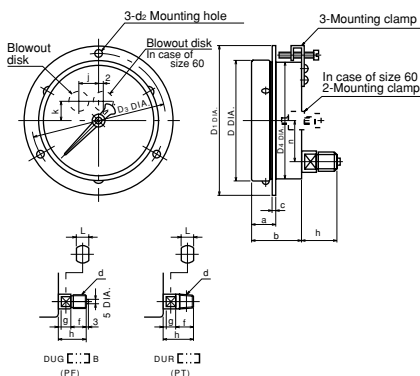
Type C...Fixed the back flange on panel by screw. (Surface mounting)



Size	Shape of connection	Case					Connection					Type No.				
		D	D ₁	E	a	b	c	d ₂	j	k	f		g	L	M	h
60	T	65	80	30	11.5	32	2	4.5	—	8	16	—	17	—	58	AA10-8□□
	G1/4B R1/4															
75	U	78	98	40	16	40	2	4.5	15	10	18	12	14	—	70	AC10-8□□
	G3/8B R3/8															
100	U	103	128	50	20	45	2.5	5.5	20	10	18	12	14	—	82	AE10-8□□
	S															
150	U	153	178	76	20	50	2.5	5.5	20	10	18	12	14	—	110	AG10-8□□
	S															

Panel

Type D...Panel mounting with screw or clamp.



Size	Panel cut size	Shape of connection	Case					Connection					Type No.					
			D	D ₁	D ₂	D ₃	a	b	c	d ₂	n	j		k	f	g	L	h
60	65	U	65	80	72	64	14	32	2	4.5	20	—	8	16	10	12	28	AA15-□□□
75	78	U	78	98	88	77	18.5	40	2	4.5	25	15	10	18	12	14	30	AC15-□□□
		G3/8B R3/8																
100	103	U	103	128	115	102	21	45	2.5	5.5	35	20	10	18	12	14	30	AE15-□□□
		G1/2B R1/2																
150	154	U	153	178	165	152	24	50	2.5	5.5	55	20	10	18	12	14	30	AG15-□□□
		G1/2B R1/2																
200	205	U	204	235	220	203	18.5	50	3	5.5	55	20	10	20	12	17	32	AJ15-□□□

SPECIFICATION 3

Specifications & additional spec.

Blowout disk:

When an emergency, Bourdon tube exploded, it open up internal pressure from blowout disk, and blowout disk prevents puncture of window.
note: To keep normal function, please take a space behind of gauge at least 10mm when installing. Don't process or stop up the blowout disk.

Pointer:

In addition to standard type, zero adjustable pointer is also available.
If maximum pointer or setting pointer is required, please choose from selection spec.

Window:

In addition to standard glass, special material glass, such as tempered glass, non-glare glass are also available.

Function:

Standard, Steam use (M), Heat-proof (H), Vibration-proof (V),
Steam use & Vibration-proof (MV), Heat-proof-Vibration proof (HV)
* Division of application is based on JISB7505 Bourdon gauge.

Treatment:

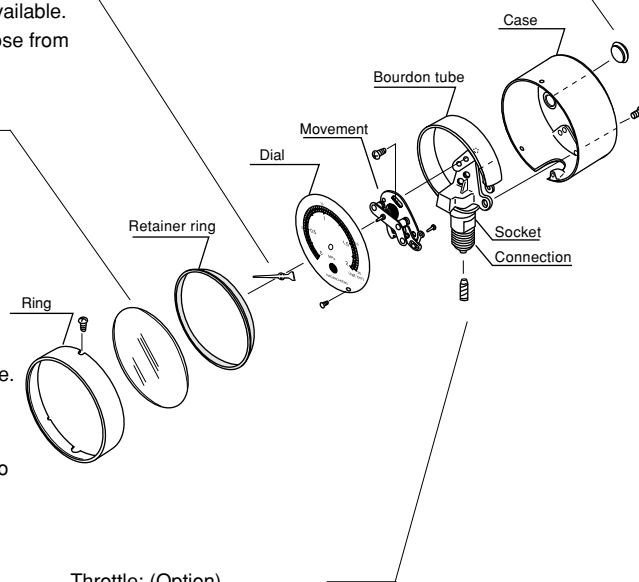
Use no oil / Use no water...We proceed to manufacture not to remain oil and/or water on the wetted parts.

Option:

Case color...In case of non-standard color, please specify.
Accuracy 1%...Available for range 0.1MPa or over with
100 DIA., 150 DIA., 200DIA.

Connecting :

We have three kinds of method to connect the wetted parts.
Soldering...For brass series material.
Silver soldering...For brass series material and stainless steel material.
TIG welding...For welding between stainless steel material.



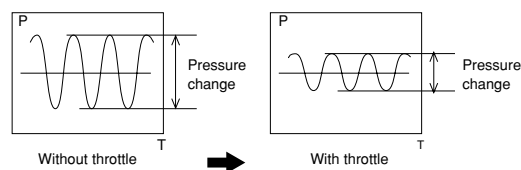
Throttle: (Option)

For reducing pulsating pressure, throttle is put on the inlet port. Select it from next model.
FS10-011, FS10-081 (with pipe),
corrosion-proof use FS10-013

Pulsating pressure:

Caused by pump characteristic of pressure generator, and it is the general term of top and bottom drift of pressure and is very harmful to Pressure Gauge.

<THROTTLE EFFECT>



CASE COLOR, CASE MATERIAL

Case Color (Standard color)	Mounting type	Type	60 DIA.	75 DIA.	100 DIA.	150 DIA.	200 DIA.	
Black	Stem	Type A	—	—	—	—	—	
		Type B	—	—	—	—	○	
		Type C	—	—	—	—	—	
		Panel	Type D (Mounting clamp)	—	—	—	○	○
			Type D (Mounting hole)	—	—	—	○	○
	Metal (Aluminium alloy)	Type A	AC7A	○	○	○	○	—
				○	○	○	○	—
				○	○	○	○	—
				○	○	○	—	—
				○	○	○	—	—
Metal (Aluminium alloy)	Type B	ADC12	○	○	○	○	—	
			○	○	○	○	—	
			○	○	○	○	—	
			○	○	○	—	—	
			○	○	○	—	—	

SPECIFICATION 4

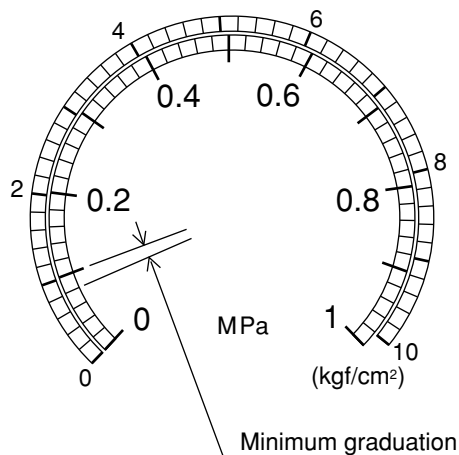
Minimum graduation:

Scale divisions are different according to range and dial size. Minimum graduations are shown in the following table.

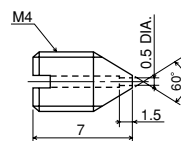
Pressure range MPa(kg/cm ²)	Size			
	60 DIA.	75 DIA.	100·150 DIA.	200 DIA.
0 ~ 30kPa(0.3)	—	1 (0.01)	1 (0.01)	1 (0.01)
40kPa(0.4)	—	2 (0.02)	1 (0.01)	1 (0.01)
0.05 (0.5)	—	0.002 (0.02)	0.001 (0.01)	0.001 (0.01)
0.08 (0.8)	—	0.002 (0.02)	0.002 (0.02)	0.002 (0.02)
0.1 (1)	0.005 (0.05)	0.005 (0.05)	0.002 (0.02)	0.002 (0.02)
0.2 (2)	0.01 (0.1)	0.01 (0.1)	0.005 (0.05)	0.005 (0.05)
0.3 (3)	0.01 (0.1)	0.01 (0.1)	0.01 (0.1)	0.01 (0.1)
0.4 (4)	0.02 (0.2)	0.02 (0.2)	0.01 (0.1)	0.01 (0.1)
0.6 (6)	0.02 (0.2)	0.02 (0.2)	0.02 (0.2)	0.02 (0.2)
1 (10)	0.05 (0.5)	0.05 (0.5)	0.02 (0.2)	0.02 (0.2)
1.5 (15)	0.05 (0.5)	0.05 (0.5)	0.05 (0.5)	0.05 (0.5)
2 (20)	0.1 (1)	0.1 (1)	0.05 (0.5)	0.05 (0.5)
2.5 (25)	0.1 (1)	0.1 (1)	0.05 (0.5)	0.05 (0.5)
3.5 (35)	0.1 (1)	0.1 (1)	0.1 (1)	0.1 (1)
5 (50)	0.2 (2)	0.2 (2)	0.1 (1)	0.1 (1)
7 (70)	0.2 (2)	0.2 (2)	0.2 (2)	0.2 (2)
10 (100)	0.5 (5)	0.5 (5)	0.2 (2)	0.2 (2)
15 (150)	0.5 (5)	0.5 (5)	0.5 (5)	0.5 (5)
25 (250)	1 (10)	1 (10)	0.5 (5)	0.5 (5)
35 (350)	—	1 (10)	1 (10)	1 (10)
50 (500)	—	2 (20)	1 (10)	1 (10)
70 (700)	—	—	2 (20)	2 (20)
100 (1000)	—	—	2 (20)	2 (20)
-0.1 ~ 0 (76cmHg~0)	0.005 (5)	0.005 (5)	0.002 (2)	0.002 (2)
0.1 (76cmHg~1)	0.01 (5~0.1)	0.01 (5~0.1)	0.005 (5~0.05)	0.005 (5~0.05)
0.2 (76cmHg~2)	0.01 (10~0.1)	0.01 (10~0.1)	0.01 (5~0.1)	0.01 (5~0.1)
0.3 (76cmHg~3)	0.02 (10~0.2)	0.02 (10~0.2)	0.01 (10~0.1)	0.01 (10~0.1)
0.4 (76cmHg~4)	0.02 (10~0.2)	0.02 (10~0.2)	0.01 (10~0.1)	0.01 (10~0.1)
0.6 (76cmHg~6)	0.02 (10~0.2)	0.02 (10~0.2)	0.02 (10~0.2)	0.02 (10~0.2)
1 (76cmHg~10)	0.05 (50~0.5)	0.05 (50~0.5)	0.02 (50~0.2)	0.02 (50~0.2)
1.5 (76cmHg~15)	0.05 (76~0.5)	0.05 (76~0.5)	0.05 (50~0.5)	0.05 (50~0.5)
2 (76cmHg~20)	0.1 (76~1)	0.1 (76~1)	0.05 (50~0.5)	0.05 (50~0.5)

Example of scale

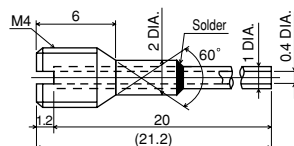
Size 100·150



Throttle: (Option)



Type No.	Material
FS10-011	C3604BD
FS10-013 (Corrosion-proof use)	316 st.st.



Type No.	Material
FS10-081 (With pipe)	C3604BD (Pipe : C1100T)

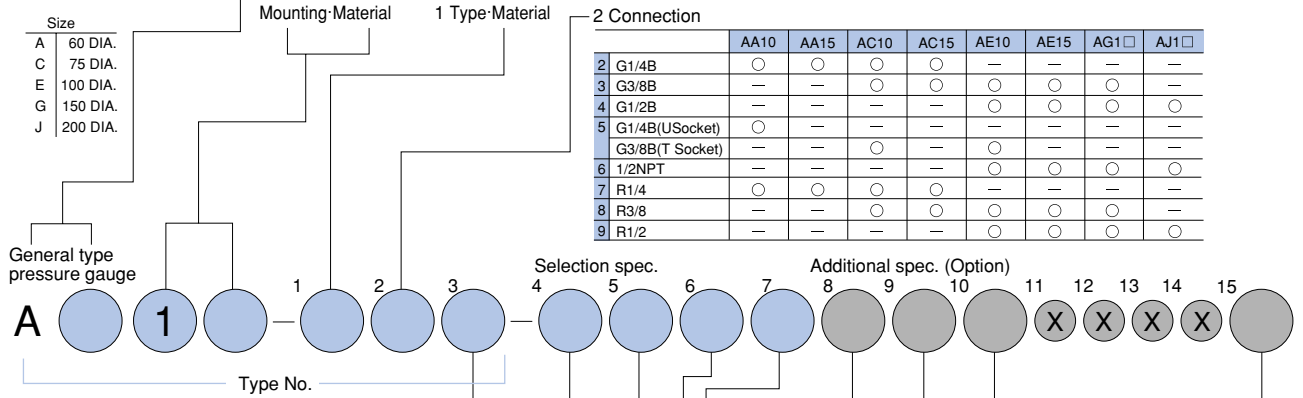
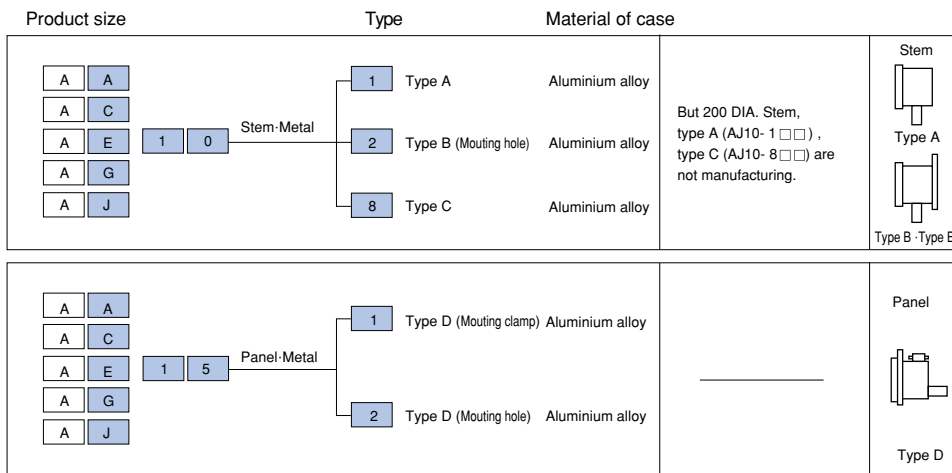
Option for scale

Capacity scale, dual scale, printed words or colored circle, etc. are available as option.

Type No. constitution

Please specify Type No., each specification and range, when ordering.

Note: For this Model, there is no applicable item for the figures X, but please specify X when ordering.



	AA10	AA15	AC10	AC15	AE10	AE15	AG1□	AJ1□
2 G1/4B	○	○	○	○	—	—	—	—
3 G3/8B	—	—	○	○	○	○	○	○
4 G1/2B	—	—	—	—	○	○	○	○
5 G1/4B(USocket)	○	—	—	—	—	—	—	—
G3/8B(T Socket)	—	—	○	○	○	○	○	○
6 1/2NPT	—	—	—	—	○	○	○	○
7 R1/4	○	○	○	○	—	—	—	—
8 R3/8	—	—	○	○	○	○	○	○
9 R1/2	—	—	—	—	○	○	○	○

Purpose	Soket	Bourdon tube	Connecting
1 General use (Not available for 50MPa or over.)	Pressure range 35MPa or below: YBsC3 C3604BD only for AA10 Pressure range 35MPa or over: 316 st.st.	Pressure range 3.5MPa or below: General type, Vibration-proof type C6872T - Steam use corrosion-proof type, Heat-proof type - Steam use vibration-proof type, Heat-proof vibration-proof type 316st.st. Pressure range above 3.5MPa: 316 st.st.	Soldering for between brass Silver soldering for brass and 316 st.st. Tig-welding for between 316 st.st.
2 Ammonia use	316 st.st.	316 st.st.	Tig-welding
3 Corrosion-proof use	316 st.st.	316 st.st.	Tig-welding

Pressure range MPa	Pressure range availability for each model.	AA1□	AC1□	AE1□	AG1□	AJ1□
1 0 ~ 30, 40kPa, 0 ~ 0.05, 0.08		—	○	○	○	○
2 -0.1 ~ 0.1, 0.2, 0.3, 0.4, 0.6, 1, 1.5, 2		○	○	○	○	○
3 0 ~ 0.1, 0.2, 0.3, 0.4, 0.6, 1, 1.5, 2, 2.5, 3.5 -0.1 ~ 0		○	○	○	○	○
4 0 ~ 5, 7, 10		○	○	○	○	○
5 0 ~ 15, 25		○	○	○	○	○
6 0 ~ 35		—	○	○	○	○
7 0 ~ 50 0 ~ 70 0 ~ 100		—	—	○	○	○

- 9 Throttle
 - 0 Nil
 - 1 FS10-11 or FS10-013
 - 3 FS10-081
- 10 Other additional spec.
 - 0 Nil
 - 1 Please specify your requirement
Dial scale specified, Case color required, Accuracy 1%
- 8 Treatment
 - 0 Nil
 - 1 Use no oil
 - 2 Use no water
 - 3 Use no oil-water
- 15 Document
 - 0 Nil
 - 1 Please specify your requirement
Drawing one sheet, Instruction manual, Inspection procedure, Mill sheet, Test report

- 7 Window
 - 0 Standard
 - 2 Standard tempered glass
 - 3 Non-glare treatment glass
 - 6 Non-frost coat treatment glass Not available AJ1□

- 6 Pointer
 - 0 Standard
 - 1 Zero adjustable(micro meter type) Not available AJ1□
 - 2 Zero adjustable(spring type)
 - 5 Max pointer
 - 6 Setting pointer

	AA1□	AC1□	AE1□	AG1□	AJ1□
0 Standard	○	○	○	○	○
1 M: Steam use	○	○	○	○	○
2 H: Heat-proof type	—	—	○	○	○
3 V: Vibration-proof type	○	○	○	○	○
4 MV: Steam use-vibration-proof type	○	○	○	○	○
5 HV: Heat-proof-vibration-proof type	—	—	○	○	○