

JIS correspondence

# Process Industrial Pressure Gauges

B□1□

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2015/11

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# B\_1\_

## Process Industrial Pressure Gauges (Type A / Lower connection)

### Outline

The bourdon tube pressure gauge is offered and made in accordance with JIS B 7505-1: 2015. The gauge is easy to handle with its structured simplicity with elastic measuring element (bourdon tube) into a deflection caused by applied pressure change transmitted to a rotary geared movement carrying pointer. It is applicable to variety of applications offering wide varieties of pressure ranges.

### Features

- Can be used under rain, frost, etc. conditions by adoption of sealed case. (JIS C 09220 IP43 equivalent)
- Verification standard inspection mark (Type Approval) can be attached (Depending on size, precision and pressure range).
- Available in many standard pressure ranges and can accommodate demand for use with corrosive media.

\* To maximize performance, select full scale pressure range as normal operating pressure range 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 proper wetted parts compatible with process fluid (gas and liquid) which the gauge will be subjected.


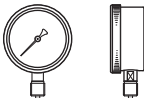
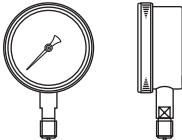
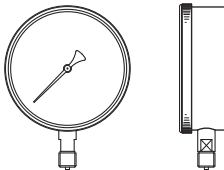
Please refer to JIS B 7505-1 for details.

\* Please select "Use no oil" to use gauge on oxygen service.

Please select "Use no oil" and "Corrosion-proof" type to use gauge on acetylene service.



### List of products

Size	Mounting	Model number
φ 60		BA10-1□□
φ 75		BC10-1□□ BC12-1□□
φ 100		BE10-1□□ BE12-1□□
φ 150		BG10-1□□ BG12-1□□

### Specification 1

**Fluid:**

Gas, liquid

**Case construction:** Seal type

Sealed construction which is equivalent to JIS C 0920, IP43 but not sealed completely.

**Wetted parts material:**

Wetted parts generally consist of bourdon tube and socket. These parts are exposed to or in direct contact with the medium under pressure (Gas, liquid).

Purpose	Connecting part	Bourdon tube
General use	C3604* or CAC203	C6872 or SUS316 (Varies depending on required pressure range and additional specon performance.)
Ammonia use	SUS316*	SUS316
Corrosion-proof use	or SCS14	

\*BA10 (φ60) only

**Connection:** Refer to the document JIS pipe thread in technical sheet.

G1/4B, G3/8B, G1/2B, R1/4, R3/8, R1/2, others.  
\*For other connections, please contact us.

**Pressure range:**

0 to 40kPa → 0 to 100MPa

-0.1 to 0MPa → -0.1 to 2.5MPa

\*For details, refer to the minimum scale value table in Specification 4

**Accuracy:**

JIS1.6 (JIS accuracy class)

Upon request, JIS1.0 product can be manufactured. (JIS1.0 is available for gauge requiring 1MPa or higher pressure range with nominal size of φ100, φ150.)

### Case

**Case finish:** Black (Standard color)

**Case material:** Metal case.....Aluminium alloy

Plastic case.....Bakelite

**Protection:** IP43

### Treatment of wetted parts (Option)

Use no oil, use no water gauge can be made upon request.

#### Use no oil

Oil used in manufacturing the gauges had been flushed out & no oil residue remained inside its wetted parts.

#### Use no water

Water used in manufacturing the gauges had been flushed out & no water residue remained inside its wetted parts.

#### Use no oil & water

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



#### Caution

\*Please select "Use no oil" to use gauge on oxygen service.

\*Please select "Use no oil" and "Corrosion-proof" type to use gauge on acetylene service.

Unit: mm

### Specification 2

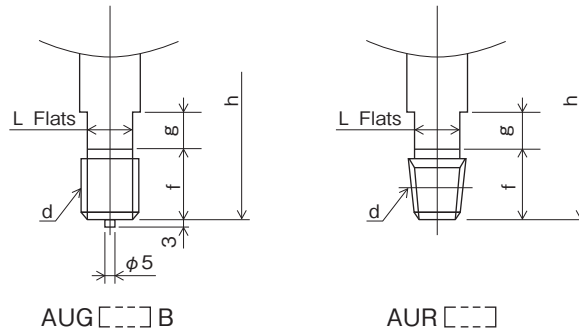
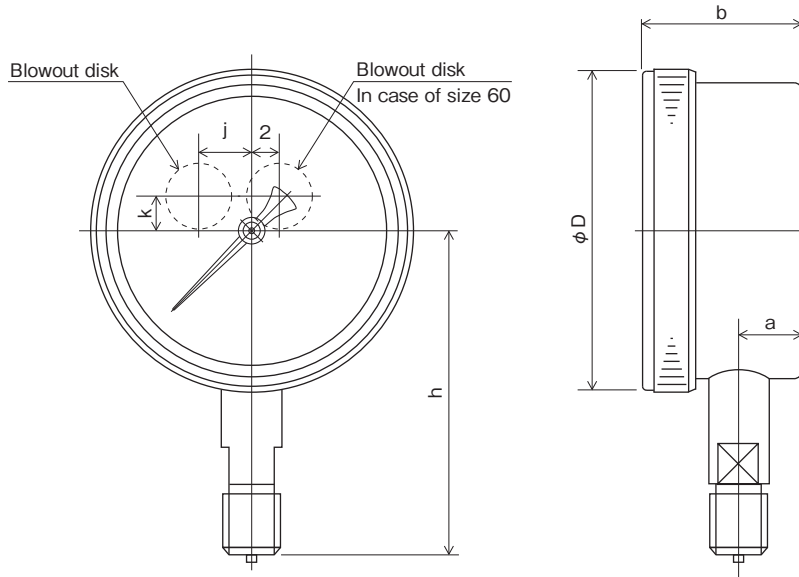
Shape / Dimensions:

Lower connection

Type A...Direct mount pressure gauge

Weight:

Size	Weight (g)
60	Approx. 300
75	Approx. 500
100	Approx. 800
150	Approx. 1600



Size	Shape / Connection		Case / Dimensions								Model number	
		d	D	a	b	j	k	f	g	L		h
60	U	G1/4B, R1/4	70	11.5	32	—	8	16	10	12	58	BA10-1 [ ] [ ]
75	U	G1/4B, R1/4	84	16.5	41 (41.5)	15	10	16	12	12	68	BC10-1 [ ] [ ]
		G3/8B, R3/8	(86)					18	12	14	70	BC12-1 [ ] [ ]
100	U	1/4NPT	109 (110)	22 (23)	52.5 (54)	20	10	16	15	14	106	BE10-1 [ ] [ ] BE12-1 [ ] [ ]
		G3/8B, R3/8, 3/8NPT						18	15	14	108	
		G1/2B, R1/2, 1/2NPT						20	15	17	110	
150	U	G3/8B, R3/8	159 (162)	25	59 (59.5)	20	10	18	15	14	123	BG10-1 [ ] [ ]
		G1/2B, R1/2, 1/2NPT						20	15	17	125	BG12-1 [ ] [ ]

( ) Dimension of plastic case

### Specification 3

#### Specifications & additional spec.:

##### 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.

##### Movement:

Optional SUS-made movement available.

##### Pointer:

Zero adjustable pointer is available other than standard pointer. Set pointer and max pointer will be available upon request when ordering. Verification products can't be made with zero adjustable.

##### Max pointer specification

Available in:  $\phi 60$  to  $\phi 150$

Pressure Range: Equal to or higher than 0.25MPa

Compound range: -0.1 to 0.1MPa or higher

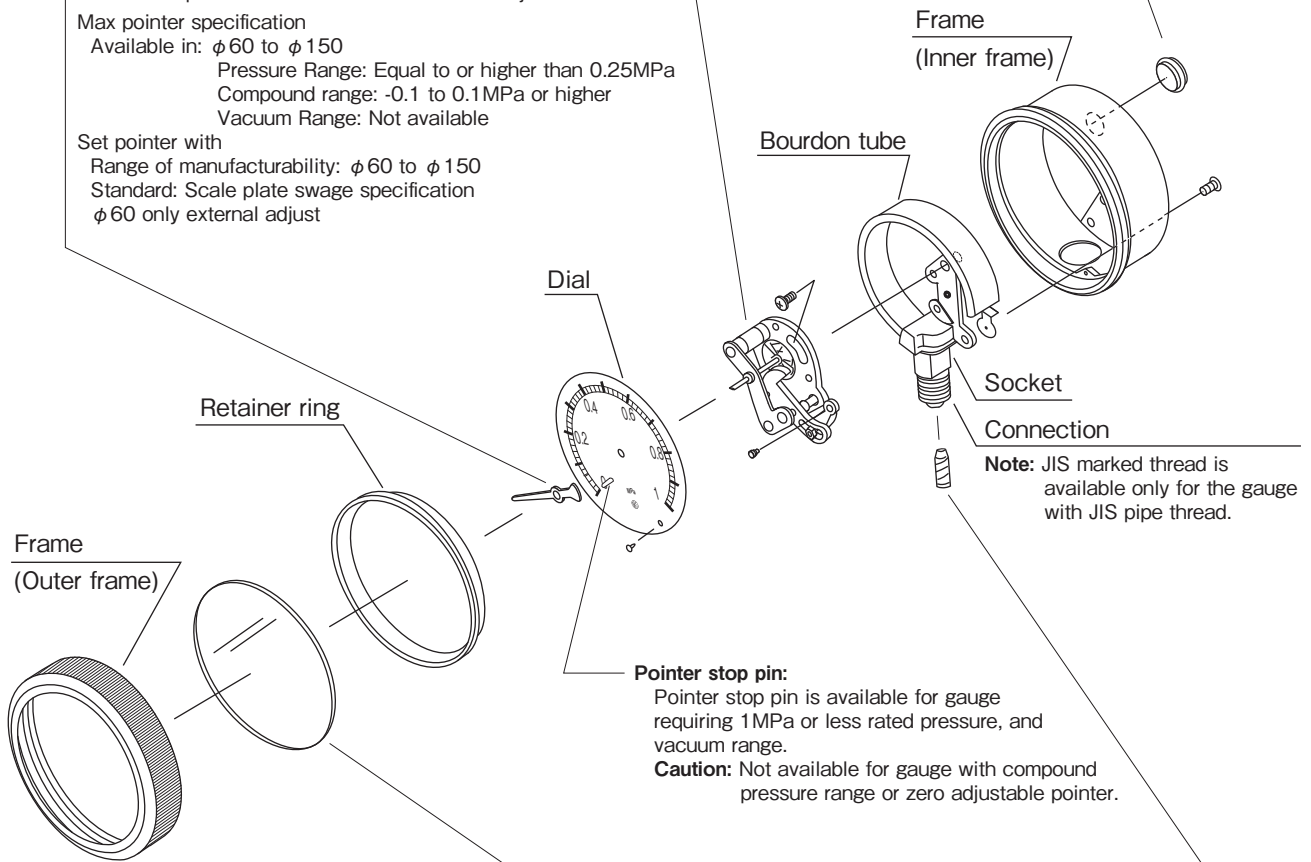
Vacuum Range: Not available

##### Set pointer with

Range of manufacturability:  $\phi 60$  to  $\phi 150$

Standard: Scale plate swage specification

$\phi 60$  only external adjust



##### Pointer stop pin:

Pointer stop pin is available for gauge requiring 1MPa or less rated pressure, and vacuum range.

**Caution:** Not available for gauge with compound pressure range or zero adjustable pointer.

##### Window:

Standard: Inorganic glass

The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher (This standard shall not apply to H, HV type gauge)

Tempered glass, non-frost coat treatment glass are optionally available.

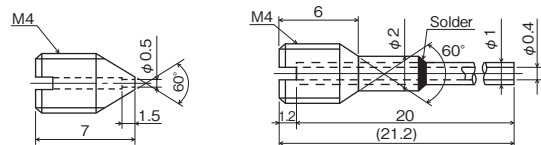
##### Throttle screw: (Optional)

Throttle screw that fits inside the orifice of the pressure gauge is available for reducing pressure impact if gauge is subjected to pulsation. Select from following models:

FS10-011,

FS10-081 (With pipe),

Corrosion-proof use FS10-013



Model number	Material
FS10-011	C3604
FS10-013 (Corrosion-proof use)	SUS316

Model number	Material
FS10-081 (With pipe)	C3604 (Pipe: C1100)

### Specification 4

#### Minimum scale value:

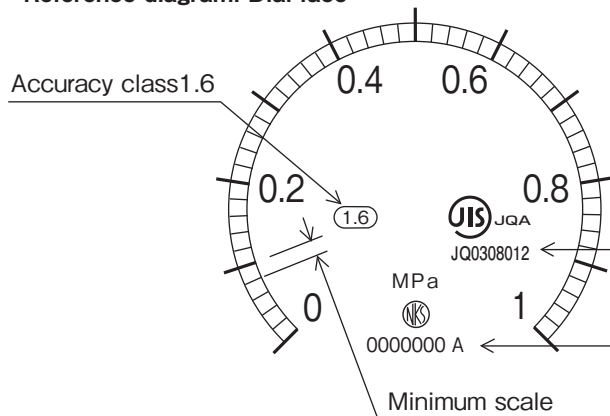
The minimum number of minor scale for each pressure range is shown in the following table.

	Pressure range (MPa)	Size / Accuracy class			
		φ 60	φ 75	φ 100, φ 150	
		1.6	1.6	1.6	1.0
Pressure range	0 to 40kPa	—	—	1	—
	to 0.06	—	—	0.001	—
	to 0.1	0.002	0.002	0.002	0.002
	to 0.16	0.005	0.005	0.005	0.002
	to 0.25	0.005	0.005	0.005	0.005
	to 0.4	0.01	0.01	0.01	0.005
	to 0.6	0.01	0.01	0.01	0.01
	to 1	0.02	0.02	0.02	0.02
	to 1.6	0.05	0.05	0.05	0.02
	to 2.5	0.05	0.05	0.05	0.05
	to 4	0.1	0.1	0.1	0.05
	to 6	0.1	0.1	0.1	0.1
	to 10	0.2	0.2	0.2	0.2
	to 16	0.5	0.5	0.5	0.2
	to 25	0.5	0.5	0.5	0.5
	to 40	—	1	1	0.5
to 60	—	—	1	1	
to 100	—	—	2	2	
Vacuum range	-0.1 to 0	0.002	0.002	0.002	0.002
Compound range	-0.1 to 0.1	0.005	0.005	0.005	0.002
	to 0.16	0.005	0.005	0.005	0.005
	to 0.25	0.01	0.01	0.01	0.005
	to 0.4	0.01	0.01	0.01	0.01
	to 0.6	0.02	0.02	0.02	0.01
	to 1	0.02	0.02	0.02	0.02
	to 1.6	0.05	0.05	0.05	0.02
	to 2.5	0.05	0.05	0.05	0.05

\* Gauge with 40MPa or higher range is made by corrosion-proof type.

\*   Blue colored cell implies the gauge obtained type approval.

#### Reference diagram: Dial face



#### Customized Dial:

Customized dial with capacity scale, double scale (Pressure and other than pressure), tag number, characters, and colored dial can be made upon request.

JIS plant authorized number JQ0308012 is printed under JIS trademark.

The month of manufacture is provided with alphabets printed next to serial number. (A: January to L: December)  
Test report and related document show serial number only to tie to manufactured gauge.

#### Verification standard inspection mark

##### Requirement of verification standard inspection mark:

The pressure gauges with the pressure ranges and sizes in the blue frame in the specification 4 have obtained type approval, and the verification standard inspection mark printed for those approved products instead of the conventional verification mark is.

##### Type Approval Number:

Bourdon tube made of brass  
(Pressure range 0 to 0.06MPa → 0 to 2.5MPa): X951  
Bourdon tube made of SUS  
(Pressure range 0 to 0.06MPa → 0 to 100MPa): X9618

##### Designated Manufacturing Business Operator Number:

272001

φ60 Process Industrial Pressure Gauge

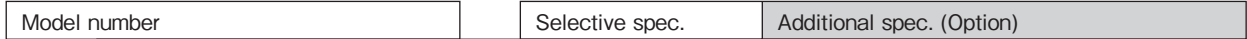
Model number configuration

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

Model



Process Industrial Pressure Gauges (φ60)



① Mounting	1	Lower connection Type A Metal case
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② Connection	2	G1/4B
	7	R 1/4
		Others* 1

③ Wetted parts material	1	General use
	2	Ammonia use SUS
	3	Corrosion-proof use SUS

Please specify applicable range code as well as pressure range and engineering unit.

④ Pressure range (MPa)	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5 Compound
	3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5
	4	0 to 4, 6, 10
	5	0 to 16, 25

⑤ Performance	0	Standard
	A	M: Steam use
	C	V: Vibration-proof type
	D	MV: Steam use & Vibration-proof type

⑥ Pointer	0	Standard
	2	Zero adjustable (Spring type) Verification standard inspection mark can't be supplied with this specification.
	5	Max pointer*2 Verification standard inspection mark can't be supplied with this specification.
	6	Set pointer (External adjust)*2 Verification standard inspection mark can't be supplied with this specification.

⑦ Glass	0	Standard Inorganic glass*3
	1	Organic glass
	2	Tempered glass
	3	Non-glare treatment glass
	6	Non-frost coat treatment glass
		Others

⑧ Treatment	0	Nil
	1	Use no oil
	2	Use no water
	3	Use no oil & water

③Wetted parts material

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use	C3604	For the gauge with pressure ratings of 2.5MPa or lower: •General type, Vibration-proof type C6872  •Steam use, Steam use & Vibration-proof type SUS316  For the gauge with pressure ratings of 4MPa or higher: SUS316	Soldered for brass parts combination  Silver soldered for brass and SUS316 combination
2 Ammonia use			
3 Corrosion-proof use	SUS316	SUS316	Tig-welding

⑨ Throttle screw	0	Nil
	1	FS10-011 or FS10-013 Corrosion-proof use
	3	FS10-081 (With pipe)

⑩ Other additional spec.	0	Nil
	1	Required (Please specify the desired documents separately.) Verification standard inspection mark, dial scale*4, case color, movement

⑭ Class	J	JIS specification
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⑮ Document	0	Nil
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection

\*1 JIS marked thread is available only for the gauge with JIS pipe thread.

\*2 Max pointer specification  
Range of manufacturability: Pressure gauges; 0.25MPa or higher  
Compound; -0.1 to 0.1MPa or higher  
Vacuum; Cannot be manufactured

Set pointer with External adjust

\*3 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher

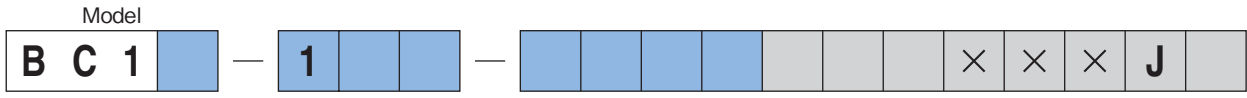
\*4 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

\* Specify by code "X" if there is no applicable specification.

φ75 Process Industrial Pressure Gauge

Model number configuration

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



Model number		Selective spec.	Additional spec. (Option)
Model	0	Lower connection Metal case	
Model	2	Lower connection Plastic case	

① Mounting	1	Type A
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② Connection	2	G1/4B
	3	G3/8B
	7	R1/4
	8	R3/8
		Others*1

③ Wetted parts material	1	General use	40MPa is cannot be manufactured
	2	Ammonia use	SUS
	3	Corrosion-proof use	SUS

Please specify applicable range code as well as pressure range and engineering unit.

④ Pressure range (MPa)	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5	Compound
	3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5	
	4	0 to 4, 6, 10	
	5	0 to 16, 25	
	6	0 to 40	Corrosion-proof use

⑤ Performance	0	Standard
	A	M: Steam use
	C	V: Vibration-proof type
	D	MV: Steam use & Vibration-proof type

⑥ Pointer	0	Standard
	1	Zero adjustable (Micro meter type) Verification standard inspection mark can't be supplied with this specification.
	2	Zero adjustable (Spring type) Verification standard inspection mark can't be supplied with this specification.
	5	Max pointer *2 Verification standard inspection mark can't be supplied with this specification.
	6	Set pointer *2 Verification standard inspection mark can't be supplied with this specification.

⑦ Glass	0	Standard Inorganic glass*3
	1	Organic glass
	2	Tempered glass
	3	Non-glare treatment glass
	6	Non-frost coat treatment glass
		Others

③Wetted parts material

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use  (Not available for gauge requiring over 25MPa.)	CAC203	For the gauge with pressure ratings of 2.5MPa or lower: -General type, Vibration-proof type C6872  -Steam use, Steam use & Vibration-proof type SUS316  For the gauge with pressure ratings of 4MPa or higher: SUS316	Soldered for brass parts combination  Silver soldered for brass and SUS316 combination
2 Ammonia use	SCS14	SUS316	Tig-welding
3 Corrosion-proof use	SCS14	SUS316	Tig-welding

⑧ Treatment	0	Nil
	1	Use no oil
	2	Use no water
	3	Use no oil & water

⑨ Throttle screw	0	Nil
	1	FS10-011 or FS10-013 Corrosion-proof use
	3	FS10-081 (With pipe)

⑩ Other additional spec.	0	Nil
	1	Required (Please specify the desired documents separately.) Verification standard inspection mark, dial scale*4, case color, movement

⑭ Class	J	JIS specification
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⑮ Document	0	Nil
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection

\*1 JIS marked thread is available only for the gauge with JIS pipe thread.

\*2 Max pointer specification  
Range of manufacturability: Pressure gauges; 0.25MPa or higher  
Compound; -0.1 to 0.1MPa or higher  
Vacuum; Cannot be manufactured

Set pointer with  
Scale plate swage specification

\*3 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher

\*4 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

\* Specify by code "X" if there is no applicable specification.



### φ 100 Process Industrial Pressure Gauge

#### Model number configuration

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

Model  
B E 1 — 1 — X X X J

Process Industrial Pressure Gauges (φ 100) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number		Selective spec.	Additional spec. (Option)	
Model	0	Lower connection Metal case		
	2	Lower connection Plastic case		
① Mounting	1	Type A		
② Connection	3	G3/8B	9 R1/2	
	4	G1/2B	K 1/4NPT*1	
	6	1/2NPT*1	L 3/8NPT*1	
	8	R3/8	Others*1	
③ Wetted parts material	1	General use	40MPa or higher is cannot be manufactured	
	2	Ammonia use	SUS	
	3	Corrosion-proof use	SUS	
	4	Anti-corrosion use	SUS316L*2 (100MPa is cannot be manufactured)	
④ Pressure range (MPa)	1	0 to 40kPa, 0 to 0.06		
	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5 Compound		
	3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5		
	4	0 to 4, 6, 10		
	5	0 to 16, 25		
	6	0 to 40, 60	Corrosion-proof use	
	7	0 to 100	Corrosion-proof use	
⑤ Performance	0	Standard	D MV: Steam use & Vibration-proof type	
	A	M: Steam use	E HV: Heat-proof & Vibration-proof type	
	B	H:Heat-proof type	3 Accuracy: JIS1.0 (0.1MPa or highe)*3	
	C	V: Vibration-proof type		
⑥ Pointer	0	Standard		
	1	Zero adjustable (Micro meter type) Verification standard inspection mark can't be supplied with this specification.		
	2	Zero adjustable (Spring type) Verification standard inspection mark can't be supplied with this specification.		
	5	Max pointer*4 Verification standard inspection mark can't be supplied with this specification.		
	6	Set pointer*4 Verification standard inspection mark can't be supplied with this specification.		
⑦ Glass	0	Standard Inorganic glass*5		
	1	Organic glass Not available in H, HV specification.		
	2	Tempered glass		
	3	Non-glare treatment glass		
	6	Non-frost coat treatment glass		
		Others		
⑧ Treatment	0	Nil		
	1	Use no oil		
	2	Use no water		
	3	Use no oil & water		
⑨ Throttle screw	0	Nil		
	1	FS10-011 or FS10-013 Corrosion-proof use*6		
	3	FS10-081 (With pipe)		
⑩ Other additional spec.	0	Nil		
	1	Required (Please specify the desired documents separately.) Verification standard inspection mark, dial scale*7, case color, movement		
⑭ Class	J	JIS specification		
⑮ Document	0	Nil		
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection		

③ Wetted parts material

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use  (Not available for gauge requiring over 25MPa.)	CAC203	For the gauge with pressure ratings of 2.5MPa or lower: •General type, Vibration-proof type C6872  •Steam use, Heat-proof type, Steam use & Vibration-proof type, Heat-proof & Vibration-proof type SUS316  For the gauge with pressure ratings of 4MPa or higher: SUS316	Soldered for brass parts combination  Silver soldered for brass and SUS316 combination
2 Ammonia use			
3 Corrosion-proof use	SCS14	SUS316	Tig-welding
4 Anti-corrosion use	SCS16	SUS316L	

\*1 JIS marked thread is available only for the gauge with JIS pipe thread.

\*2 Connecting part: SCS16

**\*3 Verification standard inspection mark cannot be attached to JIS1.0 product.**

\*4 Max pointer specification  
Range of manufacturability: Pressure gauges; 0.25MPa or higher Compound; -0.1 to 0.1MPa or higher Vacuum; Cannot be manufactured  
Set pointer with  
Scale plate swage specification

\*5 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher  
(This standard shall not apply to H&HV type gauge).

\*6 When wetted parts material is SUS316, the material is SUS316L (With FS10-014).

\*7 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

\* Specify by code "X" if there is no applicable specification.

### φ 150 Process Industrial Pressure Gauge

#### Model number configuration

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

Model

**B** **G** **1**

**1**

× × × **J**

Process Industrial Pressure Gauges (φ 150) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number		Selective spec.		Additional spec. (Option)	
Model	0	Lower connection	Metal case		
	2	Lower connection	Plastic case		

① Mounting	1	Type A
② Connection	3	G3/8B
	4	G1/2B
	6	1/2NPT *1
③ Wetted parts material	1	General use 40MPa or higher is cannot be manufactured
	2	Ammonia use SUS
	3	Corrosion-proof use SUS
④ Pressure range (MPa)	1	0 to 40kPa, 0 to 0.06
	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5 Compound
	3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5
	4	0 to 4, 6, 10
	5	0 to 16, 25
	6	0 to 40, 60 Corrosion-proof use
	7	0 to 100 Corrosion-proof use
⑤ Performance	0	Standard
	A	M: Steam use
	B	H: Heat-proof type
	C	V: Vibration-proof type
	D	MV: Steam use & Vibration-proof type
	E	HV: Heat-proof & vibration-proof type
⑥ Pointer	3	Accuracy: JIS1.0 (0.1MPa or higher) *2
	0	Standard
	1	Zero adjustable (Micro meter type) Verification standard inspection mark can't be supplied with this specification.
	2	Zero adjustable (Spring type) Verification standard inspection mark can't be supplied with this specification.
	5	Max pointer *3 Verification standard inspection mark can't be supplied with this specification.
⑦ Glass	0	Standard Inorganic glass *4
	1	Organic glass Not available in H, HV specification.
	2	Tempered glass
	3	Non-glare treatment glass
	6	Non-frost coat treatment glass
⑧ Treatment	0	Nil
	1	Use no oil
	2	Use no water
	3	Use no oil & water
⑨ Throttle screw	0	Nil
	1	FS10-011 or FS10-013 Corrosion-proof use
	3	FS10-081 (With pipe)
⑩ Other additional spec.	0	Nil
	1	Required (Please specify the desired documents separately.) Verification standard inspection mark, dial scale *5, case color, movement
⑭ Class	J	JIS specification
⑮ Document	0	Nil
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection

Please specify applicable range code as well as pressure range and engineering unit.

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use  (Not available for gauge requiring over 25MPa.)	CAC203	For the gauge with pressure ratings of 2.5MPa or lower: •General type, Vibration-proof type C6872  •Steam use, Heat-proof type, Steam use & Vibration-proof type, Heat-proof & Vibration-proof type SUS316 For the gauge with pressure ratings of 4MPa or higher: SUS316	Soldered for brass parts combination  Silver soldered for brass and SUS316 combination
2 Ammonia use	SCS14	SUS316	Tig-welding
3 Corrosion-proof use			

\*1 JIS marked thread is available only for the gauge with JIS pipe thread.

**\*2 Verification standard inspection mark cannot be attached to JIS1.0 product.**

\*3 Max pointer specification  
Range of manufacturability: Pressure gauges; 0.25MPa or higher  
Compound; -0.1 to 0.1MPa or higher  
Vacuum; Cannot be manufactured

Set pointer with  
Scale plate swage specification

\*4 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher  
(This standard shall not apply to H&HV type gauge).

\*5 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

\* Specify by code "X" if there is no applicable specification.

# B\_1\_

## Process Industrial Pressure Gauges (Type B / Lower connection)

### Outline

The bourdon tube pressure gauge is offered and made in accordance with JIS B 7505-1: 2015. The gauge is easy to handle with its structured simplicity with elastic measuring element (bourdon tube) into a deflection caused by applied pressure change transmitted to a rotary geared movement carrying pointer. It is applicable to variety of applications offering wide varieties of pressure ranges.

### Features

- Can be used under rain, frost, etc. conditions by adoption of sealed case. (JIS C 09220 IP43 equivalent)
- Verification standard inspection mark (Type Approval) can be attached (Depending on size, precision and pressure range).
- Available in many standard pressure ranges and can accommodate demand for use with corrosive media.

\* To maximize performance, select full scale pressure range as normal operating pressure range 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 proper wetted parts compatible with process fluid (gas and liquid) which the gauge will be subjected.

Please refer to JIS B 7505-1 for details.

\* Please select "Use no oil" to use gauge on oxygen service.

Please select "Use no oil" and "Corrosion-proof" type to use gauge on acetylene service.



### List of products

Size	Mounting	Model number	Size	Mounting	Model number
φ 60		BA10-2□□	φ 150		BG10-2□□ BG12-2□□
φ 75		BC10-2□□ BC12-2□□	φ 200		BJ10-2□□
φ 100		BE10-2□□ BE12-2□□	φ 300		BL10-2□□

\* φ 300 is not available for JIS mark.

### Specification 1

**Fluid:**

Gas, liquid

**Case construction:** Seal type

Sealed construction which is equivalent to JIS C 0920, IP43 but not sealed completely.

**Wetted parts material:**

Wetted parts generally consist of bourdon tube and socket. These parts are exposed to or in direct contact with the medium under pressure (Gas, liquid).

Purpose	Connecting part	Bourdon tube
General use	C3604*1 or CAC203	C6872 or SUS316 (Varies depending on required pressure range and additional specon performance.)
Ammonia use	SUS316*2 or SCS14	SUS316
Corrosion-proof use		

\*1 BA10 (φ60) only

\*2 BA10 (φ60), BL10 (φ300): SUS316

**Connection:** Refer to the document JIS pipe thread in technical sheet.

G1/4B, G3/8B, G1/2B, R1/4, R3/8, R1/2, others.  
\*For other connections, please contact us.

**Pressure range:**

0 to 40kPa → 0 to 100MPa

-0.1 to 0MPa → -0.1 to 2.5MPa

\*For details, refer to the minimum scale value table in Specification 4

**Accuracy:**

JIS1.6 (JIS accuracy class)

\*φ300 is JIS1.6 equivalent.

Upon request, JIS1.0 product can be manufactured. (JIS1.0 is available for gauge requiring 1MPa or higher pressure range with nominal size of φ100, φ150, φ200.)

### Case

**Case finish:** Black (Standard color)

**Case material:** Metal case.....Aluminium alloy

Plastic case.....Bakelite

**Protection:** IP43

### Treatment of wetted parts (Option)

Use no oil, use no water gauge can be made upon request.

#### Use no oil

Oil used in manufacturing the gauges had been flushed out & no oil residue remained inside its wetted parts.

#### Use no water

Water used in manufacturing the gauges had been flushed out & no water residue remained inside its wetted parts.

#### Use no oil & water

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



#### Caution

\*Please select "Use no oil" to use gauge on oxygen service.

\*Please select "Use no oil" and "Corrosion-proof" type to use gauge on acetylene service.

Unit: mm

### Specification 2

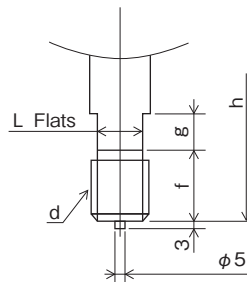
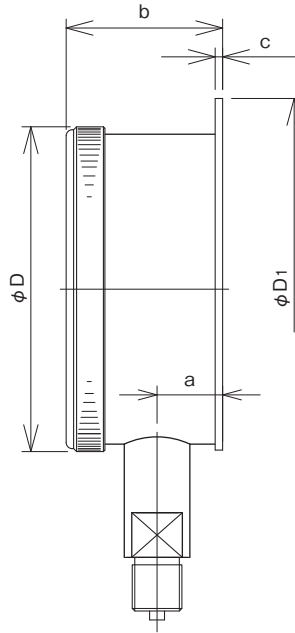
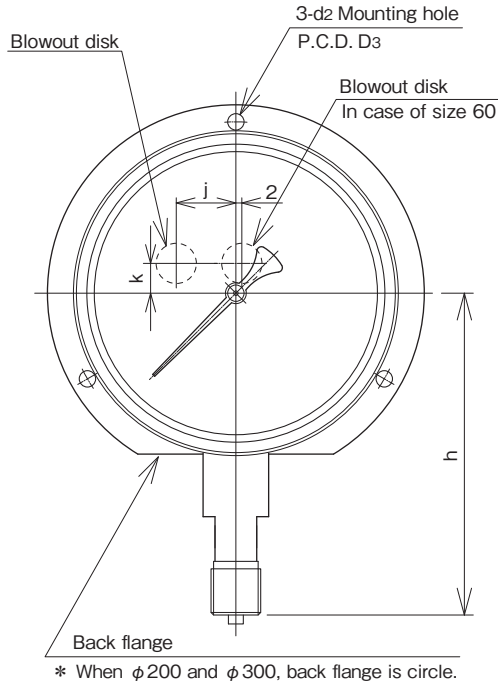
#### Shape / Dimensions:

#### Lower connection

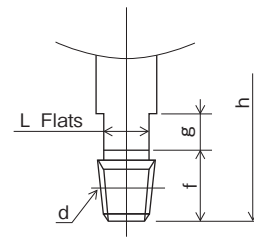
Type B... Back flange is fastened to panel by screw.

#### Weight:

Size	Weight (g)
60	Approx. 300
75	Approx. 500
100	Approx. 800
150	Approx. 1600
200	Approx. 2400
300	Approx. 4600



BUG[ ]B



BUR[ ]

Size	Shape / Connection		Case / Dimensions											Model number			
		d	D	D <sub>1</sub>	D <sub>3</sub>	a	b	c	d <sub>2</sub>	j	k	f	g		L	h	
60	U	G1/4B, R1/4	70	80	72	11.5	32	2	4.5	—	8	16	10	12	58	BA10-2[ ][ ]	
75	U	G1/4B, R1/4	84	98	88	16.5	41	2	4.5	15	10	16	12	12	68	BC10-2[ ][ ] BC12-2[ ][ ]	
		G3/8B, R3/8	(86)									18	12	14	70		
100	U	1/4NPT	109	128	115	22	52.5	2.5	5.5	20	10	16	15	14	106	BE10-2[ ][ ] BE12-2[ ][ ]	
		G3/8B, R3/8, 3/8NPT										(110)	18	15	14		108
		G1/2B, R1/2, 1/2NPT											20	15	17		110
150	U	G3/8B, R3/8	159	178	165	25	59	2.5	5.5	20	10	18	15	14	123	BG10-2[ ][ ] BG12-2[ ][ ]	
		G1/2B, R1/2, 1/2NPT	(162)									20	15	17	125		
200	U	G1/2B, R1/2, 1/2NPT	210	235	220	24	60	2.5	5.5	20	10	20	15	17	152	BJ10-2[ ][ ]	
300	U	G1/2B, R1/2	312	340	323	28	73	3.5	5.5	0	0	20	15	17	205	BL10-2[ ][ ]	

( ) Dimension of plastic case

For surface mounting, please provide a 25mm dia. hole in the wall for blowout disk.

### Specification 3

#### Specifications & additional spec.:

##### 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.

##### Movement:

Optional SUS-made movement available.

##### Pointer:

Zero adjustable pointer is available other than standard pointer. Set pointer and max pointer will be available upon request when ordering. Verification products can't be made with zero adjustable.

##### Max pointer specification

Available in:  $\phi 60$  to  $\phi 200$

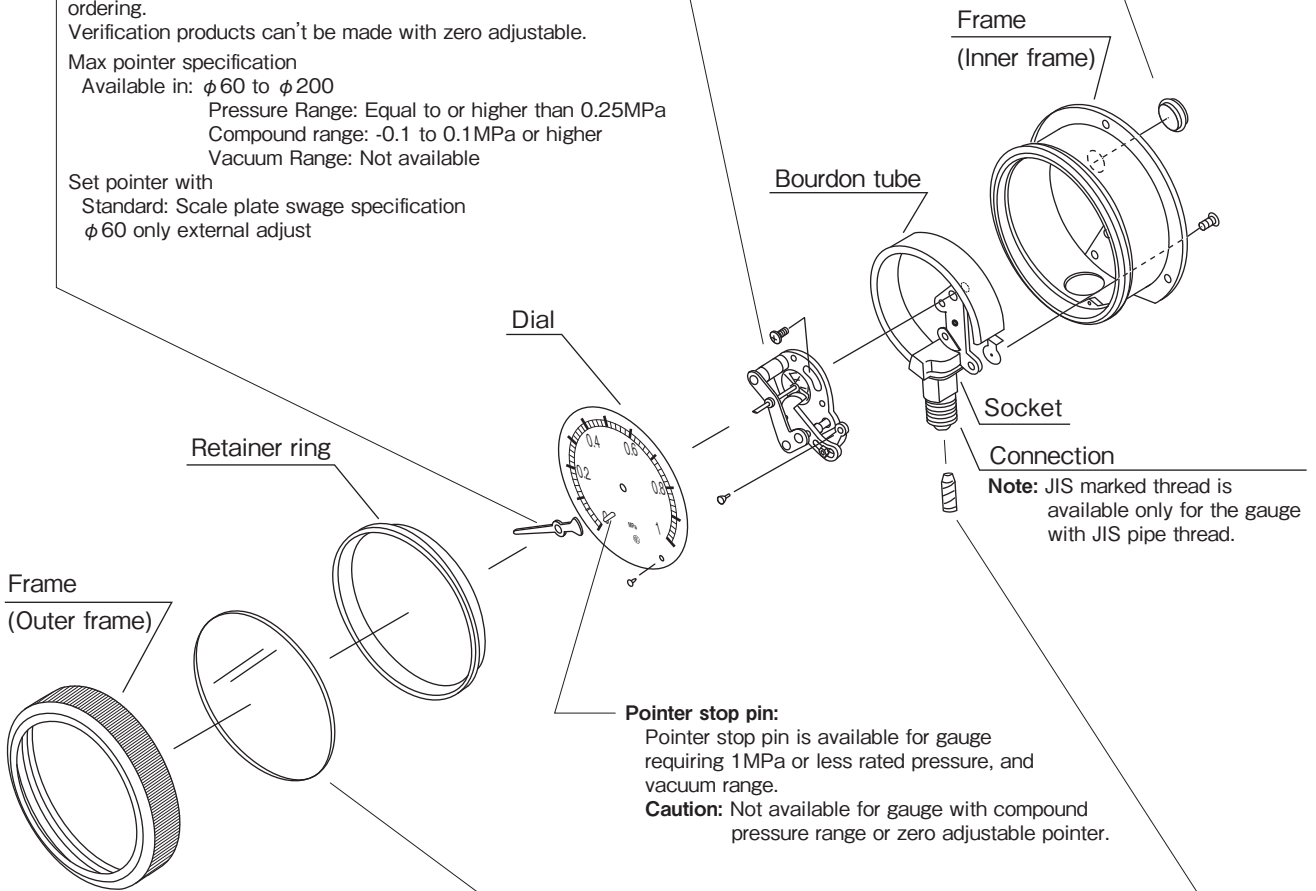
Pressure Range: Equal to or higher than 0.25MPa

Compound range: -0.1 to 0.1MPa or higher

Vacuum Range: Not available

##### Set pointer with

Standard: Scale plate swage specification  
 $\phi 60$  only external adjust



##### Pointer stop pin:

Pointer stop pin is available for gauge requiring 1MPa or less rated pressure, and vacuum range.

**Caution:** Not available for gauge with compound pressure range or zero adjustable pointer.

##### Window:

Standard: Inorganic glass

The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher (This standard shall not apply to H, HV type gauge)

Tempered glass, non-frost coat treatment glass are optionally available.

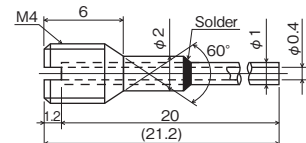
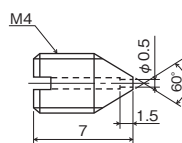
##### Throttle screw: (Optional)

Throttle screw that fits inside the orifice of the pressure gauge is available for reducing pressure impact if gauge is subjected to pulsation. Select from following models:

FS10-011,

FS10-081 (With pipe),

Corrosion-proof use FS10-013



Model number	Material
FS10-011	C3604
FS10-013 (Corrosion-proof use)	SUS316

Model number	Material
FS10-081 (With pipe)	C3604 (Pipe: C1100)

### Specification 4

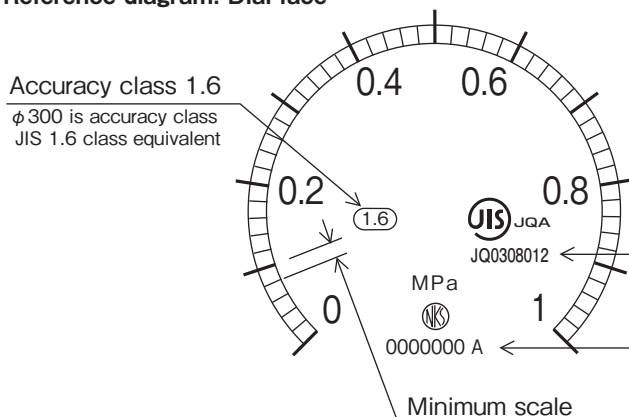
#### Minimum scale value:

The minimum number of minor scale for each pressure range is shown in the following table.

	Pressure range (MPa)	Size / Accuracy class						
		φ 60	φ 75	φ 100, φ 150		φ 200		φ 300
		1.6	1.6	1.6	1.0	1.6	1.0	JIS1.6 equivalent
Pressure range	0 to 40kPa	—	—	1	—	1	—	—
	to 0.06	—	—	0.001	—	0.001	—	—
	to 0.1	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	to 0.16	0.005	0.005	0.005	0.002	0.005	0.002	0.005
	to 0.25	0.005	0.005	0.005	0.005	0.005	0.005	0.005
	to 0.4	0.01	0.01	0.01	0.005	0.01	0.005	0.01
	to 0.6	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	to 1	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	to 1.6	0.05	0.05	0.05	0.02	0.05	0.02	0.05
	to 2.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	to 4	0.1	0.1	0.1	0.05	0.1	0.05	0.1
	to 6	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	to 10	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	to 16	0.5	0.5	0.5	0.2	0.5	0.2	0.5
	to 25	0.5	0.5	0.5	0.5	0.5	0.5	0.5
to 40	—	1	1	0.5	1	0.5	—	
to 60	—	—	1	1	1	1	—	
to 100	—	—	2	2	2	2	—	
Vacuum range	-0.1 to 0	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Compound range	-0.1 to 0.1	0.005	0.005	0.005	0.002	0.005	0.002	0.005
	to 0.16	0.005	0.005	0.005	0.005	0.005	0.005	0.005
	to 0.25	0.01	0.01	0.01	0.005	0.01	0.005	0.01
	to 0.4	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	to 0.6	0.02	0.02	0.02	0.01	0.02	0.01	0.02
	to 1	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	to 1.6	0.05	0.05	0.05	0.02	0.05	0.02	0.05
	to 2.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05

\* Gauge with 40MPa or higher range is made by corrosion-proof type.  
 \*   Blue colored cell implies the gauge obtained type approval.

#### Reference diagram: Dial face



#### Customized Dial:

Customized dial with capacity scale, double scale (Pressure and other than pressure), tag number, characters, and colored dial can be made upon request.

JIS plant authorized number JQ0308012 is printed under JIS trademark.  
 \*φ300 is not available for JIS mark.  
 The month of manufacture is provided with alphabets printed next to serial number. (A: January to L: December)  
 \*Excluding φ 300.  
 Test report and related document show serial number only to tie to manufactured gauge.

#### Verification standard inspection mark

##### Requirement of verification standard inspection mark:

The pressure gauges with the pressure ranges and sizes in the blue frame in the specification 4 have obtained type approval, and the verification standard inspection mark printed for those approved products instead of the conventional verification mark is. (Not possible to support because that φ200, φ300 product has not received the type approval.)

##### Type Approval Number:

Bourdon tube made of brass  
 (Pressure range 0 to 0.06MPa → 0 to 2.5MPa): X951  
 Bourdon tube made of SUS  
 (Pressure range 0 to 0.06MPa → 0 to 100MPa): X9618

**Designated Manufacturing Business Operator Number:**  
 272001







### φ 100 Process Industrial Pressure Gauge

#### Model number configuration

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

Model

B	E	1		2							X	X	X	J	
---	---	---	--	---	--	--	--	--	--	--	---	---	---	---	--

Process Industrial Pressure Gauges (φ 100) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number		Selective spec.	Additional spec. (Option)
Model	0	Lower connection Metal case	
	2	Lower connection Plastic case	

① Mounting	2	Type B (Mounting hole)	
② Connection	3	G3/8B	9 R1/2
	4	G1/2B	K 1/4NPT*1
	6	1/2NPT*1	L 3/8NPT*1
	8	R3/8	Others*1
③ Wetted parts material	1	General use 40MPa or higher is cannot be manufactured	
	2	Ammonia use SUS	
	3	Corrosion-proof use SUS	
	4	Anti-corrosion use SUS316L*2 (100MPa is cannot be manufactured)	
④ Pressure range (MPa)	1	0 to 40kPa, 0 to 0.06	
	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5 Compound	
	3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5	
	4	0 to 4, 6, 10	
	5	0 to 16, 25	
	6	0 to 40, 60	Corrosion-proof use
	7	0 to 100	Corrosion-proof use
⑤ Performance	0	Standard	D MV: Steam use & Vibration-proof type
	A	M: Steam use	E HV: Heat-proof & Vibration-proof type
	B	H:Heat-proof type	3 Accuracy: JIS1.0 (0.1MPa or higher)*3
	C	V: Vibration-proof type	
⑥ Pointer	0	Standard	
	1	Zero adjustable (Micro meter type) Verification standard inspection mark can't be supplied with this specification.	
	2	Zero adjustable (Spring type) Verification standard inspection mark can't be supplied with this specification.	
	5	Max pointer*4 Verification standard inspection mark can't be supplied with this specification.	
	6	Set pointer*4 Verification standard inspection mark can't be supplied with this specification.	
⑦ Glass	0	Standard Inorganic glass*5	
	1	Organic glass Not available in H, HV specification.	
	2	Tempered glass	
	3	Non-glare treatment glass	
	6	Non-frost coat treatment glass	
		Others	
⑧ Treatment	0	Nil	
	1	Use no oil	
	2	Use no water	
	3	Use no oil & water	
⑨ Throttle screw	0	Nil	
	1	FS10-011 or FS10-013 Corrosion-proof use*6	
	3	FS10-081 (With pipe)	
⑩ Other additional spec.	0	Nil	
	1	Required (Please specify the desired documents separately.) Verification standard inspection mark, dial scale*7, case color, movement	
⑭ Class	J	JIS specification	
⑮ Document	0	Nil	
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection	

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use  (Not available for gauge requiring over 25MPa.)	CAC203	For the gauge with pressure ratings of 2.5MPa or lower: •General type, Vibration-proof type C6872  •Steam use, Heat-proof type, Steam use & Vibration-proof type, Heat-proof & Vibration-proof type SUS316  For the gauge with pressure ratings of 4MPa or higher: SUS316	Soldered for brass parts combination  Silver soldered for brass and SUS316 combination
2 Ammonia use			
3 Corrosion-proof use	SCS14	SUS316	Tig-welding
4 Anti-corrosion use	SCS16	SUS316L	

\*1 JIS marked thread is available only for the gauge with JIS pipe thread.

\*2 Connecting part: SCS16

**\*3 Verification standard inspection mark cannot be attached to JIS1.0 product.**

\*4 Max pointer specification  
Range of manufacturability: Pressure gauges; 0.25MPa or higher  
Compound; -0.1 to 0.1MPa or higher  
Vacuum; Cannot be manufactured  
  
Set pointer with  
Scale plate swage specification

\*5 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher  
(This standard shall not apply to H&HV type gauge).

\*6 When wetted parts material is SUS316L, the material is SUS316L (With FS10-014).

\*7 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

\* Specify by code "X" if there is no applicable specification.





#### Model number configuration

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

Model: **B L 1 0** — **2** — **0** × × × **J**

Process Industrial Pressure Gauges (φ300) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number		Selective spec.		Additional spec. (Option)	
① Mounting	2	Lower connection Type B (Mounting hole)			
② Connection	4	G1/2B			
	9	R1/2			
③ Wetted parts material	1	General use			
	2	Ammonia use SUS			
	3	Corrosion-proof use SUS			
④ Pressure range (MPa)	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5 Compound			
	3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5			
	4	0 to 4, 6, 10			
	5	0 to 16, 25			
	⑤ Performance	0	Standard		
⑥ Pointer	0	Standard			
	2	Zero adjustable (Spring type)			
⑦ Glass	0	Standard Inorganic glass*1			
	1	Organic glass			
⑧ Treatment	0	Nil			
	1	Use no oil			
	2	Use no water			
	3	Use no oil & water			
⑨ Throttle screw	0	Nil			
	1	FS10-011 or FS10-013 Corrosion-proof use			
	3	FS10-081 (With pipe)			
⑩ Other additional spec.	0	Nil			
	1	Required (Please specify the desired documents separately.) Dial scale*2, case color, movement			
⑭ Class	J	JIS1.6 equivalent*3			
⑮ Document	0	Nil			
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection			

Please specify applicable range code as well as pressure range and engineering unit.

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use	CAC203	SUS316	Silver soldering
2 Ammonia use	SUS316		Tig-welding
3 Corrosion-proof use			

Verification standard inspection mark cannot be attached.

\* Specify by code "X" if there is no applicable specification.

\*1 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher

\*2 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

\*3 φ300 is not available for JIS mark.

# B\_1\_

## Process Industrial Pressure Gauges (Type D / Back connection)

### Outline

The bourdon tube pressure gauge is offered and made in accordance with JIS B 7505-1: 2015. The gauge is easy to handle with its structured simplicity with elastic measuring element (bourdon tube) into a deflection caused by applied pressure change transmitted to a rotary geared movement carrying pointer. It is applicable to variety of applications offering wide varieties of pressure ranges.

### Features

- Can be used under rain, frost, etc. conditions by adoption of sealed case. (JIS C 09220 IP43 equivalent)
- Verification standard inspection mark (Type Approval) can be attached (Depending on size, precision and pressure range).
- Available in many standard pressure ranges and can accommodate demand for use with corrosive media.

\* To maximize performance, select full scale pressure range as normal operating pressure range 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 proper wetted parts compatible with process fluid (gas and liquid) which the gauge will be subjected.

Please refer to JIS B 7505-1 for details.

\* Please select "Use no oil" to use gauge on oxygen service.

Please select "Use no oil" and "Corrosion-proof" type to use gauge on acetylene service.


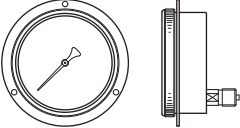
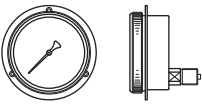
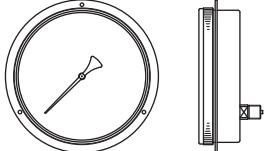
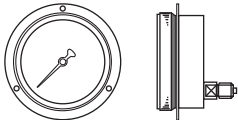
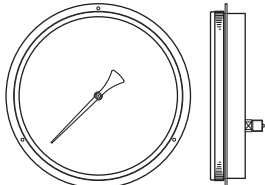


Mounting hole



Mounting clamp

### List of products

Size	Mounting	Model number	Size	Mounting	Model number
φ 60		BA15-□□□	φ 150		BG15-□□□
φ 75		BC15-□□□	φ 200		BJ15-□□□
φ 100		BE15-□□□ BE17-□□□	φ 300		BL15-□□□

\* φ 300 is not available for JIS mark.

## Specification 1

**Fluid:**

Gas, liquid

**Case construction:** Seal type

Sealed construction which is equivalent to JIS C 0920, IP43 but not sealed completely.

**Wetted parts material:**

Wetted parts generally consist of bourdon tube and socket. These parts are exposed to or in direct contact with the medium under pressure (Gas, liquid).

Purpose	Connecting part	Bourdon tube
General use	CAC203	C6872 or SUS316 (Varies depending on required pressure range and additional specon performance.)
Ammonia use	SCS14	SUS316
Corrosion-proof use		

**Connection:** Refer to the document JIS pipe thread in technical sheet.

G1/4B, G3/8B, G1/2B, R1/4, R3/8, R1/2, others.  
\*For other connections, please contact us.

**Pressure range:**

0 to 40kPa → 0 to 100MPa  
-0.1 to 0MPa → -0.1 to 2.5MPa  
\*For details, refer to the minimum scale value table in Specification 4

**Accuracy:**

JIS1.6 (JIS accuracy class)  
\*φ300 is JIS1.6 equivalent.

Upon request, JIS1.0 product can be manufactured. (JIS1.0 is available for gauge requiring 1MPa or higher pressure range with nominal size of φ100, φ150, φ200.)

## Case

**Case finish:** Black (Standard color)

**Case material:** Metal case.....Aluminium alloy

Plastic case.....Bakelite

**Protection:** IP43

## Treatment of wetted parts (Option)

Use no oil, use no water gauge can be made upon request.

### Use no oil

Oil used in manufacturing the gauges had been flushed out & no oil residue remained inside its wetted parts.

### Use no water

Water used in manufacturing the gauges had been flushed out & no water residue remained inside its wetted parts.

### Use no oil & water

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



### Caution

- \*Please select "Use no oil" to use gauge on oxygen service.
- \*Please select "Use no oil" and "Corrosion-proof" type to use gauge on acetylene service.

Unit: mm

### Specification 2

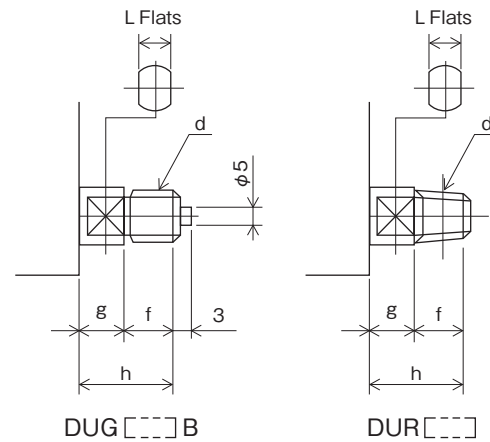
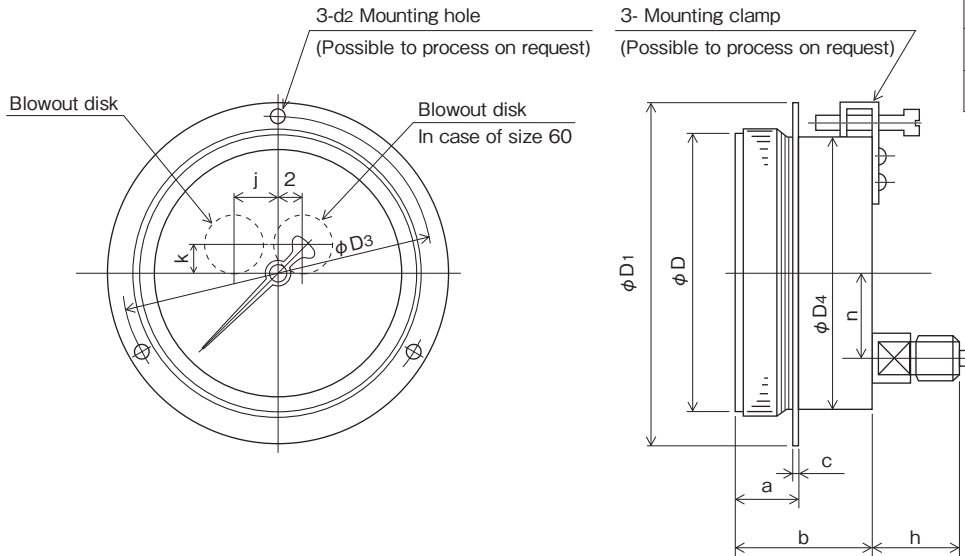
#### Shape / Dimensions:

#### Back connection

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

#### Weight:

Size	Weight (g)
60	Approx. 300
75	Approx. 500
100	Approx. 800
150	Approx. 1600
200	Approx. 2400
300	Approx. 4600



Size	Panel cut size	Shape	Case / Dimensions															Model number	
			d	D	D <sub>1</sub>	D <sub>3</sub>	D <sub>4</sub>	a	b	c	d <sub>2</sub> *	n	j	k	f	g	L		h
60	65	U	G1/4B, R1/4	70	80	72	64	14	32	2	3.3*	20	—	8	16	10	12	28	BA15-□□□
75	78	U	G1/4B, R1/4	84	98	88	77	18	40.5	2	3.3*	25	15	10	16	12	12	28	BC15-□□□
			G3/8B, R3/8												18	12	14	30	
100	103 (105)	U	1/4NPT	109 (110)	128	119	102 (104)	17.5 (20.5)	45 (46.5)	2.5 (4)	5.5	35	20	10	16	10	12	28	BE15-□□□ BE17-□□□
			G3/8B, R3/8, 3/8NPT												18	12	14	30	
			G1/2B, R1/2, 1/2NPT												20	12	17	32 (29)	
150	154	U	G3/8B, R3/8	159	178	169	152	21.5	61	2.5	5.5	55	20	10	18	12	14	30	BG15-□□□
			G1/2B, R1/2, 1/2NPT												20	12	17	32 (31)	
200	205	U	G1/2B, R1/2, 1/2NPT	210	235	220	203	28	63	3	5.5	55	20	10	20	12	17	32	BJ15-□□□
300	306	U	G1/2B, R1/2	312	340	323	304	30.5	64	3.5	5.5	55	0	35	20	12	17	32	BL15-□□□

( ) Dimension of plastic case

\* For M3 flat head screw

For surface mounting, please provide a 25mm dia. hole in the wall for blowout disk.



### Specification 3

#### Specifications & additional spec.:

##### 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.

##### Movement:

Optional SUS-made movement available.

##### Pointer:

Zero adjustable pointer is available other than standard pointer. Set pointer and max pointer will be available upon request when ordering. Verification products can't be made with zero adjustable.

##### Max pointer specification

Available in:  $\phi 60$  to  $\phi 200$

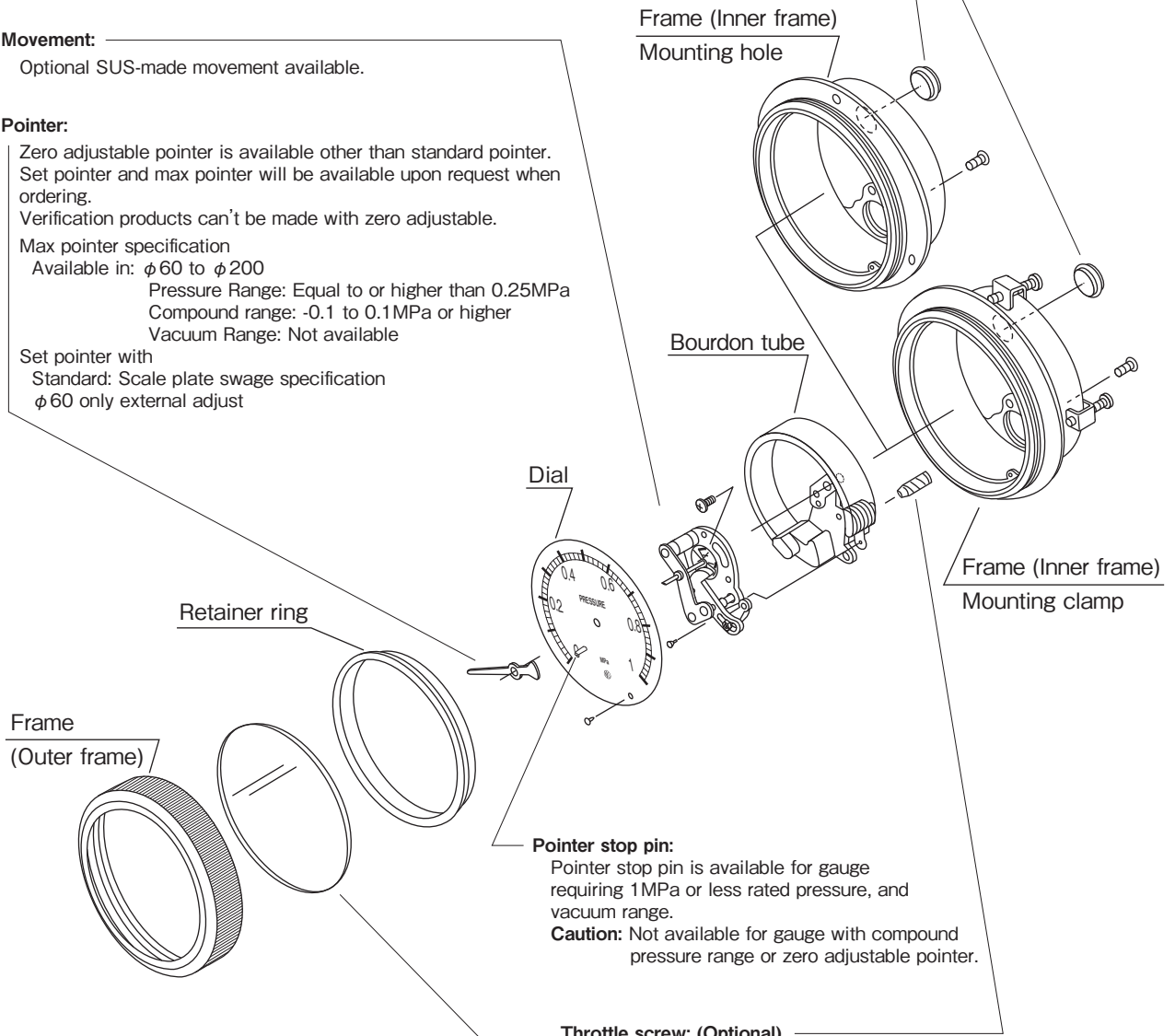
Pressure Range: Equal to or higher than 0.25MPa

Compound range: -0.1 to 0.1MPa or higher

Vacuum Range: Not available

##### Set pointer with

Standard: Scale plate swage specification  
 $\phi 60$  only external adjust



##### Pointer stop pin:

Pointer stop pin is available for gauge requiring 1MPa or less rated pressure, and vacuum range.

**Caution:** Not available for gauge with compound pressure range or zero adjustable pointer.

##### Throttle screw: (Optional)

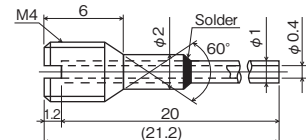
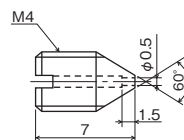
Throttle screw that fits inside the orifice of the pressure gauge is available for reducing pressure impact if gauge is subjected to pulsation.

Select from following models:

FS10-011,

FS10-081 (With pipe),

Corrosion-proof use FS10-013



##### Window:

Standard: Inorganic glass

The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher (This standard shall not apply to H, HV type gauge)

Tempered glass, non-frost coat treatment glass are optionally available.

Model number	Material
FS10-011	C3604
FS10-013 (Corrosion-proof use)	SUS316

Model number	Material
FS10-081 (With pipe)	C3604 (Pipe: C1100)

### Specification 4

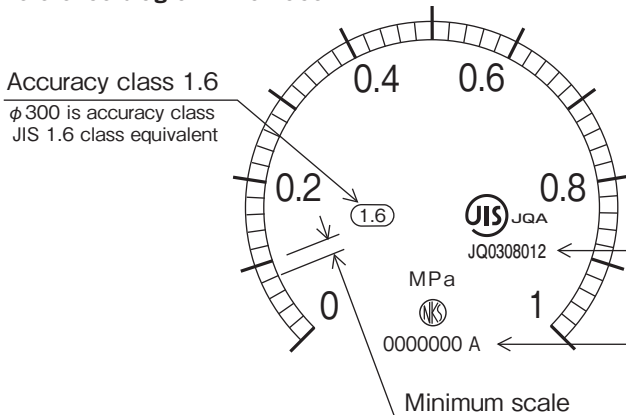
#### Minimum scale value:

The minimum number of minor scale for each pressure range is shown in the following table.

	Pressure range (MPa)	Size / Accuracy class						
		φ 60	φ 75	φ 100, φ 150		φ 200		φ 300
		1.6	1.6	1.6	1.0	1.6	1.0	JIS1.6 equivalent
Pressure range	0 to 40kPa	—	—	1	—	1	—	—
	to 0.06	—	—	0.001	—	0.001	—	—
	to 0.1	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	to 0.16	0.005	0.005	0.005	0.002	0.005	0.002	0.005
	to 0.25	0.005	0.005	0.005	0.005	0.005	0.005	0.005
	to 0.4	0.01	0.01	0.01	0.005	0.01	0.005	0.01
	to 0.6	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	to 1	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	to 1.6	0.05	0.05	0.05	0.02	0.05	0.02	0.05
	to 2.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	to 4	0.1	0.1	0.1	0.05	0.1	0.05	0.1
	to 6	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	to 10	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	to 16	0.5	0.5	0.5	0.2	0.5	0.2	0.5
	to 25	0.5	0.5	0.5	0.5	0.5	0.5	0.5
to 40	—	1	1	0.5	1	0.5	—	
to 60	—	—	1	1	1	1	—	
to 100	—	—	2	2	2	2	—	
Vacuum range	-0.1 to 0	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Compound range	-0.1 to 0.1	0.005	0.005	0.005	0.002	0.005	0.002	0.005
	to 0.16	0.005	0.005	0.005	0.005	0.005	0.005	0.005
	to 0.25	0.01	0.01	0.01	0.005	0.01	0.005	0.01
	to 0.4	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	to 0.6	0.02	0.02	0.02	0.01	0.02	0.01	0.02
	to 1	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	to 1.6	0.05	0.05	0.05	0.02	0.05	0.02	0.05
	to 2.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05

\* Gauge with 40MPa or higher range is made by corrosion-proof type.  
 \*  Blue colored cell implies the gauge obtained type approval.

#### Reference diagram: Dial face



#### Customized Dial:

Customized dial with capacity scale, double scale (Pressure and other than pressure), tag number, characters, and colored dial can be made upon request.

JIS plant authorized number JQ0308012 is printed under JIS trademark.

\*φ300 is not available for JIS mark.

The month of manufacture is provided with alphabets printed next to serial number. (A: January to L: December)  
 \* Excluding φ 300.

Test report and related document show serial number only to tie to manufactured gauge.

#### Verification standard inspection mark

##### Requirement of verification standard inspection mark:

The pressure gauges with the pressure ranges and sizes in the blue frame in the specification 4 have obtained type approval, and the verification standard inspection mark printed for those approved products instead of the conventional verification mark is. (Not possible to support because that φ200, φ300 product has not received the type approval.)

##### Type Approval Number:

Bourdon tube made of brass  
 (Pressure range 0 to 0.06MPa → 0 to 2.5MPa): X951  
 Bourdon tube made of SUS  
 (Pressure range 0 to 0.06MPa → 0 to 100MPa): X9618

**Designated Manufacturing Business Operator Number:**  
 272001

### φ60 Process Industrial Pressure Gauge

#### Model number configuration

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

Model  
**B A 1 5** — — — — — — — — — — × × × **J** — — — — —

Process Industrial Pressure Gauges (φ60) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number		Selective spec.		Additional spec. (Option)	
①	Mounting	1	Back connection Type D (Mounting clamp) Metal case		
		2	Back connection Type D (Mounting hole) Metal case		
②	Connection	2	G1/4B		
		7	R1/4		
			Others*1		
③	Wetted parts material	1	General use		
		2	Ammonia use SUS		
		3	Corrosion-proof use SUS		
④	Pressure range (MPa)	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5 Compound		
		3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5		
		4	0 to 4, 6, 10		
		5	0 to 16, 25		
⑤	Performance	0	Standard		
		A	M: Steam use		
		C	V: Vibration-proof type		
		D	MV: Steam use & Vibration-proof type		
⑥	Pointer	0	Standard		
		2	Zero adjustable (Spring type) Verification standard inspection mark can't be supplied with this specification.		
		5	Max pointer*2 Verification standard inspection mark can't be supplied with this specification.		
		6	Set pointer (External adjust)*2 Verification standard inspection mark can't be supplied with this specification.		
⑦	Glass	0	Standard Inorganic glass*3		
		1	Organic glass		
		2	Tempered glass		
		3	Non-glare treatment glass		
		6	Non-frost coat treatment glass		
			Others		
⑧	Treatment	0	Nil		
		1	Use no oil		
		2	Use no water		
		3	Use no oil & water		
⑨	Throttle screw	0	Nil		
		1	FS10-011 or FS10-013 Corrosion-proof use		
		3	FS10-081 (With pipe)		
⑩	Other additional spec.	0	Nil		
		1	Required (Please specify the desired documents separately.) Verification standard inspection mark, dial scale*4, case color, movement		
⑭	Class	J	JIS specification		
⑮	Document	0	Nil		
		1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection		

Please specify applicable range code as well as pressure range and engineering unit.

③Wetted parts material	Purpose	Connecting part	Bourdon tube	Connecting method
1	General use	CAC203	For the gauge with pressure ratings of 2.5MPa or lower: •General type, Vibration-proof type C6872  •Steam use, Steam use & Vibration-proof type SUS316  For the gauge with pressure ratings of 4MPa or higher: SUS316	Soldered for brass parts combination  Silver soldered for brass and SUS316 combination
2	Ammonia use			
3	Corrosion-proof use	SCS14	SUS316	Tig-welding

\*1 JIS marked thread is available only for the gauge with JIS pipe thread.  
 \*2 Max pointer specification  
 Range of manufacturability: Pressure gauges; 0.25MPa or higher  
 Compound; -0.1 to 0.1MPa or higher  
 Vacuum; Cannot be manufactured  
 Set pointer with External adjust  
 \*3 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher  
 \*4 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

\* Specify by code "X" if there is no applicable specification.

### φ 75 Process Industrial Pressure Gauge

#### Model number configuration

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

Model: **B C 1 5** — [ ] — [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Process Industrial Pressure Gauges (φ 75) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number	Selective spec.	Additional spec. (Option)
① Mounting	1	Back connection Type D (Mounting clamp) Metal case
	2	Back connection Type D (Mounting hole) Metal case
② Connection	2	G1/4B
	3	G3/8B
	7	R1/4
	8	R3/8
		Others*1
③ Wetted parts material	1	General use 40MPa is cannot be manufactured
	2	Ammonia use SUS
	3	Corrosion-proof use SUS
④ Pressure range (MPa) <i>Please specify applicable range code as well as pressure range and engineering unit.</i>	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5 Compound
	3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5
	4	0 to 4, 6, 10
	5	0 to 16, 25
	6	0 to 40 Corrosion-proof use
⑤ Performance	0	Standard
	A	M: Steam use
	C	V: Vibration-proof type
	D	MV: Steam use & Vibration-proof type
⑥ Pointer	0	Standard
	1	Zero adjustable (Micro meter type) Verification standard inspection mark can't be supplied with this specification.
	2	Zero adjustable (Spring type) Verification standard inspection mark can't be supplied with this specification.
	5	Max pointer*2 Verification standard inspection mark can't be supplied with this specification.
	6	Set pointer*2 Verification standard inspection mark can't be supplied with this specification.
⑦ Glass	0	Standard Inorganic glass*3
	1	Organic glass
	2	Tempered glass
	3	Non-glare treatment glass
	6	Non-frost coat treatment glass
		Others
⑧ Treatment	0	Nil
	1	Use no oil
	2	Use no water
	3	Use no oil & water
⑨ Throttle screw	0	Nil
	1	FS10-011 or FS10-013 Corrosion-proof use
	3	FS10-081 (With pipe)
⑩ Other additional spec.	0	Nil
	1	Required (Please specify the desired documents separately.) Verification standard inspection mark, dial scale*4, case color, movement
⑭ Class	J	JIS specification
⑮ Document	0	Nil
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use  <i>(Not available for gauge requiring over 25MPa.)</i>	CAC203	For the gauge with pressure ratings of 2.5MPa or lower: •General type, Vibration-proof type C6872  •Steam use, Steam use & Vibration-proof type SUS316  For the gauge with pressure ratings of 4MPa or higher: SUS316	Soldered for brass parts combination  Silver soldered for brass and SUS316 combination
2 Ammonia use	SUS316 or SCS14	SUS316	Tig-welding
3 Corrosion-proof use			

\*1 JIS marked thread is available only for the gauge with JIS pipe thread.

\*2 Max pointer specification  
Range of manufacturability: Pressure gauges; 0.25MPa or higher  
Compound; -0.1 to 0.1MPa or higher  
Vacuum; Cannot be manufactured  
  
Set pointer with  
Scale plate swage specification

\*3 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher

\*4 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

\* Specify by code "X" if there is no applicable specification.

### φ 100 Process Industrial Pressure Gauge

#### Model number configuration

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

Model

Process Industrial Pressure Gauges (φ 100)

Model number

Selective spec. Additional spec. (Option)

Model	5	Back connection Metal case
Model	7	Back connection Plastic case

① Mounting

1	Type D (Mounting clamp)	BE17 is cannot be manufactured
2	Type D (Mounting hole)	

② Connection

3	G3/8B	9	R1/2
4	G1/2B	K	1/4NPT*1
6	1/2NPT*1	L	3/8NPT*1
8	R3/8		Others*1

③ Wetted parts material

1	General use	40MPa or higher is cannot be manufactured
2	Ammonia use	SUS
3	Corrosion-proof use	SUS
4	Anti-corrosion use	SUS316L*2 (100MPa is cannot be manufactured)

④ Pressure range (MPa)

1	0 to 40kPa, 0 to 0.06	(BE17 is cannot be manufactured)
2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5	Compound
3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5	
4	0 to 4, 6, 10	
5	0 to 16, 25	
6	0 to 40, 60	Corrosion-proof use
7	0 to 100	Corrosion-proof use

Please specify applicable range code as well as pressure range and engineering unit.

⑤ Performance

0	Standard	D	MV: Steam use & Vibration-proof type
A	M: Steam use	E	HV: Heat-proof & Vibration proof type
B	H:Heat-proof type	3	Accuracy: JIS1.0 (0.1MPa or higher)*3
C	V: Vibration-proof type		

⑥ Pointer

0	Standard
1	Zero adjustable (Micro meter type) Verification standard inspection mark can't be supplied with this specification.
2	Zero adjustable (Spring type) Verification standard inspection mark can't be supplied with this specification.
5	Max pointer*4 Verification standard inspection mark can't be supplied with this specification.
6	Set pointer*4 Verification standard inspection mark can't be supplied with this specification.

⑦ Glass

0	Standard Inorganic glass*5
1	Organic glass Not available in H, HV specification.
2	Tempered glass
3	Non-glare treatment glass
6	Non-frost coat treatment glass
	Others

⑧ Treatment

0	Nil
1	Use no oil
2	Use no water
3	Use no oil & water

⑨ Throttle screw

0	Nil
1	FS10-011 or FS10-013 Corrosion-proof use*6
3	FS10-081 (With pipe)

⑩ Other additional spec.

0	Nil
1	Required (Please specify the desired documents separately.) Verification standard inspection mark, dial scale*7, case color, movement

⑭ Class

J	JIS specification
---	-------------------

⑮ Document

0	Nil
1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection

① Wetted parts material

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use (Not available for gauge requiring over 25MPa.)	CAC203	For the gauge with pressure ratings of 2.5MPa or lower: •General type, Vibration-proof type C6872  •Steam use, Heat-proof type, Steam use & Vibration-proof type, Heat-proof & Vibration-proof type SUS316  For the gauge with pressure ratings of 4MPa or higher: SUS316	Soldered for brass parts combination  Silver soldered for brass and SUS316 combination
2 Ammonia use			
3 Corrosion-proof use	SCS14	SUS316	Tig-welding
4 Anti-corrosion use	SCS16	SUS316L	

BE17 is manufactured for 0.1MPa or higher.  
(Vacuum: Can be manufactured)

\*1 JIS marked thread is available only for the gauge with JIS pipe thread.

\*2 Connecting part: SCS16

\*3 Verification standard inspection mark cannot be attached to JIS1.0 product.

\*4 Max pointer specification  
Range of manufacturability: Pressure gauges; 0.25MPa or higher  
Compound; -0.1 to 0.1MPa or higher  
Vacuum; Cannot be manufactured  
  
Set pointer with  
Scale plate swage specification

\*5 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher  
(This standard shall not apply to H&HV type gauge).

\*6 When wetted parts material is SUS316L,  
the material is SUS316L (With FS10-014).

\*7 Customized dial: Capacity scale, dual scale, tag number,  
characters, colored circle, colored wire

\* Specify by code "X" if there is no applicable specification.

### φ 150 Process Industrial Pressure Gauge

#### Model number configuration

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

Model

**B G 1 5** — [ ] [ ] [ ] — [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Process Industrial Pressure Gauges (φ 150) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number		Selective spec.		Additional spec. (Option)	
① Mounting	1	Back connection Type D (Mounting clamp) Metal case			
	2	Back connection Type D (Mounting hole) Metal case			
② Connection	3	G3/8B		8	R3/8
	4	G1/2B		9	R1/2
	6	1/2NPT*1		Others*1	
③ Wetted parts material	1	General use 40MPa or higher is cannot be manufactured			
	2	Ammonia use SUS			
	3	Corrosion-proof use SUS			
④ Pressure range (MPa)	1	0 to 40kPa, 0 to 0.06			
	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5 Compound			
	3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5			
	4	0 to 4, 6, 10			
	5	0 to 16, 25			
	6	0 to 40, 60		Corrosion-proof use	
	7	0 to 100		Corrosion-proof use	
⑤ Performance	0	Standard			
	A	M: Steam use			
	B	H: Heat-proof type			
	C	V: Vibration-proof type			
	D	MV: Steam use & Vibration-proof type			
	E	HV: Heat-proof & Vibration-proof type			
	3	Accuracy: JIS1.0 (0.1MPa or higher)*2			
⑥ Pointer	0	Standard			
	1	Zero adjustable (Micro meter type) Verification standard inspection mark can't be supplied with this specification.			
	2	Zero adjustable (Spring type) Verification standard inspection mark can't be supplied with this specification.			
	5	Max pointer*3			
	6	Set pointer*3 Verification standard inspection mark can't be supplied with this specification.			
⑦ Glass	0	Standard Inorganic glass*4			
	1	Organic glass Not available in H, HV specification.			
	2	Tempered glass			
	3	Non-glare treatment glass			
	6	Non-frost coat treatment glass			
	Others				
⑧ Treatment	0	Nil			
	1	Use no oil			
	2	Use no water			
	3	Use no oil & water			
⑨ Throttle screw	0	Nil			
	1	FS10-011 or FS10-013 Corrosion-proof use			
	3	FS10-081 (With pipe)			
⑩ Other additional spec.	0	Nil			
	1	Required (Please specify the desired documents separately.) Verification standard inspection mark, dial scale*5, case color, movement			
⑭ Class	J	JIS specification			
⑮ Document	0	Nil			
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection			

Please specify applicable range code as well as pressure range and engineering unit.

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use  (Not available for gauge requiring over 25MPa.)	CAC203	For the gauge with pressure ratings of 2.5MPa or lower: •General type, Vibration-proof type C6872 •Steam use, Heat-proof type, Steam use & Vibration-proof type, Heat-proof & Vibration-proof type SUS316 For the gauge with pressure ratings of 4MPa or higher: SUS316	Soldered for brass parts combination  Silver soldered for brass and SUS316 combination
2 Ammonia use			
3 Corrosion-proof use	SCS14	SUS316	Tig-welding

③ Wetted parts material

\*1 JIS marked thread is available only for the gauge with JIS pipe thread.

\*2 Verification standard inspection mark cannot be attached to JIS1.0 product.

\*3 Max pointer specification  
Range of manufacturability: Pressure gauges; 0.25MPa or higher  
Compound; -0.1 to 0.1MPa or higher  
Vacuum; Cannot be manufactured  
  
Set pointer with  
Scale plate swage specification

\*4 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher  
(This standard shall not apply to H&HV type gauge).

\*5 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

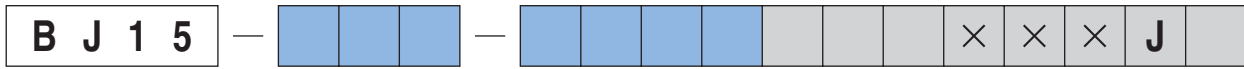
\* Specify by code "X" if there is no applicable specification.

## φ200 Process Industrial Pressure Gauge

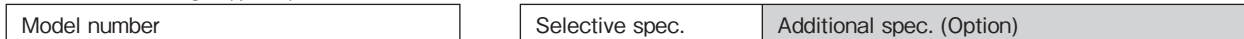
### Model number configuration

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

Model



Process Industrial Pressure Gauges (φ200) ① ② ③



①			Back connection Type D (Mounting clamp)
			Back connection Type D (Mounting hole)

②			G1/2B
			1/2NPT*1
			R1/2
			Others*1

③			General use	40MPa or higher is cannot be manufactured
			Ammonia use	SUS
			Corrosion-proof use	SUS

④ Pressure range (MPa)	1	0 to 40kPa, 0 to 0.06	
	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5 Compound	
	3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5	
	4	0 to 4, 6, 10	
	5	0 to 16, 25	
	6	0 to 40, 60	Corrosion-proof use
	7	0 to 100	Corrosion-proof use

Please specify applicable range code as well as pressure range and engineering unit.

⑤ Performance	0	Standard
	A	M: Steam use
	3	Accuracy: JIS1.0 (0.1MPa or higher)

⑥ Pointer	0	Standard
	1	Zero adjustable (Micro meter type)
	2	Zero adjustable (Spring type)

⑦ Glass	0	Standard Inorganic glass*2
	1	Organic glass
	2	Tempered glass
	3	Non-glare treatment glass
	Others	

⑧ Treatment	0	Nil
	1	Use no oil
	2	Use no water
	3	Use no oil & water

③Wetted parts material

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use  <small>(Not available for gauge requiring over 25MPa.)</small>	CAC203	For the gauge with pressure ratings of 2.5MPa or lower: •General type C6872 •Steam use SUS316  For the gauge with pressure ratings of 4MPa or higher: SUS316	Soldered for brass parts combination  Silver soldered for brass and SUS316 combination
2 Ammonia use	SCS14	SUS316	Tig-welding
3 Corrosion-proof use			

Verification standard inspection mark cannot be attached.

⑨ Throttle screw	0	Nil
	1	FS10-011 or FS10-013 Corrosion-proof use
	3	FS10-081 (With pipe)
⑩ Other additional spec.	0	Nil
	1	Required (Please specify the desired documents separately.) Dial scale*3, case color, movement
⑭ Class	J	JIS specification
⑮ Document	0	Nil
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection

- \*1 JIS marked thread is available only for the gauge with JIS pipe thread.
- \*2 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher
- \*3 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

\* Specify by code "X" if there is no applicable specification.

#### Model number configuration

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

Model: **B L 1 5** — [ ] [ ] [ ] — **0** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Process Industrial Pressure Gauges (φ300) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Model number		Selective spec.		Additional spec. (Option)	
① Mounting	1	Back connection Type D (Mounting clamp)			
	2	Back connection Type D (Mounting hole)			
② Connection	4	G1/2B			
	9	R1/2			
③ Wetted parts material	1	General use			
	2	Ammonia use		SUS	
	3	Corrosion-proof use		SUS	
④ Pressure range (MPa)	2	-0.1 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5 Compound			
	3	-0.1 to 0, 0 to 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5			
	4	0 to 4, 6, 10			
	5	0 to 16, 25			
	⑤ Performance	0	Standard		
⑥ Pointer	0	Standard			
	2	Zero adjustable (Spring type)			
⑦ Glass	0	Standard Inorganic glass*1			
	1	Organic glass			
⑧ Treatment	0	Nil			
	1	Use no oil			
	2	Use no water			
	3	Use no oil & water			
⑨ Throttle screw	0	Nil			
	1	FS10-011 or FS10-013 Corrosion-proof use			
	3	FS10-081 (With pipe)			
⑩ Other additional spec.	0	Nil			
	1	Required (Please specify the desired documents separately.) Dial scale*2, case color, movement			
⑭ Class	J	JIS1.6 equivalent*3			
⑮ Document	0	Nil			
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection			

Please specify applicable range code as well as pressure range and engineering unit.

③Wetted parts material

Purpose	Connecting part	Bourdon tube	Connecting method
1 General use	CAC203	SUS316	Silver soldering
2 Ammonia use	SCS14		Tig-welding
3 Corrosion-proof use			

\* Specify by code "X" if there is no applicable specification.

Verification standard inspection mark cannot be attached.

\*1 The gauge comes standard with organic glass for gauge with pressure ratings of 10MPa or higher

\*2 Customized dial: Capacity scale, dual scale, tag number, characters, colored circle, colored wire

\*3 φ300 is not available for JIS mark.