

Reflex type level gauge

Model : L100 series

Spec. sheet no. LD01-01

Description

Reflex liquid level gauge has a sturdily constructed body, with the glass and cover securely held by U-bolts to maintain a hermetic seal (see figure below). This type of level gauge features several parallel grooves cut into the glass surface that is in contact with the liquid. The resulting prismatic diffraction causes to appear white by reflection : liquids black by absorption thus the level of even transparent liquids can be clearly observed.

Low-medium and high-pressure type may be used according to application conditions and units may be manufactured using carbon steel, stainless steel or a wide variety of other materials for parts in contact with the liquid. Type L100 reflex gauges have a number of further advantages including light weight, availability of long visible lengths and low price.

Type



General type (Max. 4 MPa)



High pressure type (Max. 24 MPa)

Specification

Material

Carbon steel
LTCS
Stainless steel
A182-F11, 22, 5, 9, 91 and Monel
Titanium
Hastelloy
Alloy-20, etc.

Visible length

90 ~ 3,510 mm

Max. No. of section

10 sections

Vessel connection

3/4" or 1" flanged ANSI 150 ~ 2,500 Lb

Option

- Scale plate
 - Unit : Centimeter, Meter
- Vent
 - Needle valve
 - Gate valve
 - Globe valve
 - Nipple and cap
- Drain
 - Needle valve
 - Gate valve
 - Globe valve
 - Nipple and cap
- Bracket
 - Longer than 3,000 mm of C to C

1. Base model

- L100** Reflex level gauge
L110 Large chamber type reflex level gauge
L120 Zig-zag type reflex level gauge

2. Vessel connection size

ANSI		JIS	
AA	½" 150 Lb RF	JA	15A 10K RF
AB	½" 300 Lb RF	JB	15A 20K RF
AC	½" 600 Lb RF	JC	15A 30K RF
AD	¾" 150 Lb RF	JD	20A 10K RF
AE	¾" 300 Lb RF	JE	20A 20K RF
AF	¾" 600 Lb RF	JF	30A 30K RF
AG	1" 150 Lb RF	JG	25A 10K RF
AH	1" 300 Lb RF	JH	25A 20K RF
AI	1" 600 Lb RF	JI	25A 30K RF
AJ	1½" 150 Lb RF	JJ	40A 10K RF
AK	1½" 300 Lb RF	JK	40A 20K RF
AL	1½" 600 Lb RF	JL	40A 30K RF
AM	2" 150 Lb RF	JM	50A 10K RF
AN	2" 300 Lb RF	JN	50A 20K RF
AO	2" 600 Lb RF	JO	50A 30K RF
AP	½" NPT	JP	½" PT
AQ	¾" NPT	JQ	¾" PT
OH	Other		

3. Vessel connection type

- A** Flanged
B Union and screwed
O Other

4. Hook-up

- B** Top and bottom
L Side and side (Left)
R Side and side (Right)
O Other

5. Gauge connection

- G** Gland
U Union
S Screwed
O Other

6. Gauge valve

- S** Straight
O Off-set
N None

7. Center to center (mm)

XXXX

8. Chamber material

- CS** Body - Carbon steel / Cover - Carbon steel
SS Body - 304SS / Cover - 304SS
ZZ Other

9. Drain end

- D** Dust-proof cap inserted
P With plug
O Other

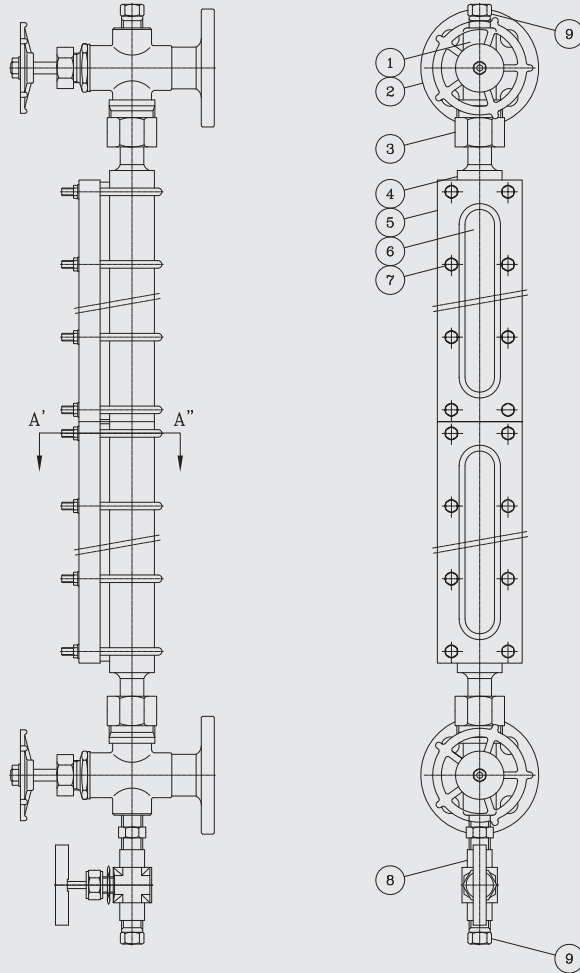
10. Option

- SP** Scale plate
LN Lining
JK Jacketing
NF Non-frosting
OH Other
NA None

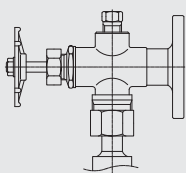
1	2	3	4	5	6	7	8	9	10
L100	AE	A	B	S	O	XXXX	CS	D	SP

Sample ordering code

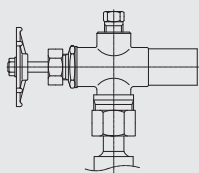
Model : L100 (Reflex type)



Section A'-A''



FLANGE TYPE



SOCKET WELD TYPE

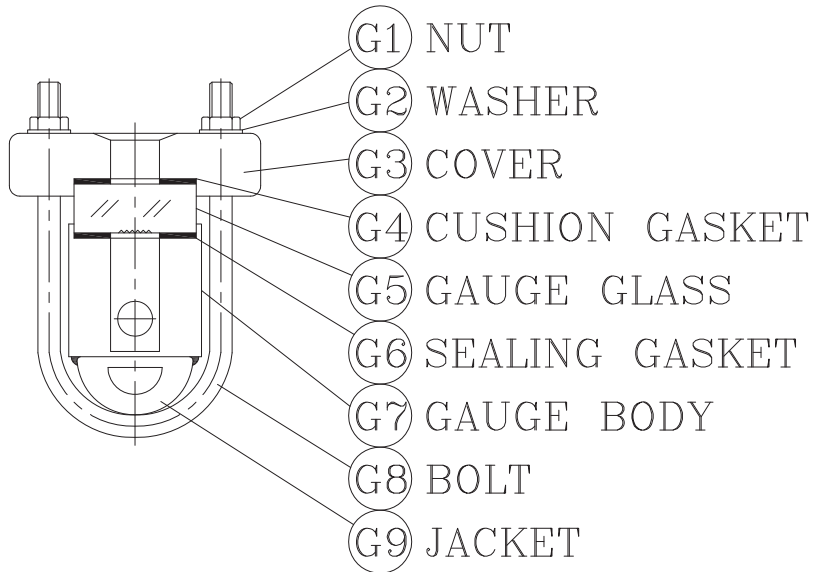
NO.	DESCRIPTION	MATERIAL
1	GAUGE VALVE	A216 WCB/A351 CF8/A351 CF8M
2	VESSEL CONNECTION FLANGE	A105/A182 F304/A182 F316
3	GAUGE CONNECTION	A105/A479 304/A479 316
4	GAUGE BODY	A105/A479 304/A479 316
5	COVER	A105/A479 304/A479 316
6	GLASS	BOLISICATE
7	BOLT	A193 B7/BB
8	DRAIN VALVE	A216 WCB/A351 CF8/A351 CF8M A105/A182 F304/A182 F316
9	PLUG	A105/A479 304/A479 316

Large empty rectangular area for writing or drawing.

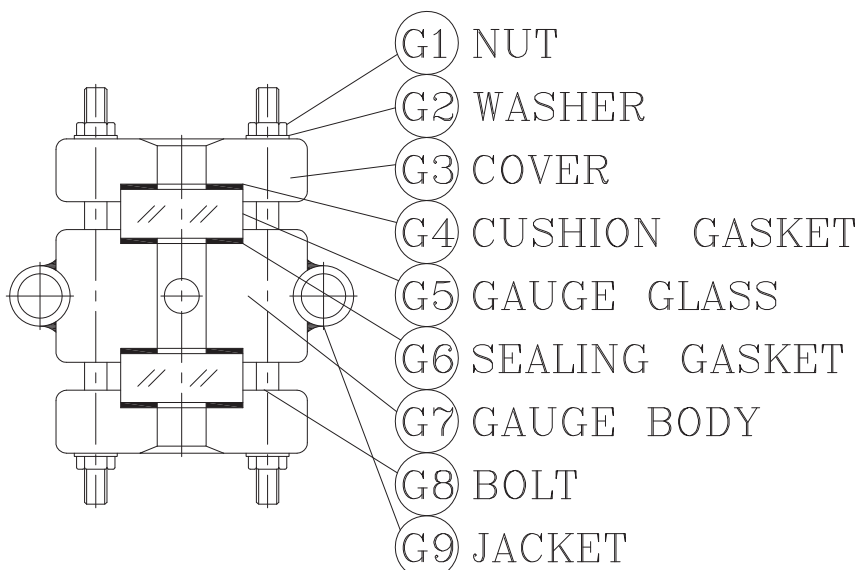
Optional Jacket type level gauge for L100 and L200

Spec. sheet no. LD01-04

Model : L100 (Jacket type)



Model : L200 (Jacket type)



Zig-zag type level gauge

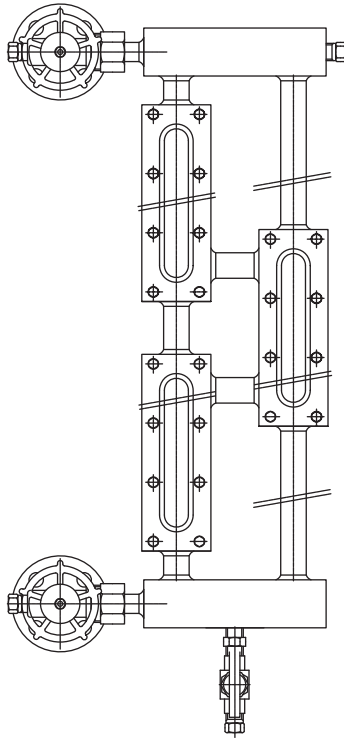
Model : L120 (Reflex type)
L220 (Transparent type)

Spec. sheet no. LD01-03

Description

This level gauge is possible to measure the level point without any dead point between cover & cover, and installed on LPG tank or butan tank.

It's applicable to reflex and transparent type level gauges.



Model : L120 (Reflex type)



Model : L220 (Transparent type)

Specification

Model : L120 (Reflex type)

Material

Carbon steel, Stainless steel

Max. pressure

10 MPa

Vessel connection

1/2", 3/4" and 1"

Model : L220 (Transparent type)

Material

Carbon steel, Stainless steel

Max. pressure

10 MPa

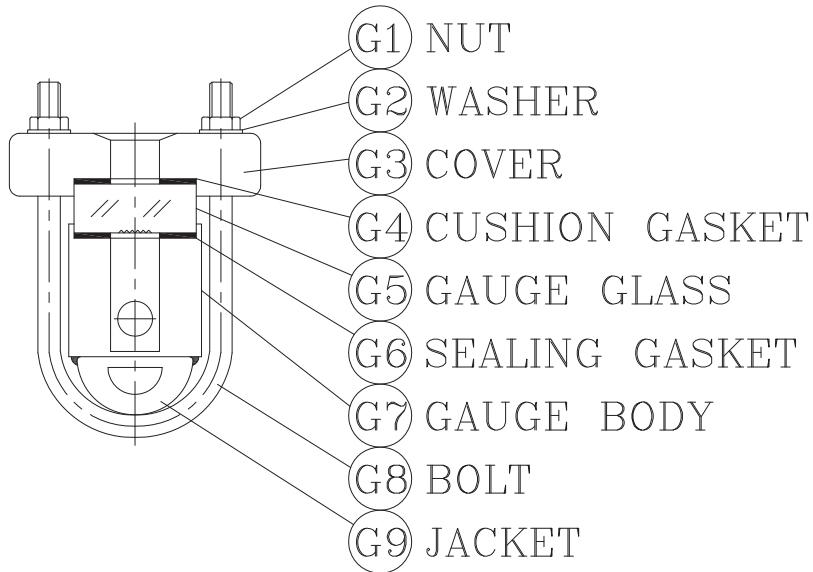
Vessel connection

1/2", 3/4" and 1"

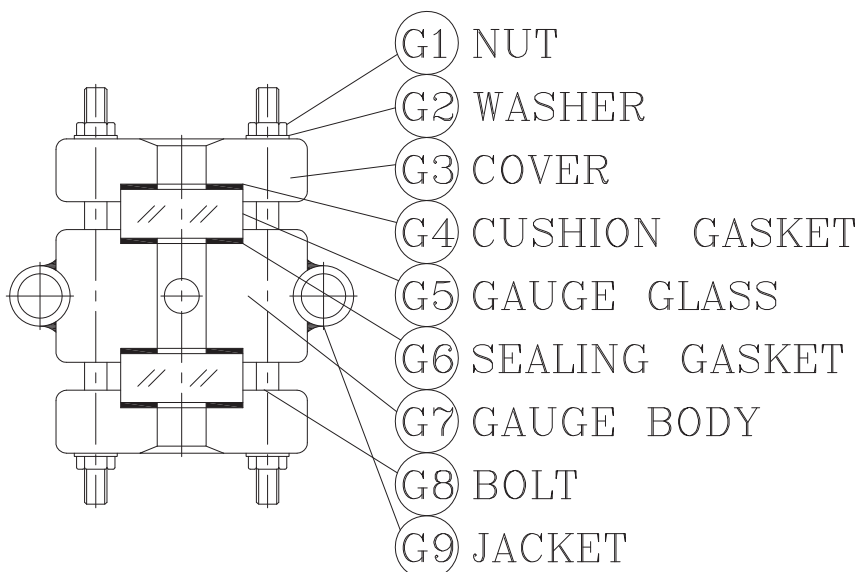
Optional Jacket type level gauge for L100 and L200

Spec. sheet no. LD01-04

Model : L100 (Jacket type)



Model : L200 (Jacket type)



Zig-zag type level gauge

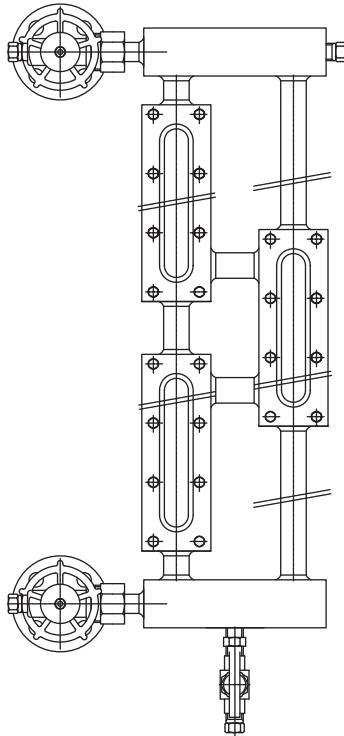
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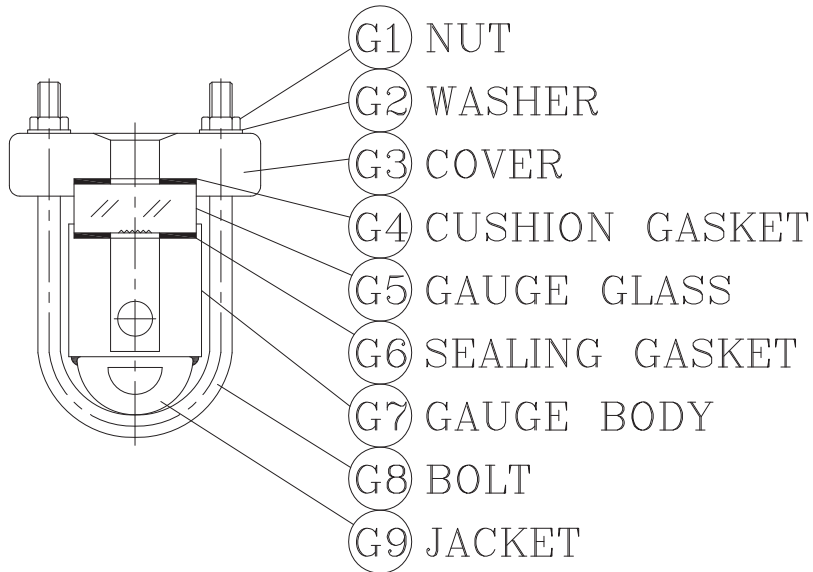
Vessel connection

1/2", 3/4" and 1"

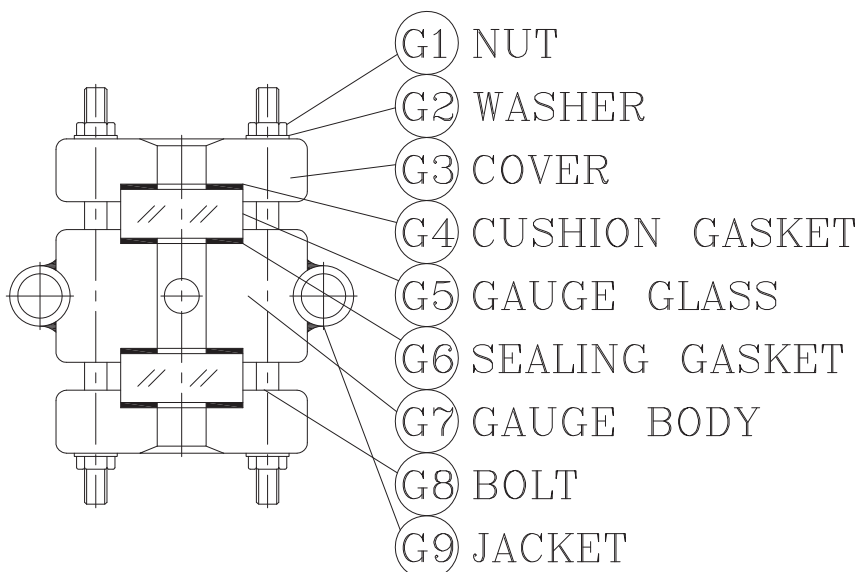
Optional Jacket type level gauge for L100 and L200

Spec. sheet no. LD01-04

Model : L100 (Jacket type)



Model : L200 (Jacket type)



Optional Non-frosting type level gauge for L100 and L200

Spec. sheet no. LD01-05

Description

Non-frosting type liquid level gauge is used for protection from the frost. Reflex type and transparent type are provided material, application method, gauge valve are entirely same to general use. Generally, for low temperature liquid to be used for refrigerator, the whole surface of liquid level body and cover are frosted, general liquid level gauges is covered with heavy frost and glass surface is entirely invisible. For the sake of this, non-frosting liquid level gauges is provided with methacrylate transparent plate which has high level. So this crosses frosting strata or keeping cool materials, is easily visible the liquid level position clearly. H dimension of lift table, please designate applicable for working temperature or thickness of keeping cool materials.



L100 - NF

Dimensions

Temperature (°C)	Material	Acryl height (mm)
0 ~ -20	killed steel S-25C STPG 38 304SS	75
-20 ~ -45	Al killed steel ASTM-A350-LF2 STPL 39 304SS	100
-46 ~ -100	3.5% Ni steel ASTM-A350-LF3 STPL 46 304SS	150
-101 ~ -160	Austenite Stainless steel 316SS	200



L200 - NF

Optional Illuminator type level gauge for L100 and L200

Spec. sheet no. LD01-06

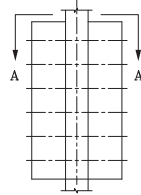


Description

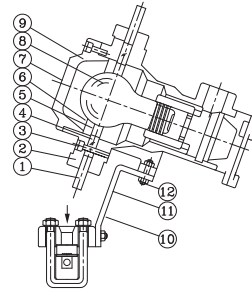
Complete range of size : single and double section WISE explosion-proof illuminator are made in single and double section styles for transparent and reflex gauges. Double section illuminator require only one bulb for complete illumination of two gauge sections.



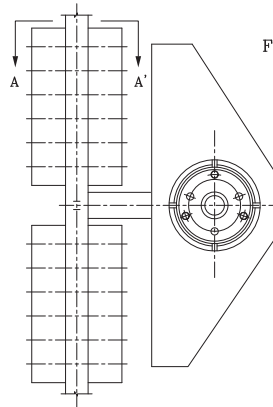
Single Section



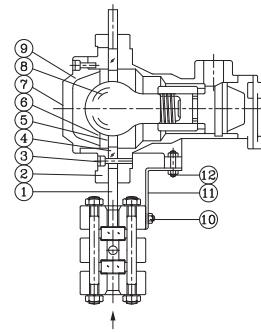
For Reflex Gauge A-A' VIEW



Double Section



For Transparent Gauge A-A' VIEW



Specification

Electricity

Voltage : AC 110 ~ 240 V, 50 Hz, 60 Hz

Bulb light : 30 ~ 100 W

Certificates

KCS Ex d IIC T6 IP65

ATEX II 2G Ex d IIC T6 Gb

IECEx Ex d IIC T6 Gb

No.	Description	Material	Q'ty
1	Reflector	Methacrylate	1
2	Cover	AC 4C	1
3	Bolt	Sus 304	1
4	Glass plate	Glass	3
5	O-ring	NBR	1
6	Gasket	T #1,000	1
7	Cover	AC 4C	1
8	Bulb light		1
9	Light housing	AC 4C	
10	Bolt	SS41	2
11	Holder	SS412	1
12	Bolt nut	SS412	2

Large chamber type level gauge

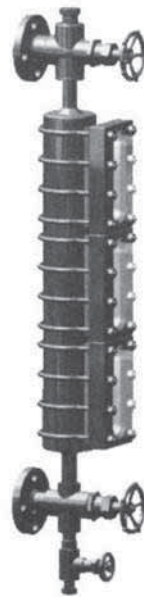
Model : L110 (Reflex type)
L210 (Transparent type)

Spec. sheet no. LD01-02

Description

When liquids boil, bubbling makes the surface level indistinct. In this type of gauge, the larger volume of the liquid chamber reduces bubbling, there by facilitating level reading. It is also frequently used for dense, viscous liquid. The body is made of A106 Gr.B or stainless steel pressure pipe, and is fitted for high-viscosity fluids and slurry, the liquid path at valves, and at joints of the gauge body, is normally so restricted that changes in liquid level cannot be readily observed.

It is therefore possible to use connecting pipes and valves like those shown in the photographs above. Which are of the same diameter as the liquid chamber.



Model : L110
(Reflex type)



Model : L210
(Transparent type)

Model

Model - L110 (Reflex type)

Chamber material

Carbon steel, Stainless steel

Max. pressure

4 MPa

Vessel connection

¾", 1", 1½" and 2"

Model - L210 (Transparent type)

Chamber material

Carbon steel, Stainless steel

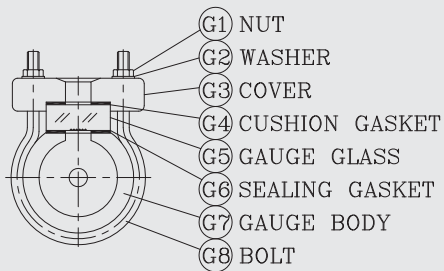
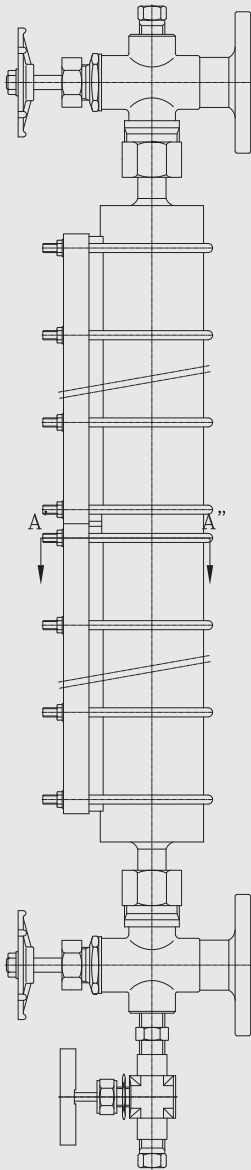
Max. pressure

4 MPa

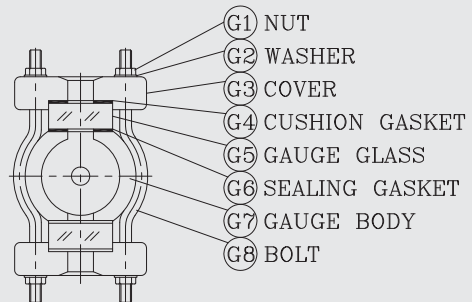
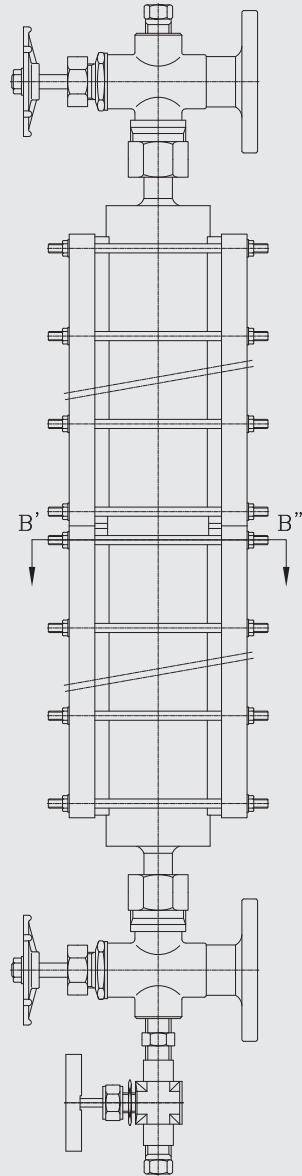
Vessel connection

¾", 1", 1½" and 2"

Dimension



L110 (Reflex type)



L210 (Transparent type)