

LEVEL GAUGE



Your Automation Partner

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Reflex Level Gauge

Measuring Principle

The principle of reflex level gauge is based on the difference in the refractive indices of liquid and vapor. The gauge glass has prismatic right-angled grooves on the side facing the liquid. The level is indicated as a result of the light refraction principle. The liquid filled area completely absorbs the rays of light and appears dark; while the rays of light are totally reflected in the gas/air filled area which appears bright.



Feature

- Single glass level gauge
- Fully cover by fabrication carbon steel body
- Pressure rating PN16, 25, 40
- Flanges standard = DN20/PN40 or DN20/ANSI 300
- Glass standard type A = size 30mm

Benefic

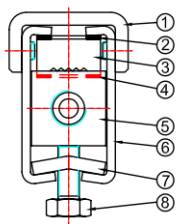
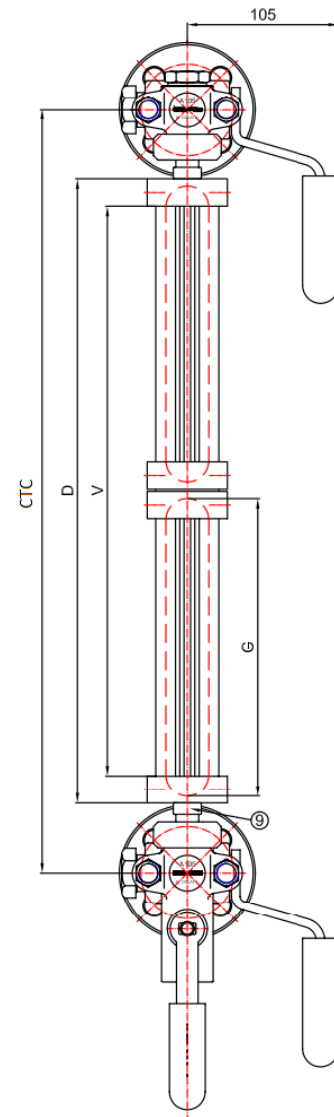
- Easy level reading
- Low operating cost
- Assured level indication without power supply
- No need light illuminator, the day environmental light is enough.

Application

- Boiler
 - Surge vessel/Deaerator
 - Process and power plant
 - Chemical Industries
 - Food & Beverage Industries
-

Model Dimension

Model	Min CTC	D	V(+2/0)	G
13	285	178	141	165
14	310	203	166	190
15	340	233	196	220
16	370	263	226	250
17	400	293	256	280
18	440	333	296	320
19	460	353	313	340
24	515	406	367	190
25	575	466	427	220
26	635	526	489	250
27	695	586	549	280
28	775	666	628	320
	815	706	668	340
36	900	789	751	250
37	990	879	841	280
38	1110	999	961	320
39	1170	1059	1021	340
47	1285	1172	1134	280
48	1445	1332	1294	320
49	1525	1412	1374	340
57	1580	1465	1427	280
58	1780	1665	1627	320
59	1880	1765	1727	340
68	2115	1998	1960	320
69	2235	2118	2080	340
79	2590	2471	2433	340



Material

1.	Safety Clamp	Carbon Steel
2.	Upper Gasket	Non Asbestos
3.	Reflex Glass	Borosilicate
4.	Lower Gasket	Graphite
5.	Level Body	Carbon Steel
6.	Cover Plate	Carbon Steel
7.	Tightening Bolts	Carbon Steel
8.	Bolts	Grade 8.8 Zinc
9.	Nipples	Stainless Steel

Reflex Level Gauge – High Pressure

Measuring Principle

The principle of reflex level gauge is based on the difference in the refractive indices of liquid and vapor. The gauge glass has prismatic right-angled grooves on the side facing the liquid. The level is indicated as a result of the light refraction principle. The liquid filled area completely absorbs the rays of light and appears dark; while the rays of light are totally reflected in the gas/air filled area which appears bright.



Feature

- Single reflex glass level gauge
- U-bolt type body
- Pressure rating PN64
- Flanges standard = DN20/PN40 or DN20/ANSI 300
- Glass standard type B = size 34mm

Benefic

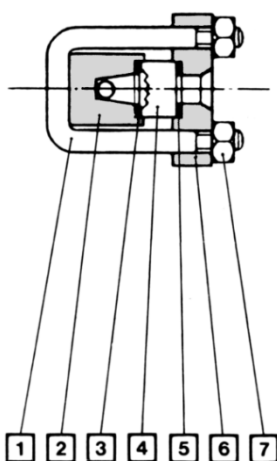
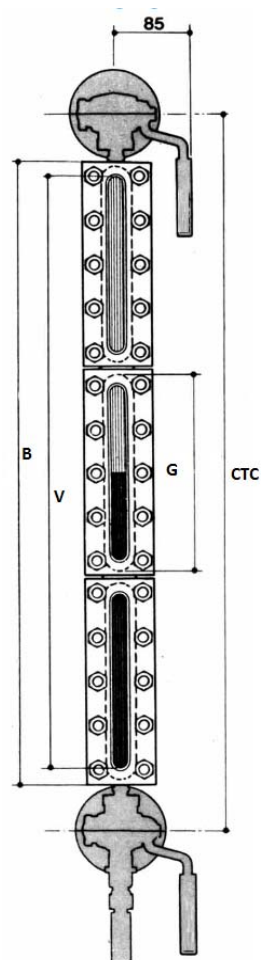
- Easy level reading
- Low operating cost
- Assured level indication without power supply

Application

- Boiler
 - Surge vessel/Deaerator
 - Process and power plant
 - Chemical Industries
 - Food & Beverage Industries
-

Model Dimension

Model	Min CTC	B	V(+2/0)	G
13	285	178	141	165
14	310	203	166	190
15	340	233	196	220
16	370	263	226	250
17	400	293	256	280
18	440	333	296	320
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59	1880	1765	1727	340
68	2115	1998	1960	320
69	2235	2118	2080	340
79	2590	2471	2433	340



Material

1.	Bolt	B7
2.	Body	Carbon Steel
3.	Sealing Gasket	Graphite
4.	Glass	Borosilicate DIN 7081
5.	Cushion Gasket	Graphite
6.	Bonnet	Carbon Steel
7.	Nut	2H

Transparent Level Gauge

Measuring Principle

Transparent level gauge is fitted with two plate transparent glasses. Fluid level is indicated as the result of the different transparency of the two media. In order to improve visibility under special operating conditions, an illuminator can be mounted on one side of the transparent level gauge.

This type of gauge is used for measuring both total and interface liquid level of fluids in a vessel and also allows the use of Mica shields on the glass for excellent protection in steam service.



Feature

- Double transparent glass level gauge
- Use together with illuminator light for easy viewing
- Pressure rating PN40
- Flanges standard = DN20/PN40 or DN20/ANSI 300
- Glass standard type A = size 30mm (optional type B glass)
- Mica shield protection option available for corrosive or high temperature liquid

Benefic

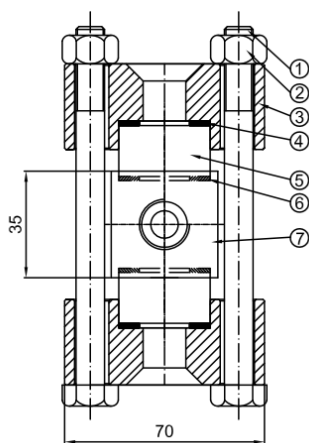
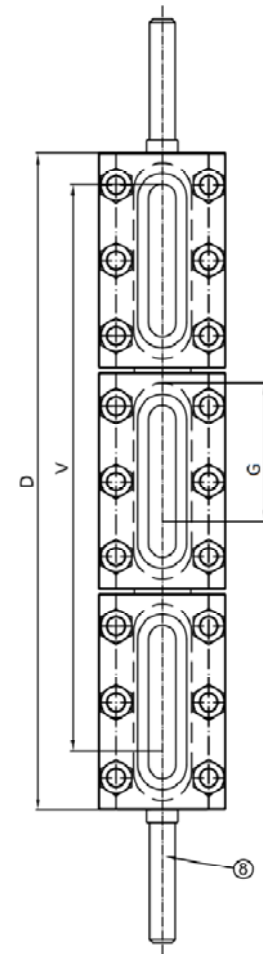
- Easy level reading
- Low operating cost

Application

- Boiler
 - Surge vessel/Dearator
 - Process and power plant
 - Chemical Industries
 - Viscous colored and interface liquids.
-

Model Dimension

Model	Min CTC	D	V(+2/0)	G
13	285	178	141	165
14	310	203	166	190
15	340	233	196	220
16	370	263	226	250
17	400	293	256	280
18	440	333	296	320
19	460	353	313	340
24	515	406	367	190
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57	1580	1465	1427	280
58	1780	1665	1627	320
59	1880	1765	1727	340
68	2115	1998	1960	320
69	2235	2118	2080	340
79	2590	2471	2433	340



Material

1. Bolts	Carbon Steel
2. Nut	Carbon Steel
3. Cover	Carbon Steel
4. Upper Gasket	Asbestos
5. Reflex Glass	Borosilicate
6. Lower Gasket	Graphite
7. Level Body	Carbon Steel
8. Nipples	Carbon Steel

Bi-Color Level Gauge

Measuring Principle

Bi color level gauge is fitted with two plate reflex or transparent glasses. These level gauges are particularly suitable for colorless & very fluid liquid. This instrument consists of a metal body, machined to have an internal chamber and two front windows. This chamber is connected to vessel with cross fittings and flanged, threaded or welded ends.



Feature

- Double reflex or transparent glass level gauge
- Pressure rating PN40, PN64, PN100, PN120&etc.
- Flanges standard = DN20/PN40 or DN20/ANSI 300
- Glass standard type A = size 30mm (optional type B glass)
- Body material carbon steel or stainless steel
- Use together with illuminator light for easy viewing (transparent glass)

Benefic

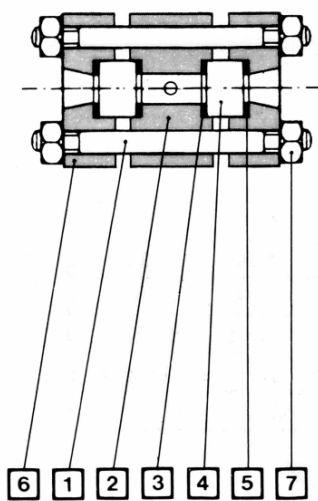
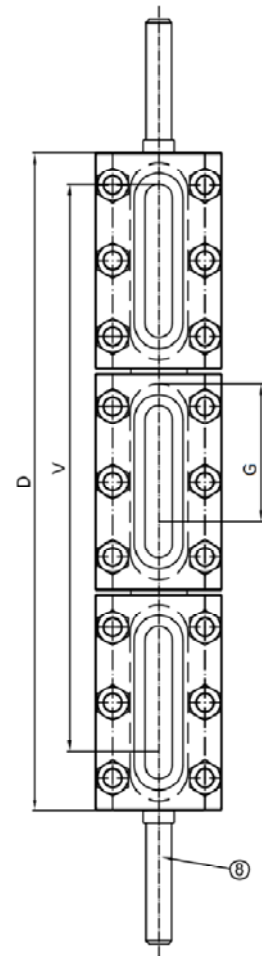
- Easy level reading
- Custom make according to user requirement

Application

- Boiler
 - Surge vessel/Dearator
 - Process and power plant
 - Chemical Industries
 - Viscous colored and interface liquids.
-

Model Dimension

Model	Min CTC	D	V	G
1	272	165	93	115
2	297	190	118	140
3	322	215	143	165
4	347	240	188	190
5	377	270	198	220
6	407	300	228	250
7	437	330	258	280
8	477	370	298	320
9	497	390	318	340
2x4	552	445	373	190
2x5	612	505	433	330
2x6	672	565	493	250
2x7	732	625	553	280
2x8	812	705	633	320
2x9	852	745	673	340
3x6	937	830	758	250
3x7	1027	920	848	280
3x8	1147	1040	968	320
3x9	1207	1100	1028	340
4x7	1322	1215	1143	280
4x8	1482	1375	1303	320
4x9	1562	1455	1383	340
5x7	1617	1510	1438	280
5x8	1817	1710	1638	320
5x9	1917	1810	1738	340
6x8	2152	2045	1973	320
6x9	2272	2165	2093	340
7x9	2627	2520	2448	340



Material

1.	Bolts	Carbon Steel
2.	Body	Carbon Steel
3.	Sealing Gasket	Graphite
4.	Glass	Borosilicate
5.	Cushion Gasket	Graphite
6.	Bonnet	Carbon Steel
7.	Nut	2H

Magnetic By-pass Level Gauge

Measuring Principle

Magnetic level gauge also called by pass level gauge. It used to measure the level of aggressive, combustible, toxic & hot compressed liquid in low, medium & high pressure. A float containing a magnet moves up and down the tube, and its position determines the tank fluid level (the level is clearly indicated by red and white markers).

Variation in fluid level causes the float to move and the float magnet then makes the roller display (which also contains a magnet) rotates.

Red markers are normally shown in the part of the tank holding the fluid and white markers in the part containing the gas/steam.



Feature

- SS304 or SS316 body material
- Hermetically sealed glass tube with no contact with medium
- Magnetic bargraph is mechanically interlocked to avoid random rotating
- Glass standard type A = size 30mm (optional type B glass)
- Optional with analog signal output

Benefic

- Low maintenance
- Ideal for high temperature & high pressure resistance
- Long working life

Application

- Boiler
- Surge vessel/Dearator
- Surge Tanks
- Oil/Water Separators
- Feed water Heater
- Propane Vessels
- Alkylation tank



Tubular Level Gauge

Measuring Principle

Tubular level gauge are ideally use for low pressure and temperature tank/vessels. The liquid level in the glass tube indicates the level of liquid in the tank. Tubular level gauge offer variety type of connections to suit all requirements.



Feature

- Maximum glass tube length 2meter
- Pressure up to 10bar @ 110 Degree C.
- Standard thread connection & flange type as optional.
- Borosilicate glass tube with ½” or ¾” outer diameter (OD)
- Optional with scale

Benefic

- Economical measurement solution
- Easy mounting
- Assured level indication without power supply

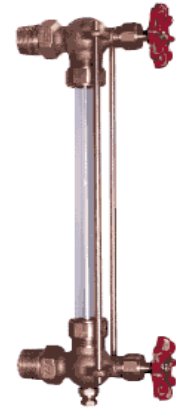
Application

- Low pressure boiler
- Hot water tank
- Water storage tank

WGV Level Gauge

Measuring Principle

WGV level gauge are ideally use for pressure below 100psi and ambient temperature tank/vessels. The liquid level in the glass tube indicates the level of liquid in the tank. Standard process connection size is $\frac{1}{2}$ " & $\frac{3}{4}$ ".



Feature

- Bronze, SS304 or SS316 thread connection material
- Borosilicate glass tube(std) or Quartz tube for high temperature
- Custom make length with maximum 3 meter.
- Optional with 'U' type protector cover

Benefic

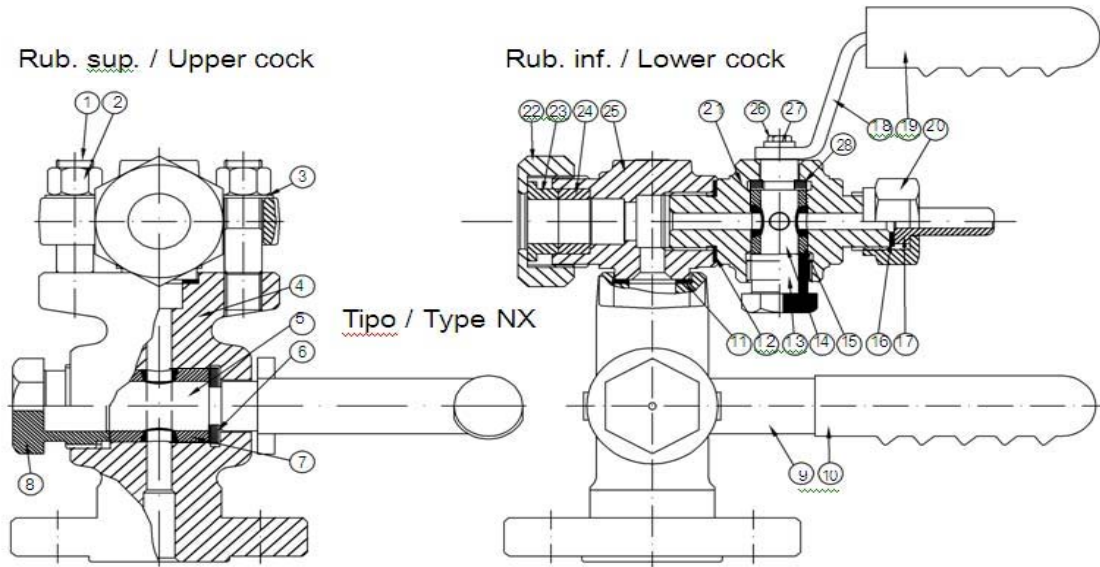
- Low cost

Application

- Hot water tank
 - Water storage tank
 - Diesel storage tank
-

Parts & Accessories

Level Gauge Cock

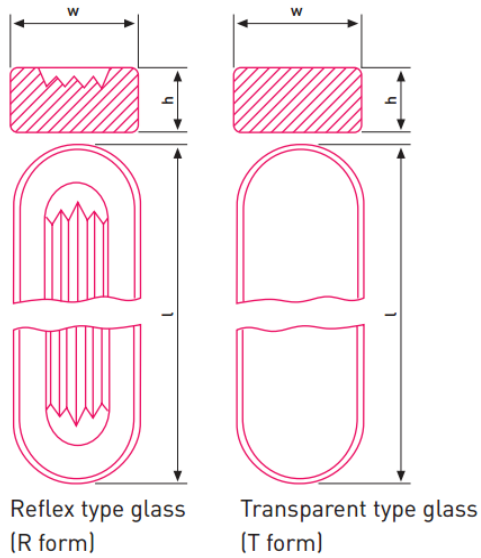


	Description	Materials
1	Bolt	B7
2	Nut	2 H
3	Washer	UNI 6592
4	Body	A 10 5N
5	Plug F18	A316
6	Ring F18	A316
7	Packing Sleeve s F18	Graphite
8	Stuffing box F18	C / C. steel
9	Big cock handle	C / C. steel
10	Big cover handle	Nylon 66
11	Spirometric	F 316 / Graphite
12	Ring thickness	A316
13	Stuffing box F12	C / C. steel
14	Plug F12	A316
15	Packing sleeve F12	Graphite
16	Gasket	Graphite
17	Connection pipe	C / C. steel
18	Little cock handle	C / C. steel
19	Little cover handle	Nylon 66
20	Drain cock cover	C / C. steel
21	Drain cock cover	A10 5N
22	Connections cover	C / C. steel
23	Stuffing box ring	C / C. steel
24	Packing sleeves F16	Graphite
25	Stuffing box body	A10 5N
26	Cap screw	UNI 5739
27	Washer	UNI 6592
28	Ring F12	A316

Level Gauge Glass

Reflex & Transparent Gauge Glass according to DIN 7081.

Size	Type A			Type B		
	Length(l)	Width(w)	Thickness(h)	Length(l)	Width(w)	Thickness(h)
	mm	mm	mm	m	m	mm
1	115	30	17	1	3	17
2	140	30	17	1	3	17
3	165	30	17	1	3	17
4	190	30	17	1	3	17
5	220	30	17	2	3	17
6	250	30	17	2	3	17
7	280	30	17	2	3	17
8	320	30	17	3	3	17
9	340	30	17	3	3	17
10	370	30	17	3	3	17
11	400	30	17	4	3	17



Level Gauge Gasket & Packing

Level gauge parts to be services on time to prevent damage on main instruments. E.g parts including:

- ☒ Gauge glass
- ☒ Pre-cut gasket
- ☒ Packing sleeve AB12, AB16, AB18 (standard)
- ☒ Gland ring KU16
- ☒ Mica (for high temperature)



LKS West Instruments Sdn Bhd (834286-T)

No. 50-2, Jalan Sungai Rasau D32/D, Berjaya Park, Seksyen 32, 40460, Shah Alam, Selangor, Malaysia.

Tel: +603-5525 5038 Fax: +603-5525 5037 Email: info.west@lkssb.com.my Webpage: www.lkssb.com.my