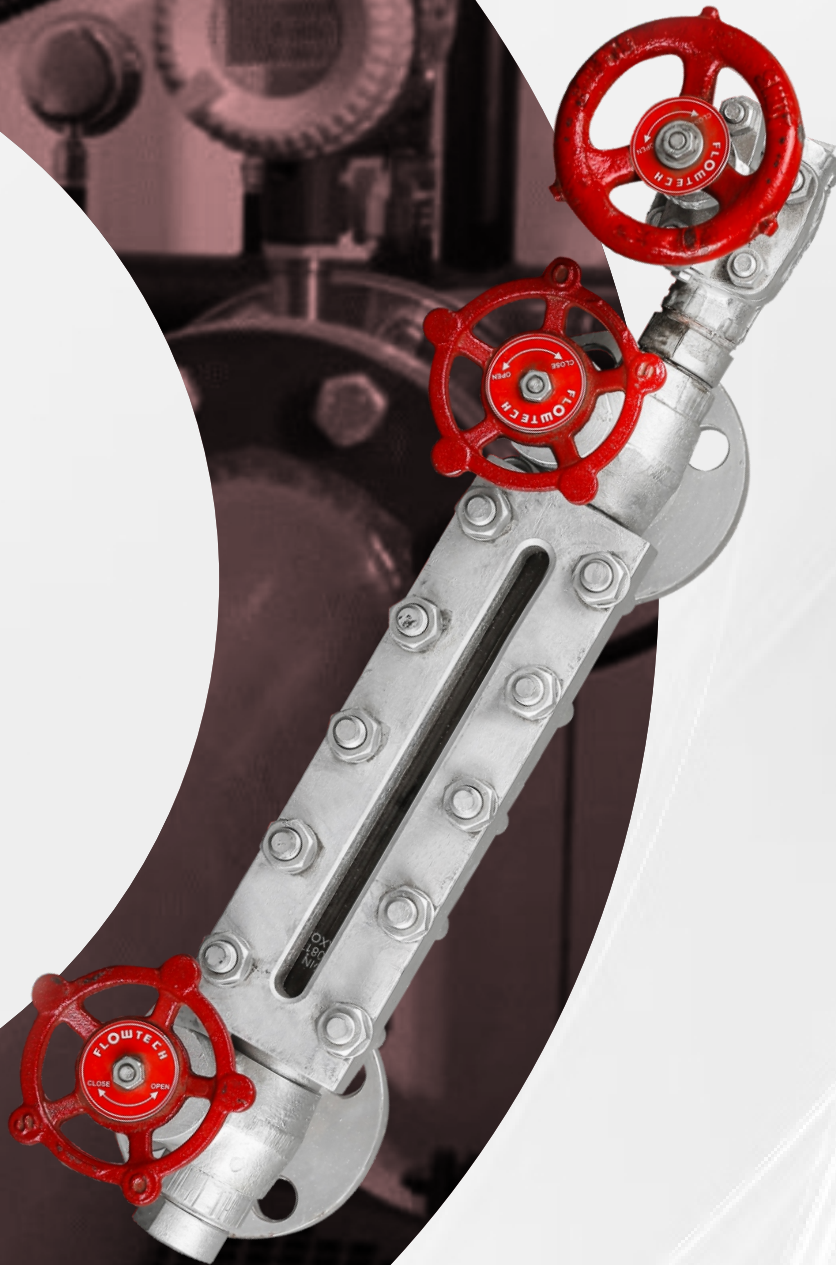


REFLEX / TRANSPARENT LEVEL GAUGE

RLG/TLG LEVEL GAUGE SERIES



CE

IBR
APPROVED

FLOWTECH

Product Description

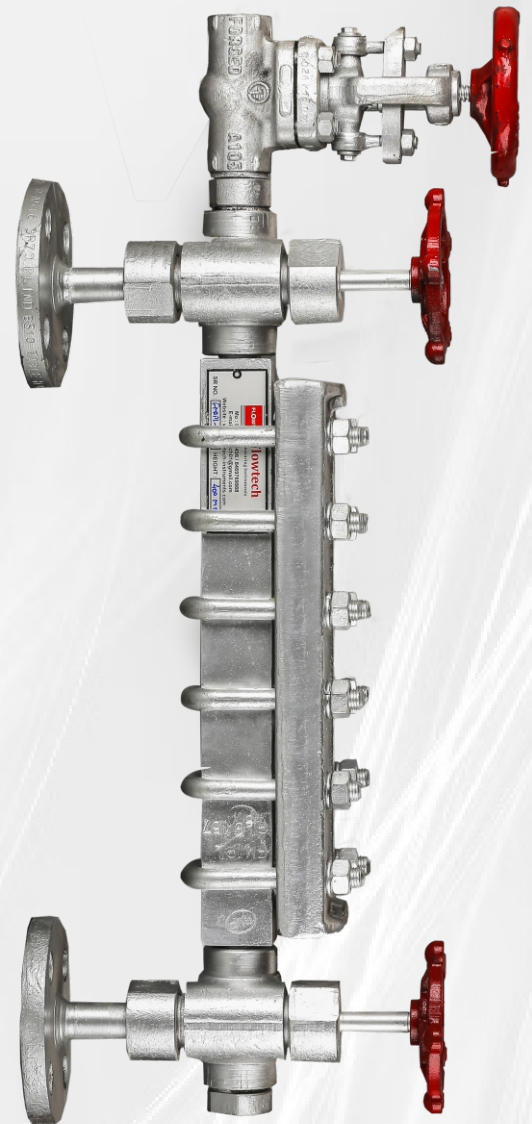
Level gauges are sensing and measuring instruments that are used to detect the level of a fluid or gas in a tank or similar storage container. These devices are widely used in industrial process applications and are employed to measure the fluid levels in drums, tanks, pressure vessels, or other similar applications.

Level gauges are often employed in cases where performing a direct physical measurement of the level of the fluid is either not possible or practical, such as when the fluid being measured is hazardous or when the tank or vessel containing the fluid is sealed and under pressure.

Reflex Level Gauge: Reflex glass level gauges working principle is based on the light refraction and reflection laws. It uses glasses with the face fitted towards the chamber shaped in order to have prismatic grooves with section angle of 90°.

When in operation, the chamber is filled with liquid in the lower zone and gases or vapours in the upper zone; the liquid level is distinguished by different brightness of the glass in the liquid and in the gas/vapor zone. The reflex level gauges do not need a specific illumination: the day environmental light is enough. Only during the night an artificial light must be provided.

Transparent Level Gauge: Transparent Level Gauges employ two Transparent Glasses fitted with a liquid chamber on either side. The liquid level is indicated as a result of difference in the transparent properties of the two media. For water / steam applications, an illuminator is mounted on the rear side of the gauge with its light rays deflected upward into the water column. This enables the observer to see illuminated surface of the water as the light rays impinged on the surface of separation between water and steam are reflected back to the eye of the observer.



**Reflex Type
Level Indicator**

Specifications :

Type	: Reflex / Transparent (Available in IBR also.)
Visibility	: Full Visibility / Partial Visibility
Liquid Chamber	: Carbon Steel, S.S.304, S.S.304 (L), S.S.316, S.S.316 (L), P.P.
Cover Plate	: Carbon Steel, S.S.304, S.S.304 (L), S.S.316, S.S.316 (L), P.P.
Gasket	: CAF, PTFE, Graph oil, Other On request
Glass	: Borosilicate Toughened of Indigenous – Temperature Range up to 125° C, Klinger / Maxos Make Temperature Range Up to 400° C, other on request
Fasteners	: Alloy Steel, S.S.304, S.S.316, Other on request
Isolation Valve	: Screwed OR Auto Shut of Ball Check Isolation Valve
Process Connation	: From 15mm to 65mm Flanged / Up to 25mm. Screwed/ Socket Weld Other on Request
Connection Orientation	: Top – Bottom Vertical, Side – Side Right , Side – Side Left , Side – Side Back, Other on Request
Vent / Drain	: ½” Plug, ½” needle Valve, ½” Ball Valve. Other on Request.
Accessories	: Frost- Free attachment for avoiding ice formation on glasses & clear Visibility

Applications :

Reflex Level Gauge Applications

Reflex glass level gauges can be used in most of the fluids and applications However Reflex level gauges cannot be used in certain cases as for example:

1. when the separation level between two liquids has to be read (interface)
2. when the process fluid is high-pressure water steam, since in this case the glass must be protected from the solvent action of the boiler water by using mica shields

Transparent Level Gauge Applications

- In corrosive fluid
- The observation of interface
- the observation of the liquid colour
- For steam with an operating pressure > 20 bar
- If repeated thermal shocks are witnessed

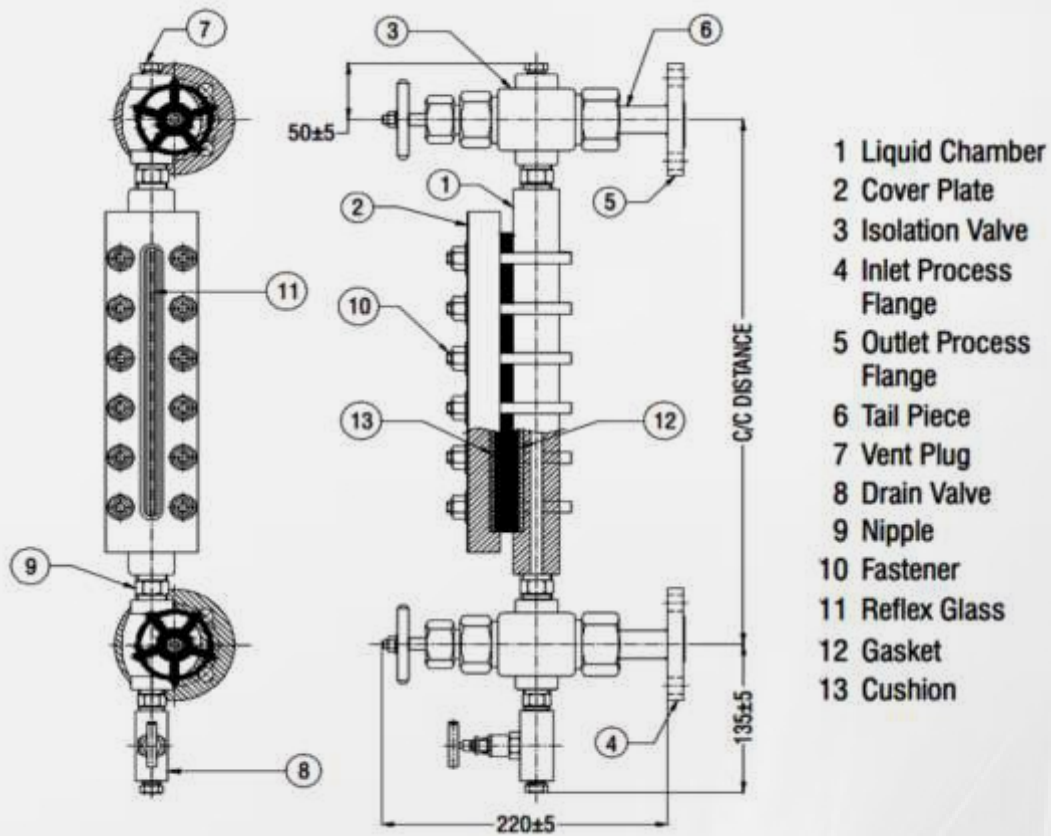
Specifications for IBR Level Gauge :

Gauge Classification	Standard Chamber
Gauge Glass	Klinger / Maxos Make Tempered borosilicate (Imported) in 30mm width as standard.
Cushion	SS with Graphite
Gasket	SS with Graphite
Body (Liquid Chamber)	CS A-105 (ASTM A-105)
Cover Plate	CS (ASTM A-105) - For IBR Only
Bolts and Nuts	EN-8
CC Distance	300, 320, 385, 400, 450, 500 MM
Gauge Connection	Straight Through / Hook -Up
Process Connection	Flanged to BS, ANSI or DIN
Orientation of PC	Side Mounted at Top/Bottom
Isolating valves	Integral Offset Needle Valve
Air Vent	Plug (CS A-105)
Drain	Globe/Needle valve
Max. Test Pressure	0-70 Kg/cm ²
Max. Temperature (°C)	0-400°C

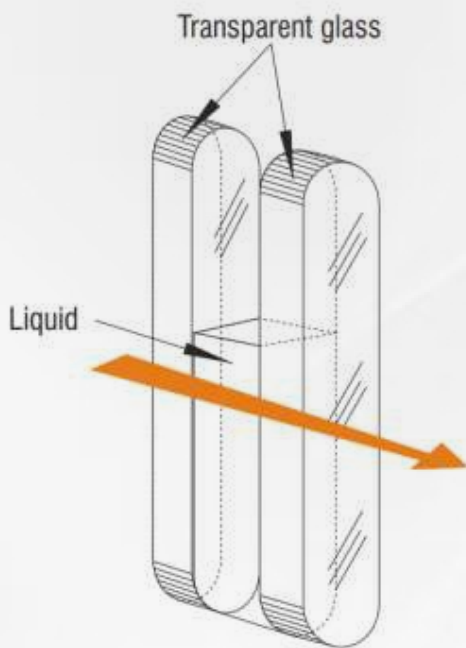
Models Available (IBR Certification)

Model no.	CC dist (r) (mm)	Gauge Glass (mm)	Visibility (v)
FMIPL112300	300	220	200
FMIPL32320	320	250	230
FMIPL112385	385	250	230
FMIPL112400	400	280	260
FMIPL112450	450	280	260
FMIPL112500	500	340	320

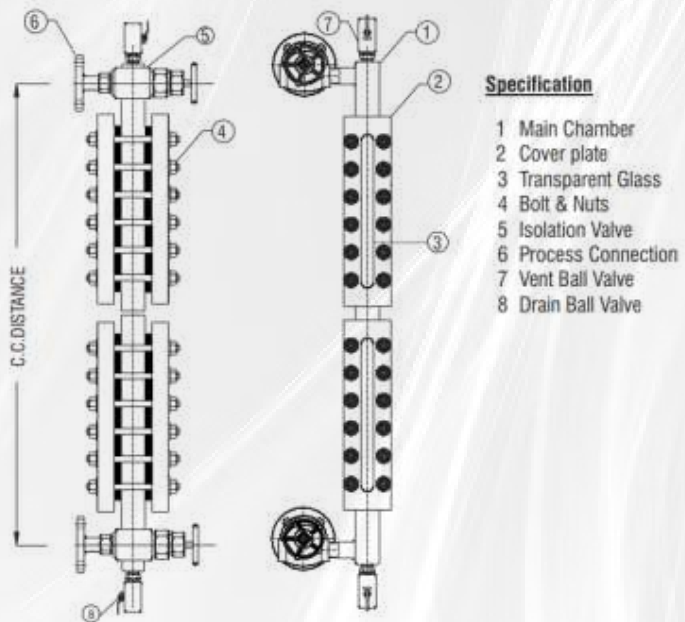
Product Technical Drawing (Reflex Level Gauge)



Product Technical Drawing (Transparent Level Gauge)



Principle of transparent level glass



Product Ordering Information

Order Code for RLG/TLG Series Decodification

Type	Description	Code
	Reflex	R
	Transparent	T

Main Chamber	Description	Code
	CS	CS
	SS-304	S-4
	SS-316	S-6
	SS-316L	S-7
	PP w/ MS Baking Channel	P
	MSRL	CSR

Isolation Valve	Description	Code
	Not Required	0
	MS Off Set Design	1
	SS-304 Offset Deign	2
	SS-316 Offset Design	3
	Poly Propylene	4

Mounting	Description	Code
	1/2"	15
	3/4"	20
	1"	24
	1.25"	32
	1.5"	40
	2"	50
	3"	60

Rating	Description	Code
	ASA 150# RF	1
	ASA 300# RF	2
	ASA 600# RF	3
	BSP(M)	4
	BSP(F)	5
	NPT(M)	6
	NPT(F)	7
	RTJ 600#	8

Accessories	Description	Code
	Non IBR	1
	IBR	2

Drain	Description	Code
	Stop Plug	1
	1/2" Needle Valve	2
	1/2" Ball Valve	3

Air Vent	Description	Code
	Stop Plug	1
	1/2" Needle Valve	2
	1/2" Ball Valve	3

U-Bolt / Studs	Description	Code
	CS	01
	SS-304	02
	SS-316	03
	Aluminium	04

U-Bolt / Studs	Description	Code
	CS	1
	SS-304	2
	SS-316	3
	SS-316L	4
	PP with MS Baking Plate	5

Height Details	Description	Code
	Center to Center	HT

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