



# MAGNETIC LEVEL GAUGE

[www.globeunitedae.com](http://www.globeunitedae.com)

MODEL ILG





## Overview

Magnetic Level Gauges have been a choice method of Level measurement for End Users across the world. The inherent design of the device offers options for level measurement in high pressure, extreme temperature and corrosive environments. The magnetic level indicator is attached to the vessel and connects directly with the fluid to be measured.



## Operating Principle

When the process liquid raise in the tank or vessel the same level comes in float chamber, due to buoyancy force flow starts moving within the chamber, which cause bi - colored flapper flip to the opposite sides or 180 °, providing a visual display of the liquid and protects against the false actuation.



## Salient features

- Reliable for measuring level in high pressure, high temperature or corrosive applications.
- Contrasting indicator colours provide better visibility for operators.
- Floats can be coupled with magnetically operated switches and transmitters.
- Custom weighted magnetic float.
- Easy installation and maintenance-free.
- Leak proof design.
- Transmitter or switches can be installed optionally.



## Specifications

<b>Mounting</b>	Side-Side
<b>Indicator</b>	Bi-Color Flags
<b>Top Side Vent</b>	Welded top cap with Plug, Other options available
<b>Bottom Side Drain</b>	Dual Flange & Plug (for Side Mounted)
<b>Process Connection</b>	Flanged or Screwed
<b>C-C Distance (+3 mm)</b>	300 to 6000 mm; as per requirement
<b>Flag Display Length (L)</b>	300 to 6000 mm; as per requirement
<b>Flag Color</b>	Red & White; other options available
<b>Scale Material</b>	Aluminium or Stainless Steel
<b>Maximum Operating Pressure</b>	Max. 100 kg/cm <sup>2</sup>
<b>Temperature Range</b>	(-)20 to 150°C (240°C optional)
<b>Chamber</b>	AISI 316 SS, Inconel, Hastelloy, 6Mo, PVDF, Titanium
<b>Float</b>	AISI 316 SS, Titanium
<b>Indicator Roller</b>	Metallic
<b>Ingress Protection</b>	IP65 as per IEC 60529
<b>Certificates</b>	3.1 MTC/ NACE, DP Test Report, Hydro Test Report, Functional Test Report available on request
<b>Options</b>	Hermetically Sealed Indicator

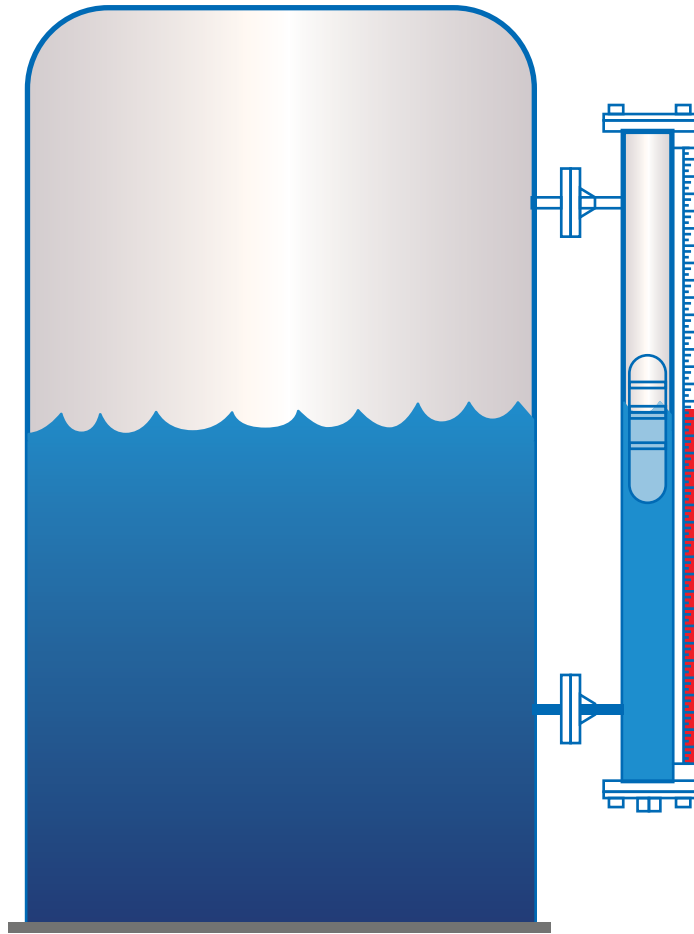


## Applications

- Storage Tanks
- Pharmaceutical & beverage plants
- Custody transfer
- Oil & Gas, Chemical & fertilizer plants



## Diagram: Schematic Version



0

## Magnetic Float

The most important element in the level indicator is Magnetic Float. Magnetic Float can be made of SS316, Titanium etc. based on the design, Density of the fluid, Volume displacement, Process temperature & pressure.



## Flapper

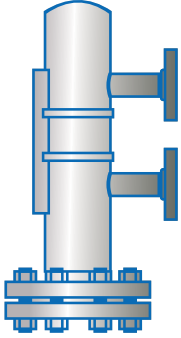
Flapper used in indicator system is Bi-color & mounted on the rail inside the assembly. Each of the coloured flaps contains a small magnet which rotates through 180 degree when passed by the magnet within the float.



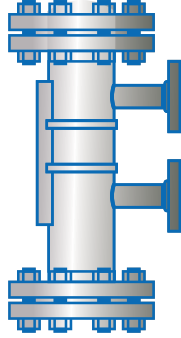
# Ordering Information

Model Code: ILG - **X<sub>1</sub>** **X<sub>2</sub>** **X<sub>3</sub>** **X<sub>4</sub>** **X<sub>5</sub>** **X<sub>6</sub>** **X<sub>7</sub>** **X<sub>8</sub>** **X<sub>9</sub>** **X<sub>10</sub>** **X<sub>11</sub>** **X<sub>12</sub>** **X<sub>13</sub>** **X<sub>14</sub>**

Mounting			X <sub>1</sub>
<b>Chamber Top</b>	<b>Chamber Bottom</b>	<b>Mounting</b>	-
Welded end cap	Flange	Side / Side	1
Flange	Flange	Side / Side	2



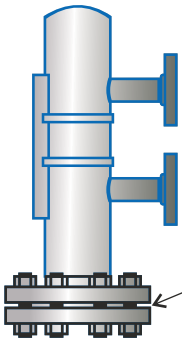
X<sub>1</sub> (Option 1)



X<sub>1</sub> (Option 2)

Chamber MOC	X <sub>2</sub>
316/316L stainless steel chamber	A
SS 316/316L Chamber with CS Flange & fittings	B
PVDF	C
CPVC	D
Inconel 625	E
Inconel 825	F
Monel	G
Hastelloy C-276	H
6 MO	I
Titanium	J

Chamber Bottom Flange	X <sub>3</sub>
Slip on Style	SO
Weld Neck	WN
Socket Weld	SW
RTJ Weld Neck	RWN
Threaded	TH



Chamber Bottom Flange

Chamber Flange Rating (ASME B16.5)	X <sub>4</sub>
150#	A
300#	B
600#	C
900#	D
1500#	E
2500#	F

Chamber Flange Rating (EN 1092)	X <sub>4</sub>
PN16	1
PN25	2
PN40	3
PN63	4
PN100	5
PN160	6
PN250	7

Process Connection Type (ASME B16.5)	X <sub>5</sub>
Slip on Flange	SO
Weld Neck Flange	WN
Socket Weld Flange	SW
RTJ Weld Neck Flange	RWN
Threaded Flange	TH

Process Connection Type (Threaded/ Screwed)	X <sub>5</sub>
Threaded NPT-M (Male)	M
Threaded NPT-F (Female)	N
Socket Weld	O
Pipe Nipple Butt Weld End	R

Process Connection Size (ASME B16.5)	X <sub>6</sub>
1/2"	A
3/4"	B
1"	C
1½"	D
2"	E
2½"	F
3"	G

Process Connection Size (EN 1092)	X <sub>6</sub>
DN 15	1
DN 20	2
DN 25	3
DN 40	4
DN 50	5
DN 65	6
DN 80	7

Model Code: ILG - **X<sub>1</sub>** **X<sub>2</sub>** **X<sub>3</sub>** **X<sub>4</sub>** **X<sub>5</sub>** **X<sub>6</sub>** **X<sub>7</sub>** **X<sub>8</sub>** **X<sub>9</sub>** **X<sub>10</sub>** **X<sub>11</sub>** **X<sub>12</sub>** **X<sub>13</sub>** **X<sub>14</sub>**

Vent Type (ASME B16.5)	X <sub>7</sub>
Butt weld end	BW
RF slip-on flange	SO
RF weld neck flange	WN
RJ weld neck flange	RWN
Threaded flange	TH
Threaded fitting (ASME b16.11)	TF

Vent Size (ASME B16.5)	X <sub>8</sub>
1/2"	A
3/4"	B
1"	C
1½"	D
2"	E

Vent Size (EN 1092)	X <sub>8</sub>
DN 15	1
DN 20	2
DN 25	3
DN 40	4
DN 50	5

Drain Type (ASME B16.5)	X <sub>9</sub>
RF Slip On Flange	SO
RF Weld Neck Flange	WN
RJ Weld Neck Flange	EWN
Threaded flange	TH
Threaded fitting (ASME b16.11)	TF

Drain Size (ASME B16.5)	X <sub>10</sub>
1/2"	A
3/4"	B
1"	C
1½"	D
2"	E

Drain Size (EN 1092)	X <sub>9</sub>
DN 15	1
DN 20	2
DN 25	3
DN 40	4
DN 50	5

C-C Distance	X <sub>11</sub>
Specify Distance in mm	XXXX

Scale MOC	X <sub>12</sub>
SS316L	SSL

Flag Color	X <sub>13</sub>
Red & White (Standard)	RW
Yellow & White	YW
Red & Black	RB

Optional	X <sub>14</sub>
Reed Chain Transmitter	RCT
Magnetostrictive Level Transmitter	MLT
Reed Switches	RS
Hermetically Sealed Indicator	HSI

## How To Order

**ILG - 1 - A - SO - A - SO - A - BW - A - SO - A - 1000 - SS - RW**

1: Chamber Top: Welded end cap; Chamber Bottom: Flange; Mounting: Side / Side

A: Chamber MOC: 316/316L stainless steel chamber

SO: Chamber Flange Style (ASME): Slip on Style

A: Chamber Flange Rating (ASME): 150#

SO: Process Connection Type (ASME): Slip on Flange

A: Process Connection Size (ASME): 1/2"

BW: Vent Type (ASME): Butt weld end

A: Vent Size (ASME): 1/2"

SO: Drain Type (ASME): RF Slip On Flange

A: Drain Size (ASME): 1/2"

1000: C-C Distance: 1000mm

SS: Scale MOC: SS316L

RW: Flag Color: Red & White (Standard)

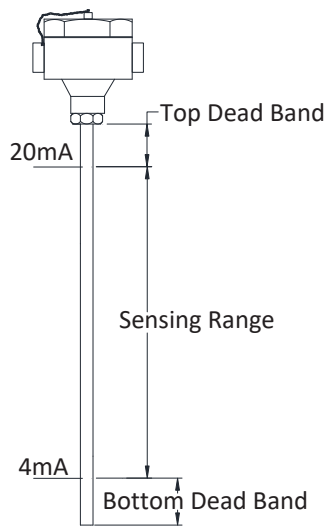
## Optional Accessories

<b>Switch</b>	Bistable Micro Switch
<b>Transmitter</b>	Reed Chain Transmitter, Magnetostrictive Level Transmitter, Reed Switches
<b>Enclosure</b>	Epoxy Coated Cast Aluminium
<b>Protection</b>	Water Proof, IP 66
<b>Cable Entry</b>	PG 13.5 [1/2" NPT, M20x1.5 available as options]
<b>Switch Type</b>	SPST , SPDT , DPDT
<b>Switch Rating</b>	5A, 230 VAC
<b>Mounting</b>	Clamped on the Level Gauge Chamber

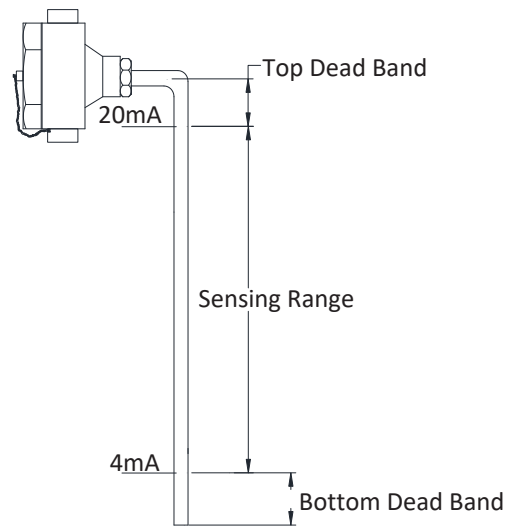
### Transmitter Specifications

<b>Input</b>	24V DC
<b>Output</b>	4-20mA, 0-10V DC, RS 485
<b>Resolution</b>	5mm, 10mm
<b>Maximum Temperature</b>	150°C
<b>C/C Distance</b>	100mm to 6000mm
<b>Enclosure</b>	Weatherproof, Flameproof
<b>MOC</b>	SS304, SS316, PP

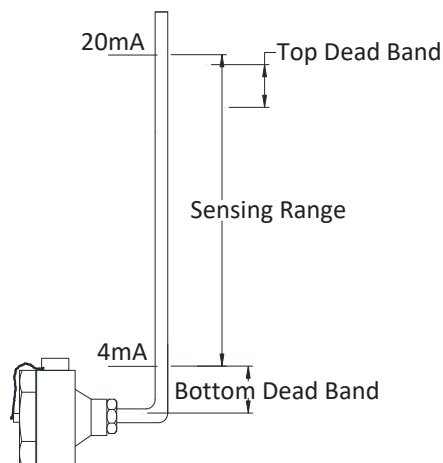
### Mounting Options



Type A

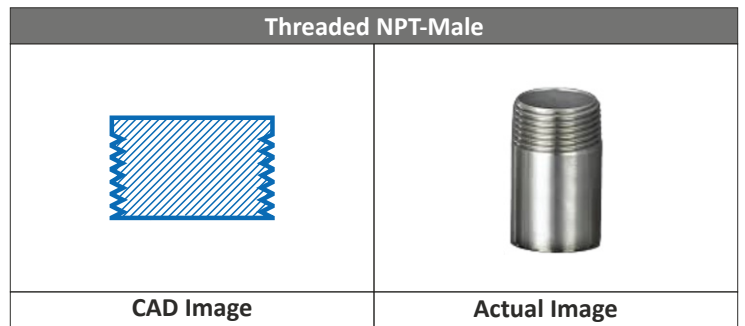
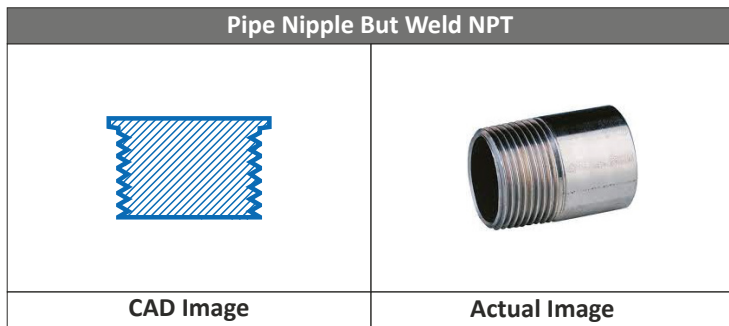
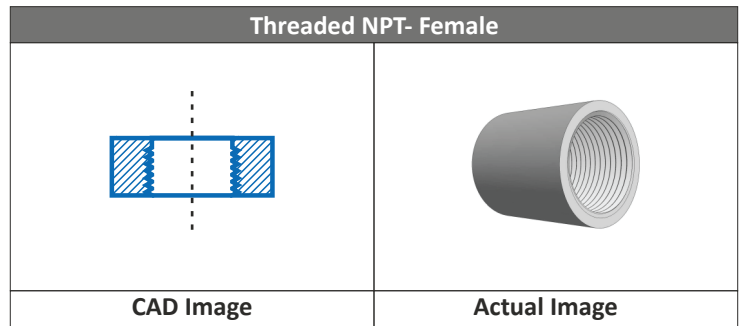
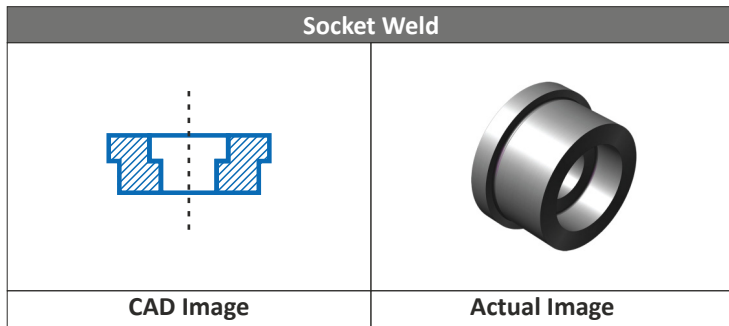
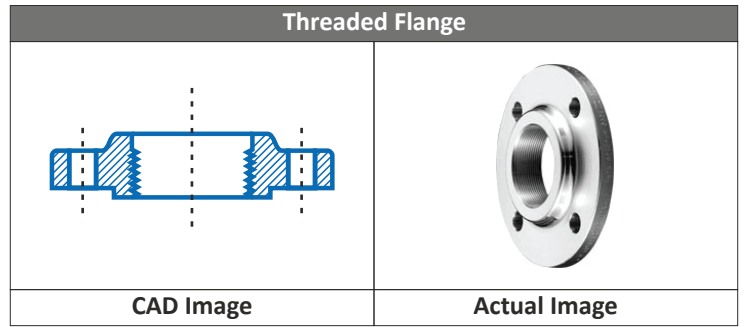
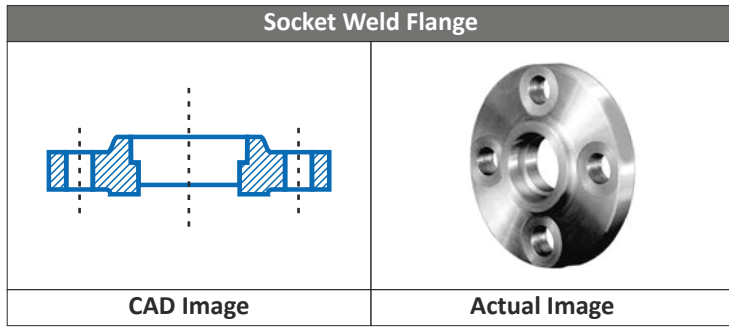
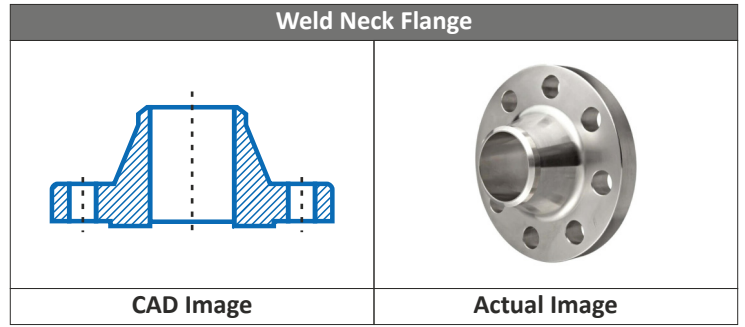
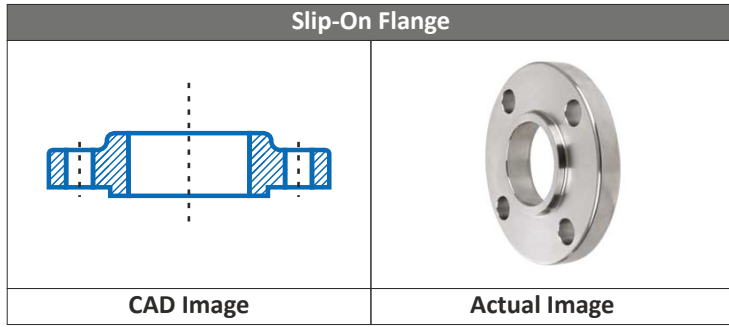


Type B

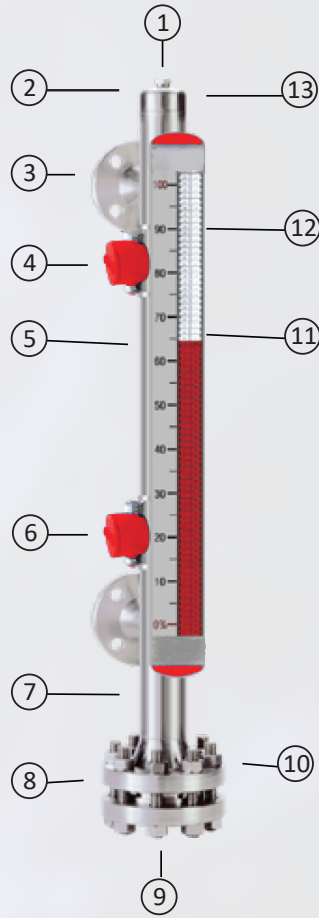


Type C

# Drawing: Process Connection



## Drawing: Standard Version



- 1. Vent Connection
- 2. Top float stop spring (standard)
- 3. Wide range of process connections
- 4. High level switch (optional)
- 5. 316 SS scale
- 6. Low level switch(optional)
- 7. Broad range of alloy

- 8. Bottom float stop spring (standard)
- 9. Drain Connection
- 10. Flange bottom
- 11. 316 SS indicator housing
- 12. Flapper style indicator
- 13. Welded end cap or flange top

## Why Choose Us?

With our manufacturing presence in SAIF Zone, Sharjah, UAE, we are able to offer



Variety of Graded Raw Material, sourced from Europe, Japan & North America



Intrusive Stage-wise Inspections as per Requirements



Compliance to NDE Requirements as per Project Specifications



10+ years of Experience in Operation



Instant Availability Of Spare Parts



Prompt Site Service Support within the UAE And GCC



200+ Clients Worldwide



Team of 30+ Technical Professionals



ILG.V0.08.0422

©2021 Globe United FZE, All rights reserved.

 T5-41, Sharjah Airport International Free Zone, Sharjah, U.A.E.

 [info@globeunitedae.com](mailto:info@globeunitedae.com)

 T: +971 65585309 | M: +971 55 9998947

 [Globe United FZE](#)



[info@globeunitedae.com](mailto:info@globeunitedae.com)  
or scan



[globeunitedae.com](http://globeunitedae.com)  
or scan



Globe United FZE  
or scan

