



# B.K. Equipments Pvt. Ltd.,

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## Tubular glass level gauge for liquids-TLG



(Tie rod)



(Box Frame)

It is simple, low cost and reliable device for direct reading of liquid levels. It is generally used for clean liquids at atmospheric or low pressure & temperature conditions.

### Construction & Operation:

A heavy walled borosilicate glass tubing is fitted between two end blocks through a gland packing system. The gauge is mounted, so that the tube is upright and parallel along the tank side, so as to form a closed loop as shown in (Fig. 1), causing the tank liquid to flow and seek its level in the transparent tube and give a visible indication of level. A set of tie rod or box frame guards form a barrier around the tube, to protect it from accidental blows. The end connections are normally flanged and provided with a set of isolating valves and drain valve & vent plug.

### Installation:

It is normally side mounted on the tank (Fig. 1) through a set of two flanges, centre to centre distance (CC) between which corresponds to the level range of the gauge. Other process connections like screwed, union or dairy fittings can be provided, if required.

### Features:

- 1) 360° visibility with tie-rod guards
- 2) Glass removal/replacement possible without dismantling of gauge, through a well designed gland packing system.
- 3) Safety ball check for preventing liquid loss during glass breakage, provided on demand.
- 4) Acrylic shields for additional glass protection and personnel safety provided on demand.
- 5) Illuminator for poorly lighted areas; Jacketing for heating / cooling; Frostfree arrangement for low temperature liquids can be provided on demand.

### Specifications,

Guard	: Tie-Rod or C-Frame guards in MS or SS 304
End blocks	: MS, SS 304, SS 316, PP, PVC, or PTFE
Gauge	: Borosilicate glass tube in OD of 12, 16, 19 mm for normal liquids and 25mm for viscous liquids; suitable upto 200°C. Pressure rating depends upon its length, however upto 1600mm length, it can withstand 10 kg / cm <sup>2</sup> g
Glands	: CI or SS 316/9930L.
Packings.	: Neoprene (90°C), Silicon (230°C), Viton (200zc) or PTFE with neoprene / silicon inserts
Process connections	: Flanges to any standards and screwed union / dairy fittings provided on demand
Isolating valves	: Straight / Offset needle valves available, integral with end connections in MS, SS, 304, SS 316, PVC or PTFE material. Ball valves provided in in-line type arrangement for viscous liquids
Vent & drain	: 1/4" or 1/2" threaded plugs or valves
Scale	: AL, Bakelite or SS material calibrated as required in mm / inches / % liquid volume with LC = 10mm
Range (CC Dist)	: a) upto 1600mm in single tube length b) beyond 1600mm with two or more tubes coupled in series
Visibility	: CC - 130mm (integral); CC - 150mm (in-line)
Max temperature	: 200°C depending on material of end connections & packings
Test pressure (at amb temp)	: 10 kg / cm <sup>2</sup> g for metallic end connections & 2 kg / cm <sup>2</sup> g for PP / PVC / PTFE
Special features	: Autoball check, Illuminator, Frostfree & Jacketing arrangements provided on demand

### Quality -Assurance:

Besides, incorporating correct design, supported by proper manufacturing techniques & skilled craftsmanship, we have established a documented quality assurance plan reviewed and approved by numerous critical customers. The plan is strictly adhered to, through drawing & design control, chemical composition check of incoming raw materials, bought outs & inprocess inspection, final performance check and permanent inspection records to assure manufacturing & material integrity to appropriate specifications.

# Tubular level gauge .TLG

**Model No. TLG -**

**Gauge size**

- 1 16mm OD x 2.5mm thk Borosilicate glass
- 2 19mm OD x 3mm thk Borosilicate glass
- 3 25mm OD x 3.8mm thk Borosilicate glass
- 0 Non-std

**End blocks**

M MS  
 N SS304  
 S SS316  
 P PP / PVC  
 T PTFE  
 0 Non-std

**Isolating valves**

W Without  
 I Integral straight needle valve  
 F Integral offset needle valve  
 B Inline ball valve  
 0 Non-std

**Guards**

- 1 MS Tie rod
- 2 MS C-frame
- 3 SS304 Tie rod
- 4 SS304 C-frame
- 0 Non-std

**Gland material**

- 1 CI
- 2 SS316
- 0 Non-std

**Packings**

- 1 Neoprene
- 2 Silicon rubber
- 3 Viton
- 4 PTFE with Neoprene inserts
- 5 PTFE with Silicon rubber inserts
- 0 Non-std

**Process connection**

- 1 flanged
- 2 screwed
- 0 Non-std

**Vent x drain**

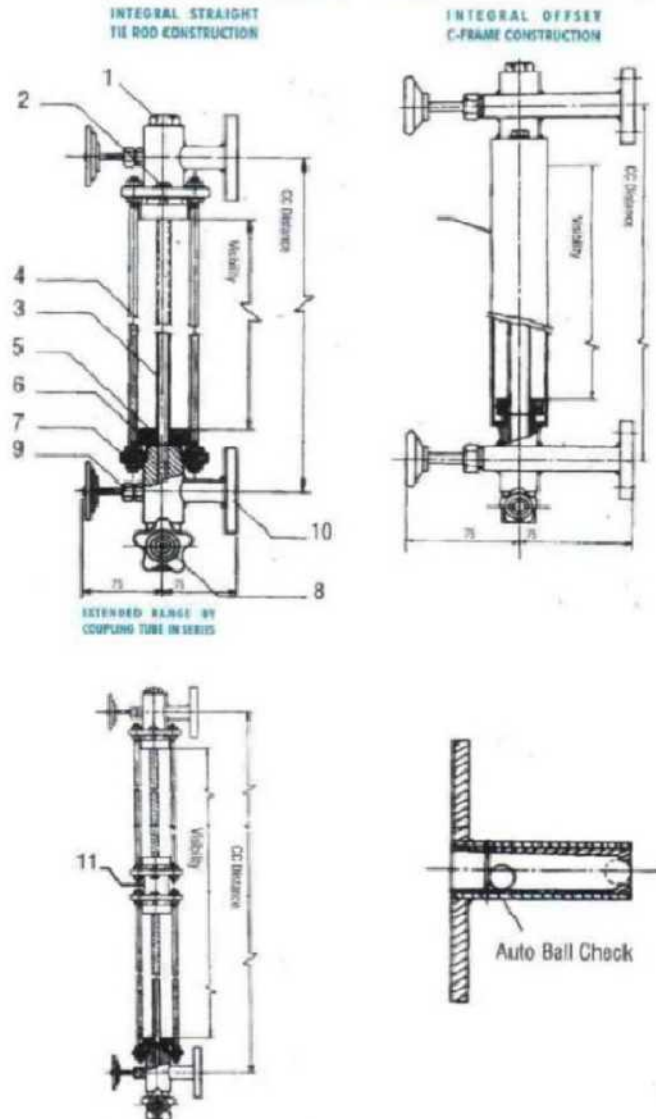
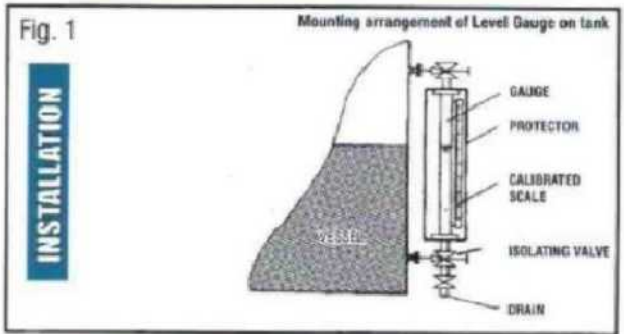
- 1 1/4" Plug x plug
- 2 1/2" Plug x plug
- 3 1/4" Plug x 1/4" needle valve
- 4 1/2" Plug x 1/2" needle valve
- 5 1/2" Plug x 1/2" ball valve
- 6 1/2" Plug x 1/2" diaphragm valve
- 0 Non-std

**Calibrated scale**

W Without  
 L AL scale  
 S SS scale  
 A Acrylic  
 0 Non-std

**Special features**

P Glass protector  
 B Autoball check  
 F Frostfree  
 I Illuminator  
 J Jacketing  
 M Multiple sections  
 0 Non-std



1.Vent plug, 2.Gland tightening bolt, 3.Gauge, 4.Guard rod / C-frame, 5.Gland, 6.Packing, 7.Guard holder, 8.Drain valve, 9.Isolating valve, 10.Flange, 11.Coupler

### Ordering information:

Specify Model No.range (CC distance), liquid operating temperature, pressure & viscosity.



**T. Balakrishnan - CEO**



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