Transparent Tubular Level Gauge - 'TTG'

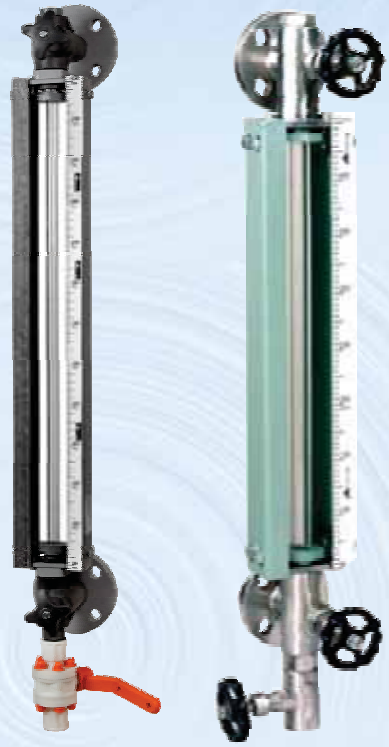
Simple low cost and reliable for direct reading of clean liquid levels at low pressure & temperature conditions.

Techtrol
Innovating Level Controls Since 1984

Construction & Operation :

Gauge is fitted between two end blocks through gland packings. The gauge is mounted parallel to tank so as to form a close loop causing tank liquid to seek its level in the gauge. Guards are provided in the form of tie-rods / c-channels around the gauge to protect it from accidental blows. End blocks have built-in isolating valve, drain valve & vent plug.

CE
P.E.D. 97/23/EC

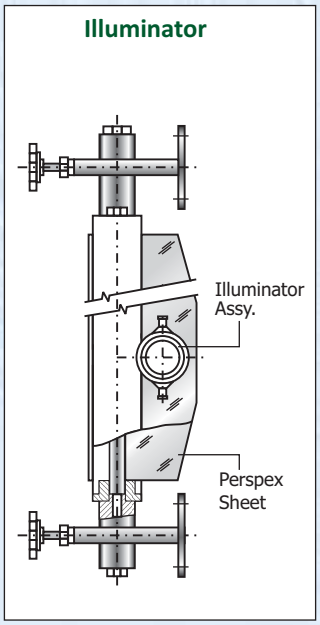


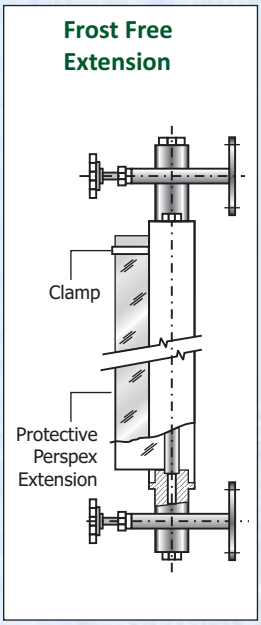
Features :

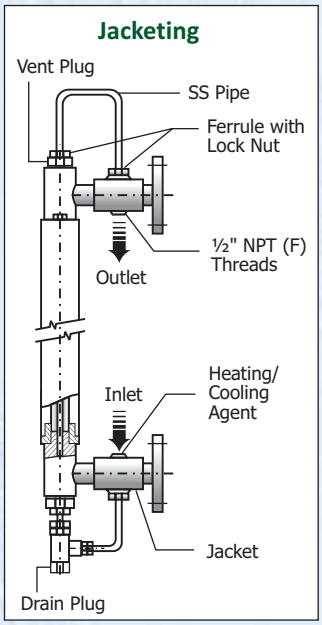
- ☑ 360° visibility with tie-rod guards.
- ☑ Glass removal / replacement possible w/o dismantling of gauge.
- ☑ Offset isolating valves permit cleaning of glass gauge w/o removal.

Special Features (Optional) :

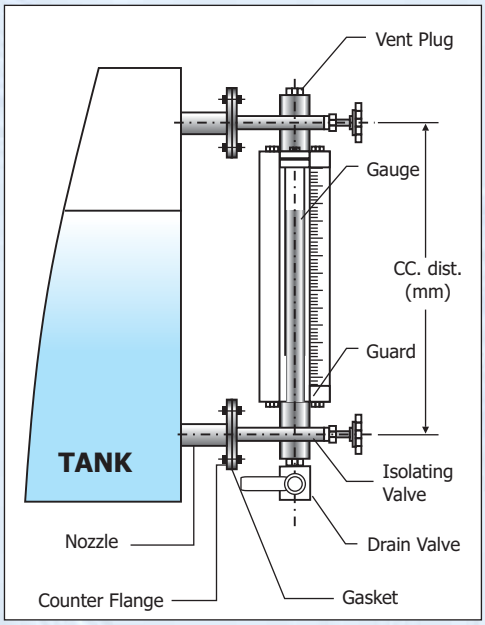
Illuminator	:	Illuminates poorly lit areas for proper visual indication.
Frost Free	:	Prevents frost formation on outer surface of gauge glass for clear visual reading in case of liquids at low temperature.
Jacketing	:	For heating / cooling of process liquid to prevent its solidification.
Glass Protectors	:	To provide additional protection and personnel safety.
Auto Ball check	:	Built into end block for preventing liquid loss, during glass breakage.







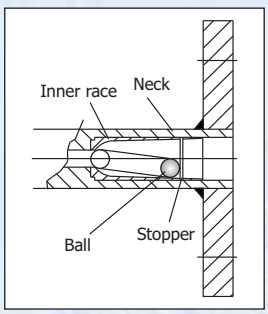
Installation :



Side mounted through tank nozzles, having matching counter flanges / threads, ensuring that CC distance between nozzles corresponds with CC distance (R) of the gauge.

Auto Ball Check :

Autoball check facility is provided to prevent "liquid loss" from vessel during breakage of gauge glass. It consists of a capsule located within the gauge 'neck' and contains a ' ball ' which moves freely along its inner race between the stopper & orifice. During breakage, the pressure on 'ball' from gauge side will be atmospheric, whereas higher pressure from vessel side ("optg pr + liquid column") will cause the ball to move and block the orifice, to minimize liquid loss.



IBR CERTIFIED / RUBBER LINED GAUGES AVAILABLE

Model Identification - TTG : [ ][ ][ ][ ][ ][ ][ ][ ][ ] x (CC dist.) in mm.

GAUGE SIZE
- 16mm.OD. x B. Glass (HW) — 1
- 25mm.OD. x B. Glass (HW) — 2
- Non-std — O

END BLOCK MOC
- CS — M
- SS 304 — N
- SS316 — S
- PP — P
- PVDF — D
- Non-std. — O

END BLOCK TYPE
- W/O Valve — W
- Offset Needle Valve — V
- Offset NV. with Auto Ball Check — A
- Non-std. — O

GUARDS
- CS 'C' Channels — 1
- FRP 'C' Channels — 2
- SS 304 'C' Channels — 3
- CS Tie Rods — 4
- SS 304 Tie Rods — 5
- Non-std. — O

GLAND MOC
- CI — I
- SS 316 — S
- PP — P
- Non-std. — O

PROCESS CONNECTIONS
- Flanged — F
- Screwed — S
- Non-std. — O

VENT x DRAIN
- Plug x Plug — 1
- Plug x Ball Valve — 2
- Non-std. — O

CAL. SCALE
- Polycarbonate — P
- SS 304 — S
- Non-std. — O

SPECIAL FEATURES
- None — W
- Frost Free — F
- Illuminator — I
- Jacketing — J

Applications : Chemical / Petro-Chemical, Fertilizer, Power generation, Pharmaceutical, Automobile, Water / Waste Water / Effluent treatment plants, Cooling / Lubricating / Filtration systems, Liquid sewerage tanks, Chemical dosing system, Chemical reactors etc.

Standard Specifications :

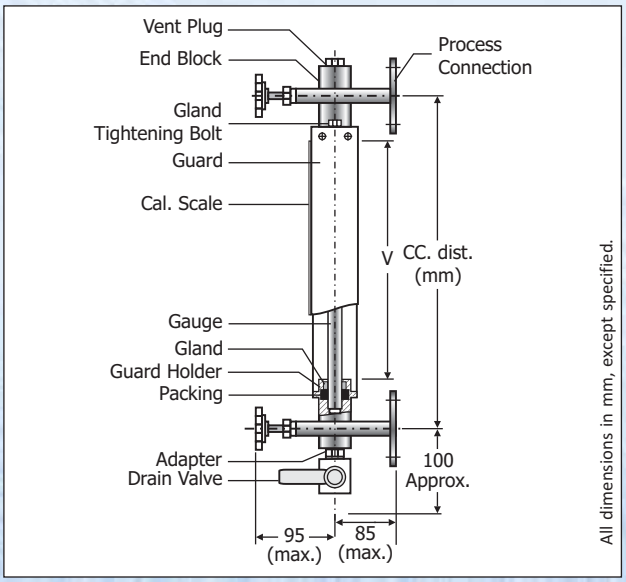
Gauge	:	HW Borosilicate Glass 16 / 25mm OD (25mm for Viscous Liquids)
End Block MOC	:	CS / SS 304 / SS 316 / PP / PVDF
End Block Type	:	W/o Valve / Offset NV with or W/o Auto Ball Check
Guards	:	CS/ SS 304 / FRP C-Channels or Tie-Rods
Gland MOC	:	CI / SS 316 / PP with PVDF insert
Packing	:	PTFE
Process conn.	:	¾" / 1" Flanged (ANSI 150#) or BSP Screwed
Vent / Drain	:	Plug / Ball valve
Calibrated Scale	:	Polycarbonate (LC=2mm) / SS(LC=10mm)
CC Dist.	:	3000mm in Single Length, Large CCD's thru' Coupler
Visibility	:	CC Dist - 150mm
Maximum Temp.	:	200°C (Metallic)/100°C (PVDF)/70°C(PP)
Test Pressure (at amb temp)	:	10 Kg/cm² (Metallice) / 2 Kg/cm² (PVDF / PP MOC)

Options :

Auto Ball Check	:	Ø10 mm SS 316 ball (Metallic MOC)/ PTFE (PVDF & PP MOC)
Glass Protector	:	3mm thick Perspex Shield
Frost Free Extn.	:	Perspex Shield 20mm thk with 35mm Extension
Illuminator	:	15W Bulb mtd on 1200mm long Reflector x 220VAC Supply with Cast Al Ip65/Ex-P Gr IIA & IIB or IIC Enclosure (Multiple Illuminators for CCD's >1200mm)
Jacketing	:	¼" SS 304 pipe with Ferrule & Lock Nut

MOC's in CI / CS are Epoxy Coated

Schematic diagram :



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