

TUBULAR LEVEL GAUGES

Features

- Tubular level gauge applicable upto 25 kg and upto 250 deg cent
- Forged bodies
- Toughened borosilicate glass with designs to suit pressure and temp rating
- For applicability in critical acidic, steam water, non-acidic, and in high temperature zone
- IBR certified device available
- Available with C Channel options with SS, CS, MS with anticorrosion powder coat, MS
- NACE, H2S service compatibility applicable
- Level 1 radiographed body available
- Helium leak test proved design @ 10(-4) mbar lt/sec
- Special isolation offset construction available with both screwed and bolted
- CE applicability
- Also available with 1.6 to 4 mm lining PTFE / PFA with SS
- Applicable for refinery, petrochemical, chemical, power, radioactive, fertilizer, food, pharma, metal industry applications



Concept and Principle of operation

The tubular type level gauge is the simplest shape of direct reading level apparatus for low pressure up to 25 bar and maximum temperature of 250 °C. The gauge glass is built in the protective tube. Check balls inserted in the upper and lower valve to stop flow instantaneously when the glass is broken. The protector having a circular form is constructed to prevent glass breakage from external sources. For glass tube gauges only of center-to-center dimensions in excess of 2000 mm, it is possible to manufacture any required c to c by using coupling in the middle of the gauge. Depending on the nature of the liquid, tubes made from various PFA, Acrylic or Vinyl tube are also available. Tubular glass with a linear red coating on the back is available to make level observation clearer.

This Liquid Level Gauge provides direct observation of liquid level in a tank/ vessel. rising and falling level of the liquid inside the tank /vessel can be observed through the glass assembled in the gauge. Tubular Liquid Level Gauges, designed and built for a wide range of temperature and pressure applications. Our tubular level gauge is used to make, besides other applications include observation of the level of corrosion-proof and chromatic liquids.

The most advantage of this type is for easy level reading of boiling liquids restricting in temperature application rating. When liquids are boiling, their bubbles make the surface level indistinct. The manual adjustment of isolation valve at the input of the media entering the chamber reduces the bubbling. Therefore, the level gauge ease to read the level or bubbling liquids. It also provides advantages for highly dense and viscous liquids, as the body is made of forged material. This level gauge is designed and manufactured for easy and accurate reading the liquid level of highly foamy liquids. The gauge has a relatively spacious internal area where foamy liquid is held from forming foams.

Special Applications

More severe demands may often be required on liquid level gauges in terms of resistance to corrosion, and this is accomplished by lining or coating all wetted parts. The most important aspect of this process is the preparation of the metal substrate. Also It can be used in almost every application like Water, waste water, Effluent treatment plants, Liquid sewerage tanks, chemical dosing systems, chemical Reactors, Fertilizer, Power generation, Automobile, Pharmaceutical etc.

Technical Specifications

Type	Tubular
End Blocks	Carbon steel, SS304, SS304L, SS316, SS316L, Monel, Titanium, Inconel 600, Hastelloy C, PolyPropylene, PTFE lining of 1.6 mm to 4 mm on SS, others on request, subject to pressure and temperature condition
Packing Material	PTFE
Glass Protection C Channel	SS, MS, CS, MS with anticorrosion powder coat
Fasteners	SS, ASTM A 193 Gr B7/2H
Scale	Aluminum, Acrylic and SS engraved in mm
Heavy walled borosilicate glass	Upto 150 deg cent
Connection orientation	Vertical, right, left, back
Glass width	16 mm, 19 mm and 25 mm
Operating pressure applicable as input	15 kg, higher depending on temp
Shell test applicable, pressure	20 kg at 70 deg cent
Shell test applicable, temperature	Max 200 deg cent depending on selected MOC
Isolation valve	Screwed bonnet offset construction with auto ball check arrangement, bolted bonnet construction with high temperature and pressure available
Centre to centre distance	Max upto 3000 mm applicable with desired accuracy and visibility
Vent /drain	1/2" plugged / 1/2" needle valve / 1/2" ball valve / 1/2" globe valve
Process connection	15 to 50 mm flanged / upto 25mm screwed / socket weld, but weld, tricolor and others on Request

Construction and dimensional cross-sectional overview

The image contains three technical drawings of a tubular level gauge. On the left is a front view showing the gauge's profile with a hand wheel and process connection. In the center is an elevation view showing the gauge's vertical structure with a glass tube and scale, including a dimension of +2.0 / 20 -0.0. On the right is a side view showing the gauge's internal assembly and dimensions of 115±5 and 125±5. A list of parts and their quantities is provided to the right of the drawings.

23	STUD WITH 2 NUTS-(3/8" UNC X 3" LONG)	8
22	PLATE	2
21	VENT/DRAIN PLUG-1/2" NPT(M)	2
20	NAME PLATE	1
19	'C' CHANNEL (GLASS PROTECTION)	2
18	HOUSING NUT	2
17	WASHER	2
16	TAPER CONE	2
15	GLASS TUBE- OD 16	1
14	PROCESS FLANGE-1" 150# BLRF	2
13	TAIL PIECE NUT	2
12	TAIL PIECE	2
11	GASKET	2
10	HAND WHEEL	2
9	GASKET	2
8	GLAND PACKING	AS REQ.
7	BODY NUT	2
6	SPINDLE	2
5	GASKET	2
4	SLEEVE	2
3	BALL	2
2	SEAT	2
1	GAUGE VALVE BODY	2
SR. No.	DESCRIPTION	QTY.

Ordering Information

Sample Order Code : TULG TBV 1000MM 25F150#RF S4 16 B MST CCS P P C V S

Type of Level Gauge		Code	
Tubular Level Gauge		TULG	
Orientation Process Connection		Code	
Top Bottom Vertical (Partial Visibility)		TBV	
CCD. Center to Center Distance		Code	
Indicate the required center to center distance in mm		XXXX	
Process Connection			
Flanged Connection			
Code	Size	Code	Size
15	1/2"	F	150
20	3/4"		150#RF
25	1"		
40	1 1/2"		
50	2"		
65	2 1/2"		
Screwed Connection			
Code	Size	Code	Threading Type
1/2"	1/2"	T	NPTM
3/4"	3/4"		BSPM
1"	1"		NPTF
1 1/2"	1 1/2"		BSPF
MOC of Wetted Parts			
Material	Code	Material	Code
SS304	S4	Polypropylene	PP
CS	C	Monel	M
SS304L	S4L	PVDF	PV
SS316	S6	Inconel 600	I
SS316L	S6L	Hastelloy C	H
Glass Tube			
Glass Size			Code
16mm O.D.			16
19mm O.D.			19
25mm O.D.			25
Glass Type			Code
Acrylic			A
Borosilicate			B
Glass Protection			Code
MS Tie Rod			MST
SS Tie Rod			SST
MS 'C' Channel			MSC
SS 'C' Channel			SSC

Special Features		Code
CS+PTFE Coating in Flange Orientation		CCS
SS304+PTFE Coating in Flange Orientation		CS4
SS316+PTFE Coating in Flange Orientation		CS6
CS+PTFE Lining in Flange Orientation		LCS
SS304+PTFE Lining in Flange Orientation		LS4
SS316+PTFE Lining in Flange Orientation		LS6
*Without Threaded Connection		

Calibrated Scale		Code
Aluminium		AL
SS(SS316 / SS304)		SS
Acrylic Plastic		AC
Drain Connection		Code
1/2" NPT F, 3/4" NPT F		P
1/2" & 3/4" Needle Valve		N
1/2" & 3/4" Ball Valve		B
1/2" & 3/4" Globe Valve / Globe Valve		O
Flange Type		A
Vent Connection		Code
1/2" NPT F, 3/4" NPT F		P
1/2" & 3/4" Needle Valve		N
1/2" & 3/4" Ball Valve		B
1/2" & 3/4" Globe Valve / Globe Valve		O
Flange Type		A
Gasket		Code
C.A.F. / Non-Asbestos		C
P.T.F.E		P
Graphoil / Graphite		G
Glass Packing Bush		Code
Viton / Rubber		V
Isolation Valves		Code
Screwed Bonnet Offset Construction		S
Bolted Bonnet Offset Construction		B
Without Isolation Valves		N

Note : • Due to our continuous product revisions, design specification and model numbers are subject to change without notice.
 • Accuracy defined at Lab Conditions.
 • For other requirement please consult factory.

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