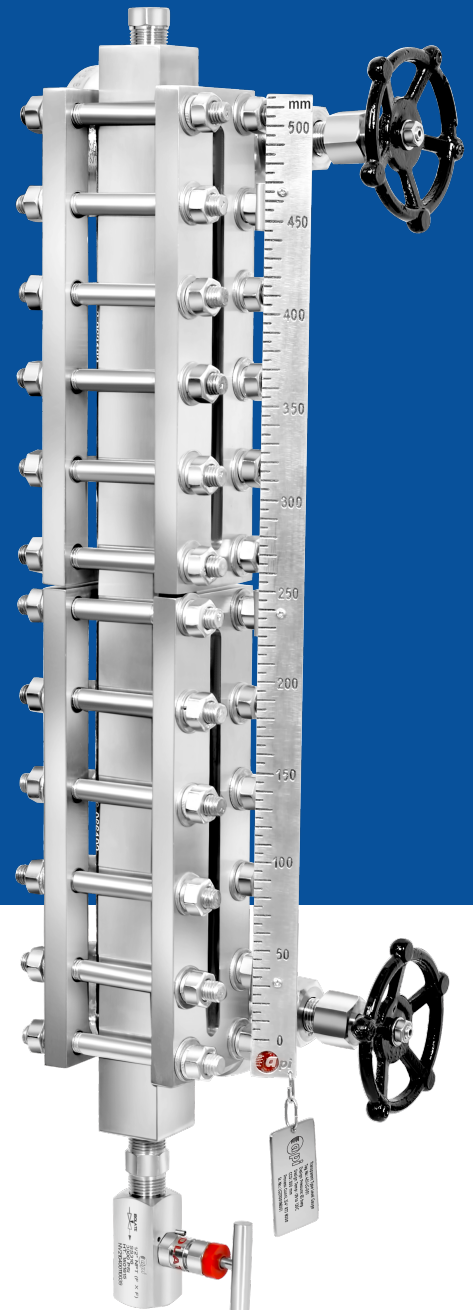


TRANSPARENT LEVEL GAUGE

MODEL
M4.03



PRODUCT DESCRIPTION

Transparent level gauges are fitted with two plate transparent glasses between which the fluid is contained. The fluid level is indicated as the result of the different transparency of the two media and in some cases (for water steam), by conveying upwards on to the surface of separation (between liquid and gaseous substances) a source of light located at the back of the gauge, the rays of which are totally reflected down to the observer. The transparent level gauge is particularly recommended for applications where the glass needs to be protected from corrosive fluids and high temperatures. In corrosive fluid.



TRANSPARENT LEVEL GAUGE

MODEL M4.03

KEY FEATURES

- Simple & rugged design
- Transparent glass system
- Side-Side / Top-bottom mountable
- High Pressure version (Optional)
- Stainless Steel Version (Optional)
- Easy installation & maintenance
- Employs two transparent sight glasses, one on each side of the liquid chamber
- Light is permitted to pass through, allowing observation of level, color & clarity of the liquid.
- The liquid level is indicated as result of difference in the transparent properties of the two media
- Optional ATEX approved II 2 GD Ex h T6

SPECIFICATIONS

Max. Operating Temp.	: Up to 320°C
Max. Operating Pressure	: 100 kg/cm ²
Gauge Valves	: Off-set Screwed bonnet, ball-check
Process Connection	: Flanged & Screwed
C-C Distance	: 300mm to 3000mm
Drain Connection	: ½" NPT (M) Plug
Vent Connection	: ½" NPT (M) Plug

APPLICATION

- Chemical & Fertilizer plants
- Pharmaceutical plants
- Power industries
- Process industries
- For Clear liquid in pressurized chamber or boiler drum

MATERIAL OF CONSTRUCTION

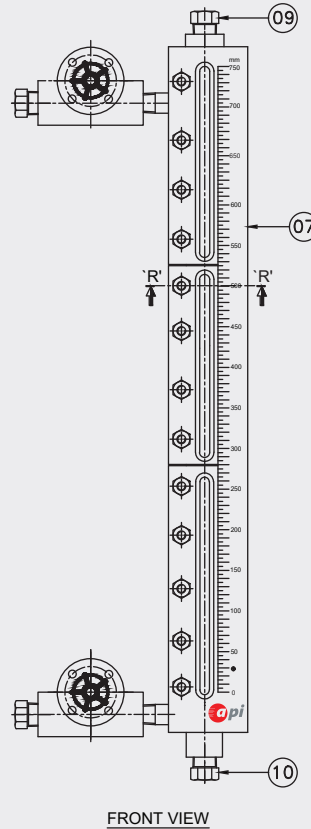
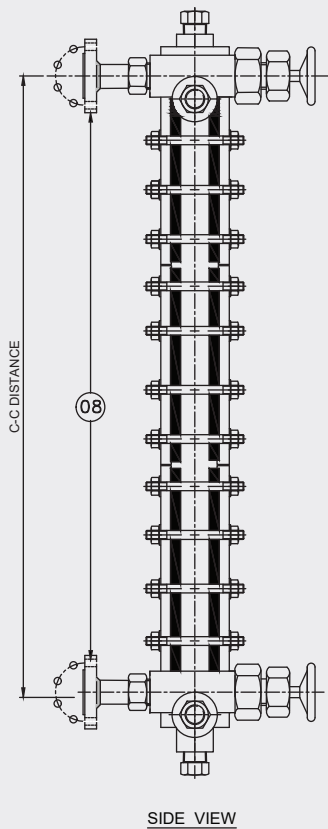
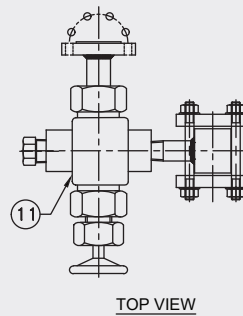
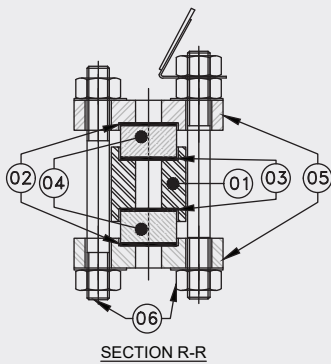
Center Chamber	: ASTM A105
Cover Plate	: ASTM A105
Gauge Glass	: Toughened Glass as per DIN 7080/7081
Studs & Nuts	: A193 Gr.B7 & A194 Gr.2H
Scale	: Aluminum
Cushioning & Gasket	: PTFE
Auto Shut off Isolation valve	: Screwed Bonnet type
Valve body material	: ASTM A105
Trim Material	: SS 316
Ball Material	: SS 316
Packing	: PTFE

TRANSPARENT LEVEL GAUGE

MODEL M4.03

DIMENSIONAL DRAWINGS

Transparent Level Gauge
(Side-Side)



Bill of Material	
Sr.No.	Parameter
01	Center Chamber
02	Cushion Gaskets
03	Sealing Gaskets
04	Gauge Glasses
05	Cover plates
06	Stud + Nuts
07	Scale
08	Process connection
09	Vent connection
10	Drain connection
11	Valve Body

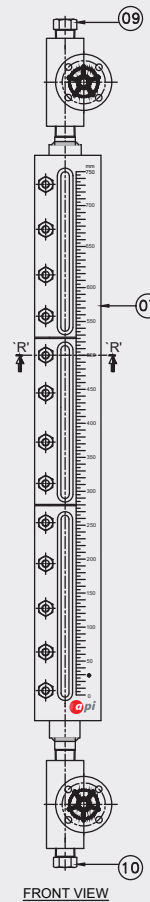
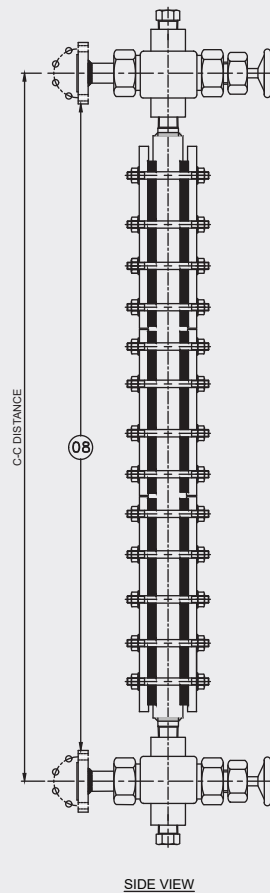
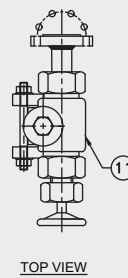
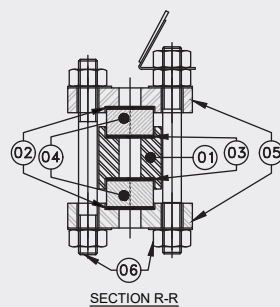
Important Notes: • Above drawings are not to scale • All Dimension are in mm

TRANSPARENT LEVEL GAUGE

MODEL M4.03

DIMENSIONAL DRAWINGS

Transparent Level Gauge
(Top-Bottom)



Bill of Material	
Sr.No.	Parameter
01	Center Chamber
02	Cushion Gaskets
03	Sealing Gaskets
04	Gauge Glasses
05	Cover plates
06	Stud + Nuts
07	Scale
08	Process connection
09	Vent connection
10	Drain connection
11	Valve Body

Important Notes: Above drawings are not to scale. All Dimension are in mm

TRANSPARENT LEVEL GAUGE

MODEL M4.03

MODEL CODING & ORDERING INFORMATION

DESCRIPTION	CODE	M4.03	SS	A15	S4	SN	A15	S6	LW1	SSR	BS	W1	AH	12NM
Type														
Transparent Level Gauge	M4.03	M4.03												
Mounting														
Side-Side	SS		SS											
Top-Bottom	TB													
Center chamber														
ASTM A105	A15			A15										
SS 304	S4													
SS 316	S6													
SS 316L	SL													
SS 316 / SS 316L	DC													
Inconel 825	I5													
Inconel 625	I2													
Duplex SS 2205	SD													
Monel 400	M4													
Cover Plate														
ASTM A105	A15													
SS 304	S4				S4									
SS 316	S6													
Auto Shut off Isolation valve														
Screwed Bonnet type	SN					SN								
Bolted Bonnet type	BB													
Without Valve	WT													
Valve Body														
ASTM A105	A15						A15							
ASTM A316	A36													
Trim & Ball-Check														
SS 316	S6							S6						
SS 316L	SL													
Inconel 825	I5													
Inconel 625	I2													
Duplex SS 2205	SD													
Monel 400	M4													
Valve Packing														
PTFE	LW1								LW1					
Graphite	GR													
Valve Orientation														
Top-Bottom	TB													
Side-Side (Right)	SSR									SSR				
Side-Side (Left)	SSL													
Side-Side (Back)	SSB													
Gauge Glass														
Indigenous	IG													
Borosilicate	BS										BS			
Aluminosilicate	AS													
Cushioning & Gasket														
PTFE	W1											W1		
Grafoil reinforced with SS316	GF													
Studs & Nuts														
A193 Gr.B7/ A194 Gr.2H	AH												AH	
A3193 Gr.B8/ A194 Gr.8A	WA													
A193 Gr.B8M/ A194 Gr.8M	AM													
Process Connection (Size & Type)														
½" NPT (M)	12NM													12NM
½" NPT (F)	12NF													
¾" NPT (M)	34NM													
¾" NPT (F)	34NF													
1" NPT (M)	25NM													
1" NPT (F)	25NF													
Flange as per table-1	XXX													

TRANSPARENT LEVEL GAUGE

MODEL M4.03

MODEL CODING & ORDERING INFORMATION

DESCRIPTION	CODE	P1M	N1F	AL	XXX	X17					
Vent Connection											
Plug -1/2" NPT (M)	P1M	P1M									
Needle Valve -1/2" NPT (F)	N1F										
Ball Valve -1/2" NPT (F)	B1F										
Customized Design	XXX										
Flange as per table-1	XXX										
Drain Connection											
Plug -1/2" NPT (M)	P1M		N1F								
Needle Valve -1/2" NPT (F)	N1F										
Ball Valve -1/2" NPT (F)	B1F										
Customized Design	XXX										
Flange as per table-1	XXX										
Scale											
Aluminum	AL			AL							
SS 304	S4										
SS 316	S6										
Acrylic	AC										
Center to Center Distance											
As per customer requirement	XXX				XXX						
Other Options											
ATEX Conformity acc. to RL 2014/34/EU II 2 GD Ex h T6	XAT										
Material Test Certificate	X17						X17				
IBR Certification	X18										
Tested to NACE Standard	X20										
SS Tag Plates	X26										
Mica Shield Protection	X78										
Illumination lamp with lighting diffuser in Flexiglass, Weatherproof IP 65	X74										
Illumination lamp with lighting diffuser in Flexiglass, Flameproof IIA, IIB	X75										
Illumination lamp with lighting diffuser in Flexiglass, Flameproof IIC	X76										
Performance Test Certificate	X96										
Hydrostatic Test Certificate	X97										
NDT Test	X100										

Note: Visible length shall be less by 150mm to 200mm than center to center distance for Top-Bottom mounting.

Table -1 (Flange Connection) AS PER ANSI B 16.5

NOMINAL SIZE	RATING/ CLASS	CODE	NOMINAL SIZE	RATING/ CLASS	CODE	NOMINAL SIZE	RATING/ CLASS	CODE	NOMINAL SIZE	RATING/ CLASS	CODE
1/2"	150	B09	1"	150	B21	1 1/2"	150	B33	2 1/2"	150	B45
	300	B10		300	B22		300	B34		300	B46
	600	B11		600	B23		600	B35		600	B47
	900	B12		900	B24		900	B36		900	B48
	1500	B13		1500	B25		1500	B37		1500	B49
	2500	B14		2500	B26		2500	B38		2500	B50
3/4"	150	B15	1 1/4"	150	B27	2"	150	B39	3"	150	B51
	300	B16		300	B28		300	B40		300	B52
	600	B17		600	B29		600	B41		600	B53
	900	B18		900	B30		900	B42		900	B54
	1500	B19		1500	B31		1500	B43		1500	B55
	2500	B20		2500	B32		2500	B44		2500	B56

TRANSPARENT LEVEL GAUGE

MODEL
M4.03

SAMPLE ORDERING CODE:

M4.03-I.SS.A15.S4.SN.A15.S6.LW1.SSR.BS.W1.AH.12NM.P1M.NIF.AL.XXX.X17

Note: Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing. Modifications may take place and material specified may be replaced by others without prior notice.