Liquid Level Gauges





CPI Range
For Chemical and Process Industries

SEETRU
LIMITED

THE SEETRU C.P.I. LIQUID LEVEL GAUGE

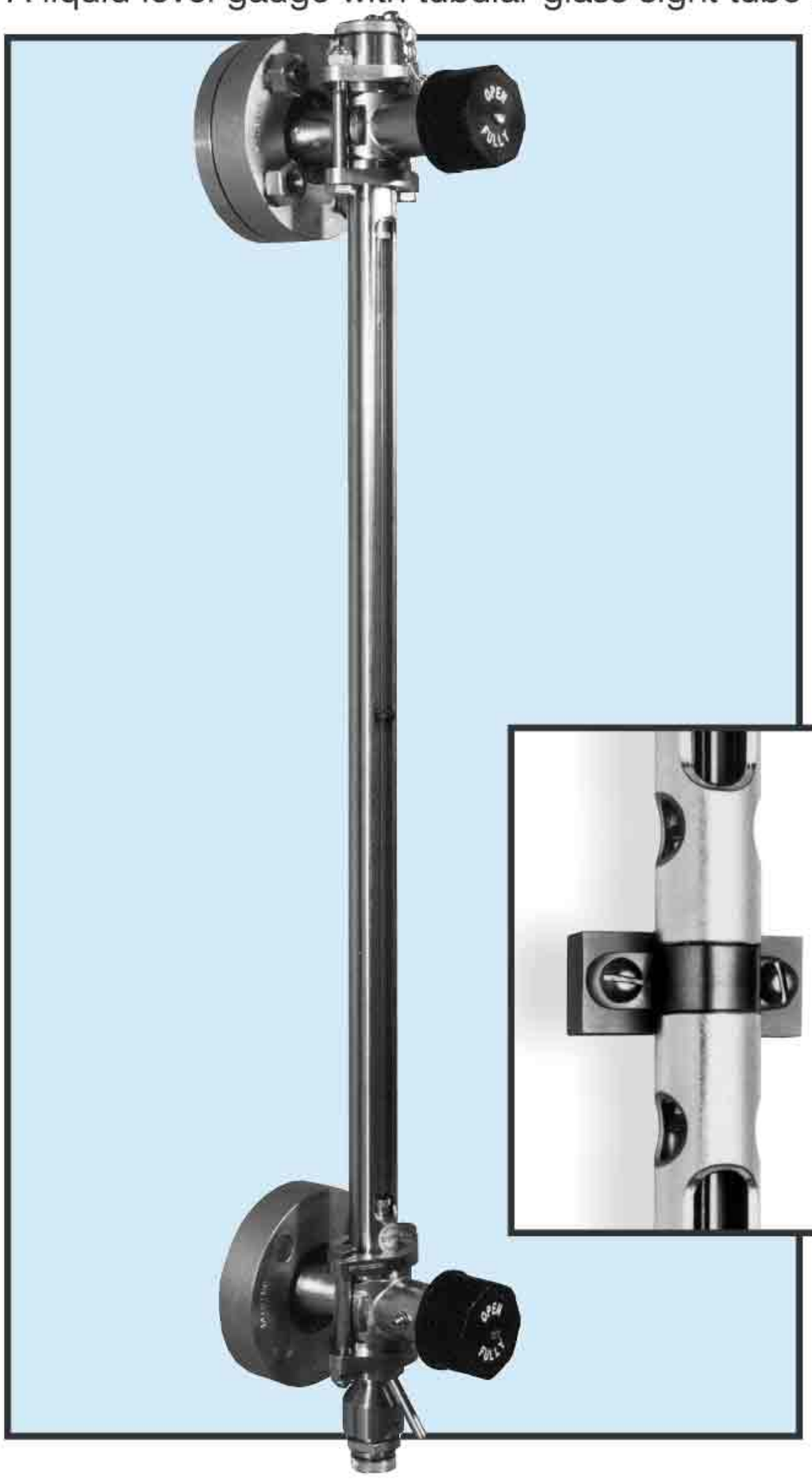
Designed and constructed to provide direct level observation of chemicals and solvents

SIMPLE INSTALLATION

Seetru gauges are supplied complete with column assembly and stainless steel valves for installation onto tank fittings.

CPI TUBULAR MODEL G231

A liquid level gauge with tubular glass sight tube protected in a milled stainless steel guard tube.



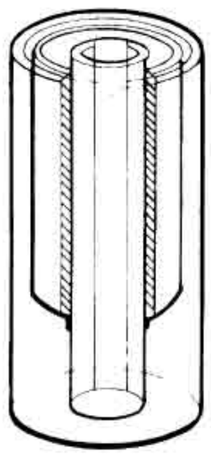
- Manufactured to required length.
- Toughened borosilicate glass tube (Polycarbonate tube available on request).
- 'O' ring sealed sight tube gland.
- The level of colourless liquids is indicated by magnification of a coloured strip.
- Electronic remote reading system and/or computer interface options available.

INTERMEDIATE SUPPORT

Maximum column section length is 1000mm, longer gauges are supplied with intermediate supports which divide the column into sections.

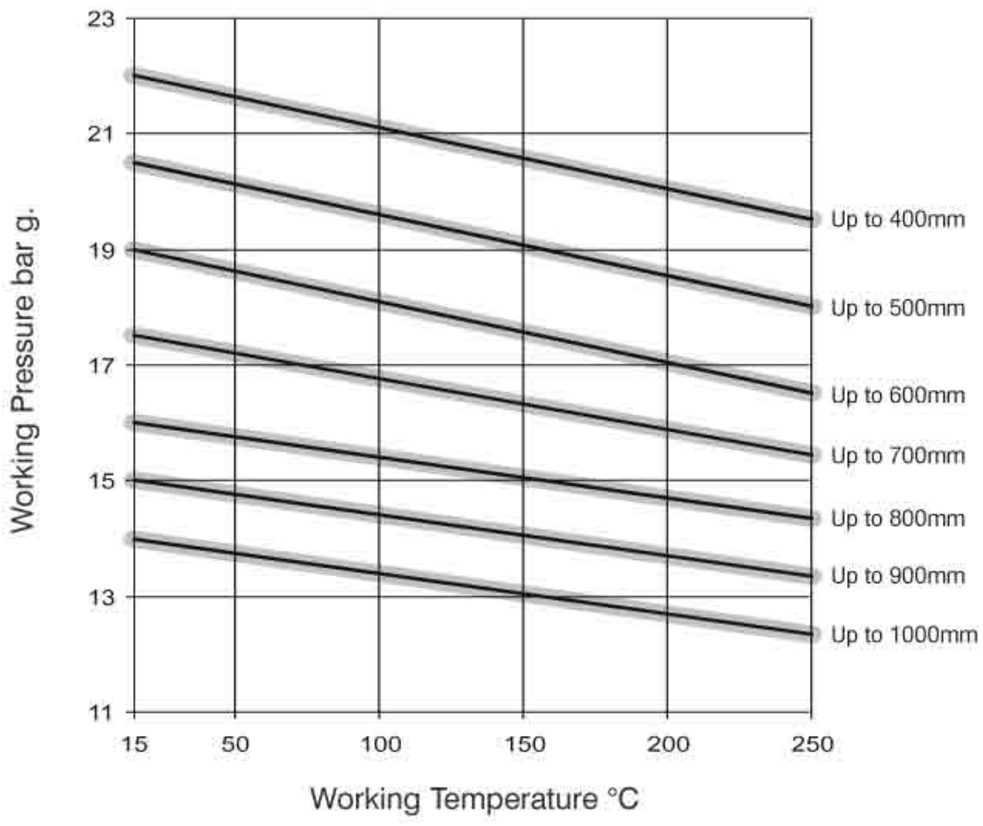
DOUBLE SKIN GUARD MODEL G232

For additional protection and to prevent spillage in the event of a glass breakage the column assembly (glass tube & guard tube) are completely housed in an additional outer clear polycarbonate tube.



CONSTRUCTION MATERIALS	
Sight Tube	Borosilicate glass BS3463.
Guard Tube	316 Stainless steel
Glands	P.T.F.E.

The maximum operating temperature and pressure are dependent on the length of the gauge column glass sections. Additional intermediate joints and supports can be used to reduce the length of the glass column sections and so achieve higher pressures and temperatures.



Example: A gauge with centres of 1800mm in two sections of 900mm is suitable for the range 15bar g. at 15°C to 13.5 bar g. at 250°C.
By introducing an extra intermediate joint and support bracket each section becomes 600mm and therefore is suitable for the range 19 bar g. at 15°C to 16.5 bar g. at 250°. Additional intermediate supports can be used, the maximum rating achievable is for "up to 400mm", see graph.

CLEAR AND ACCURATE INDICATION

Clear level indication of even colourless liquids is provided, and the liquid level viewed in the gauge column corresponds to the liquid level in the tank.

ELECTRONIC AND DIGITAL READOUT

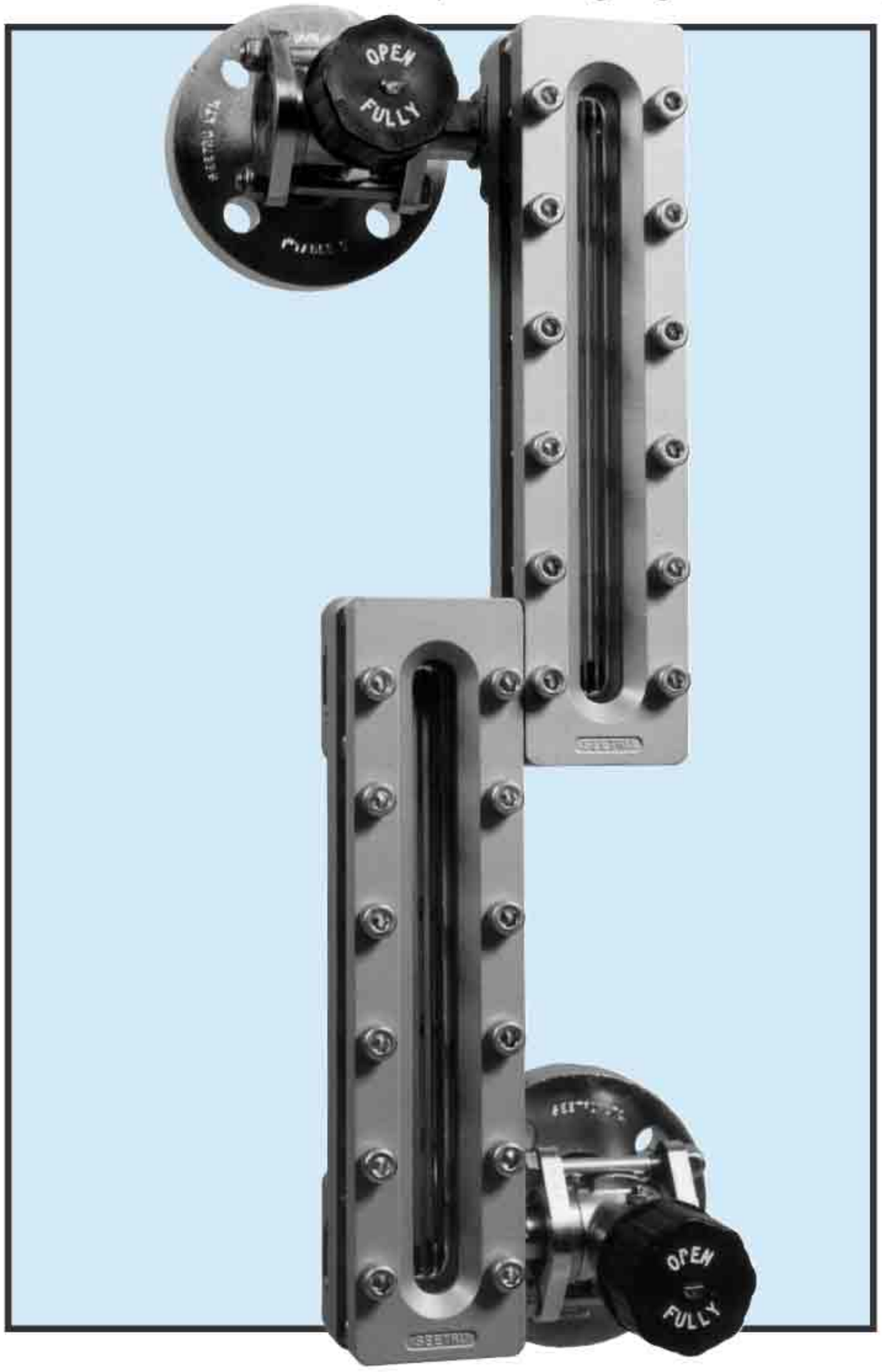
Remote reading system and/or computer interface options provide a dual system with the advantages of both electronic and sight glass systems.

COLUMN REMOVAL WITHOUT EMPTYING THE TANK

Unique design isolating valves when closed allow the column to be removed from the tank even when the tank is full or under pressure.

CPI REFLEX MODEL G34C

A robust bolted column liquid level gauge with reflex glass viewing windows.

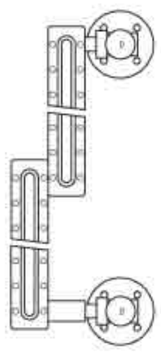


- Suitable for arduous duty applications.
- Side-mounted valves for maximum visibility.
- Black/White indication of colourless liquids.
- Staggered column gives total liquid visibility.
- Standard modular construction.
- Longer gauges are supplied with intermediate support brackets.
- Electronic remote reading system and/or computer interface options available.

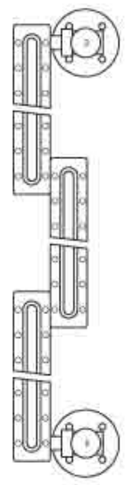
Minimum LENGTHS	Maximum TEMP.	Maxiumum PRESSURE
216mm	250°C	35 Bar g.
A frost guard is required for applications where frosting may occur, minimum temperature is -30°C. Contact Seetru for information on availability.		

CONSTRUCTION MATERIALS	
Viewing Window	Toughened borosilicate reflex glass to BS3463.
Column	Liquid chamber - 316 stainless steel.

STAGGERED COLUMN

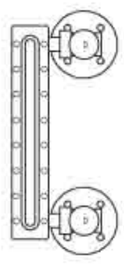


EVEN NUMBER MULTIPLE SECTIONS
SIDE MOUNTED VALVES
NO LOSS OF VISION

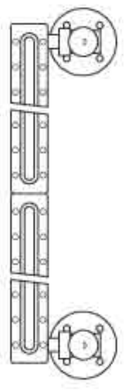


ODD NUMBER MULTIPLE SECTIONS
SIDE MOUNTED VALVES
NO LOSS OF VISION

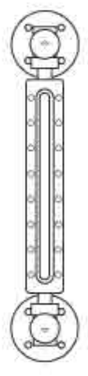
IN LINE COLUMN



SINGLE SECTION
SIDE MOUNTED VALVES



MULTIPLE SECTIONS
SIDE MOUNTED VALVES
WITH SOME LOSS OF VISION



END MOUNTED VALVES
AVAILABLE FOR ALL VERSIONS

GAUGE ISOLATING VALVES

Purpose designed Seetru handwheel operated isolating valves, incorporating an auto safety ball check valve, are supplied for maximum safety.

STAINLESS STEEL CONSTRUCTION

All wetted parts are manufactured in 316 stainless steel.

TANK CALIBRATION

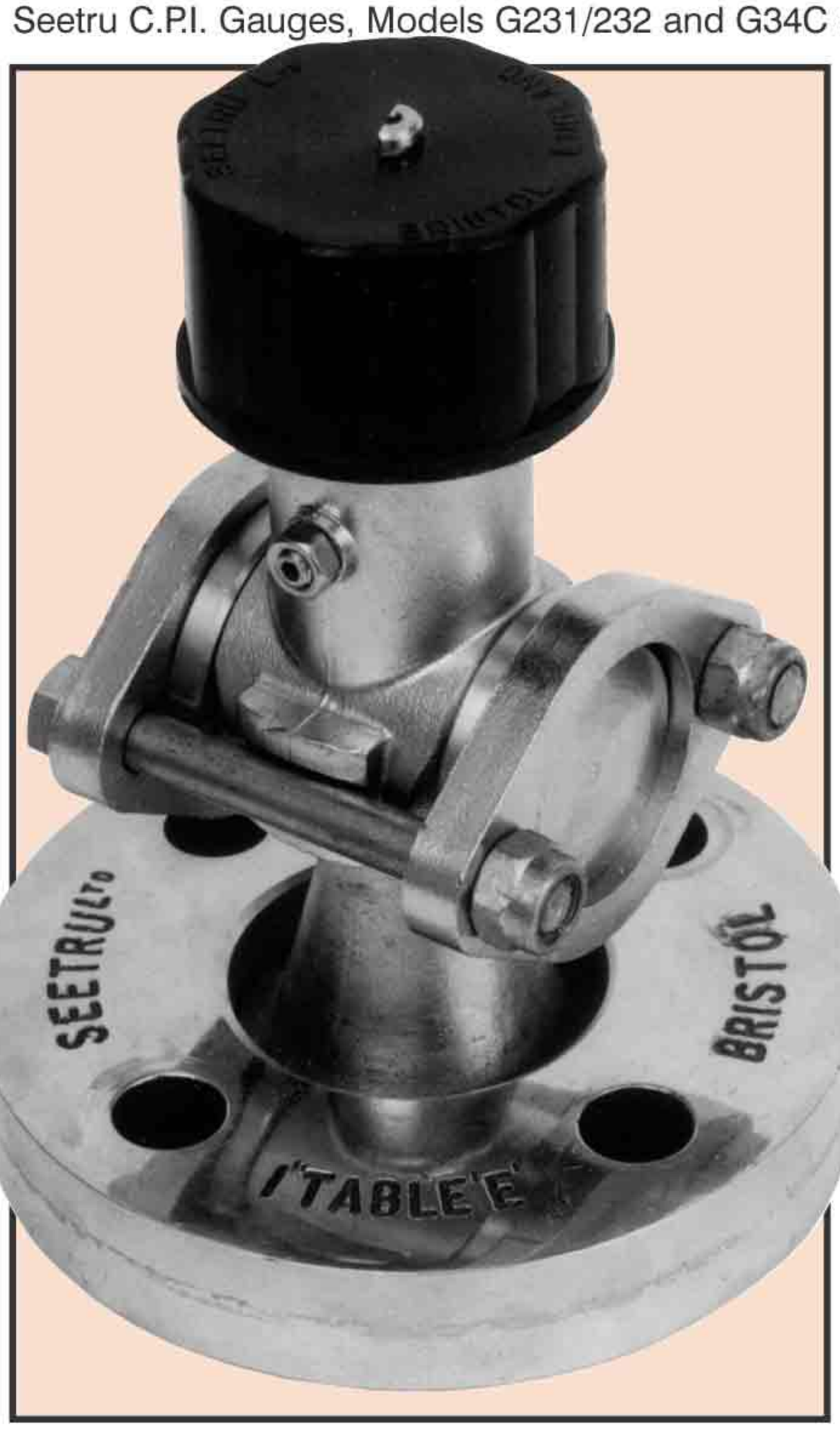
Where precise measurement of the liquid content is required a graduated scaleplate can be attached to the column assembly.

P.T.F.E. SEALS

P.T.F.E. Seals allow for a wide range of liquids to be gauged.

GAUGE ISOLATING VALVES

Seetru C.P.I. Gauges, Models G231/232 and G34C are supplied complete with valve units.



- Purpose designed handwheel operated isolating valves.
- Auto safety ball check to prevent liquid loss in the event of glass breakage.
- Sampling valves or drain/vent plugs are available. In-place cleaning of the gauge column is possible using the drain/vent connections.
- A valveless unit providing continuous tank return is available (this should not be specified for pressurized tanks, or for installation below the highest liquid level).

Sampling Valve



Drain/Vent Plug



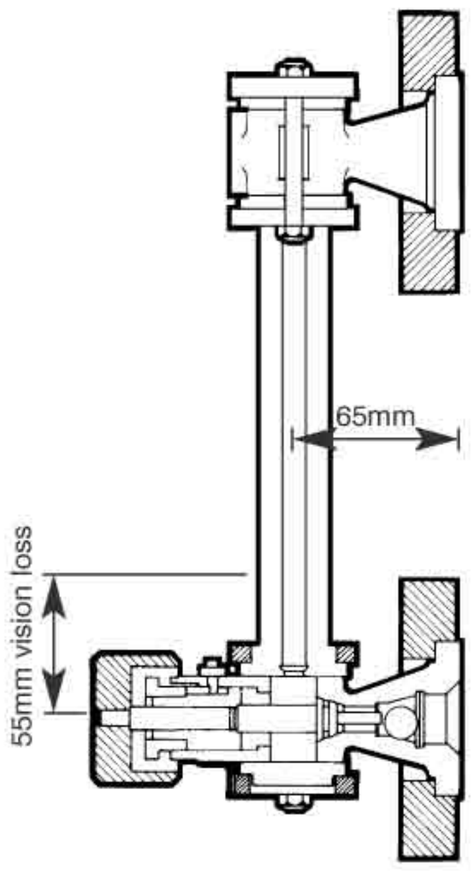
FLANGE CONNECTIONS	
SIZES AVAILABLE	
1" BS10 1926 Table D and Table J 25mm BS4504: 1969 Table 16 and Table 40 1" ASA 150RF and ASA 300RF 25mm DIN PN16 and PN40	
1½" or 2" Flanges can be supplied at extra cost.	
Max Temp: 250°C	Max Pressure: 35 Bar g.

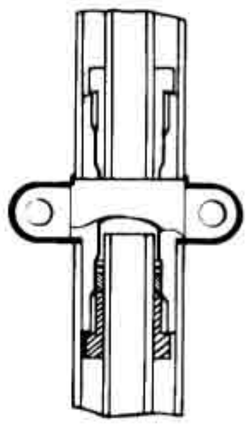
CONSTRUCTION MATERIALS
316 Stainless steel P.T.F.E. Seals

Note: This isolating valve is not suitable for steaming applications. For such boiler applications please see the Seetru Reflex Gauge leaflet or contact Seetru.

DIMENSIONS

G231 and G232

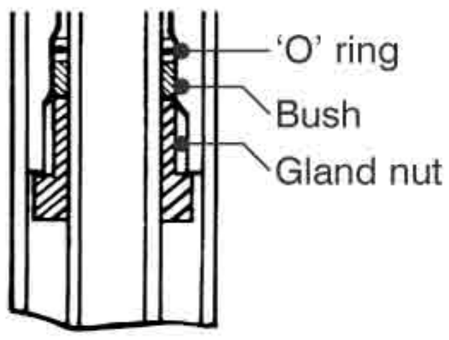




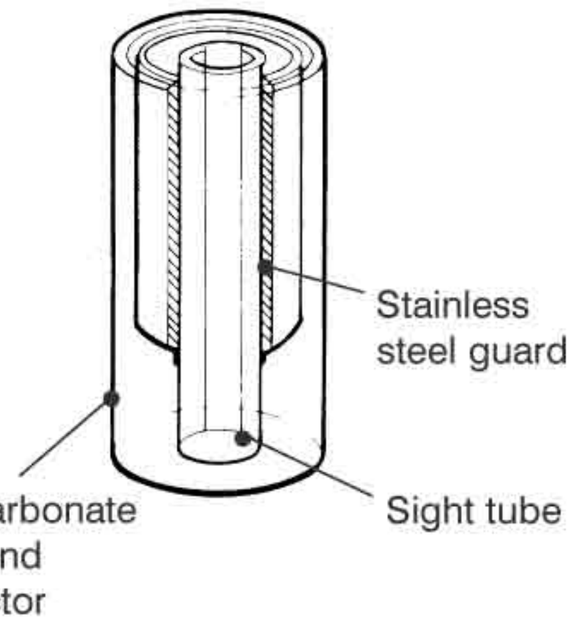
Intermediate Support

2 off 6mm holes for fixing screws on 41mm centres. Padding required to tank 52mm thick.

G232

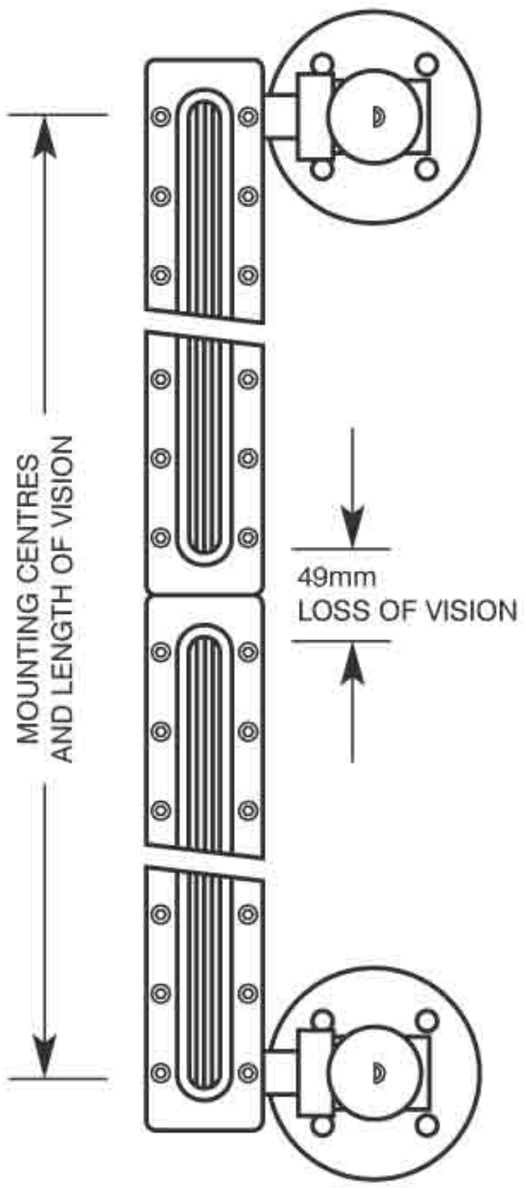


Sight tube gland assembly

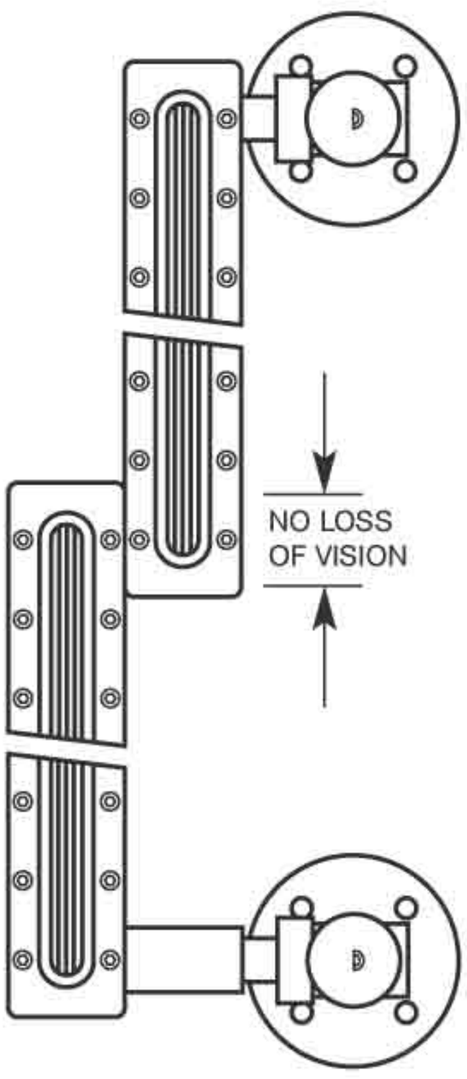


CPI REFLEX G34C

Gauge isolating valves can be connected to the left or right of column or to column ends.

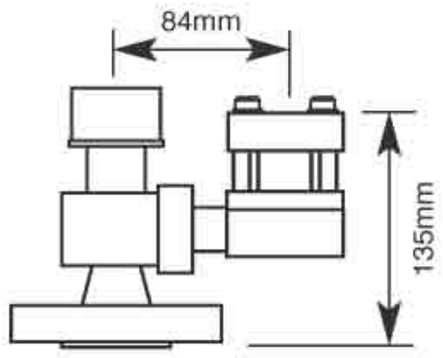


Side Mounted

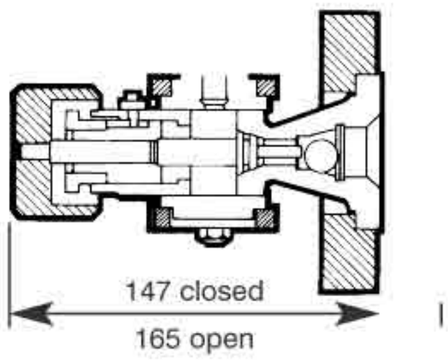


Side Mounted Staggered (No loss of vision)

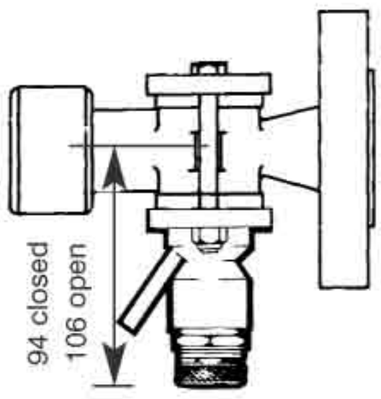
GAUGE ISOLATING VALVES



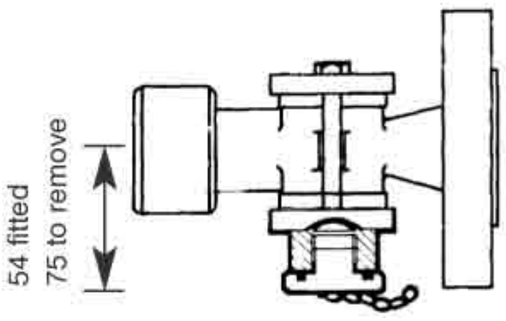
Side mounted valve



Handwheel operated isolating valve



Incorporating sampling valve



Incorporating ½" BSP drain/vent plug

ORDERING SPECIFICATION

When ordering please specify the following:

1	2	3	4
Column type: • **Tubular Model G231** (Tubular column) • **Tubular Model G232** (Double skin guard) • **Reflex Model G34C**	Valve mounting centres: • **Models G231/G232** Specify length required to suit tank. • **Reflex Model G34C** Specify length required (note modular lengths).	Connections: • Flange size and specification. • Valve units / additional fittings required.	Operating conditions: • Fluid. • Operating temperature. • Operating pressure.

OTHER SEETRU PRODUCTS

Liquid level gauges

- SEETRU QUICKMOUNT for general purpose industrial applications.
- SEETRU SEEFLEX for marine application.
- SEETRU REFLEX for high pressures and temperatures.
- SEETRU SEEBIO for food and brewing industry.
- SEETRU SEETOL tall gauge for food, brewing and distilling industry wines and spirits.
- SEETRU MINI small bore, valveless economy gauge.
- SEETRU WINDOW SIGHT GLASSES.
- SEETRU TANK CONTENTS INDICATORS.

Valves

- Non return / check valves.
- Minimum pressure / check valves.
- Vacuum relief valves.
- Pressure control valves.
- Pressure reducing valves for steam.

Type Tested Approved Seetru Safety Relief Valves

- Atmospheric discharge.
- Enclosed discharge threaded or flanged connections.
- Food quality safety valves.

- **SEETRU SEEMAG** Unique magnetic float tank by-pass level indicator. Dual electronic level indicator and level switches/alarms available. Suitable for aggressive liquids and atmospheric or pressurised tanks. Heating jacket available for highly viscous liquids.

- **SEETRU SEEMULTI** Robust self energised factory filled and sealed capsule gauge with capillary line to dial gauge read out. Designed for easy on site adjustment for varying liquid density.

- **DIAPHRAGM VALVE** Safety relief valve for dust/powder applications using a diaphragm to protect the moving parts. Approved by TÜV to F/K/S specification.

The contents of this leaflet do not constitue an offer. SEETRU LIMITED reserve the right while maintaining the essential characteristics of the equipment described and illustrated to amend specification without notice.

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EDITION C