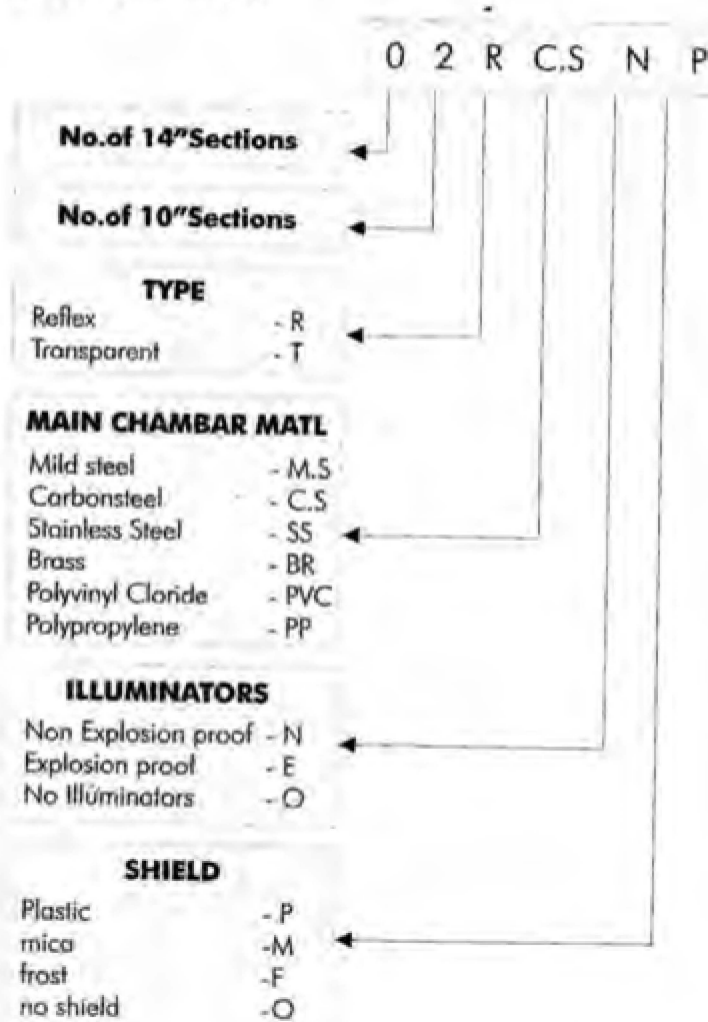


FOR PROCESS INDUSTRIES
LEVEL GAUGES & VALVES

WHY FLAT GLASS LEVEL GAUGES?

You have designed your vessels with utmost care for getting the maximum economy. Also your investment on each vessel will be considerable. The return on your investment, should in no way, be hampered by defective level gauges. Your level gauge should have the same strength as your vessel to withstand the high pressures to which it is subjected and the corrosive characteristics of the fluid. Also, your valuable process fluid should never leak out through the glass fittings, which is quite common in most of the tubular glass level gauges available in the market. In industries, you may have to measure the levels of colourless liquids, interface of immisible fluids, liquids with sub-zero temperatures and liquids with too much foaming. All these requirements can be met with by our latest types of flat glass level gauges.

MODEL NUMBERS



Ex 02-RCS-NP is a level gauge with two sections each of 10" to make 20" overall length. Reflex type, Main Chamber of carbon steel With non explosion proof illuminators and Plastic shield.

LEVEL GAUGES SECTION VIEW

LOW PRESSURE



REFLEX



TRANSPARENT

HIGH PRESSURE



REFLEX



TRANSPARENT

LARGE CHAMBER

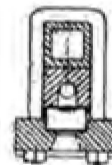


REFLEX

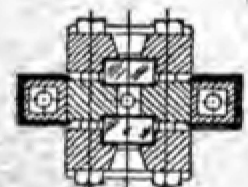


TRANSPARENT

HEATING JACKET



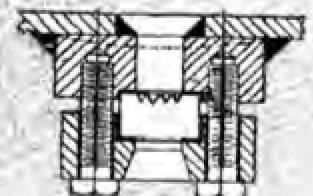
REFLEX



TRANSPARENT



FROST SHIELD



WELDING PAD

HEATING JACKET - with external or internal heating tubes
WELDING PAD TYPE - for welding directly onto tank or vessel

FLAT GLASS LEVEL GAUGE.

These gauges are constructed with a solid forged steel bar main chamber and cover plates recessed to have perfect alignment of gaskets and glass. Though rated for 2000 psig. these are light weight and hence do not need any cumbersome supports for medium lengths. With special main chamber construction these gauges can be supplied upto 3000 psig. Main Chambers are available in C.S, M.S, SS304, SS316, P.P., P.V.C., FRP and Rubber lined. Gaskets are of CAF, GRAFOIL, TEFLON, etc.

REFLEX GAUGES :

These are assembled with flat glasses with inner surfaces of reflecting prisms. Due to total internal reflection liquid level shows black in contrast to a mirror-like surface above. The gauges are used for services where observation is required at a distance and on low pressure boilers.

TRANSPARENT GAUGES :

These are assembled with two numbers of totally transparent toughened glasses to give a through vision of liquid levels. These gauges are recommended for interface levels, coloured fluids where colour is of interest to the process behaviour and services where excessive foaming may exist. In high pressure boilers these gauges are recommended to be used with mica shields.

GLASS:

Beekay engineers continuous research, development and experimental studies on glass toughening and composition has made the tempered glasses used in these gauges most dependable providing a high strength resistant to both thermal and mechanical shocks and with the highest degree of visibility.

SPECIAL LEVEL GAUGES.

Beekay offers level gauges for every kind of application in the process industry and the following are very widely used. Apart from the types detailed below Beekay can offer level gauges with rubber lining, lead bonding, steam traced and also with Boiler Inspector Certificates. Beekay has already supplied to leading Indian Industries number of Boiler level gauges and are now planning a standardisation of the centre to centre distance of gauges used in Boilers in this country.

NON-FROST GAUGES :

For creogenic services where formation of frost on the gauge may cover the window, non frosting extensions made out of clear transparent perspex sheet prevents frost from covering the windows and thereby maintains clear visibility at all times. The frost shield extends beyond the cover plate by 2" or more as per the service temperature. The cover plate of the gauge clamps the flanged extension to the glass, thus maintaining direct contact with the gauge glass so that frost is prevented from forming. No sealing or drying agent is required. The flanged base of the frost preventing unit is surrounded by a gasket, so that, in case of accidental breakage of the frost preventing unit, the torque of the cover bolts will be maintained and leakage will not result. Non frosting gauges are available both in reflex and transparent types.

LARGE CHAMBER GAUGES:

large chamber gauges are for boiling liquids having a tendency to surge. These gauges are recommended for liquids with high rate of bubbling and vapouring liquids. If the liquid being gauged has an unusually low boiling point, the gauge and valves should be insulated and the gauge equipped with a non-frosting unit.

large chamber gauges are of flat glass reflex or transparent design. The main chamber is out of 2"NB seamless pipe with suitable gaskets and cover plates. All parts are rust proofed. These gauges can be supplied to a maximum pressure rating of 40 Kg/cm².

VALVE TYPES



M-500 (Screwed Bonnet)

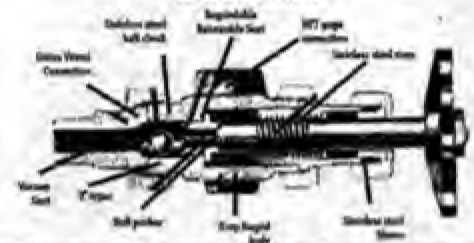


M-600 (Union Bonnet)



M-800 (Bolted Bonnet)

SECTION SHOWING BALL CHECK ARRANGEMENT



MEASURING SCALE

WITH ADJUSTABLE BRACKETS FOR MOUNTING TO THE GAUGE

EXPLOSION PROOF ILLUMINATORS



BOX TYPE

MODEL NUMBERS & DIMENSION DATA

MODEL No.	SECTION		VISIBLE LENGTH		NORMAL CONNETION C.C. DISTANCE		SIDE CONNECTION C.C. DISTANCE (MAX.)	
	Inch A	mm	mm B	Inch	mm	Inch	mm	
* 01	10	254	216	14 to 18	356 to 457	8	203	
* 10	14	356	318	18 to 24	457 to 610	12	305	
* 02	20	508	470	24 to 28	610 to 711	18	457	
* 11	24	610	572	28 to 32	711 to 813	22	559	
* 20	28	711	673	32 to 34	813 to 864	26	660	
* 03	30	762	724	34 to 38	864 to 965	28	711	
* 12	34	864	826	38 to 42	965 to 1067	32	813	
* 21	38	965	927	42 to 44	1067 to 1118	36	914	
04	40	1016	978	44 to 46	1118 to 1168	38	965	
30	42	1017	1029	46 to 48	1168 to 1219	40	1016	
13	44	1118	1080	48 to 52	1219 to 1321	42	1067	
* 22	48	1219	1181	52 to 54	1321 to 1372	46	1168	
05	50	1270	1232	54 to 56	1372 to 1422	48	1219	
* 31	52	1321	1283	56 to 58	1422 to 1473	50	1270	
14	54	1372	1334	58 to 60	1473 to 1524	52	1321	
* 40	56	1422	1384	60 to 62	1524 to 1575	54	1372	
* 23	58	1473	1435	62 to 64	1575 to 1626	56	1429	
06	60	1524	1486	64 to 66	1626 to 1676	58	1473	
* 32	62	1575	1537	66 to 70	1676 to 1778	60	1524	
15	64	1626	1588	70 to 72	1778 to 1829	62	1575	
* 24	68	1727	1689	72 to 74	1829 to 1880	66	1676	
* 50	70	1778	1740	74 to 76	1880 to 1930	68	1727	
33	72	1829	1791	76 to 78	1930 to 1981	70	1778	
16	74	1890	1842	78 to 82	1981 to 2083	72	1829	
25	78	1981	1943	82 to 84	2083 to 2134	76	1930	
08	80	2032	1994	84 to 86	2134 to 2184	78	1981	

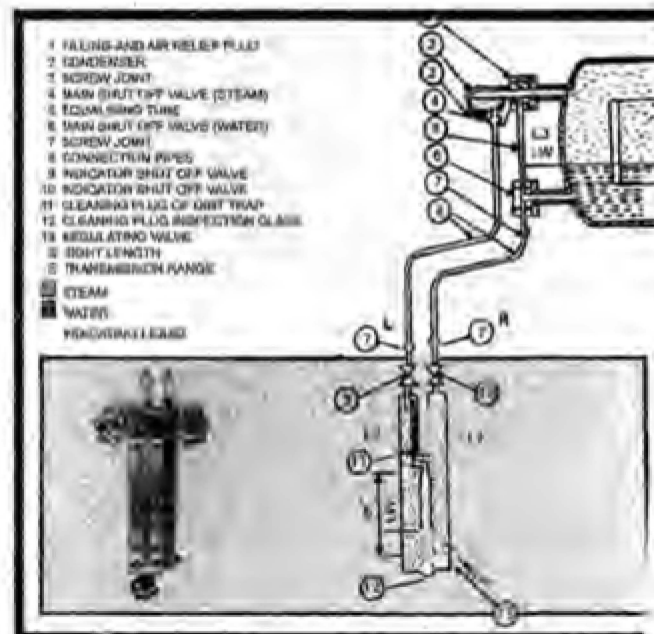
Note: 1. preferred section to be selected normally whenever possible
2. use side connetion for more visibility.

REMOTE LEVEL INDICATOR

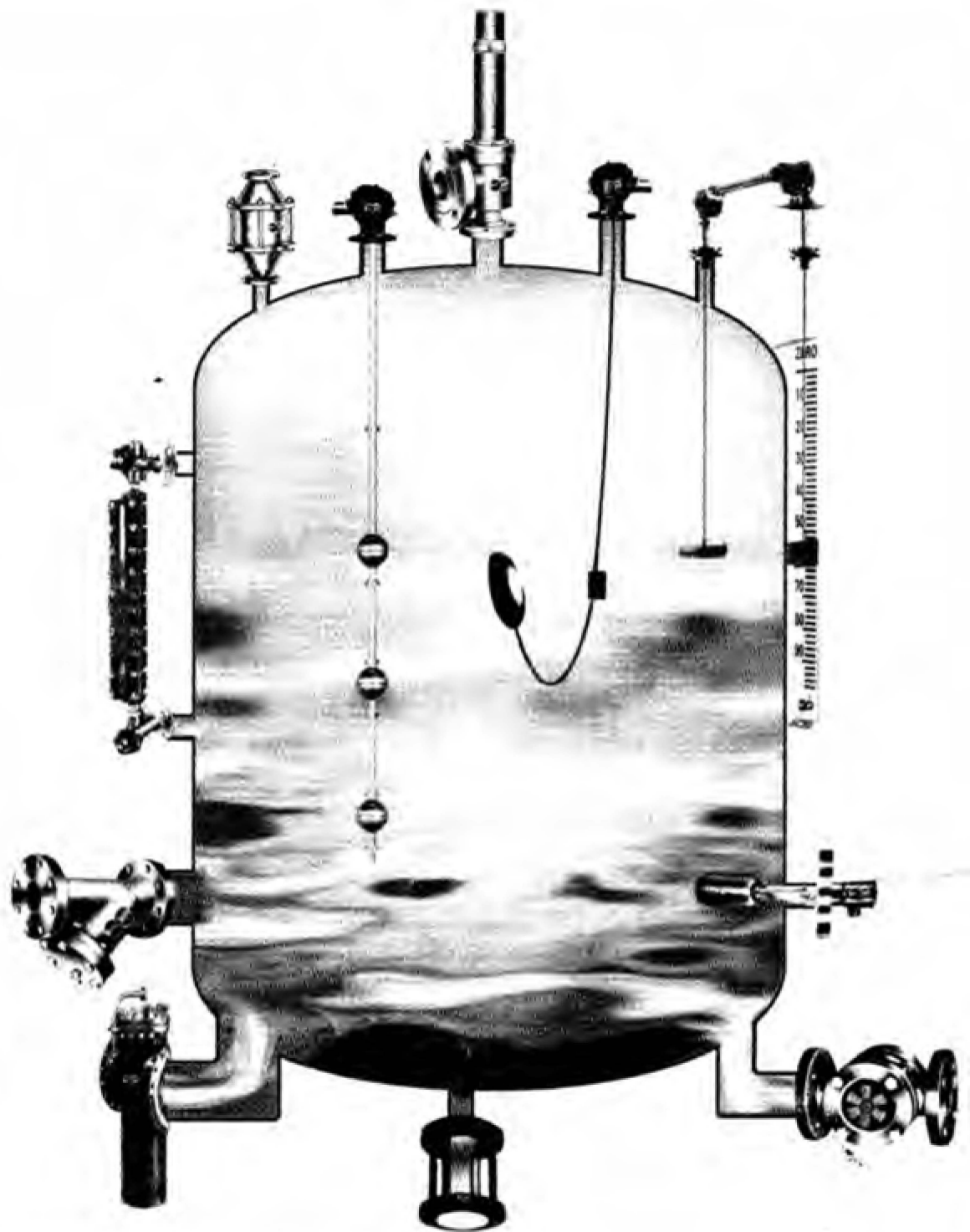
The Remote water-level indicator transmits the water-level fluctuations in the boiler drum, or in the tank to the working Position of the attendant.

Above the water - insoluble and specifically heavier indicating liquid in leg 1, which is connected with the water space of the boiler, stands the boiler water. In leg 2 is the steam condensate from the steam space of the boiler. By recondensing the steam the water level in leg 2 is continuously kept constant. Condensate in excess is continuously flowing back through leg 3 into the boiler (in the case of cold pressure tanks a drip - water feed is fitted on the condenser). Maximum Pressure 100 Kg/cm², and available in standard lengths of 350mm and above.

Every displacement of the water level in the boiler, resp. in leg 3, produces on analogous equal displacemen; of indicating liquid in the inspection glass. If e.g. the water in the boiler rises, the increasing water column in the legs 1-3 presses the red indicating liquid (sealing liquid) from leg 1 into leg 2 and indicates in the inspection glass of the indicator a rise of the water level. The water displaced from leg 2 flows from the condenser into leg 3 resp. into the boiler, if the water level in the drum falls, the indicating liquid in leg 2 resp. in the inspection glass, falls correspondingly. By condensation of water vapour in the condenser the water level in leg 2 is continuously filled up and is consequently continuously kept constant.

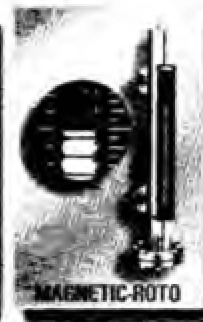
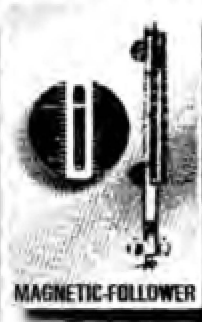
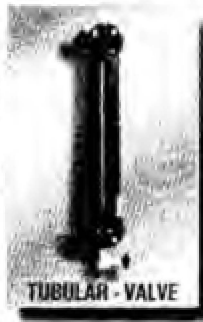


for PROCESS CONTROL APPLICATION

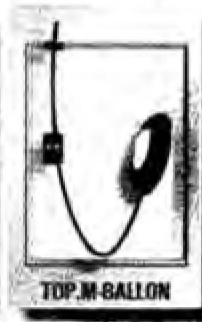


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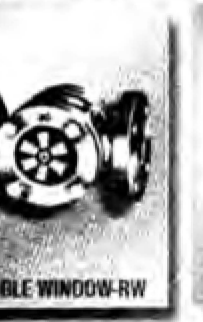
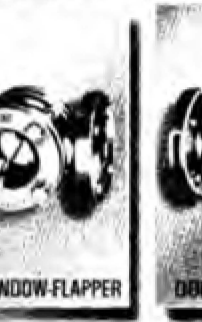
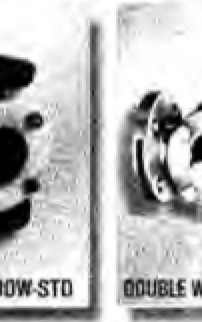
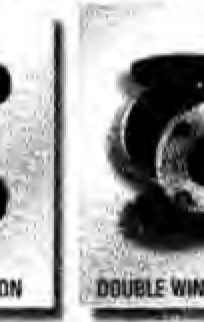
LEVEL GAUGES / LEVEL INDICATORS



LEVEL SWITCHES / LEVEL CONTROLLERS



SIGHT GLASSES / SIGHT FLOW INDICATORS



STRAINERS / FILTERS





(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.

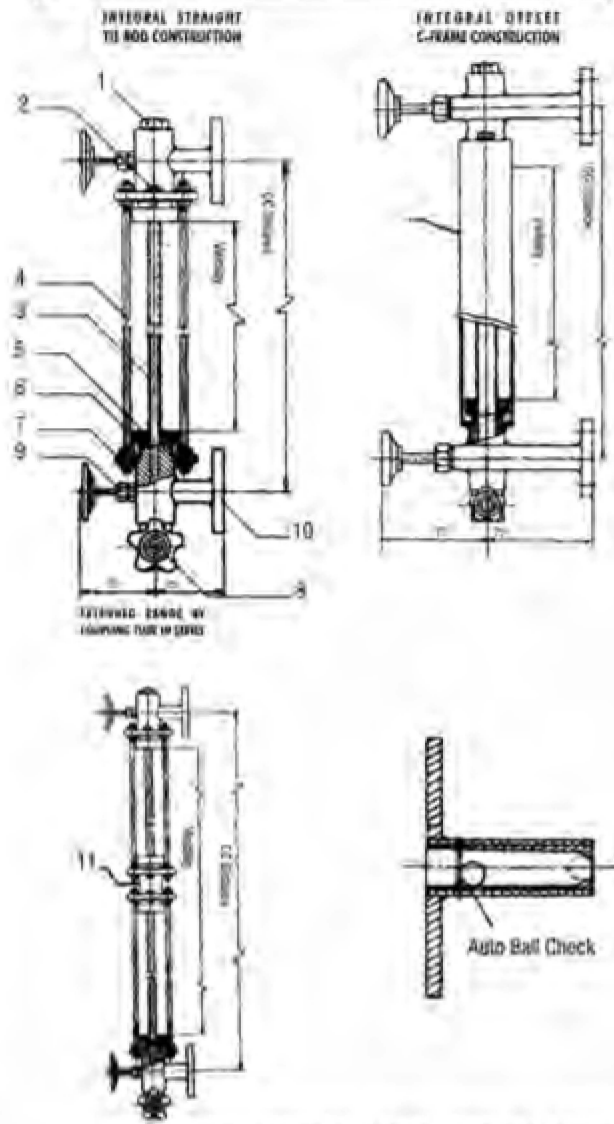
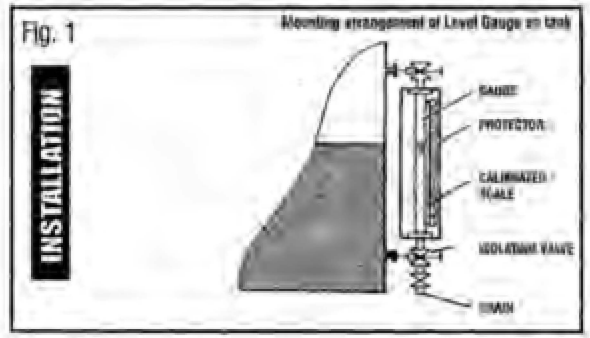
Guard	: Tie-Rod or C-Frame guards in MS or SS 304
End blocks	: MS, SS 304, SS 316, PP, PVC, or PTFE
Gauge	: Borosilicate glass tube in OD of 12, 16, 19 mm for normal liquids and 25mm for viscous liquids; suitable upto 200°C. Pressure rating depends upon its length, however upto 1600mm length, it can withstand 10 kg / cm ² g
Glands	: CI or SS 316/9930L.
Packings.	: Neoprene (90°C), Silicon (230°C), Viton (200°C) 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 liquid
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 ² g for metallic end connections & 2 kg / cm ² 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	Cl
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" Plugxplug
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

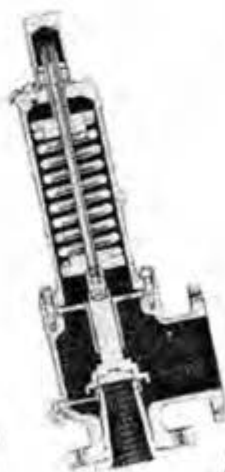


1 Vent plug, 2.Gland tightening bolt, 3.Gauge, 4 Guard rod / C-frame, 5.Gland, 6.Packing, 7 Guard holder, 8.Drain valve, 9.Isolating valve, 10.Plange 11.Capair

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

Area Representative:





VALVE MANUFACTURING

LEVEL GAUGES

BEEKAY Liquid Level Gauges are designed for use in all types of pressure vessels, tanks and boilers. BEEKAY level gauges permit a safe, positive accurate reading of any liquid level. BEEKAY level gauges (of the 3 types) are assembled with a pair of auto shut off ball check valve arrangement for ensuring maximum safety.

1. Reflex Level Gauge

BEEKAY Reflex Level Gauges are recommended for clean liquids and where observation is required from a safe distance and on low pressure boilers and vessels. BEEKAY Reflex Level Gauges are assembled with flat glasses which are having inner surfaces of reflecting prisms due to which the liquid level behind the glass appear black and the empty (vapour) surface appear white. BEEKAY Reflex Level Gauges can be used with frost shield for sub-zero temperature.

OR. Pre. and Temp. : 0-100 kg/cm² and -30°C - +300°C

2. Transparent Level Gauge

BEEKAY Transparent Level Gauge are suitable for coloured, adulteration liquids with suspended solid particles and recommended for high pressure boilers. BEEKAY Transparent Level Gauges can be used with mica shield for high temperature.

OR. Pre. and Temp. : 0-150 kg/cm² and 0-400°C

3. Tubular Level Gauge

BEEKAY Tubular Level Gauges are suitable for low pressure and low temperature applications which are simple in construction and permits viewing in any directions.

OR. Pre. and Temp. : 0-15 kg/cm² and 0-250°C

Material of Construction

Chamber, Valve Body	: CS/SS-304/SS-316/PVC
Cover Plate	: CS/Forged Steel/Aluminium
Internals	: SS-410/SS-304/SS-316/PVC
Glass	: Toughened Borosilicate (Indian/Imported)
Gasket	: CAF/Teflon/Wire Mesh
Bolts & Nuts	: ASTM A 193 B7/194 2H

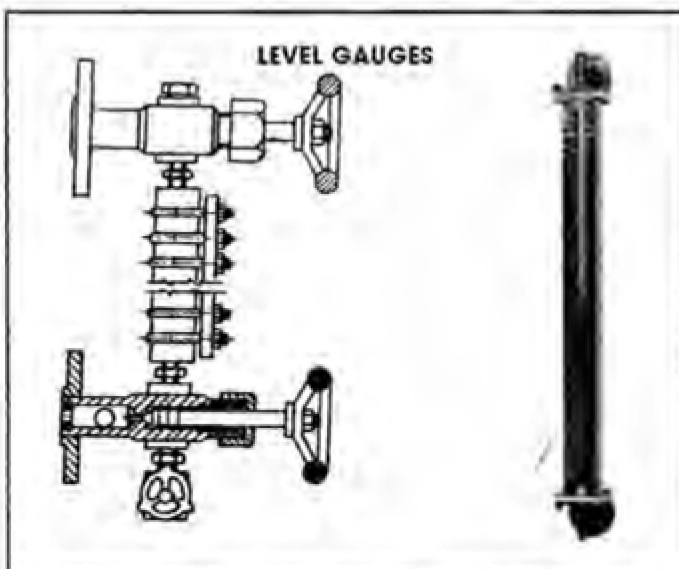
Other Grades of M.O.C. : As per Customer's request

Process Connection : Any International Standard

Accessories : Scales/Shield/Insulator/Heating Chamber

Enquiry/Ordering Information

1) Type 2) C.C. Distance (Flange to Flange) 3) Connection 4) Material of Construction 5) Service 6) Op. Pre. and Temp. 7) Qty.



LEVEL SWITCHES

BEEKAY manufactures 2 types of float operated magnetic level switches. Which are either side mounted or top mounted. BEEKAY level switches can be manufactured to suit applications of all services and are magnetically operated glandless micro switch eliminating any possibility of leakage which avoids a lot of complication than the conventional models. A wide range of switches are available in weather proof and flame proof housing.

1. Side Mounted Level Switch

BEEKAY side mounted level switches are assembled with float and permanent magnets. These float level switches work on magnetic coupling with snap acting contacts. These are used for the purpose of alarm as well as for pump starting or stopping. The switch should always be connected in series with an electrical relay. BEEKAY side mounted level switches can be used with Internal/External Cage Units for very high pressure and temperature.

OR. Pre. and Temp. : 0-100 kg/cm² and 0-400°C

2. Top Mounted Level Switch

BEEKAY top mounted displacer operated level switches are specially used for level signalisation in sumps and vessels wherever monitoring at one/two/three different levels of considerable depths are required.

OR. Pre. and Temp. : 0-20 kg/cm² and 0-250°C

Material of Construction

Chamber, Flange	: SS-304/SS-316/PVC
Float	: SS-304/SS-316/PVC/PP
Housing	: SS-304/SS-316/Aluminium
Switch	: Micro Reed

Other Grades of M.O.C. : As per Customer's request

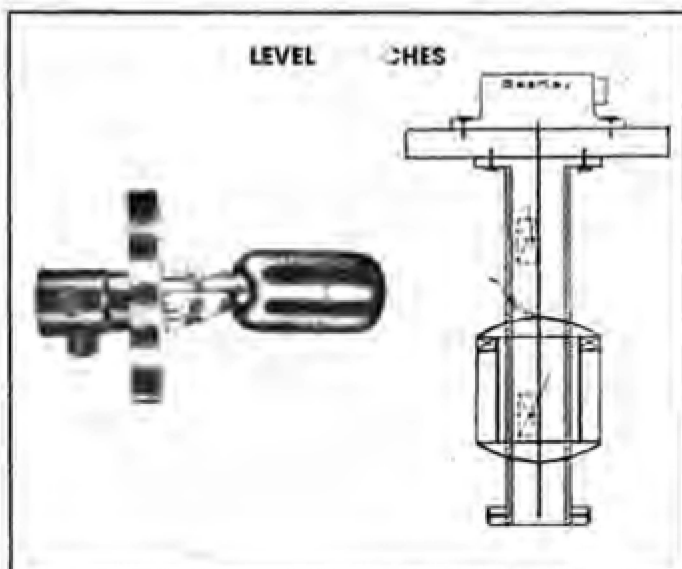
Current rating : 230V AC at 5 Amp.

Electrical connection : 3/4" ET

Process Connection : Any International Standard

Enquiry/Ordering Information

1) Type 2) Range/Size 3) No. of Signals 4) Connection 5) Material of Construction 6) Service 7) OR. Pre. and Temp. 8) Qty.



SIGHT FLOW INDICATORS (SIGHT GLASSES)

BEEKAY Sight Glasses are of technically excellent design to see flow through pipelines/vessels in any direction. BEEKAY offers 2 types of Sight Flow indicators suitable for all your application ranging from sizes 1/2" to 12"

1. Double Window Sight Glass

BEEKAY Double Window Sight Glasses are assembled with 2 Nos. round toughened borosilicate glasses on either side of the body to get the clear vision of the liquid flowing through. BEEKAY Double Window Sight Glasses are fitted with Dip tube/Flapper/rotating wheel to indicate the flow. These are used in both horizontal and vertical pipe lines. BEEKAY Sight Glasses with rotating wheel are suitable for installation in any position, but are particularly adapted to pipe lines carrying dark opaque solutions, where the motion of the wheel is easily detected. This model is equally adapted to transparent solutions and gases and is frequently installed where observations must be made from a distance. BEEKAY Right Angled Sight Glasses fitted with Dip tube or without dip tube can be used for Right Angled Pipelines.

OP. Pre. and Temp. : 0-25 kg/cm² and 0-250°C

2. Full View Sight Glass

Full View sight Glasses are assembled with Toughened cylindrical (Tubular Glass) and can give flow indication from any direction. These are recommended for low pressure pipe lines. For colourless fluids it can be fitted with Dip tube.

OP. Pre. and Temp. : 0-10 kg/cm² and 0-200°C

Material of Construction

Body, Flange	: CS/SS-304/SS-316/Brass/Cl
Glass	: Toughened Borosilicate
Cover Plate	: CS/Aluminium
Gaskets	: CAF/Neoprene/Teflon
Bolts & Nuts	: ASTM A 193 B7/194 2H

Other Grades of M.O.C. : As per Customer's request

Process Connection : Any International Standard

Enquiry/Ordering Information

1) Type 2) Size 3) Indicator 4) Connection 5) Material of Construction
6) Op. Pre. and Temp. 7) Qty.

SIGHT FLOW INDICATORS



STRAINERS

BEEKAY manufactures 2 types of strainers which help in removing foreign particles in the flowing liquids and gases, due to which the life of your pumps, valves and other flow control equipments increases. BEEKAY strainers are so specially designed that the pressure drops are well kept within reasonable limits and to have effective straining reasonable straining area is offered. BEEKAY can also design and manufacture custom made strainers to meet special requirements. BEEKAY strainers are available in sizes from 1/2" to 24" in various models.

OP. Pre. and Temp. : 0-50 kg/cm² and 0-400°C

1. Y-Strainers

BEEKAY Y-type strainers are offered in both screwed and flanged connections and are the most effective ones in straining the impurities of your required size. BEEKAY offers a completely sound proof no leak and no crush screen which is precisely machined providing perfectly round and smooth seating surfaces.

2. Basket-Strainer

BEEKAY manufactures single basket strainers which facilitate the temporary shut down cleaning in industries. BEEKAY basket strainers have more straining area than the Y-type. BEEKAY basket type strainers can be supplied with drain if the same is requested by the customer. BEEKAY can offer special design strainers to have a larger straining area.

Material of Construction

Body, Flange Plug	: CS/SS-304/SS-316/Brass
Mesh Screen	: SS/Brass
Bolts & Nuts	: ASTM A 193 B7/194 2H
Gaskets	: CAF/Neoprene/Teflon

Other Grades of M.O.C. : As per Customer's request.

Process Connection : Any International Standard

Enquiry/Ordering Information

1) Type 2) Size 3) Connection 4) Material of Construction 5) OP. Pre. and Temp. 6) Service 7) Qty.

STRAINERS



SAFETY & RELIEF VALVES

BEEKAY manufactures 2 types of Pressure releasing (discharging) valves as per the ASME Code VIII and API RP-526. Both Safety Valve and Safety Relief Valves of the spring loaded type are similar in external appearance and both serve the broad general purpose of limiting fluids (liquid or gases) Pressure by discharging some of the pressurized liquid or gas. For very high temperature safety and safety relief valves can be used with finned bonnet. BEEKAY can also design and manufacture custom made safety relief and safety valves to meet special requirements. BEEKAY safety and safety relief valves are available in sizes from 1/2" to 14".

OR Pre. and Temp. : 0-100 kg/cm² and 0-500°C

1. Safety Valve

BEEKAY Safety Valves are for use with gases - which include air and steam. Their design always include a huddling chamber which utilizes the expansion forces of these gases to effect quick opening (popping) and closing actions. The differences between the opening and closing pressure is termed "blowdown" and for steam valves blowdown limitator is carefully considered by us as per ASME code.

2. Safety Relief Valve

BEEKAY Safety Relief Valves are normally used for liquid service, although safety valves may also be used. Ordinary relief valves do not have an accentuated huddling chamber nor a regular ring for varying or adjusting blow down they therefore operate with a relatively lazy motion, slowly opening or closing as pressure increases or decreases. Such relieving action affords suitable protection for vessels or systems where there is no need for instantaneous release of large volumes, and where sufficient leeway is provided between the design pressure and the operating pressure in the system.

Material of Construction

Body, Bonnet, Cap : C/CS/SS-304/SS-316/Brass/Gun Metal
Internals : SS-410/SS-304/SS-316/Brass
Spring : Spring Steel
Gaskets : CAF/Neoprene/Teflon
Lever : Steel

Other Grades of M.O.C. : As per Customer's request

Accessories

Lever : Plain/Packed
Ratchet : Standard/Finned
Process Connection : Any International Standard

Enquiry/Ordering Information

1) Type 2) Size 3) Connection 4) Material of Construction 5) Capacity
6) OR Pre. and Temp. 7) Set Pressure 8) Service 9) Qty.



BALL VALVE

BEEKAY Ball Valves are assembled with ball and body which are mainly used for handling industrial fluid system having advantages like full bore, turbulence free flow with wide range. BEEKAY ball valves finds extensive applications in the field of solvent extraction and oil refineries for free flow of system involving slurries, semi solids causing crystallisation or encrustation. BEEKAY ball valves has the unique advantage since it is a quick opening, non-sticking, exhibiting a negligible pressure drop because of their smooth full opening port which needs only a quarter turn from full open to full close. BEEKAY ball valves are involve a very low maintenance cost. BEEKAY ball valves are available in sizes from 1/2" to 12" in two different constructions like two piece and three piece constructions.

OR Pre. and Temp. : 0-25 kg/cm² and 0-300°C

Material of Construction

Body, Flange : CS/CS/SS/Brass/PVC/PP
Ball, Stem : SS-304/SS-316/PP
Seat : Teflon/Neoprene
Lever : Steel

Other Grades of M.O.C. : As per Customer's request.

Process Connection : Any International Standard

Enquiry/Ordering Information

1) Size 2) Connection 3) Material of Construction 4) OR Pre. and Temp.
5) Service 6) Qty.

ORIFICE PLATE & ASSEMBLY

BEEKAY Orifice plate and Assemblies are technically excellent design to measure the fluid flow in a circular pipes. BEEKAY offers three types of orifices like Concentric, Eccentric and Segmental as per the design standards of BS-1042/API. BEEKAY orifice plate and assemblies are having flange taps, corner taps with jack screws. BEEKAY orifice plates and assemblies are available in sizes from 1" to 24" having flanges of slip on and weld neck.

OR Pre. and Temp. : 0-250 kg/cm² and 300°C

Material of Construction

Flanges : CS/SS-304/SS-316
Orifice Plate : SS-304/SS-316/Monel
Bolts & Nuts : ASTM A 193 B7/194 2H
Gasket : CAF/Teflon/Spiral Wound

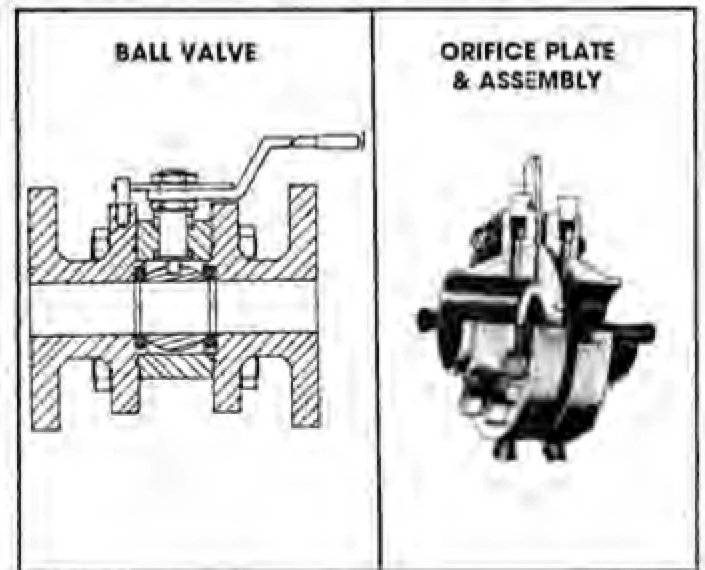
Process Connection : Any International Standard

Accessories

Optical : Vent, Drain Holes, 8R Certificate

Enquiry/Ordering Information

1) Nominal pipe size 2) Type 3) Connection 4) Op.Pre. and Temp. 5) Material of Construction 6) Service 7) Flow Rate 8) Qty.



REMOTE LEVEL INDICATOR

BEEKAY Remote Level Indicator transmits the water level fluctuations in the boiler drum or in the tank to the working position of the attendant. It is working on the principle of 'U' tube differential gauge (Manometer) and it based on entirely hydro-static. It is of transparent level gauge filled with coloured liquid (Germol Red Liquid - which is immiscible with water) is used as a portion of manometer (with necessary pipe line connection to the boiler drum and transparent level gauge) and located, so that the coloured liquid in the gauge will rise as the level in the steam drum rises. The whole assembly can be fitted with anywhere in the control room/ground floor with necessary connecting pipes to boiler drum and the Remote Level Indicator.

Op. Pre. and Temp. : 0-150 kg/cm² and 0-400°C

Material of Construction

Chamber, Valve body : CS/A105/IS-2002
 Cover Plate : CS/A105/Forged Steel
 Glass : Toughened Borosilicate
 Internals : SS-410/SS-304/SS-316
 Red Liquid : 1 & 1.95/2.95(sp. Gravity)
 Process Connection : Any International Standard

Enquiry/Ordering Information

1) C.C. Distance 2) Connection 3) Material of Construction 4) Op. Pre. and Temp. 5) Qty.

FLOAT AND CHORD LEVEL INDICATOR

BEEKAY Float and Chord Level Indicator (Buoyance type) is a simple, low-cost level gauge suitable for all types of storage tanks to see the level from a long distance. The unit consists of guided float connected to a counter-weight by a CS/SS/Nylon Cables/Wires. The Counter-Weight is fixed on to the gauge boards on which the level is displayed in Cm/inch/foot/meter. It can be used as a single instrument to see the levels upto 15 meters height.

Op. Pre. and Temp. : 0-5 kg/cm² and 0-400°C

Material of Construction

Float : CS/SS/PVC/PP
 Guide Wire : CS/SS/Nylon
 Ropes, Pulley : Aluminium
 Scale : CS/Aluminium

Enquiry/Ordering Information

1) Tank Height 2) Material of Construction 3) Graduation 4) Op. Pre. and Temp. 5) Sp. Gravity 6) Service 7) Qty.

MAGNETIC LEVEL INDICATOR

BEEKAY Magnetic Level Indicators are assembled with float, magnet and chamber which can be practically used all liquids (including hazardous/explosive) and specifically for those which attack glasses. Its working principle of attraction among dissimilar poles of permanent magnets and that of repulsion between like poles. BEEKAY can offer us a single instrument having C.C. Distance upto 3 meters.

Op. Pre. and Temp. : 0-100 kg/cm² and 0-400°C

Material of Construction

Chamber, Flange : SS/PVC
 Float : SS/PP/PVC/Teflon
 Scale : Aluminium/Acrylic
 Process Connection : Any International Standard

Enquiry/Ordering Information

1) C.C. Distance 2) Connection 3) Material of Construction 4) Op. Pre. and Temp. 5) Service 6) Qty.

OIL LEVEL INDICATOR

BEEKAY manufactures 3 types of Oil level indicators which are mainly used in the Greasing/Oil System and gear boxes to see the lubricating oil levels in the concerned equipments. BEEKAY offers lengths from 2" to 12" for LBT type/Face type and 1/4" to 2" for Round type.

Op. Pre. and Temp. : 0-5kg/cm² and 0-400°C

LBT type

BEEKAY LBT type is assembled with glass tube and body which is having two different modes of connections such as single end and both end connections.

Face type

BEEKAY Face type oil level indicator is equivalent to LBT type except the glass is in flat type and assembled with body and cover plate.

Round type

BEEKAY Round type oil level indicator is assembled with round toughened glass or acrylic sheet.

Material of Construction

Body, Cover Plate : CS/SS/Brass/Aluminium
 Glass : Toughened Borosilicate
 Gasket : Aluminium/Acrylic
 Process Connection : Any International Standard

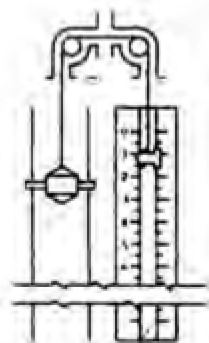
Enquiry/Ordering Information

1) Type 2) Size 3) Connection 4) Op. Pre. and Temp. 5) Service 6) Qty.

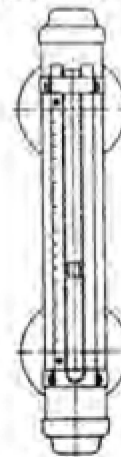
REMOTE LEVEL INDR.



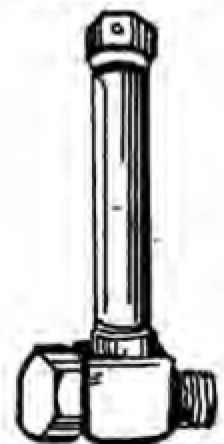
FLOAT AND CHORD LI.



MAGNETIC LI.



OIL LEVEL INDR.





Other Products

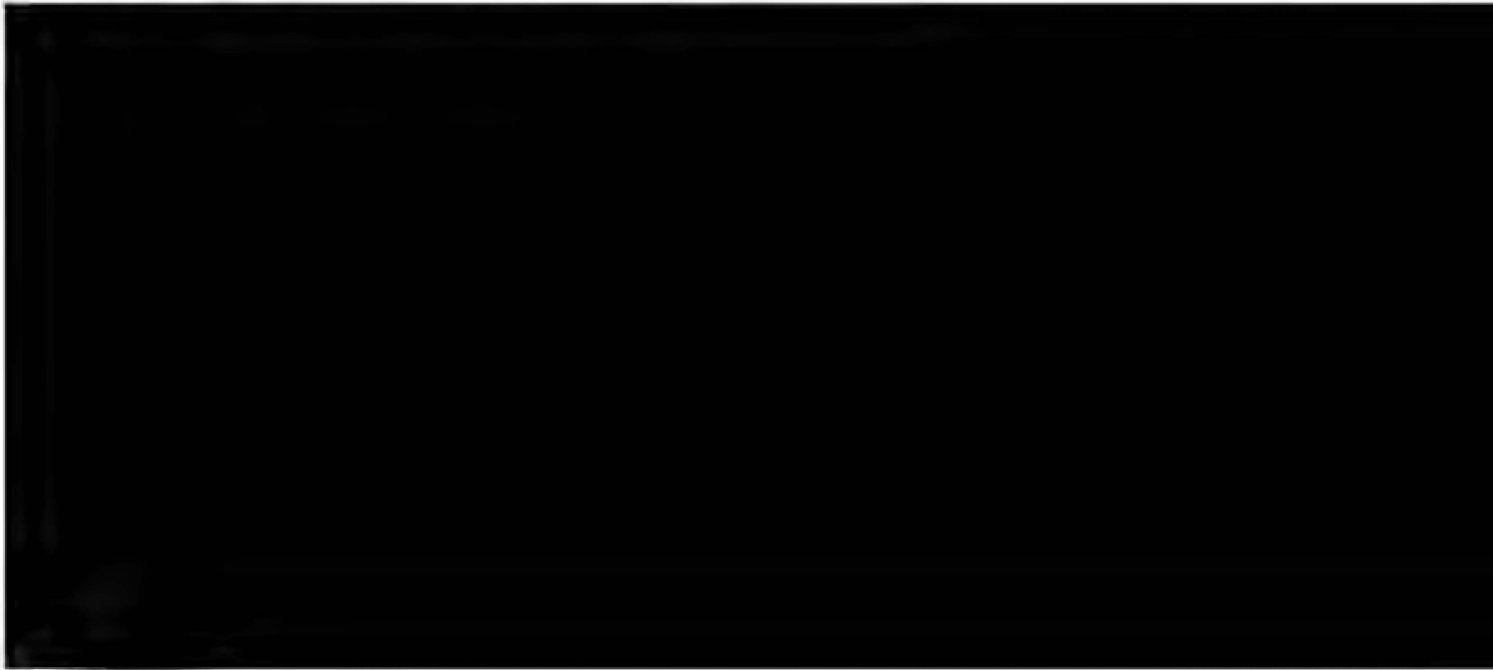
TOUGHNED GLASSES -

- ★ Needle Valve and Mani Folds
- ★ Pressure cum Vacuum Relief Valve
- ★ Pressure Reducing Valve
- ★ Thermowell
- ★ Ball Float Valve
- ★ Flow Switch
- ★ All types of Spare Toughened Borosilicate Glasses (Indian/Imported)

BEEKAY undertakes supply of Lub-oil System and Fabrication of Vessels and Custom designed equipments.

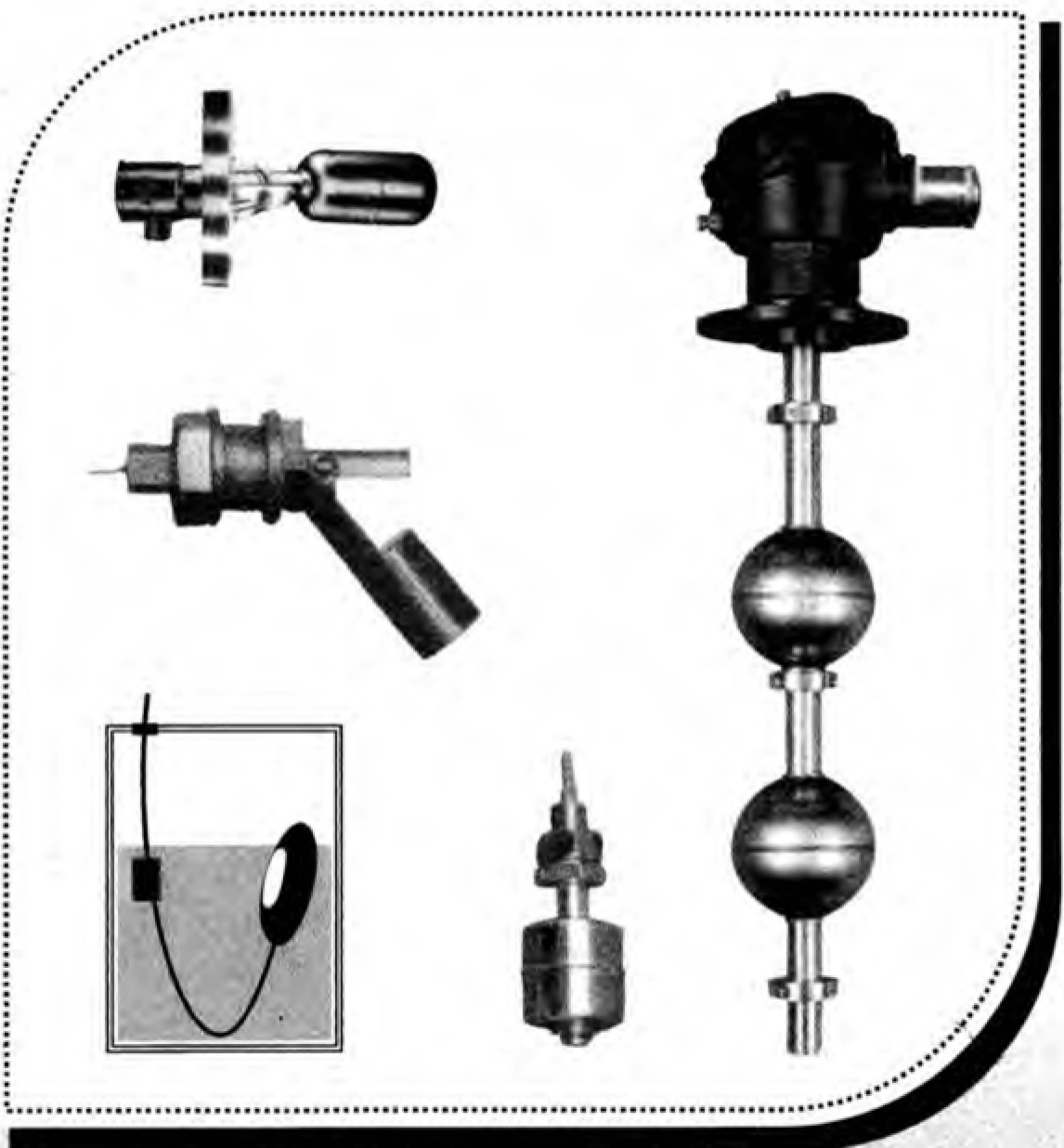
BEEKAY offers third party inspection

In the interest of technical development, design dimensions are subject to modifications without prior notice.





Horizontal / Vertical level Switches



for process control application

SMMN - Side Mounted Level Switch

Bee Kay make Horizontal Float Switch consists of a fixed stem to which a cylindrical float is hinged and the float moves up and down along the liquid level. A permanent magnet housed in the float actuates and deactuates a Hermetically sealed Reed Switch located in the stem as the liquid level rises and falls. The Horizontal Float Switch can be used either to close on rising liquid level or to close on falling liquid level depending on the mounting position.

Switch contact rating

1. Switching voltage (Max)	: 240 V AC / 200V DC
2. Switching current (Max)	: 1A
3. Contact Rating	: 50 VA
Material	: Polypropylene (PP)
Lead wires	: PVC insulated copper wire of 300 mm free length
Operating temperature	: -20°C to 80°C
Maximum Pressure	: 2 (kg / cm ²)



Note:
Maximum wall thickness of
tank restricted to 8 mm.

SMLS - STD - Side Mounted Level Switch

Bee Kay side mounted level switches are assembled with float and permanent magnets. These float level switches work on magnetic coupling with snap acting contacts. These are used for the purpose of alarm as well as for pump starting or stopping. The switch should always be connected in series with an electrical relay. Side mounted level switches can be used with Internal / External Cage Units for very high pressure and temperature.

OP. Pre. and Temp.	: 0 - 20 kg / cm ² and 0-300°C
Material - Folat	: SS - 304 / SS - 316 (55mm dia)
Housing	: SS - 304 / SS - 316 / Aluminium
Enclosures	: Weather Proof / Flame Proof
Switch Rating	: Micro Switch - 230V AC at 5A
Flange STD	: PCD 92mm, (or) please specify

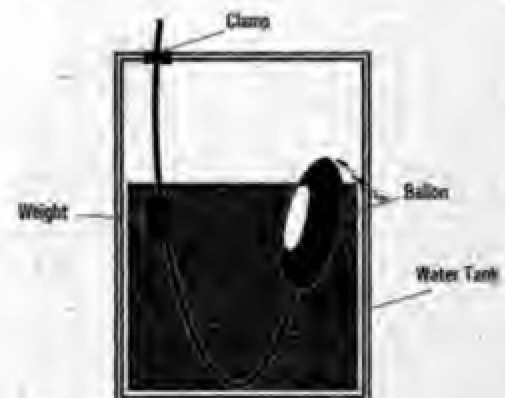


Note:
Nozzle minimum 60 mm ID

TMBSL - Top Mounted Ballon - Level Switch

make level switch is hang inside the tank from the top by way of a clamp up to where the lower level actuation is required, thus making the Balloon rest on the water surface & the higher level is fixed by sliding the weight on the cable to the level, where the higher level is to be fixed. The balloon makes a loop against the weight with the corresponding increase in level thus giving the actuation at the prefixed higher level, where the weight is fixed & the Balloon follows the liquid level downwards, again giving the actuation as soon as the fixed lower level is reached.

1. Temperature	: 80°C	4. Pressure	: 5 bar
2. Protection	: IP 65	5. MOC of Balloon	: Moplen
3. MOC of Cable	: Neoprene	6. Cable Length	: 5 mtrs



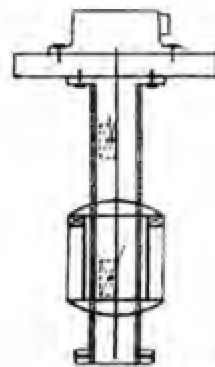
Level adjustment possible
in the field also

The Balloon can be used in any type of applications considering the above parameters.

TMCBLS - Top Mounted Control Box Level Switch

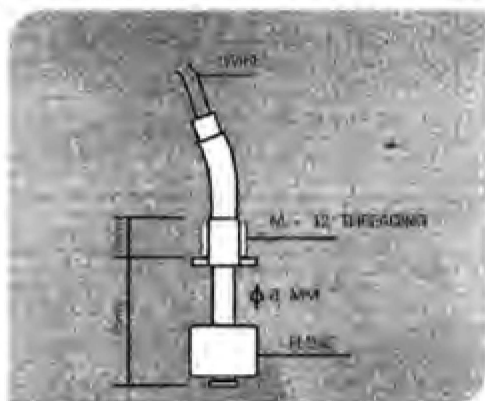
Bee Kay top mounted displacer operated level switches are specially used for level signalisation in sumps and vessels wherever monitoring at one / two different levels at considerable depths are required.

OP. Pre. and Temp.	: 0 - 5 kg/cm ² and 0 - 150°C
Material - Float	: SS - 304 / SS - 316 (85mm dia)
Other Parts	: SS - 304 / SS - 316
Connection - Flanged	: 100NB - BS 10 'E' / ASA 150 RF
Control Box	: Provided
Current Rating	: 230V AC at 5A with control box



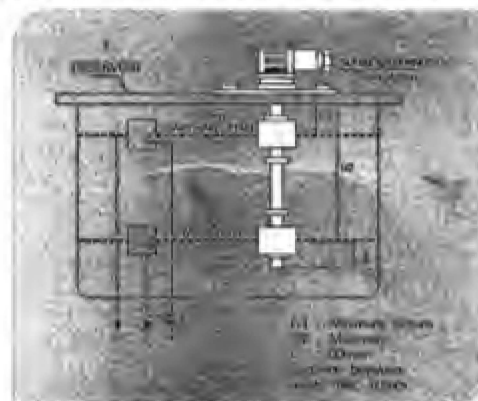
Level adjustment possible in the field also

TYPE 1M - MINIATURE FLOAT SWITCH



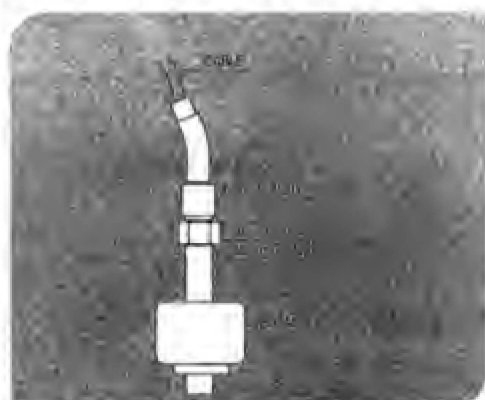
Construction	: Available in all Stainless steel or PP or ABS Construction
Electrical Specification	: Switching Voltage : 200V DC / 125V AC Switching Current : 700 mA Contact Rating : 70 VA
Application	: Suitable for single level sensing in restricted space

TYPE 2 - TWO LEVEL FLOAT SWITCH



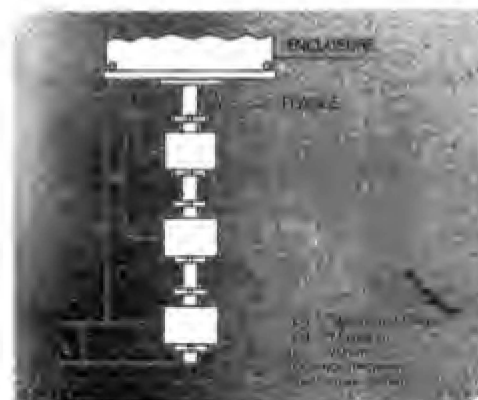
Function	: 3 - 1 - To close on rising level at D1 3 - 2 - To close on falling level at D2
Electrical Specification	: Available with models SDN 102, 103, & 104 Two level Float Switches are also available with model SDN 202, 203 & 204 (flange and terminal connector will be modified to suit different models)
Note	: This type with ABS, SS or PU Foam float is suitable for centralised lubricating systems for machine tools, printing, packing, textile and special purpose machines

TYPE 1 - SINGLE LEVEL FLOAT SWITCH



Application	
Feature	: For single level sensing in small tanks : By inverting the float on stem the switch action is changed from normally open to normally closed and vice versa
Electrical Specification	: Available with all electrical specifications (Refer table in next page)
Construction	: Available with SS or PU foam float with SS stem

TYPE 3 - MULTI LEVEL FLOAT SWITCH

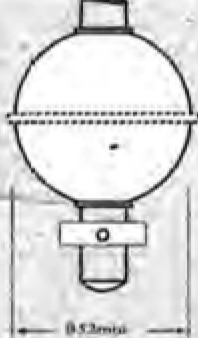
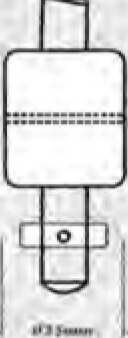
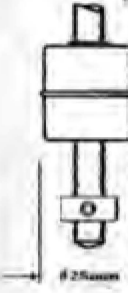




Function	: (a) Normally closed, break (open) on raising level or (b) Normally open, make (close) on raising level or (c) Change over
Electrical Specification	: Available with all electrical specifications (Refer table in next page)
Note	: Available with flame proof (IP 65 as per IS : 2148) and weatherproof (IP 55 as per IS : 2147) available upto six levels

ELECTRICAL SPECIFICATIONS

MODEL	SDN 102	SDN 103	SDN 104	SDN 202	SDN 203	SDN 204
Switching Voltage (Max)	200 V DC 125 V AC	400 V DC 300 V AC	300 V DC 240 V AC	28 V DC 28 V AC	250 V DC 250 V AC	500 V DC 250 V AC
Switching Current (Max)	0.5 A	2 A	3 A	0.25 A	0.5 A	1.5 A
Contact Rating	15 VA	25 VA	100 VA	3 VA	30 VA	50 VA
Contact Form	SPST	SPST	SPST	SPST	SPDT	SPDT

FLOAT

FLOAT SHAPE & SIZE					
Material	Stainless Steel - 316	P U Foam	Stainless Steel - 316	Propelene	P U Foam
Temperature (Max)	150°C	80°C	120°C	80°C	80°C
Pressure (Max)	20 kg / cm ²	20 kg / cm ²	10 kg / cm ²	Atmospheric	Atmospheric

ORDERING INFORMATION

1. Model : (In case of Type 1, Type 2 & Type 3)
2. Type :
3. Float :
4. Stem : (SS 304, SS 316, Brass)
5. Dimensions : (In case of Type 2 & Type 3)
Upper Switching Level D1 :
Lower Switching Level D2 :
6. Specific Gravity of Liquid :
7. Viscosity of Liquid : (if known)
8. Max. Temperature :
9. Max. Pressure :

If you do not find the suitable switch kindly send us the drawings / details for our prompt action

Level Gauges • Level Indicators • Level Switches
• Strainers • Sight Glasses • Safety Valves

• Oil Level Indicators • Thermowells • Toughened Glass (Indian / Imported)