



FLOW | LEVEL

Flow

A flow meter is a device used to measure the volume or mass of a gas or liquid. Flow meters are referred to by many names, such as flow gauge, flow indicator, liquid meter, flow rate sensor, etc. depending on the particular industry. However, they all measure flow. Open channels, like rivers or streams, may be measured with flow meters. Or more frequently, the most utility from a flow meter and the greatest variety of flow meters focus on measuring gasses and liquids in a pipe. Improving the precision, accuracy, and resolution of fluid measurement are the greatest benefits of the best flow meter.

Level

Level indicators are devices used in the measurement of level of fluids at various industrial applications. These devices are used to determine the level of liquid in tanks, drums, pressure vessels etc. There are many level indicators to suit the needs of different applications. Normally, fluids are used in many forms in highly commercial industries. For example, in the process industry, tubular level indicators are used for better visual liquid level indication. If it is for non-contact type level measurement, then radar type indicator or ultrasonic type indicator are to be used.

Types of Level Indicator

There are many different types of level indicators, each with its own application.

- Transparent level indicators are highly useful in chemical industries and petrochemical fertilizers. As the fluid is stored in high pressure and high temperature, the transparent level indicator is very useful to find the fluid level.

- Reflex level indicators are for applications that involve high temperature, high pressure and use of corrosive fluids. The colorless fluid used in this apparatus gives better clarity to level indication.

- Magnetic level indicators are red followers that need magnetic level indicators. Cylindrical floats and powerful magnets are used to find the level of the fluid. The float movement is followed by magnetic capsules, and thus, the level is indicated. This type of indicator has good visibility and is absolutely safe to use as it contains non-fragile metal chamber.

Some other level indicators for reference are tubular level indicator, float and board level indicator, sight flow indicator, window type sight flow indicator, manometer and bi-color indicator. Some of the level indicators are provided with various features, such as a built-in controller, continuous output measurement, and adjustable alarm switches.

FLOW - WATER HOT AND COLD WATER METER CAST IRON

VALVES
MALAYSIA

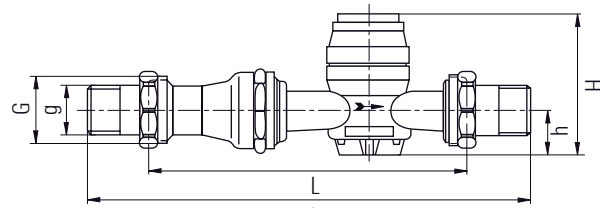
Tel: 03-5569 6556 (3 Lines) Fax: 03-5569 8557
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www.valvesmalaysia.com.my

APATOR
POWOGAZ

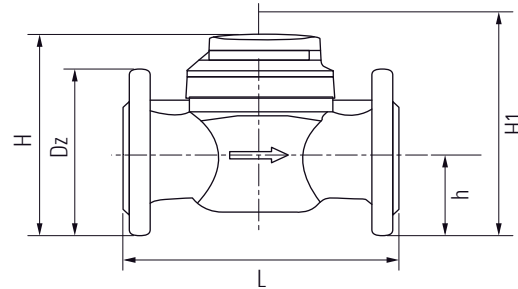


Threaded Type

Flanged Type



Threaded Type



Flanged Type

APPLICATION

Suitable for hot water
Suitable for cold water

SPECIFICATION

Size Range	1/2" to 1-1/2" (Threaded) 1-1/2" to 12" (Flanged)
Body Material	Cast iron
Pressure Rating	Up to 16 Bar
Working Temperature	Up to 130°C (Hot) Up to 50°C (Cold)
Connection	Threaded and Flanged end

PRODUCT FEATURE - THREADED TYPE

Norminal Diameter	DN	mm	25	32	40	25	32	40	
Maximum Flow Rate	Hot & Cold	q _s	m ³ /h	For hot water up to 130°C			For cold water up to 50°C		
				7	12	20	7	12	20

DIMENSIONS - THREADED TYPE

Unit : mm

Size (DN)	L	I	H	h	g	G	Weight (Kg) - Without Connectors	
25	260	400	110	40	1	1-1/4	2.2	
32	260	400	110	40	1-1/4	1-1/2	2.6	
								For hot water up to 130°C
40	300	438	110	40	1-1/2	2	2.8	
25	260	400	110	40	1	1-1/4	2.2	
								For cold water up to 50°C
								32
32	260	400	110	40	1-1/4	1-1/2	2.6	
40	300	438	110	40	1-1/2	2	2.8	

PRODUCT FEATURE - FLANGED TYPE

Norminal Diameter	DN	mm	40	50	65	80	100	125	150	200	250	300	
Maximum Flow Rate	Hot	q _s	m ³ /h	30	30	60	90	140	200	300	500	1000	1200
	Cold	q _s	m ³ /h	60	90	120	200	300	350	600	1000	1600	2000

DIMENSIONS - FLANGED TYPE

Unit : mm

Size (DN)	L	h	H	**H1	Dz	Weight (Kg)
40	200	65	177	277	150	7.9
50	200	72	187	287	165	9.9
65	200	83	197	297	185	10.6
80	*200 / 225	95	219	339	200	13.3
100	250	105	229	349	220	15.6
125	250	120	257	377	250	18.1
150	300	135	357	582	285	40.1
200	350	160	382	607	340	51.1
250	450	193	427	652	400	75.1
300	500	230	497	722	460	103.1

Note : * On request , ** Space for measuring insert removal

*Specification given are subject to changed without further notice.



APPLICATION

Suitable for fluid light oil, diesel, crude palm oil & etc. (Refer to corrosion resistance table for valve materials selection).

SPECIFICATION

Size Range	1/2" to 8"
Body Material	Cast iron, Cast steel, Stainless steel
Pressure Rating	Cast Iron (PN10, PN16, ANSI 150#, JIS 10K) Cast Steel (PN16, PN40, ANSI 150# and 300#, JIS 10K and 20K) Stainless Steel 304/316 (PN10, PN16, ANSI 150#, JIS 10K)
Temperature Rating	Max 100°C (180°C on request)
Viscosity	Up to 5000 Cp (cP = mPa.s)
Connection	PN10, PN16, PN40, ANSI 150 and 300, JIS 10K and 20K

PRODUCT FEATURE

Body Material	Cast Iron		Cast Steel			Stainless Steel	
	1.0	1.6	2.5	4.0	6.4	1.0	1.6
Pressure (Mpa)	1.0	1.6	2.5	4.0	6.4	1.0	1.6
Liquid Temperature	-20°C ~ +100°C						
Flange	PN10, PN16, PN40, ANSI 150 & 300, JIS 10K & 20K						
Liquid Viscosity (Mpa.s)	0.3 - 2mpa.s		2 - 8mpa.s			8 - 200mpa.s	
DN10	0.2 - 0.4	0.08 - 0.4	0.1 - 0.4	0.08 - 0.4	0.08 - 0.4	0.04 - 0.4	
DN15	0.75 - 1.5	0.3 - 1.5	0.3 - 1.5	0.3 - 1.5	0.3 - 1.5	0.15 - 1.5	
DN20	1 - 3	0.4 - 3	0.6 - 3	0.4 - 3	0.5 - 3	0.3 - 3	
DN25	2 - 6	0.8 - 6	1.2 - 6	0.8 - 6	1 - 6	0.6 - 6	
DN40	5 - 15	2 - 15	3 - 15	2 - 15	2.5 - 15	1.5 - 15	
DN50	8 - 24	3 - 24	4.8 - 24	3 - 24	4 - 24	2.4 - 24	
DN65	15 - 40	5 - 40	8 - 40	5 - 40	6 - 40	4 - 40	
DN80	20 - 60	6 - 60	12 - 60	6 - 60	10 - 60	6 - 60	
DN100	34 - 100	10 - 100	20 - 100	10 - 100	16 - 100	10 - 100	
DN150	64 - 190	19 - 190	38 - 190	19 - 190	32 - 190	19 - 190	
DN200	114 - 340	34 - 340	68 - 340	34 - 340	56 - 340	34 - 340	
Accuracy	0.2%	0.5%	0.2%	0.5%	0.2%	0.5%	

*Specification given are subject to changed without further notice.

FLOW - STEAM

FLOW METER (VORTEX TYPE)

SS304 / SS316



Gas / Steam P&T
Compensation Intelligen
Vortex Flowmeter



Saturated Steam
Temperature
Compensation
Vortex



Saturated Steam
Temperature
Compensation
Vortex Flowmeter



Instantaneous Flow
& Dismounting
Vortex Flowmeter

APPLICATION

Suitable for saturated steam, superheated stean, etc.
(Refer to corrosion resistance table for valve materials selection).

SPECIFICATION

Size Range	1/2" to 20"
Body Material	SS304 and SS316
Pressure Rating	PN10, PN16,PN25 and PN40 ANSI 150#, 300# and 600# JIS 10K, 20K and 40K
Working Temperature	Up to 420°C
Connection	PN10, PN16,PN25 and PN40 ANSI 150#, 300# and 600# JIS 10K, 20K and 40K

PRODUCT FEATURE

Size	1/2" to 20"
Material	Stainless Steel 301 (Wafer type only) , Stainless Steel 304, Stainless Steel 316
Process Connection	Wafer Type, PN10, PN16, PN25, PN40, ANSI 150#, ANSI 300#, ANSI 600#, JIS 10K, JIS 20K, JIS 40K, Others
Function	Display (without Temperature / Pressure compensation) Display + Pressure + Temperature calculation Display + Temperature sensor *Note Display + Pressure sensor *Note Display + Pressure / Temperature sensor *Note
Output	4 - 20mA (2 Wire) Battery power (Display only, without output) Scale pulse output (3 Wire) Rs485 Communication + Scale pulse output (3 Wire)
Max. Temperature	-40°C to 280°C -40°C to 320°C -40°C to 330°C (Under pressure replacing sensor) -40°C to 420°C (Under pressure replacing sensor)
Protection Class	Intrinsically safe, Eex ia IIC T4 Explosion proof, Exd IIC T6
Installation	Compact, Remote type with 10M cable
Option	None, Reducing bore type, Cable entry 1/2" Nptf



Acrylic Type



Polysulphone Type



Glass Type

PRODUCT FEATURE

Material		Acrylic	Polysulphone	Glass
Service		Compatible gases and liquids		
Wetted Materials	Body	Acrylic	Polysulphone	Glass
	Metal Parts	Brass, Stainless Steel, etc.		
	Float	Stainless Steel, Agate ball, PTFE, etc.		
Preasure		Up to 10 Bar		
Temperature		Up to 150°C		
Accuracy		Up to 1% of full scale		
Mounting Orientation		Mounting vertical position		
Range		l/h or Nm ³ /h		

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FLOW METAL TUBE ROTAMETER & TURBINE FLOW METER



METAL TUBE ROTAMETER

REGULAR TYPE

CUSTOMIZE

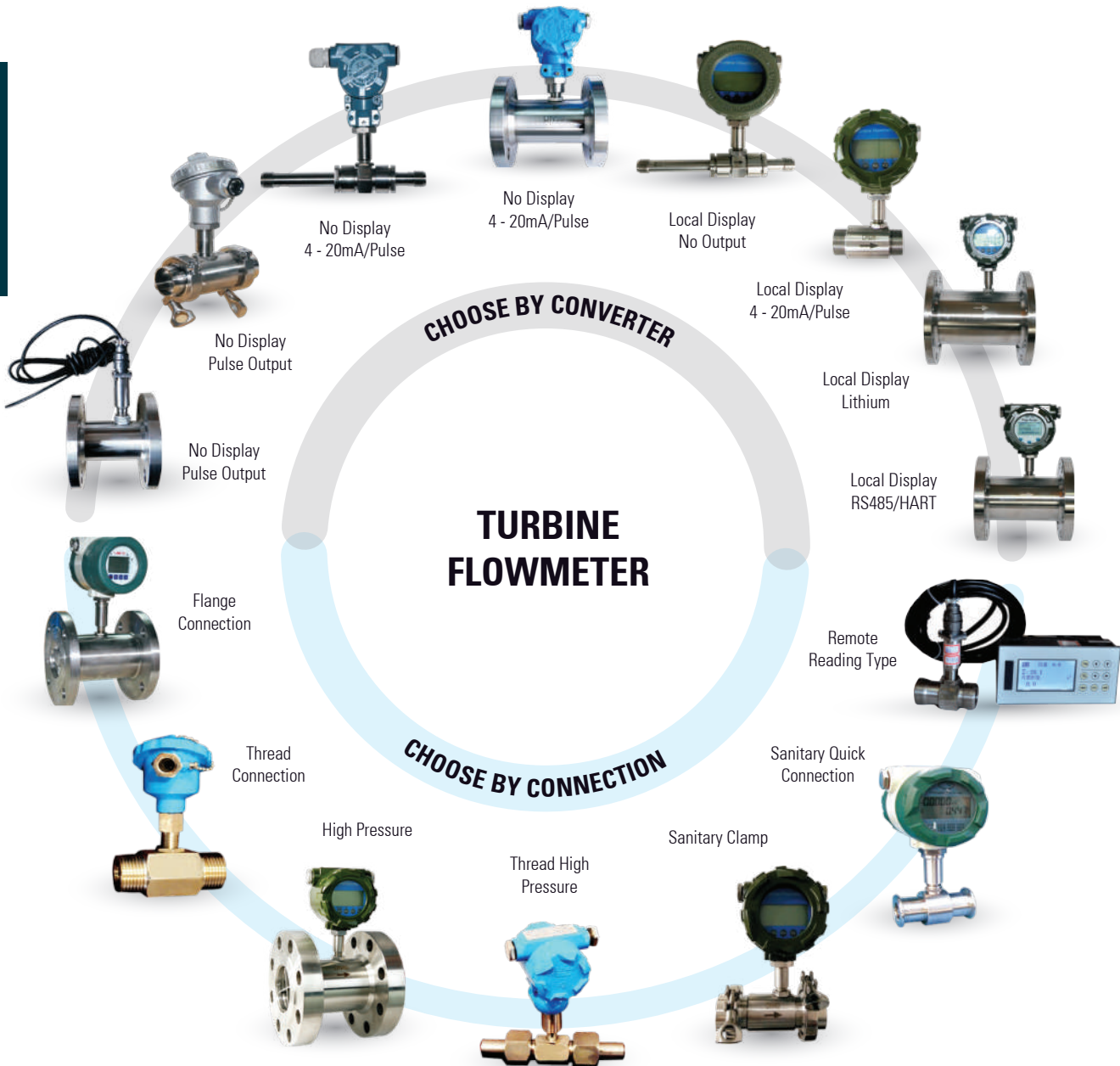


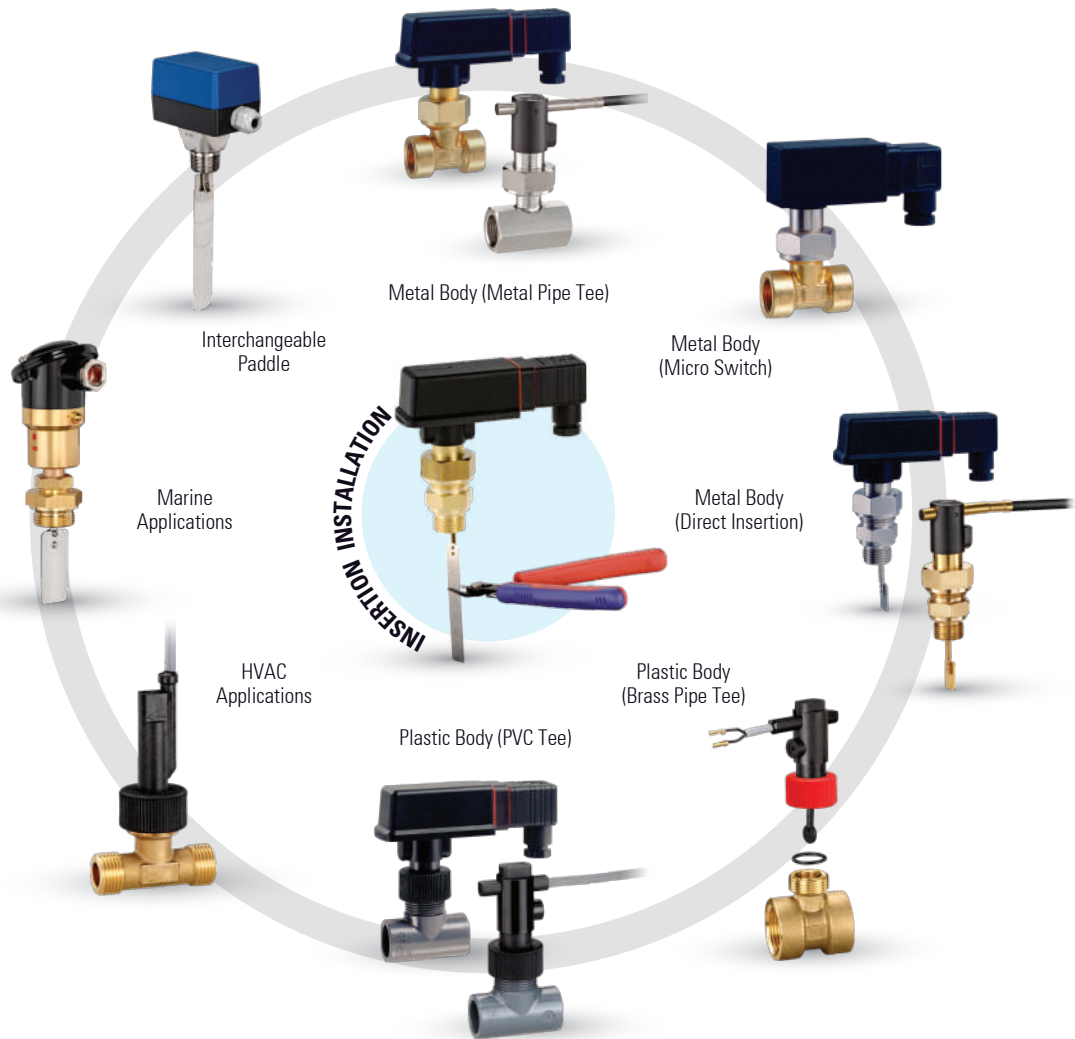
TURBINE FLOWMETER

CHOOSE BY CONVERTER

TURBINE FLOWMETER

CHOOSE BY CONNECTION





APPLICATION

Suitable for steel, chemical, shipbuilding, food, pharmaceutical, optical, hydropower, machine tool, refrigeration and air conditioning, electronics, semiconductor and other industries. Flow detection control for all types of transfer pipelines or cooling pipelines.

SPECIFICATION

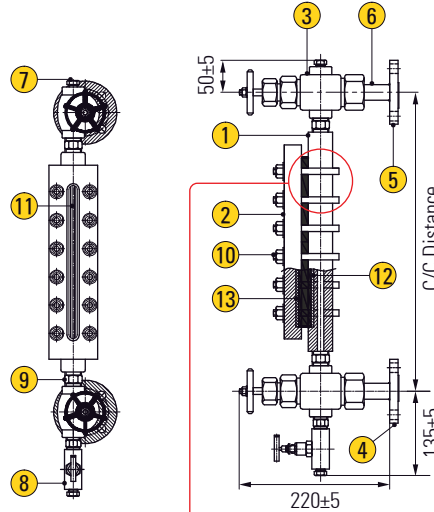
Switching Function		Contact	Electrical Connection	Standard 	Plug connector EN175301-803-A incl. cable socket
		<ul style="list-style-type: none"> Closes at increasing flow Opens at decreasing flow Reversing possible			
Pressure Rating		PN 25	Optional	 Power Flow	Plug connector EN175301-803-A incl. plug with two LED for optical flow and power indication in plug (for switching voltages 24V...230 VAC/DC) For use in potentially explosive atmospheres, max. media temperature 100°C
Temperature Ranges	Medium	-25...110°C			
	Ambient	-25...80°C			
Switching Current		Max. 1 A	Optional	 z z	4-pin-sensor plug M 12x1 acc. IEC 947-5-2
Switching Voltage		Max. 230 VAC, 48 VDC			
Rating		Max. 26 VA, 20 W	Optional		Connection cable 1.5m
Degree of Protection EN60529		IP65			
Protection Class EN60730-1		Class II			

MATERIAL

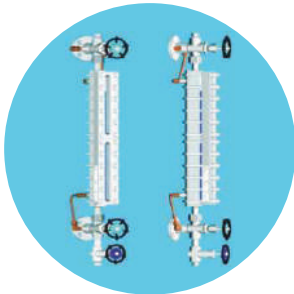
Parts	Material
Body	Brass, St Steel 1.4571, Plastic NORYL PPO GFN3
Paddle System	Brass, St Steel 1.4571, Plastic NORYL PPO GFN3
Pipe Section	Brass, Stainless Steel, Copper solder connection, PVC solvent bonded connection

*Specification given are subject to changed without further notice.

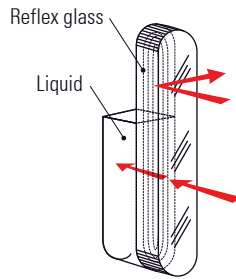
LEVEL - REFLEX LEVEL GAUGE



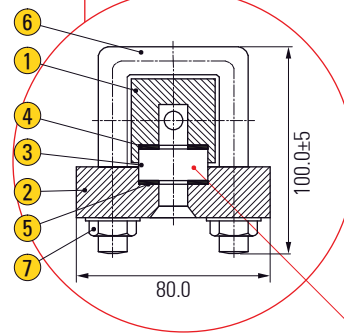
- 1 Liquid Chamber
- 2 Cover Plate
- 3 Isolation Valve
- 4 Inlet Process Flange
- 5 Outlet Process Flange
- 6 Tail Piece
- 7 Vent Plug
- 8 Drain Valve
- 9 Nipple
- 10 Fastener
- 11 Reflex Glass
- 12 Gasket
- 13 Cushion



Option : Jacket Type



DETAIL A
(Principle of Reflex Level Glass)



- 1 Liquid Chamber
- 2 Cover Plate
- 3 Reflex Glass
- 4 Gasket
- 5 Cushion
- 6 "u" Bolt
- 7 Nuts & Washer

Refer to **DETAIL A**

Reflex Construction
(Sectional View)

APPLICATION

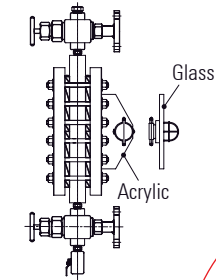
Applicable for refinery, petrochemical, chemical, power, radioactive, fertilizer, food, pharma, metal industry applications.
(Refer to corrosion resistance table for valve materials selection).

SPECIFICATION - TECHNICAL DATA

Type of Gauge	(a) Low pressure - 30kg/cm (b) Medium pressure - 100kg/cm ² (c) High pressure - 200kg/cm ²
Mounting Orientation	Top - Bottom vertical Side - Side right Side - Side left Side - Side back (Right/Left)
Temperature	Up to 400°C
CCD	Max. up to 3000mm
Liquid Chamber	In forged construction: Carbon steel, SS304, SS304L, SS316, SS316L, Monel, Titanium, Inconel 600, Hastelloy C, Poly Propylene, other on request (Subject to pressure & Temperature condition)
Cover Plate	In forged construction: Carbon steel, SS304, SS304L, SS316, SS316L, Monel, Titanium, Inconel 600, Hastelloy C, Poly Propylene
Cushion	CAF, PTFE, Grafoil with SS prignated
Gasket	CAF, PTFE, Grafoil with SS prignated
Fastner	SS, ASTM A 193 Gr B7 / A194 Gr 2H / Anodized Aluminium (for PP moc)
Scale	Aluminium anticorrosion powder coated and SS engraved in mm
Glass	Applicable till 320°C as per DIN 708 / 7081, BS 3463, JS B 8211, Toughened, Borosilicate glass
Process Connection	Screwed / Flanged / Socket weld and other on request
Isolation Valve	Auto ball check valve (a) Screwed bonnet offset construction suitable upto 50 kg/cm ² (b) Bolted bonnet offset construction suitable above 50 kg/cm ² (c) Material construction as per wetted part
Vent	1/2" Plugged / 1/2" Needle valve / 1/2" Ball valve / 1/2" Globe Valve / 1/2" Gate Valve
Drain	1/2" Plugged / 1/2" Needle valve / 1/2" Ball valve / 1/2" Globe Valve / 1/2" Gate Valve
Optional	(a) Non-frost extension for extreme low temperature application (b) Heating jacket - to read the level of high congelable or ebullient liquid (c) IBR certification

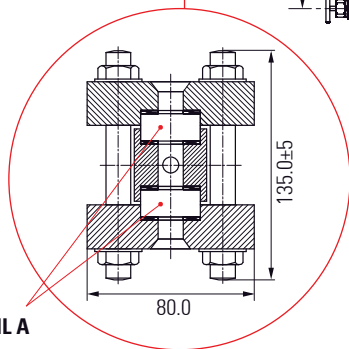
*Specification given are subject to changed without further notice.

- 1 Main Chamber
- 2 Cover Plate
- 3 Transparent Glass
- 4 Bolt & Nuts
- 5 Isolation Valve
- 6 Process Connection
- 7 Vent Ball Valve
- 8 Drain Ball Valve

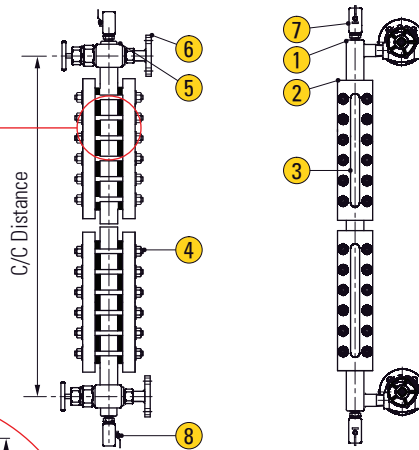


Option : Illuminator

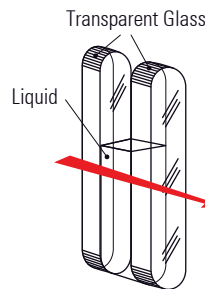
Refer to **DETAIL A**



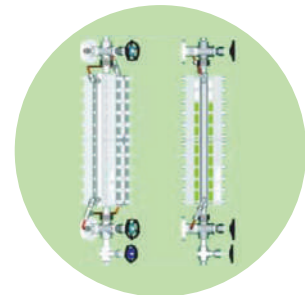
Transparent Construction
(Sectional View)



C/C Distance



DETAIL A
(Principle of Transparent Level Glass)



Option : Jacket Type

APPLICATION

Applicable for refinery, petrochemical, chemical, power, radioactive, fertilizer, food, pharma, metal industry applications.
(Refer to corrosion resistance table for valve materials selection).

SPECIFICATION - TECHNICAL DATA

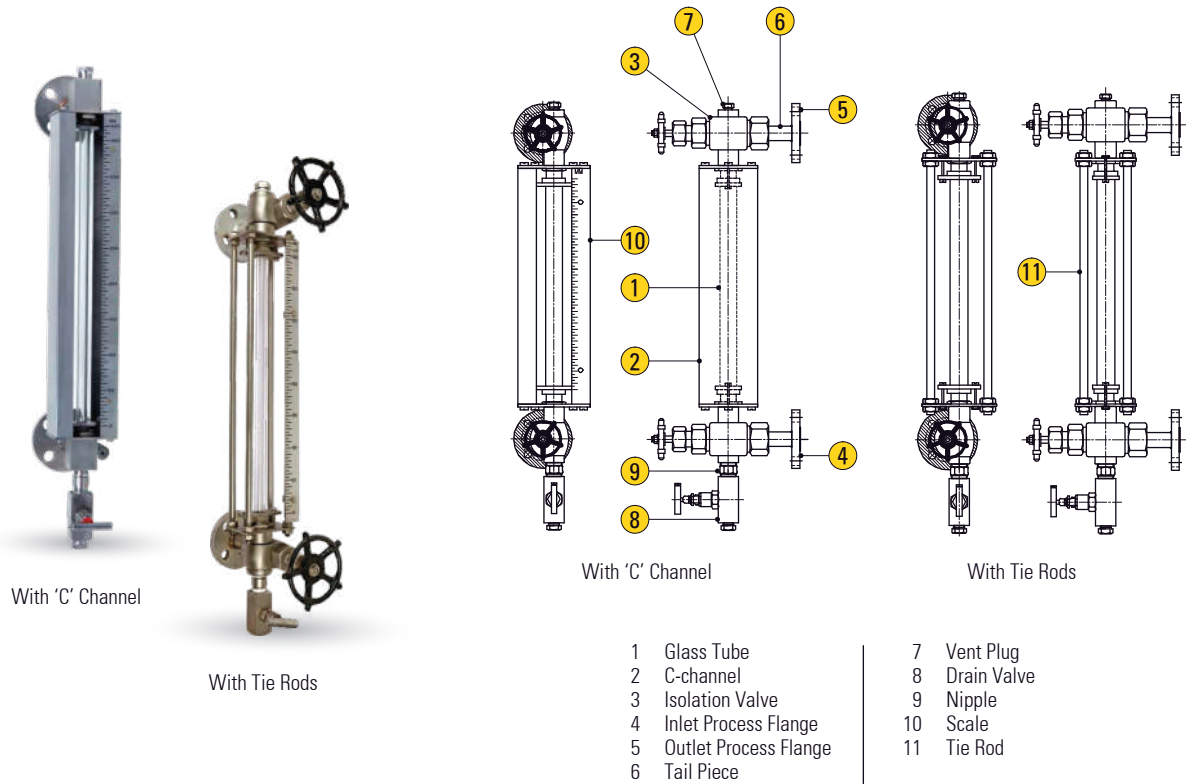
Type of Gauge	(a) Low pressure - 30kg/cm ² , (b) Medium pressure - 100kg/cm ² , (c) High pressure - 200kg/cm ²
Mounting Orientation	Top - Bottom vertical, Side - Side right, Side - Side left, Side - Side back (Right/Left)
Temperature	Up to 400°C
CCD	Max. up to 3000mm
Liquid Chamber	In forged construction: Carbon steel, SS304, SS304L, SS316, SS316L, Monel, Titanium, Inconel 600, Hastelloy C, Poly Propylene, Other on request (Subject to pressure & Temperature Condition)
Cover Plate	In forged construction: Carbon steel, SS304, SS304L, SS316, SS316L, Monel, Titanium, Inconel 600, Hastelloy C, Poly Propylene
Cushion	CAF, PTFE, Grafoil with SS prignated
Gasket	CAF, PTFE, Grafoil with SS prignated
Fastner	SS, ASTM A 193 Gr B7 / A194 Gr 2H / Anodized Aluminium (for PP moc)
Scale	Aluminium anticorrossion powder coated and SS engraved in mm
Glass	Applicable till 320°C as per DIN 708 / 7081, BS 3463, JS B 8211, Toughened, Borosilicate glass
Process Connection	Screwed / Flanged / Socket weld and other on request
Isolation Valve	Auto ball check valve (a) Screwed bonnet offset construction suitable upto 50 kg/cm ² (b) Bolted bonnet offset construction suitable above 50 kg/cm ² (c) Material construction as per wetted part
Vent	1/2" Plugged / 1/2" Needle valve / 1/2" Ball valve / 1/2" Globe Valve / 1/2" Gate Valve, other on request
Drain	1/2" Plugged / 1/2" Needle valve / 1/2" Ball valve / 1/2" Globe Valve / 1/2" Gate Valve, other on request
Optional	(a) Protection shield for temperature up to 550°C - Mica shield (b) Illuminator - Weather proof IP 67 (c) Illuminator - Flame proof Gr.IIA/IIB (d) Illuminator - Flame proof Gr.IIC (e) Non-frost extension for extreme low temperature application (f) Heating jacket - to read the level of high congelable or ebullient liquid (g) IBR certification

SPECIFICATION - ILLUMINATOR

Rating	Up to 15W / 25W GLS lamp or 15W LED lamp With or without flashing 240 VAC	CCE Certificate	A / P / HQ / MH / 104 / 1817
Construction	In cast alloy LM6	Earthing	2 Nos. External & 1 No. Internal
Gas Group	IIA, IIB, IIC as per IS 2148 / 2004	Paint	Epoxy powder coated light grey shade 631 of IS:5
Deg of Protection	Ip66 as per IS : 12063 / 1987	Cable Entry	2 Nos. 3/4" ET with cable glands
		Mounting	Transparent acrylic sheet with mounting bracket

*Specification given are subject to changed without further notice.

LEVEL - TUBULAR LEVEL GAUGE



With 'C' Channel

With Tie Rods

With 'C' Channel

With Tie Rods

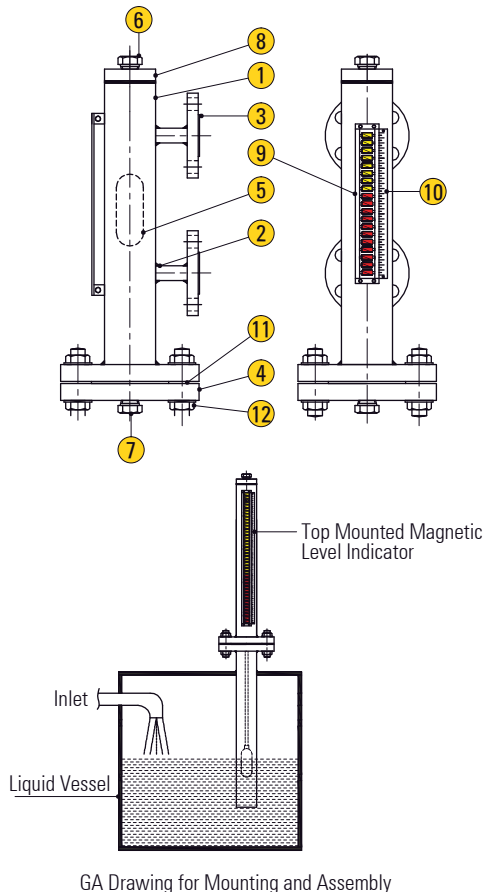
- | | |
|-------------------------|---------------|
| 1 Glass Tube | 7 Vent Plug |
| 2 C-channel | 8 Drain Valve |
| 3 Isolation Valve | 9 Nipple |
| 4 Inlet Process Flange | 10 Scale |
| 5 Outlet Process Flange | 11 Tie Rod |
| 6 Tail Piece | |

APPLICATION

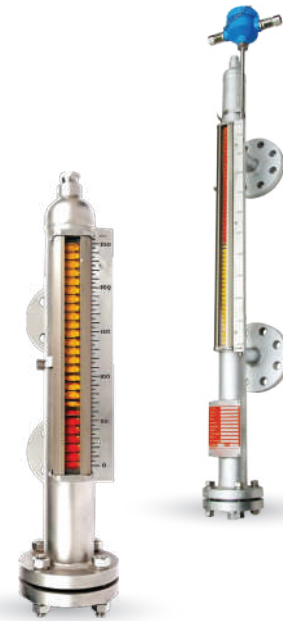
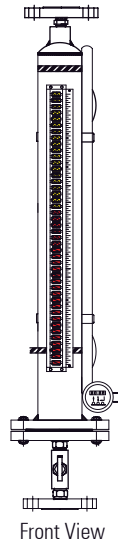
Applicable for refinery, petrochemical, chemical, power, radioactive, fertilizer, food, pharma, metal industry applications.
(Refer to corrosion resistance table for valve materials selection).

SPECIFICATION - TECHNICAL DATA

Type of Gauge	Tubular level gauge - TULG
Mounting Orientation	Top - Bottom
Pressure	Up to 10 kg/cm ²
Temperature	Up to 150°C
CCD	Max. up to 2000mm
MOC of Wetted Parts	CS, SS304, SS304L, SS316, SS316L, PP and other on request
Glass Tube	OD 16mm or 19mm
Glass Protection	(a) M.S. Tie rods (b) SS Tie rod (c) MS powder coated 'C' channel (d) SS 'C' channel
Process Connection	Screwed / Flanged / Socket weld and other on request
Isolation Valve	Auto ball check valve (a) Screwed bonnet offset construction (b) Material construction as per wetted part
Vent	1/2" Plugged / 1/2" Needle valve / 1/2" Ball valve / 1/2" Globe Valve / 1/2" Gate Valve
Drain	1/2" Plugged / 1/2" Needle valve / 1/2" Ball valve / 1/2" Globe Valve / 1/2" Gate Valve
Calibration Scale	Aluminium, Aluminium with powder coated, SS034, SS316, Acrylic
Special	PTFE lined on wetted part - Flanged orientation



- 1 Liquid Chamber
- 2 Nozzle
- 3 Process Flange
- 4 Bottom Flange
- 5 Magnetic Float
- 6 Vent Plug
- 7 Drain Valve
- 8 Top Cap
- 9 Indicating System
- 10 Scale
- 11 Gasket
- 12 Fastener



With HART transmitter mount on a 900# application gauge at CCD of 4000mm with magnetostrictive principle for chemical plant application

APPLICATION

Applicable for refinery, petrochemical, chemical, power, radioactive, fertilizer, food, pharma, metal industry applications. (Refer to corrosion resistance table for valve materials selection).

SPECIFICATION - TECHNICAL DATA

Type of Gauge	Magnetic level gauge - MLG
Mounting Orientation	Top mounted, Side mounted
Pressure	Up to 100 kg/cm ²
Temperature	Up to 300°C
CCD	Max. up to 7000mm
Liquid Chamber	In forged construction: SS304, SS304L, SS316, SS316L, PP, Titanium, Inconel 600, Hastelloy C, other on request subject to pressure & temperature condition
MOC of Float	In forged construction: SS304, SS304L, SS316, SS316L, PP, Titanium, Inconel 600, Hastelloy C
Gasket	CAF, PTFE, Grafoil with SS pre-greased
Fastner	CS plated, SS
Scale	Aluminium, Aluminium anticorrosion powder coated and SS engraved in mm
Indicating System	Bicolour flapper in ABS, Aluminium, SS with 4mm length & 0.25mm thickness with aligned magnets
Protection Box for Bicolour Flapper & Follower Type	In mild steel, Aluminium, SS304, SS316 base on the requirements of atmospheric condition
Process Connection	Flanged
Vent	1/2" Plugged / 1/2" Needle valve / 1/2" Ball valve / 1/2" Globe Valve / 1/2" Gate Valve
Drain	1/2" Plugged / 1/2" Needle valve / 1/2" Ball valve / 1/2" Globe Valve / 1/2" Gate Valve
Special Gravity	Please specify
Limit Switch Assembly	Snap acting 1 SPDT Microswitch, 5A, 230 VAC
Switch Housing	Die cast aluminium weather proof to IP-67 Die cast aluminium explosion proof suitable for Gr. IIA, IIB Die cast aluminium explosion proof suitable for Gr. IIC
Cable Entry	1 No / 2 Nos of 3/4" ET(F)
Optional	Still well for top mounted construction

*Specification given are subject to changed without further notice.

Guided Wave Radar Level Transmitter ▶

- 2-wire design with HART communication
- No moving parts and no re-calibration minimizes maintenance
- Not influenced by medium density, conductivity, temperature and pressure
- Handles vapor, steam, foam, buildup and turbulence well
- Suitable for interface level measurement
- Suitable for small tanks, difficult tank geometry and interfering obstacles
- Local display for easy on-site installation



FMCW Radar Level Transmitter ▶

- Non contact measurement
- With LCD display, user friendly calibration
- Available for high pressure, high temp., high viscosity fluid, dust environment
- Intrinsic safety and exposure proof
- Measuring range 0.5m ~ 40m
- Wireless supported



Magnetic Float Level Transmitter ▶

- Output available with loop power and 3 wire resistance
- Resolution: $\pm 6.35\text{mm}$, $\pm 13.7\text{mm}$
- Housing available with explosion proof and anti-corrosive
- Measuring range: max. 6m



Flexible Magnetic Float Level Transmitter ▶

- High performance and reliable electric circuit modular design
- Explosion proof housing. It is not affected by environmental temperature and change of pressure
- Flexible type is available for local indicator and quick setup. Easy installation and need require recalibration
- Choose dual-float as two different specific gravity level detection

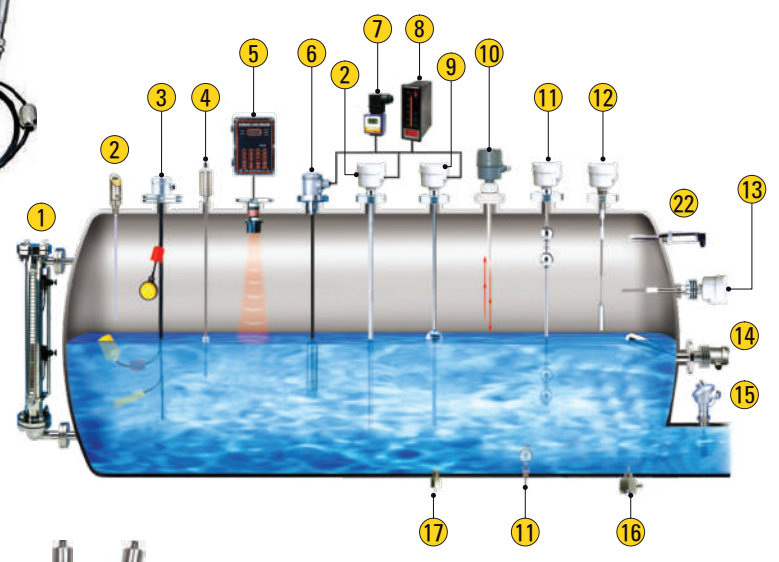


Ultrasonic Level Transmitter ▶

- Non-contact operation ensures readings will not be affected by material character (Such as pressure, viscosity, density)
- Liquid measuring range max. 50m, Short range 5m available
- Solid measuring range max. 35m, Short range 5m available
- Level, distance, flow volume display function selectable



**DEVICES
INSTALL
ILLUSTRATION**



Wafer Magnetic Float Level Transmitter ▶

- High precision, capable of reaching 5mm or 3mm
- Compact structure, strong environmental adaptability, anti fouling, high pressure resistance
- Casting protection rating IP67



Magnetostrictive Level Transmitter ▶

- Absolute position measurement
- Excellent resolution and repeatability
- Voltage, current and RS485 outputs
- Field adjustable zero and span settings (analog only)
- Fast response time, high reliable performance of 0.01% F.S. resolution with 0.1% F.S. Linearity
- Enclosure IP67 rating
- Application: LPG liquid medium, Pharmaceutical / Beverage chemical process



Magnetostrictive Level Transmitter ▶

- Absolute position output, returning to zero adjustment is not required after power restoration
- High resolution, high precision
- Dual liquid level interface measurement



LEVEL - TRANSMITTER & SWITCH



◀ Cable Float Level Switch

- Float material available with plastic and stainless steel
- Micro switch, reed switch and mercury switch also available
- Simple installation and durable



◀ Side Mounting Float Switch

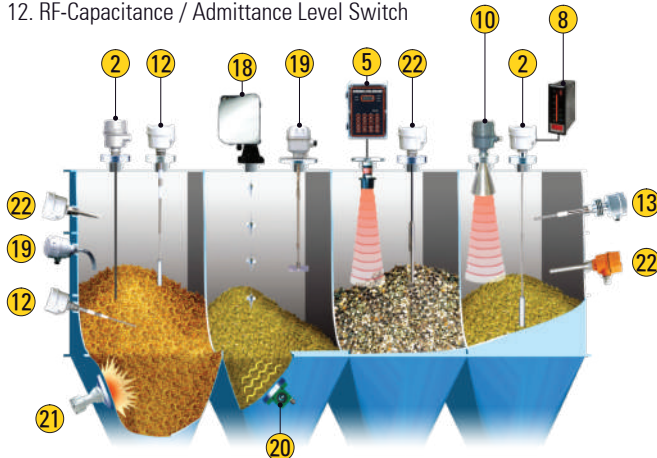
- Max. operating temp. 350°C
- Wetted parts available with stainless steel and plastic
- Housing available with explosion proof and anti-corrosive
- Approvals : ABS, GL, CE



◀ Magnetic Float Level Switch

- Custom-made multi-point control, easy installation, reliable performance
- Housing available with explosion proof and anti-corrosive
- Max. operating temp. 200°C for Stainless steel
- Application : Liquid processing, Heat exchanger, Hydraulic, Power plant, Oil, Shipbuilding petrochemical industries

1. By-Pass Level Transmitter
2. RF-Capacitance Level Transmitter
3. Cable Float Level Switch
4. Magnetostrictive Level Transmitter
5. Ultrasonic Level Transmitter
6. Pressure Level Transmitter
7. Loop Power Indicator
8. Microprocessor Based Bargraohic Display Scaling Meter
9. Magnetic Float Level Transmitter
10. FMCW Radar Level Transmitter
11. Mini Float / Magnetic Float Level Switch
12. RF-Capacitance / Admittance Level Switch



◀ Tuning Fork Level Switch

- Power supply : 20 ~ 250VAC/VDC, 50/60Hz
- Output : SPDT relay, SSR MOSFET
- No calibration required. Ease of use, rugged design
- High / low failure safe modes. Safe and reliable operating



◀ RF-Capacitance / Admittance Level Switch

- Suitable for sticky, viscosity application
- Max. operating temp. 550°C
- Time delay & ground level test function available



13. Capacitance Level Switch
14. Side Mounting Float Switch
15. Paddle Flow Switch
16. Thermal Dispersion Flow Switch
17. Optical Level Switch
18. Electromechanical Level Measuring System
19. Rotary Paddle Level Switch
20. Pneumatic Vibrator
21. Air Hammer
22. Vibrating Probe & Tuning Fork Level Switch

◀ Rotary Paddle Level Switch

- Torsion adjustable for light material
- Clutch assembly to protect the motor
- Good shaft seal designed
- Temperature up to 200°C
- Various sealing ring design to protect dust permeation
- Application : Suitable for chemical, Food, Mining, Plastic, Ceramic industries



◀ Capacitance Level Switch

- Ground level test function available
- Max. operating temp. 800°C
- Sensitivity and time delay adjustable

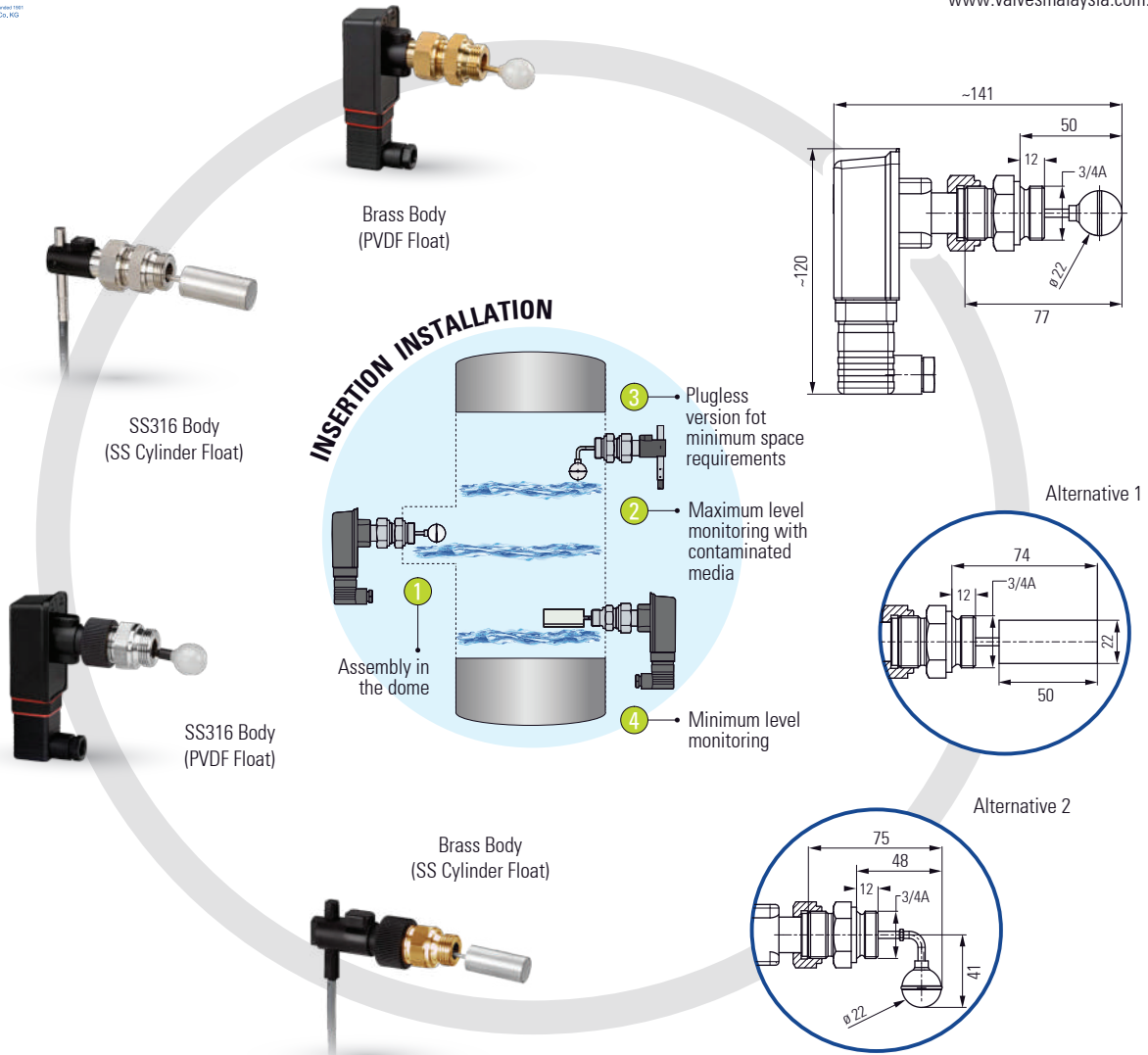


◀ RF-Capacitance / Admittance Level / Indicator Transmitter

- Power supply : 18 ~ 30VDC
- Output current : 4 ~ 20mA
- Accuracy : $\pm 1\%$ F.S.
- Max. tensile strength of wire (9mm) can up to 3.5 tons and 50m in length
- Measuring range : 20 ~ 2000pF
- High temp. up to 200°C
- Unaffected by pressure, sound wave temperature



LEVEL - SWITCH



APPLICATION

Suitable for steel, chemical, shipbuilding, food, pharmaceutical, optical, hydropower, machine tool, refrigeration and air conditioning, electronics, semiconductor and other industries. Flow detection control for all types of transfer pipelines or cooling pipelines.

SPECIFICATION

Switching Function	Contact	Electrical Connection	Standard	Plug connector EN175301-803-A incl. cable socket
	<ul style="list-style-type: none"> Closes at increasing flow Opens at decreasing flow Reversing possible		Optional	Plug connector EN175301-803-A incl. plug with two LED for optical flow and power indication in plug (for switching voltages 24V...230 VAC/DC) For use in potentially explosive atmospheres, max. media temperature 100°C
Pressure Rating	PN 25		Optional	4-pin-sensor plug M 12x1 acc. IEC 947-5-2
Temperature Ranges	Medium	-25...110°C	Optional	Connection cable 1.5m
	Ambient	-25...80°C		
Switching Current	Max. 1 A			
Switching Voltage	Max. 230 VAC, 48 VDC			
Rating	Max. 26 VA, 20 W			
Degree of Protection EN60529	IP65			
Protection Class EN60730-1	Class II			

MATERIAL

Parts	Material
Body	Brass, St Steel 1.4571, Plastic NORYL PPO GFN3
Float System	St Steel 1.4571, PVDF

*Specification given are subject to changed without further notice.