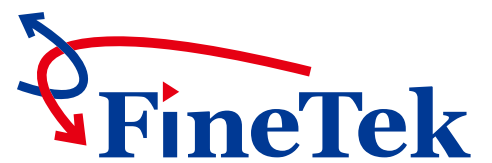




Magnetic Float Level Transmitter



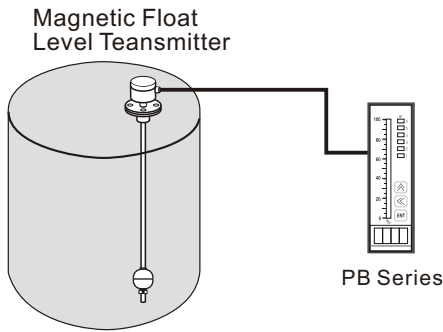
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INTRODUCTION

WORKING PRINCIPLE

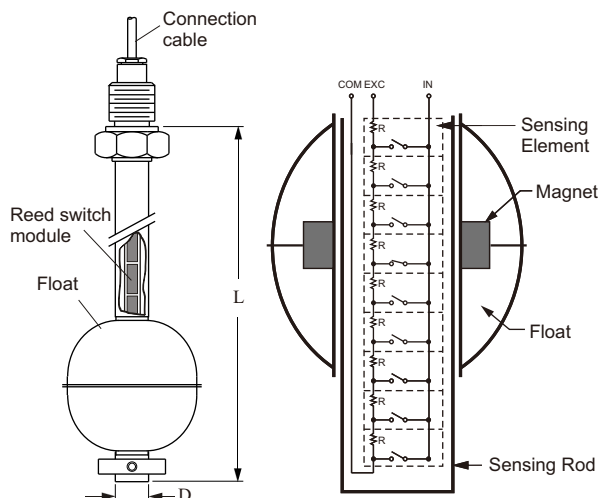
The "Magnet Float Level Transmitter" is composed of a float and sensing rod (shown below). As the float is raised or lowered by the liquid level, the sensing rod will induce a resistance output, which is directly proportional to the liquid level. The Magnet Float Level Transmitter is a sturdy, reliable and durable device that is applicable across most industries.



APPLICATIONS

Waste water treatment + Turn-key facilities
 Electric power plants + Shipping vessels
 Hydraulic facilities + Chemical industrial equipments
 Petrochemical industries
 Hot coal boiler. e.g. diesel engine generators, motor oil meters, oil material storage tanks.

CONSTRUCTION



FEATURES

- Optional TAB-2100 (see p3) to produce a 0/4~20mA signal
- Optional PB series bargraphic display scaling panel meter for level control and display
- Sensing elements are protected with a plastic package for safety in use and transport.
- High performance and reliable electric circuit modular design (fig.2)
- Lower installation costs, maintenance, personnel training reduced and decreased plant shock downtime
- Explosion Proof series available
- Marine Standards: ABS, DNV, BV, LR, GL series available

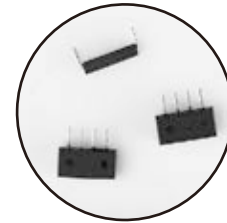


Fig.1 Sensing Element

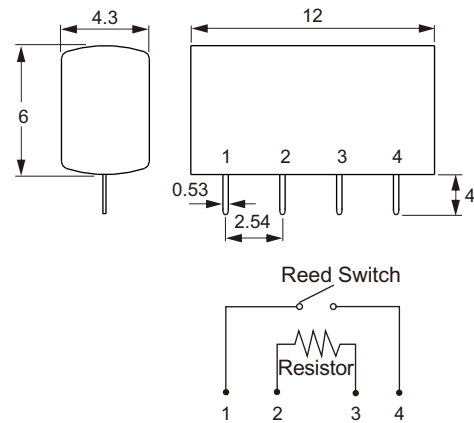
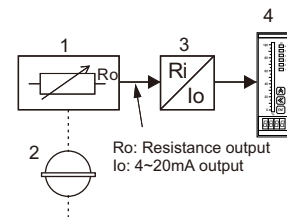


Fig.2 Sensing Element Size

SCHEMATIC DIAGRAMS

1. Sensing Rod
2. Float
3. Transmitter
4. Display Unit



HOUSING DIMENSIONS

B

Material : Aluminum
Enclosure : IP65
Max.Temp.: -20°C ~200°C

C

Material : PP+Fiber
Enclosure : IP65
Max.Temp.: -20°C ~80°C

D


Material : Aluminum
Enclosure : IP65
Max.Temp.: -20°C ~200°C


E

Material : Aluminum
Enclosure : IP65
Max.Temp.: -20°C ~200°C

G

Material : PC
Enclosure : IP65
Max.Temp.: -20°C ~80°C

K Explosion-proof 

Material : Aluminum
Enclosure : CESI 03 ATEX 108
ATEX  II 2G Ex d IIB T6
Max.Temp.: -20°C ~100°C

N

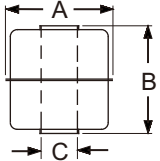
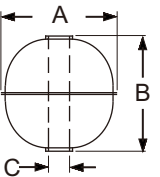
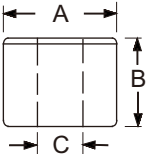
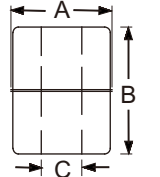
Material : SUS316
Enclosure : IP65
Max.Temp.: -20°C ~200°C

X

Material : Aluminum
Enclosure : IP65
Max.Temp.: -20°C ~100°C

FLOAT SPECIFICATIONS

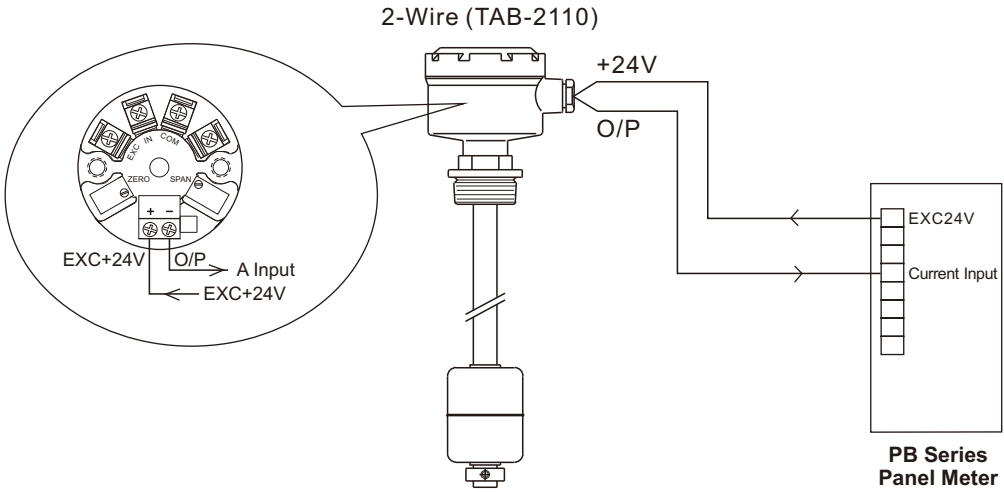
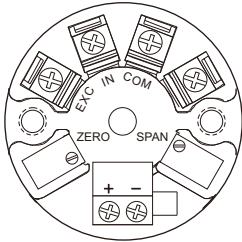
● FLOAT SPECIFICATION

Dimension	Type	AxBxC(mm)	S.G.	Max. Pressure (kg/cm ²)	Material	Max. Temp. (°C)	Approx. Weight (g)
	S3	45x55x15	0.65	12	SUS 316	200°C	37.6
	S6	75x108x19	0.5	10	SUS 304	200°C	165
	S4	52x52x15	0.55	30	SUS 316	200°C	33.4
	S5	75x73x19	0.61	30	SUS 304	200°C	105
	S8	100x100x20	0.5	15	SUS 304	200°C	249.7
	S9	150x150x30	0.45	15	SUS 304	200°C	534
	P3	48x45x18.5	0.6	5	PP	80°C	35.5
	F4	48x62x18	0.75	5	PVDF	120°C	65.3

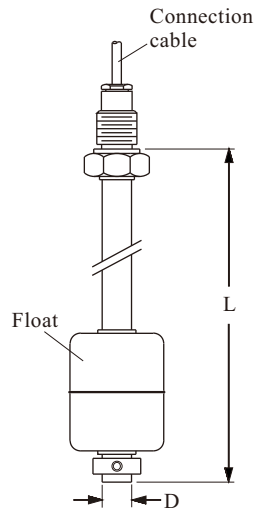
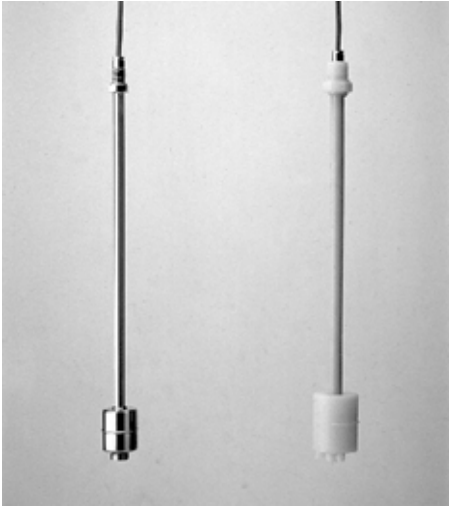
TRANSDUCER

MODEL: TAB-2110 Transducer

- Power Supply : 12~36Vdc
- Output Current : Loop power 4~20mA
- Load Resistance : $R_L(\text{Max})=50(\text{Vs}-8)$
- Ambient Temperature : -40~80°C
- Ambient Humidity : 0~80% RH
- Accuracy : $\pm 0.1\%(25^\circ\text{C})$
- Temperature Effect : 0.01%F.S./°C
- Adjustment Range : Span Adjustment 20% FS
Zero Adjustment 5% FS



ECONOMICAL



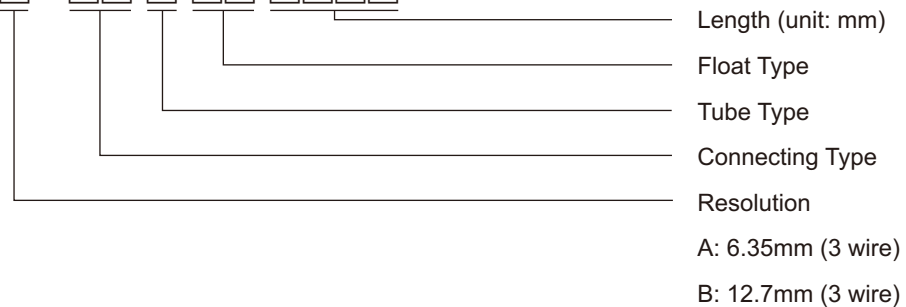
● SPECIFICATIONS

Connection Cable: Silicon cable 3C x 1M
Output: 3-wire resistance output
Total Resistance: 1MΩ (Max.)

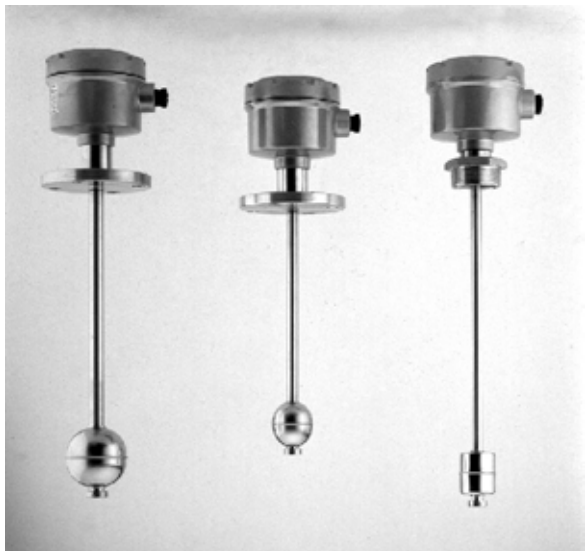
Operating Temp.: PP tube -10 °C ~ 80 °C
 PVDF tube -20 °C ~ 120 °C
 SUS tube -20 °C ~ 120 °C

Order No.	Connection	Tube size & Material (D)	Float type & Material	Suitable S.G.	Measuring Range
FG□-AR4	3/8"PF	φ14 SUS 304 SUS 316	S3: φ45x55 SUS 316 S4: φ52x52 SUS 316	>0.65 >0.55	FGA...Max.6M FGB...Max.6M
FG□-AR7	3/8"PF	φ17.2 SUS 304	S5: φ75x73 SUS 304 S6: φ75x108	>0.61 >0.5	FGA...Max.6M FGB...Max.6M
FGB-CR5P3	3/4"PF	φ17.2 PP	P3: φ48x45 PP	>0.6	FGB...Max.6M
FGB-CR6F4	3/4"PF	φ16 PVDF	F4: φ48x62 PVDF	>0.75	FGB...Max.6M

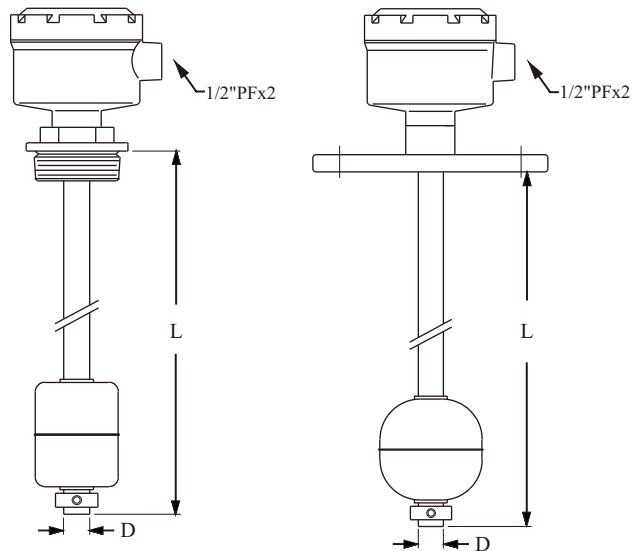
MODEL : FG □ - □ □ □ □ □ □ □ □



STANDARD



* B type housing, dimension see page 2.



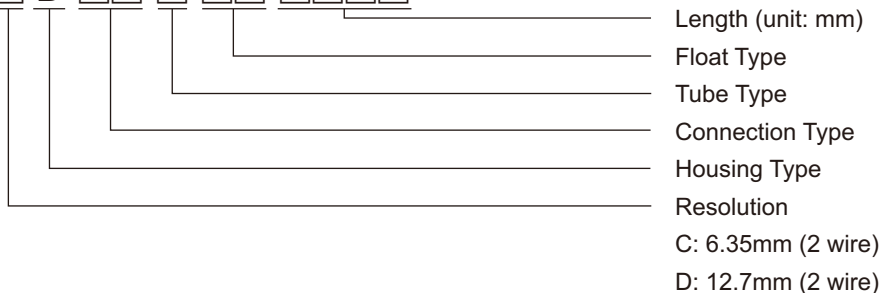
● SPECIFICATION

Terminal Housing: Aluminum, IP65
Output: 4~20mA, 2-wire
Total resistance : 1MΩ (Max.)

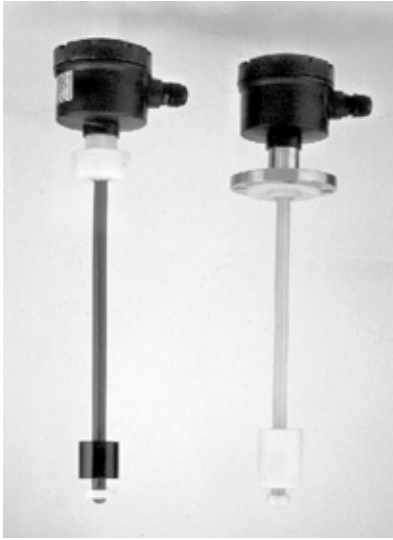
Operating Temperature: -20 ~ 120 °C
Ambient Temperature: 0~70 °C

Order No.	Connection	Tube size & Material (D)	Float type & Material	Suitable S.G.	Measuring Range
FG□BFQ4	2"PT	φ14 SUS 316 SUS 304	S3: φ45x55 SUS 316 S4: φ52x52 SUS 316	>0.65 >0.55	FGC/D...Max.6M
FG□BGN4	2-1/2"x10kg/cm ²	φ14 SUS 316 SUS 304	S3: φ45x55 SUS 316 S4: φ52x52 SUS 316	>0.65 >0.55	FGC/D...Max.6M
FGDBHN7	3"x10kg/cm ²	φ17.2 SUS 304	S5: φ75x73 SUS 304 S6: φ75x108 SUS 304	>0.61 >0.5	FGD...Max.6M
FGDBIQ7	4"PT	φ17.2 SUS 304	S8: φ100x100 SUS 304	>0.5	FGD...Max.6M
FGDBKN8 FGDBKN9	6"x10kg/cm ²	φ21.7 φ27.2 SUS 304	S9: φ150x150 SUS 304	>0.45	FGD...Max.12M

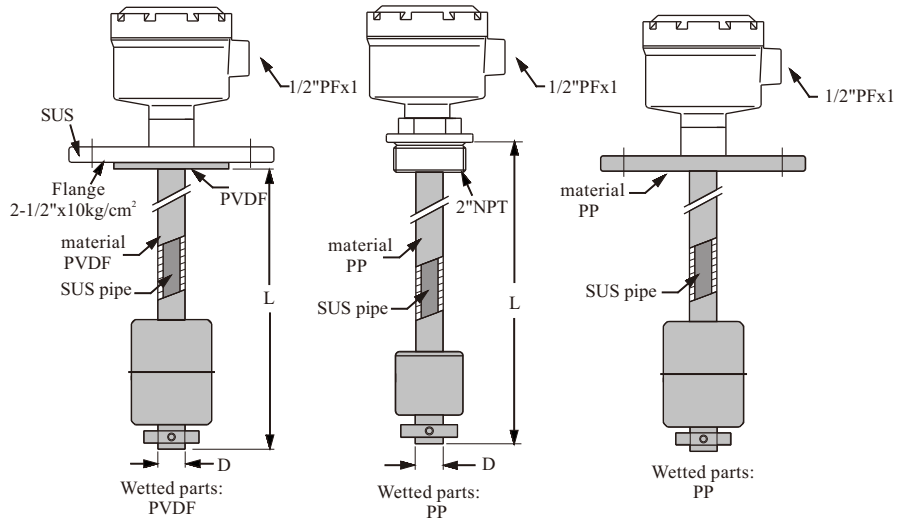
MODEL : FG□ B □ □ □ □ □ □ □ □



ANTI-CORROSIVE



★ C type housing, dimension see page 2.



● SPECIFICATIONS

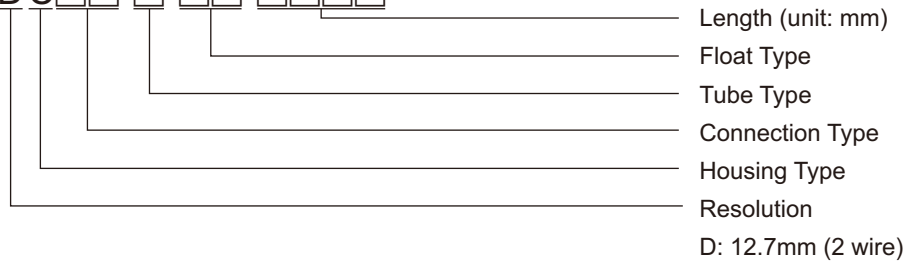
Terminal Housing: PP +Fiber, IP65
Output: 4~20mA, 2-wire
Ambient Temperature: 0~70 °C

Operating Temperature: PP jacket tube-10 ~ 80 °C
 PVDF jacket tube -20 ~ 120 °C
Total resistance: 1MΩ (Max.)

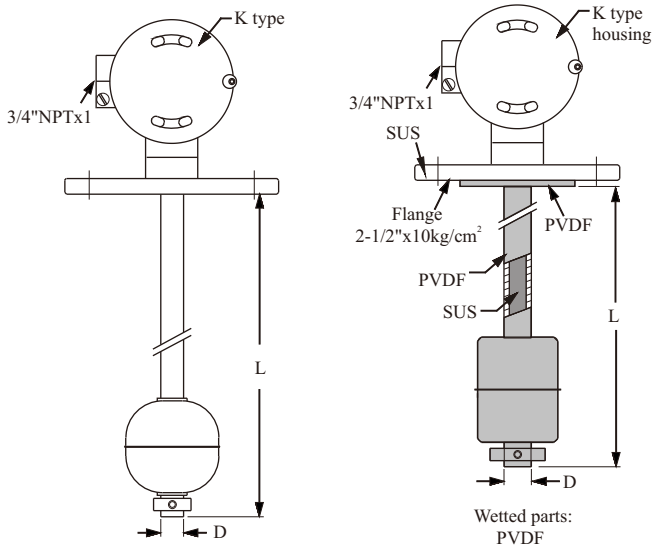
Order No.	Connecting	Tube size & Material (D)	Float type & Material	Suitable S.G.	Measuring Range
FGDCFQ5P3	2"PT	φ17.2 PP	P3: φ48x45 PP	>0.55	FGD...Max.6M
FGDCFQ6F4	2"PT	φ16 PVDF	F4: φ48x62 PVDF	>0.75	FGD...Max.6M
FGDCGN5P3	2-1/2"x10kg/cm ²	φ17.2 PP	P3: φ48x45 PP	>0.6	FGD...Max.6M
FGDCGN6F4	2-1/2"x10kg/cm ²	φ16 PVDF	F4: φ48x62 PVDF	>0.75	FGD...Max.6M

Every unit is protected by a PP or PVDF flange to prevent the sensing rod from corrosion.

MODEL : FG DC



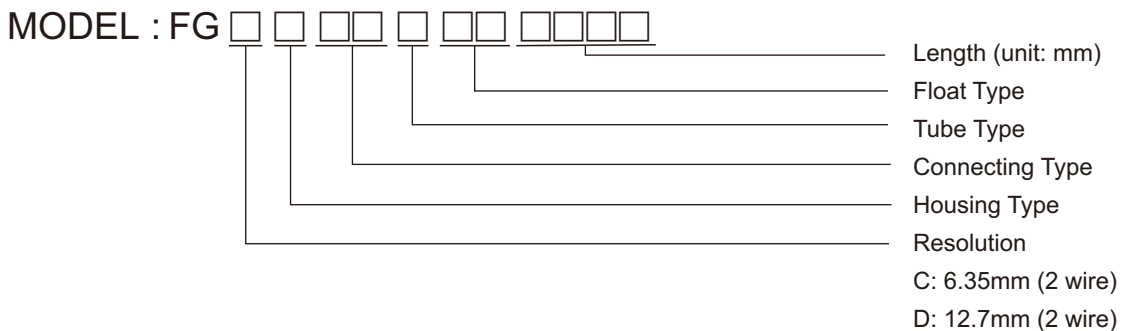
*K type ATEX Explosion proof enclosure can be selected (see p2).



● SPECIFICATION

Terminal Housing: K type --- Aluminum, ATEX Ex d IIB T6 **Operating Temperature:** PP tube -10 ~ 80°C
Output: 4~20mA, 2-wire PVDF tube -20 ~ 120°C
Ambient Temperature: 0~70 °C SUS tube -20 ~ 120°C
Total resistance: 1MΩ (Max.)

Order No.	Connection	Tube size & Material (D)	Float type & Material	Suitable S.G.	Measuring Range
FG□KFQ4	2"PT	φ14 SUS 304	S4: φ52x52 SUS 316	>0.55	FGA/B...Max.6M FGC/D...Max.6M
FG□KGN4	2-1/2"x10kg/cm ²	φ14 SUS 304	S4: φ52x52 SUS 316	>0.55	FGA/B...Max.6M FGC/D...Max.6M
FGDKHN7	3"x10kg/cm ²	φ17.2 SUS 304	S6: φ75x108 SUS 304	>0.5	FGD...Max.6M
FGDKIQ4	4"PT	φ17.2 SUS 304	S8: φ100x100 SUS 304	>0.5	FGD...Max.6M
FGDKFQ5P3	2"PT	φ17.2 PP	P3: φ48x45 PP	>0.6	FGD...Max.6M
FGDKFQ6F4	2"PT	φ16 PVDF	F4: φ48x62 PVDF	>0.75	FGD...Max.6M
FGDKGN5P3	2-1/2"x10kg/cm ²	φ17.2 PP	P3: φ48x45 PP	>0.6	FGD...Max.6M
FGDKGN6F4	2-1/2"x10kg/cm ²	φ16 PVDF	F4: φ48x62 PVDF	>0.75	FGD...Max.6M



HOW TO ORDER

FG **D** **C** **FQ** **6** **F1** **1** **5** **0** **0** **(P)**

RESOLUTION

- A : 6.35mm (3-wire)
- B : 12.7mm (3-wire)
- C : 6.35mm (2-wire)
- D : 12.7mm (2-wire)

TERMINAL HOUSING (see page 2)

- B : Aluminum - : None
- C : P.P S : Others
- D : Aluminum X : Aluminum
- E : AL.
- G : PC
- K : Aluminum
- N : SUS
- F : Aluminum

CONNECTION

Dimension		Specification	
A: 3/8" (10A)	H: 3" (80A)	M: 5 Kg/cm ²	Z :PN40
B: 1/2" (15A)	I : 4" (100A)	N:10 Kg/cm ²	Q: PT
C: 3/4" (20A)	J : 5" (125A)	O: 150 Lbs	R : PF(G)
D: 1" (25A)	K: 6" (150A)	P: 300 Lbs	T : BSP
E: 1 1/2" (40A)	4 : 7" (175A)	W:PN10	U : NPT
F: 2" (50A)	5 : 8" (200A)	X :PN16	V : GAS
G: 2 1/2" (65A)		Y :PN25	S : Others

※ Tri-Clamp 1-1/2"=ES; 2"=FS

TUBE TYPE & MATERIAL

- 0: ϕ 12.7 (SUS304) C: ϕ 12.7 (SUS316)
- Only available for resolution 12.7mm. Only available for resolution 12.7mm.
- 4: ϕ 14 (SUS304) B: ϕ 14 (SUS316)
- 5: ϕ 17.2 (P.P.) D: ϕ 17.2 (SUS316)
- 6: ϕ 16 (PVDF) E: ϕ 21.7 (SUS316)
- 7: ϕ 17.2 (SUS304) F: ϕ 27.2 (SUS316)
- 8: ϕ 21.7 (SUS304)
- 9: ϕ 27.2 (SUS304)

※ For 5&6, measuring range>500mm, only \pm 12.7mm resolution is available.

FLOAT TYPE (see page 2)

Material	Type					
	Plastic	P3	F4			
SUS	S3	S4	S5	S6	S8	S9

- : None

LENGTH (UNIT : mm)

- 0500:** 500mm up ※ 500mm per Unit
- 1000:** 501~1000mm
- 1500:** 1001~1500mm

PIPE SHIELD

- ★ Total product length's margin of error \pm 5mm.
- ★ Characteristics, specifications and dimensions are subject to change.

HOW TO ORDER

Order No. FG7 D D FQ 6 F1 1 5 0 0 (L)

EXPLOSION PROOF _____

RESOLUTION _____

- A : 6.35mm (3-wire)
- B : 12.7mm (3-wire)
- C : 6.35mm (2-wire)
- D : 12.7mm (2-wire)

TERMINAL HOUSING (see page 2) _____

- D: AL
- N: SUS

CONNECTION _____

Dimension			Specification	
A : 3/8" (10A)	H : 3" (80A)		M : 5 Kg/cm ²	Z :PN40
B : 1/2" (15A)	I : 4" (100A)		N :10 Kg/cm ²	Q: PT
C : 3/4" (20A)	J : 5" (125A)		O :150 Lbs	R: PF(G)
D : 1" (25A)	K : 6" (150A)		P : 300 Lbs	T : BSP
E : 1 1/2" (40A)	4 : 7" (175A)		W:PN10	U: NPT
F : 2" (50A)	5 : 8" (200A)		X :PN16	V: GAS
G : 2 1/2" (65A)			Y :PN25	S: Others

TUBE TYPE & MATERIAL _____

- | | |
|---|--|
| 0: φ12.7 (SUS)
Only available for resolution 12.7mm.
4: φ14 (SUS)
5: φ17.2 (P.P.)
6: φ16 (PVDF)
7: φ17.2 (SUS)
8: φ21.7 (SUS)
9: φ27.2 (SUS)
※ For 5&6, measuring range>500mm, only ± 12.7mm resolution is available. | C: φ12.7 (SUS316)
Only available for resolution 12.7mm.
B: φ14 (SUS316)
D: φ17.2 (SUS316)
E: φ21.7 (SUS316)
F: φ27.2 (SUS316) |
|---|--|

FLOAT TYPE (see page 2) _____

Material	Type					
Plastic	P3	F4				
SUS	S3	S4	S5	S6	S8	S9

LENGTH (UNIT : mm) _____

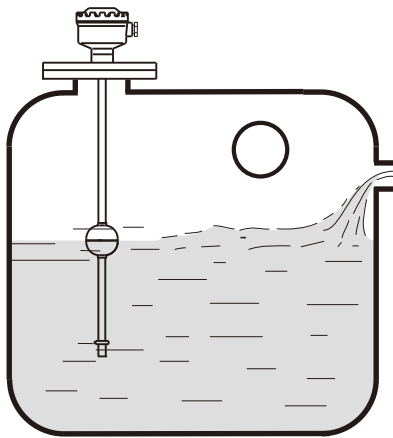
- 0500:** 500mm up
 - 1000:** 501~1000mm
 - 1500:** 1001~1500mm
 - ⋮
- ※ 500mm per Unit

TAG _____

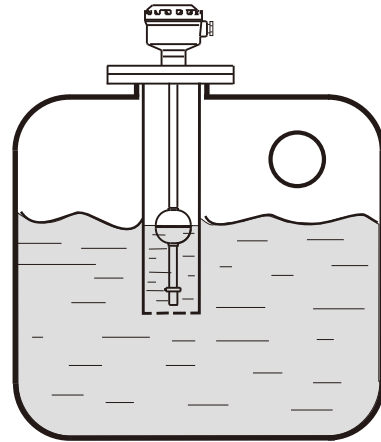
- ★ Total product length's margin of error ± 5mm.
- ★ Characteristics, specifications and dimensions are subject to change.

INSTALLATION

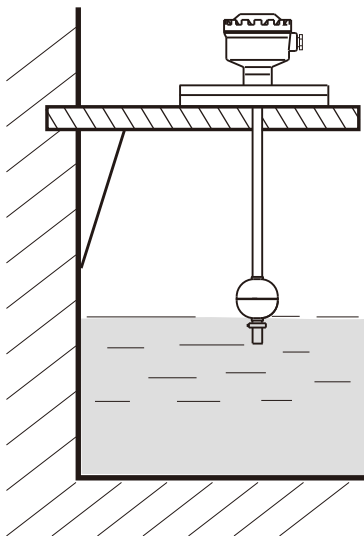
- ▶ The float level transmitter should be mounted far away from the inlet. Any rigorous liquid turbulence will produce error output signals.



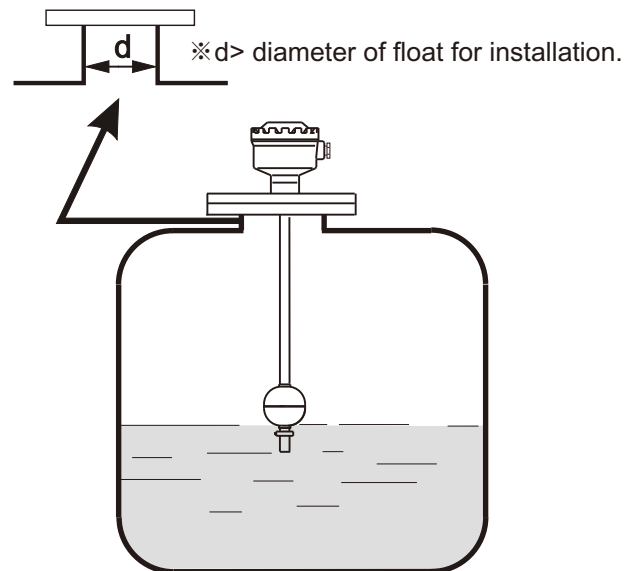
- ▶ A pipe shield or an equivalent device can help normalize the indicator actuation especially when an agitator is present.



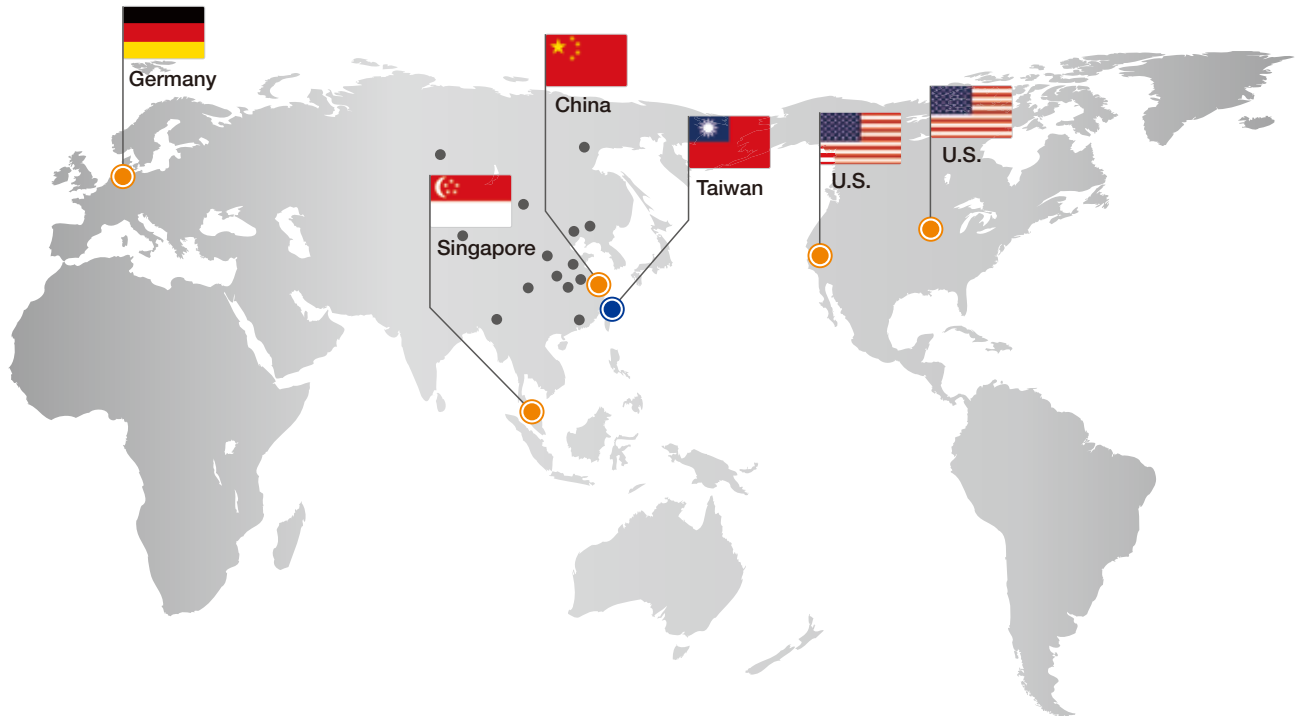
- ▶ Another useful alternative is an L type support frame when the level indicator is mounted in concrete wall tank as figure below.



- ▶ It is recommended to select the standpipe with diameter (d) larger than the float for the installation process.



Global Network



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