

Pressure Balanced Float Valve : Model FW



●Operating Conditions:

MODEL		FW										
Nominal Size	mm	15	20	25	32	40	50	65	80	100	125	150
	inch	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6
Applicable Fluid		Water										
Working Temperature		0 to 60°C										
Working Pressure (inlet)		above 0 to 1.0MPa										
Shell Test Pressure		1.75MPa										

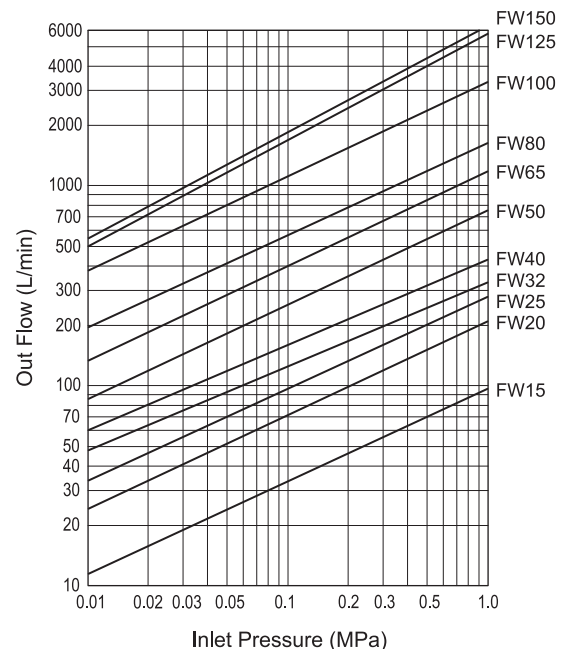
●Basic Application:

These float valves use the weight and buoyancy of their float to keep water levels constant inside water reservoir tanks.

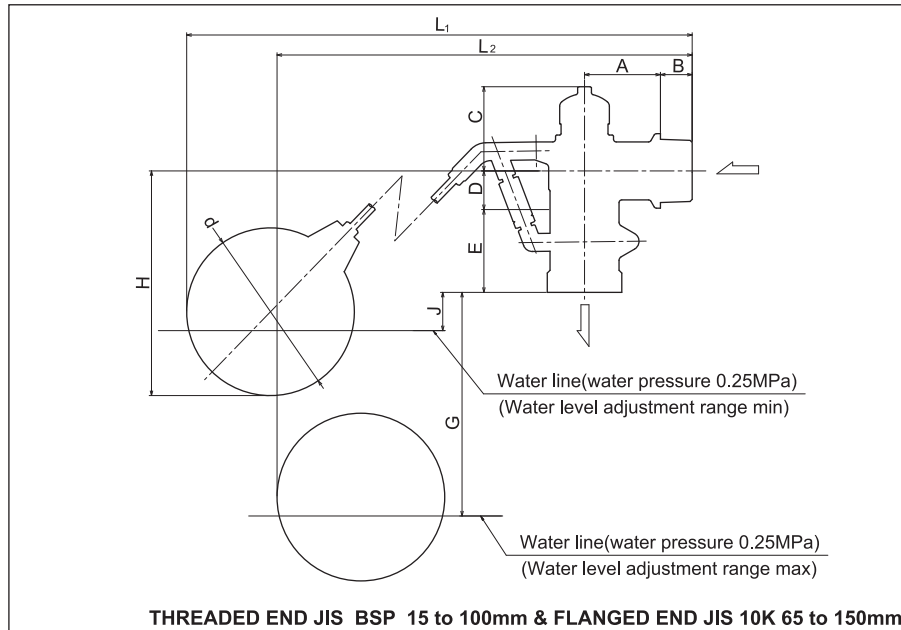
●Features:

1. Our Float valves come with an adjustable lever that can be adjusted as required, to maintain the desired water level.
2. Our Float valves come with a built-in stainless steel strainer to protect the valve seat and to prevent it from clogging, jamming or overflowing.
3. Our Float valves' unique design can be fitted with a wave suppression pipe to provide wave suppression when requested.
4. Bronze prevents rust contamination of potable water.
5. The polyethylene float never pollutes the drinking water.
6. The smooth operation of the pressure-balanced mechanism minimizes vibration noise known as water hammer.

●Flow Characteristics:



Pressure Balanced Float Valve : Model FW



●Dimensions:

unit:mm

Nom.size		A	B	C	D	E	L ₁	L ₂	J	H	Allowance of J	G	Allowance of G	Length of Lever arm	Float d	Connection Standard
mm	inch															
15	1/2	25	30	27.5	15	27	(348)	(316)	110	200	±20	(140)	±20	180	100	JIS B 2061
20	3/4	40	35	33	20	37.5	(422)	(386)	120	239	±20	(150)	±20	210	120	
25	1	50	35	36.5	25	53	(470)	(405)	100	224	±20	(170)	±20	235	120	
32	1-1/4	50	22	60	25	54.5	(450)	(424)	100	220	±25	(145)	±25	235	120	JIS B 0203 & BS21
40	1-1/2	55	23	62	27	60	(495)	(472)	120	257	±25	(160)	±25	280	120	
50	2	68	26	72	28	69	(550)	(526)	130	282	±25	(170)	±25	280	150	JIS B 0202 & BS21
65	2-1/2	90	30	80.5	46	74	(743)	(700)	150	344	±30	(220)	±30	510	150	
80	3	100	30	87	53	85	(890)	(820)	160	374	±30	(250)	±30	615	180	
100	4	130	30	105	70	102	(995)	(960)	220	400	±30	(310)	±30	725	180	BS21 & JIS B 2239
125	5	168	34	132.5	92	144	(1300)	(1280)	200	490	±30	(280)	±30	800	180/180	
150	6	168	34	132.5	92	144	(1300)	(1280)	200	490	±30	(280)	±30	800	180/180	

() Rough estimate

●Materials:

Description	Material
Body	Bronze
Strainer	Stainless Steel
Lever Arm	Stainless Steel(Size:15,20,25,32,40,125,150)
	Brass(Size:50)
	Bronze(Size:65,80,100)
Floats	Polyethylene
Valve Spindle	Brass
Adjustable Connector	Brass
Disc	NBR

※ Copper float is available.

Pressure Balanced Float Valve : Model FW(W)



●Operating Conditions:

MODEL		FW										
Nominal Size	mm	15	20	25	32	40	50	65	80	100	125	150
	inch	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6
Applicable Fluid		Water										
Working Temperature		0 to 60°C										
Working Pressure (inlet)		above 0 to 1.0MPa										
Shell Test Pressure		1.75MPa										

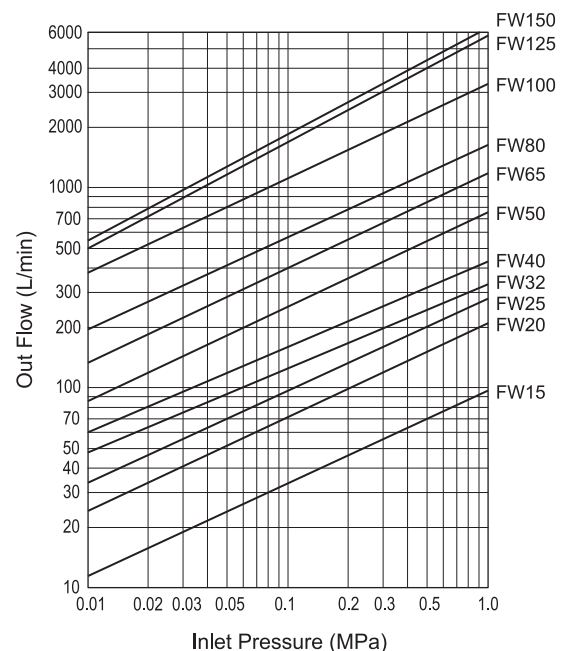
●Basic Application:

These float valves use the weight and buoyancy of their float to keep water levels constant inside water reservoir tanks.

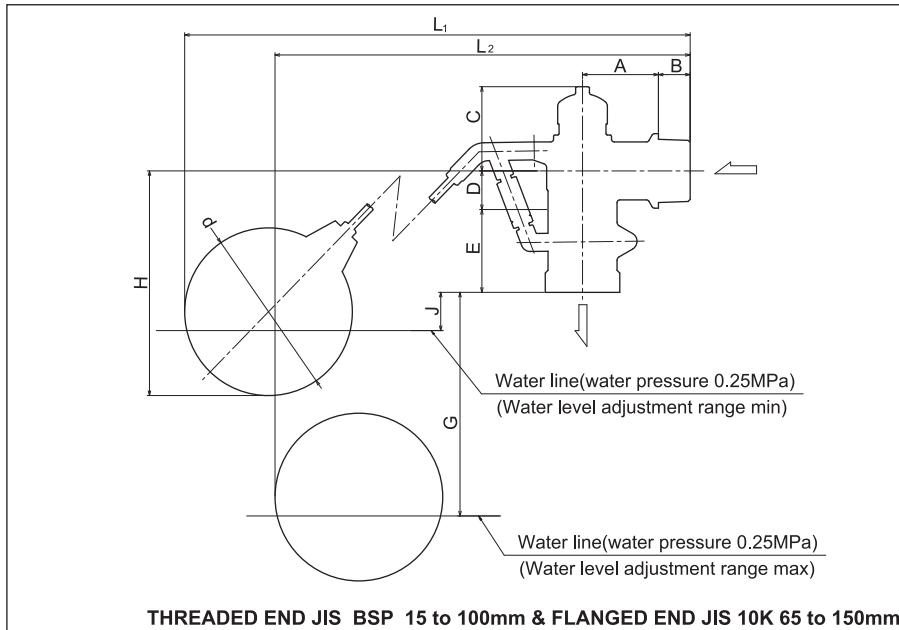
●Features:

1. Our Float valves come with an adjustable lever that can be adjusted as required, to maintain the desired water level.
2. Our Float valves come with a built-in stainless steel strainer to protect the valve seat and to prevent it from clogging, jamming or overflowing.
3. Our Float valves' unique design can be fitted with a wave suppression pipe to provide wave suppression when requested.
4. Bronze prevents rust contamination of potable water.
5. The polyethylene float never pollutes the drinking water.
6. The smooth operation of the pressure-balanced mechanism minimizes vibration noise known as water hammer.

●Flow Characteristics:



Pressure Balanced Float Valve : Model FW(W)



●Dimensions:

unit:mm

Nom.size	A	B	C	D	E	L ₁	L ₂	J	H	Allowance of J	G	Allowance of G	Length of Lever arm	Float d	Connection Standard	
																mm
15	1/2	25	30	27.5	15	27	(348)	(316)	110	200	±20	(140)	±20	180	100	JIS B 2061
20	3/4	40	35	33	20	37.5	(422)	(386)	120	239	±20	(150)	±20	210	120	
25	1	50	35	36.5	25	53	(470)	(405)	100	224	±20	(170)	±20	235	120	
32	1-1/4	50	22	60	25	54.5	(450)	(424)	100	220	±25	(145)	±25	235	120	JIS B 0203 & BS21
40	1-1/2	55	23	62	27	60	(495)	(472)	120	257	±25	(160)	±25	280	120	
50	2	68	26	72	28	69	(550)	(526)	130	282	±25	(170)	±25	280	150	JIS B 0202 & BS21 & JIS B 2239
65	2-1/2	90	30	80.5	46	74	(743)	(700)	150	344	±30	(220)	±30	510	150	
80	3	100	30	87	53	85	(890)	(820)	160	374	±30	(250)	±30	615	180	
100	4	130	30	105	70	102	(995)	(960)	220	400	±30	(310)	±30	725	180	JIS B 2239
125	5	168	34	132.5	92	144	(1300)	(1280)	200	490	±30	(280)	±30	800	180/180	
150	6	168	34	132.5	92	144	(1300)	(1280)	200	490	±30	(280)	±30	800	180/180	

() Rough estimate

●Materials:

Description	Material
Body	Bronze
Lever Arm	Stainless Steel
Floats	Copper / Polyethylene
Valve Spindle	Brass
Adjustable Connector	Brass
Disc	EPDM / NBR

※ FLUORINE-COATING is applied on the inner body.

Pressure Balanced Float Valve : Model FWSP



MODEL FWSP 100mm
FWSP meets BS1212 standard.

●Operating Conditions:

MODEL		FWSP											
Nominal Size	mm	15	20	25	32	40	50	65	80	100	150	200	
	inch	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	
Applicable Fluid		Water											
Working Temperature		0 to 60°C											
Working Pressure (inlet)		above 0 to 1.6MPa											
Shell Test Pressure		2.4MPa											

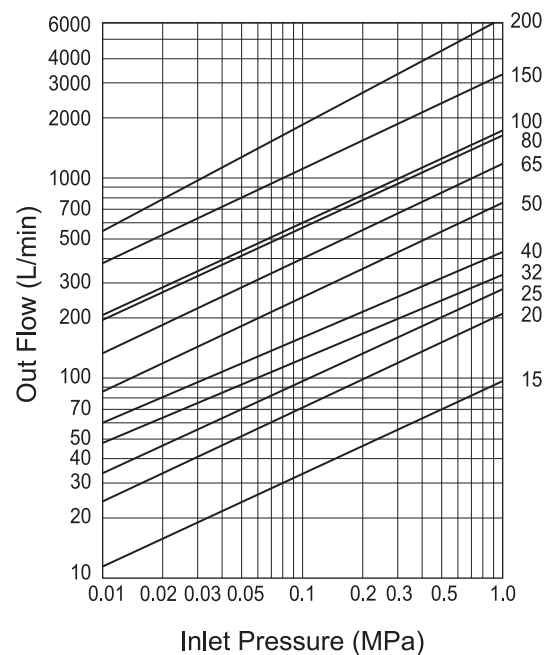
●Basic Application:

Float valves use the weight and buoyancy of their float to keep water levels constant inside water reservoir tanks.

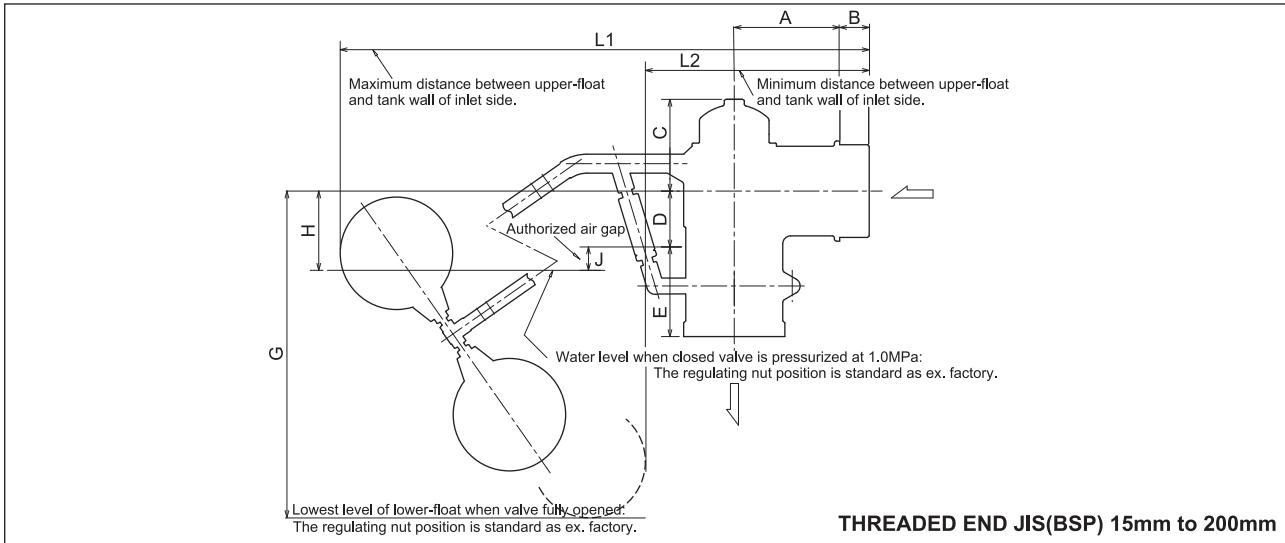
●Features:

1. The unique design of smaller double floats helps to increase water storage capacity and reduce water tank height requirements.
2. Higher working pressure provides a tightness of seat that prevents leakage, overflow, and high maintenance costs.
3. The double float design provides a double-safety feature. Even if one of the floats leak, the other will still function.
4. KKK Float Valves come with an adjustable lever that can be adjusted as required.
5. KKK Float Valves come with a built-in stainless steel strainer to protect the valve seat and to prevent it from clogging, jamming or overflowing.
6. KKK Float Valves' unique design can be fitted with a wave suppression pipe to provide wave suppression when requested.
7. Bronze prevents rust contamination of potable water.
8. The Polyethylene float never pollutes the drinking water.

●Flow Characteristics:



Pressure Balanced Float Valve : Model FWSP



●Dimensions:

unit:mm

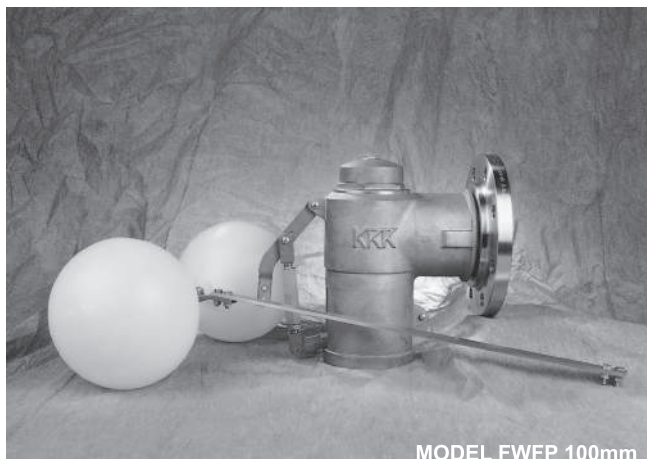
Nom.size	A	B	C	D	E	L ₁	L ₂	J	H	Allowance of L ₁ to H	G	Allowance of G	Length of lever arm	Upper float	Lower float	Connection Standard
15	25	30	27.5	15	27	(395)	(150)	80	95	±20	(300)	±30	150	120	—	JIS B 2061
20	40	35	33	20	37.5	(485)	(130)	90	110	±20	(365)	±30	180	150	—	
25	50	35	36.5	25	53	(475)	(110)	100	125	±20	(390)	±30	200	150	—	
32	50	22	60	25	54.5	(555)	(20)	140	165	±25	(400)	±35	255	150	120	JIS B 0203 & BS21
40	55	23	62	27	60	(585)	(15)	150	177	±25	(445)	±35	300	150	120	
50	68	26	72	28	69	(625)	(65)	165	193	±25	(485)	±35	350	150	120	
65	90	28	80.5	46	74	(830)	(140)	180	226	±30	(600)	±45	432	150	120	JIS B 0202 & BS21
80	100	28	87	53	85	(840)	(180)	230	283	±30	(690)	±45	482	150	150	
100	130	30	87	53	119	(930)	(120)	280	333	±30	(730)	±60	534	150	150	
150	130	32	105	70	140	(1065)	(100)	430	500	±30	(890)	±60	750	180	150	
(200)	260	40	132.5	92	144	(1300)	(300)	430	522	±40	(1260)	±80	1050	180	180	

()Rough estimate

●Materials:

Description	Material
Body	Bronze
Strainer	Stainless Steel
Lever Arm	Stainless Steel
Floats	Polyethylene
Valve Spindle	Bronze
Adjustable Connector	Brass
Disc	EPDM/NBR

Pressure Balanced Float Valve : Model FWFP



MODEL FWFP 100mm

FW100 meets BS1212 standard.

● Operating Conditions:

MODEL		FWFP											
Nominal Size	mm	15	20	25	32	40	50	65	80	100	150	200	
	inch	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	
Applicable Fluid		Water											
Working Temperature		0 to 60°C											
Working Pressure (inlet)		above 0 to 1.6MPa											
Shell Test Pressure		2.4MPa											

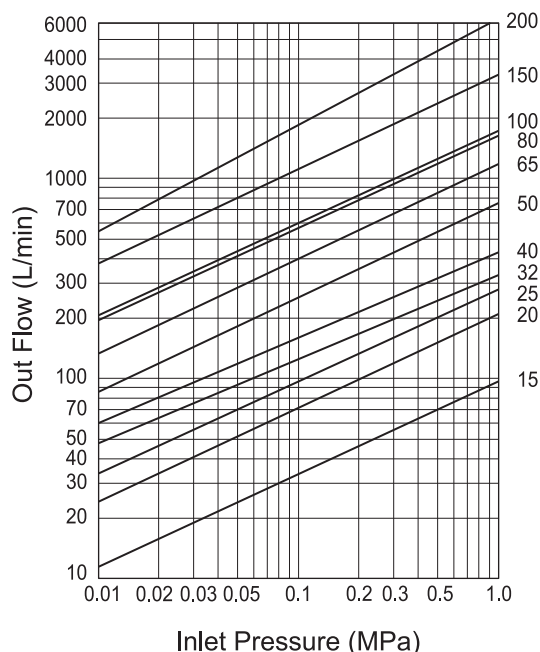
● Basic Application:

Float valves use the weight and buoyancy of their float to keep water levels constant inside water reservoir tanks.

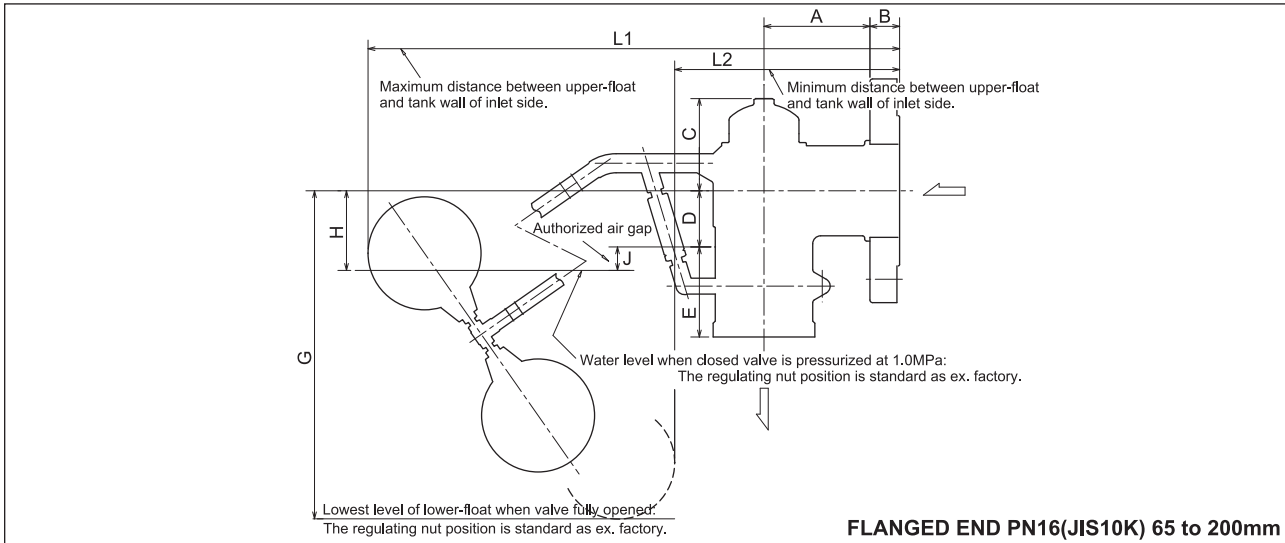
● Features:

1. The unique design of smaller double floats helps to increase water storage capacity and reduce water tank height requirements.
2. Higher working pressure provides a tightness of seat that prevents leakage, overflow, and high maintenance costs.
3. The double float design provides a double-safety feature. Even if one of the floats leak, the other will still function.
4. KKK Float Valves come with an adjustable lever that can be adjusted as required.
5. KKK Float Valves come with a built-in stainless steel strainer to protect the valve seat and to prevent it from clogging, jamming or overflowing.
6. KKK Float Valves' unique design can be fitted with a wave suppression pipe to provide wave suppression when requested.
7. Bronze prevents rust contamination of potable water.
8. The Polyethylene float never pollutes the drinking water.

● Flow Characteristics:



Pressure Balanced Float Valve : Model FWFP



●Dimensions:

unit:mm

Nom.size	A	B	C	D	E	L ₁	L ₂	J	H	Allowance of L ₁ to H	G	Allowance of G	Length of lever arm	Upper float	Lower float	Connection Standard
15	25	16	27.5	15	27	(381)	(136)	80	95	±20	(300)	±30	150	120	—	JIS B 2061
20	40	18	33	20	37.5	(468)	(113)	90	110	±20	(365)	±30	180	150	—	
25	50	18	36.5	25	53	(458)	(93)	100	125	±20	(390)	±30	200	150	—	
32	50	20	60	25	54.5	(555)	(20)	140	165	±25	(400)	±35	255	150	120	JIS B 0203 & BS21
40	55	20	62	27	60	(585)	(15)	150	177	±25	(445)	±35	300	150	120	
50	68	26	72	28	69	(628)	(68)	165	193	±25	(485)	±35	350	150	120	
65	90	28	80.5	46	74	(833)	(143)	180	226	±30	(600)	±45	432	150	120	ISO7005-3 (BS 4504) PN16
80	100	28	87	53	85	(843)	(183)	230	283	±30	(690)	±45	482	150	150	
100	130	30	87	53	119	(930)	(120)	280	333	±30	(730)	±60	534	150	150	
150	130	32	105	70	140	(1080)	(100)	430	500	±30	(890)	±60	750	180	150	
(200)	260	40	132.5	92	144	(1300)	(300)	430	522	±40	(1260)	±80	1050	180	180	

●Materials:

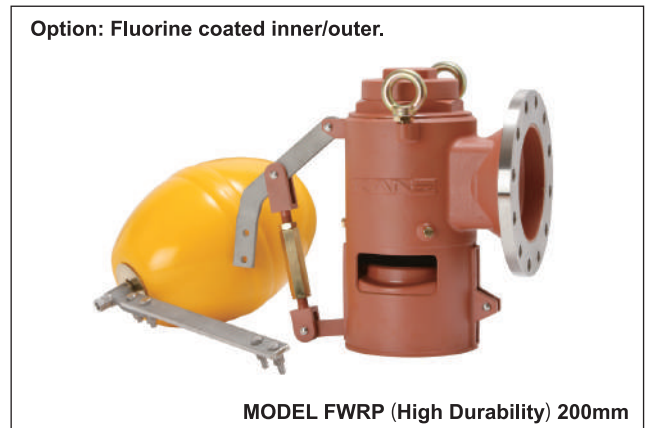
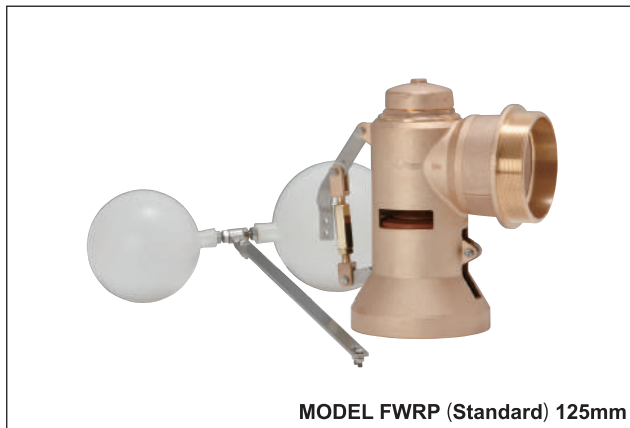
Description	Material
Body	Bronze
Strainer	Stainless Steel
Lever Arm	Stainless Steel
Floats	Polyethylene
Valve Spindle	Bronze
Adjustable Connector	Brass
Flange	Stainless Steel
Disc	EPDM/NBR

※Copper float is available.

BRONZE VALVES



Float Valve for rain, underground, sea, river water : Model FWRP



●Operating Conditions:

MODEL		FWRP (Standard and High Durability type)							
Nominal Size	mm	40	50	65	80	100	125	150	200
	inch	1-1/2	2	2-1/2	3	4	5	6	8
Applicable Fluid		Water							
Working Temperature		0 to 60°C							
Working Pressure (inlet)		above 0 to 1.6MPa							
Shell Test Pressure		2.4MPa							

●Basic Application:

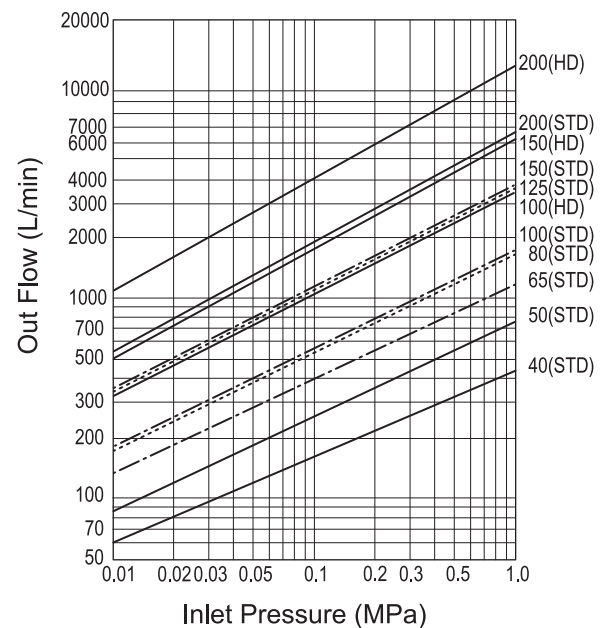
The flow path of this float valve is specially designed to solve the trouble caused by the kind of fluid. It is recommended to use for rain, underground, sea and river*¹ water.

*¹ Depending on the condition, primary filtration will be required.

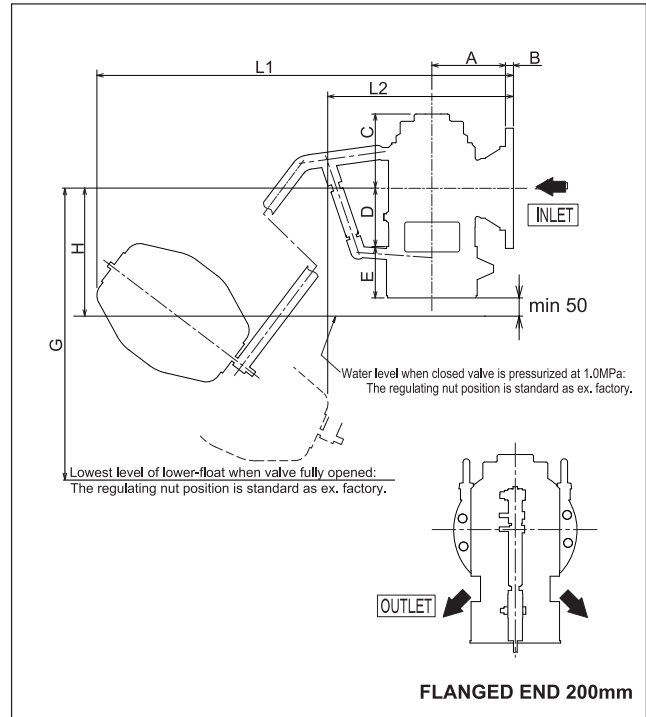
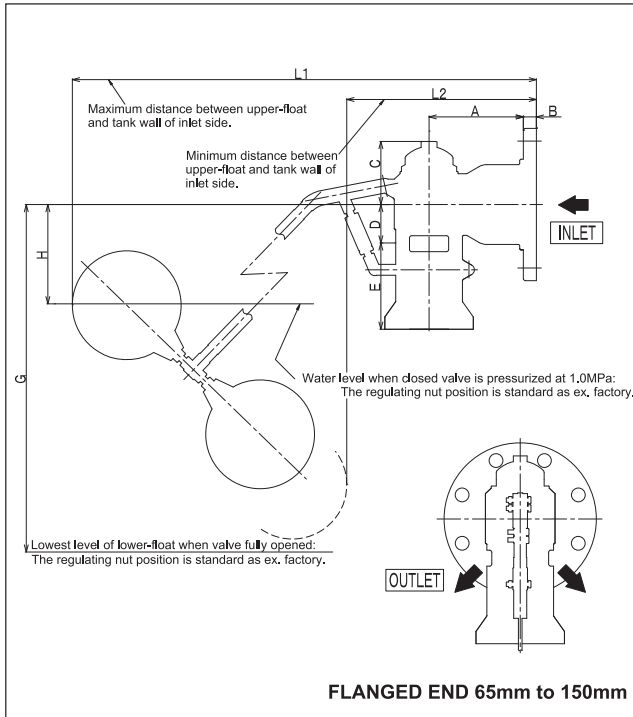
●Features:

1. By the design of the clogging prevention and the discharge flow control, standard and high durability type can be used in various of water.
2. Higher working pressure can be used for wide range of applications.
3. The small air-gap design provides more storage volume for rain water reservoir and etc. where the ceiling height is limited place.
4. Our float valves are equipped with an adjustable air-gap adaptor that can be set as required.
5. Standard type is applicable for rain, underground water.
6. High durability type is applicable for sea, river water by optional fluorine coating.
7. Bronze material has been chosen by its long durability in water.

●Flow Characteristics:



Float Valve for rain, underground, sea, river water : Model FWRP



●Dimensions: Standard type

unit:mm

Nom.size	mm	inch	A	B	C	D	E	L ₁	L ₂	H	Allowance of L ₁ to H	G	Allowance of G	Length of lever arm	Upper float	Lower float	Connection Standard
50	2	68	26	72	28	69	(628)	(68)	193	±25	(485)	±35	350	150	150		
65	2-1/2	90	28	80.5	46	74	(830)	(140)	226	±30	(600)	±45	432	150	120		
80	3	100	28	87	53	85	(840)	(180)	283	±30	(690)	±45	482	150	150	JIS 10K JIS 16K & PN16	
100	4	130	30	87	53	119	(930)	(120)	333	±30	(730)	±60	534	150	150		
125	5	130	32	105	70	140	(1065)	(100)	500	±30	(890)	±60	750	180	150		
150	6	130	32	105	70	140	(1065)	(100)	500	±30	(890)	±60	750	180	150		

※Originally, FLUORINE-COATING is applied to the valve seat & outlet port.

()Rough estimate

●Dimensions: High Durability type

unit:mm

Nom.size	mm	inch	A	B	C	D	E	L ₁	L ₂	H	Allowance of L ₁ to H	G	Allowance of G	Length of lever arm	Upper float	Lower float	Connection Standard
150	6	155	22	135	150	100	(1200)	(420)	300	±30	(840)	±60	600	260×339			
200	8	202	22	204	120	181	(1440)	(480)	351	±30	(900)	±60	600	407×309			

※Originally, FLUORINE-COATING is applied to the valve seat & outlet port.

()Rough estimate

●Materials:

Description	Material
Body	Bronze
Flange	Sus304
Lever Arm	Stainless Steel

Floats	Polyethylene
Valve Spindle	Bronze/Brass
Adjustable Connector	Brass
Disc	EPDM/NBR

ISO9001 / ISO14001 Certified **KANE KANE KOGYO Co., Ltd. JAPAN**

Japanese Industrial Standards Certification Factory

Head office and factory : 2036 Okusa, Komaki-shi, Aichi-ken 485-0802 Japan

Web site : <http://www.kanevalve.com>

E-mail : overseasales@kanevalve.co.jp

2019. 10

More than 60 years experienced Simple and Reliable style :

FLOAT VALVES: FWSP/FP INSTALLATION DIAGRAM

●Dimensions:

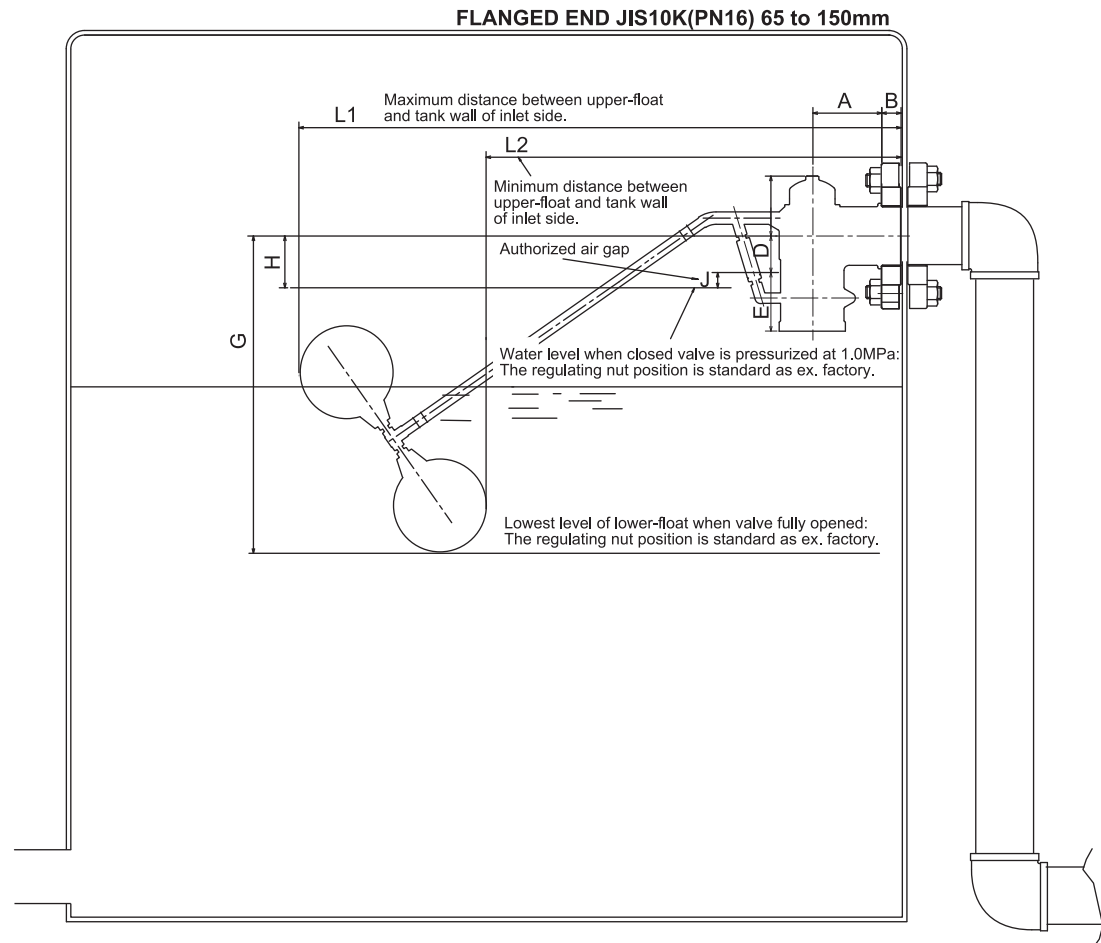
unit:mm

Nom.size		A	B	C	D	E	L ₁	L ₂	J	H
mm	inch									
50	2	68	26	72	28	69	(628)	(68)	165	193
65	2-1/2	90	28	80.5	46	74	(833)	(143)	180	226
80	3	100	28	87	53	85	(843)	(183)	230	283
100	4	130	30	87	53	119	(930)	(120)	280	280
150	6	130	32	105	70	140	(1080)	(112)	430	500

unit:mm

Nom.size		Allowance of L ₁ to H	G	Allowance of G	Length of lever arm	Upper float	Lower float	Connection Standard
mm	inch							
50	2	±25	(485)	±35	350	150	120	ISO7005-3 (BS 4504) PN16
65	2-1/2	±30	(600)	±45	432	150	120	
80	3	±30	(690)	±45	482	150	150	
100	4	±30	(730)	±60	534	150	150	
150	6	±30	(890)	±60	750	180	150	

Typical Application: For all tanks without main control system.
Notice: Perforated strainer is packaged in the carton box.



More than 60 years experienced Simple and Reliable style :

FLOAT VALVES: FW INSTALLATION DIAGRAM

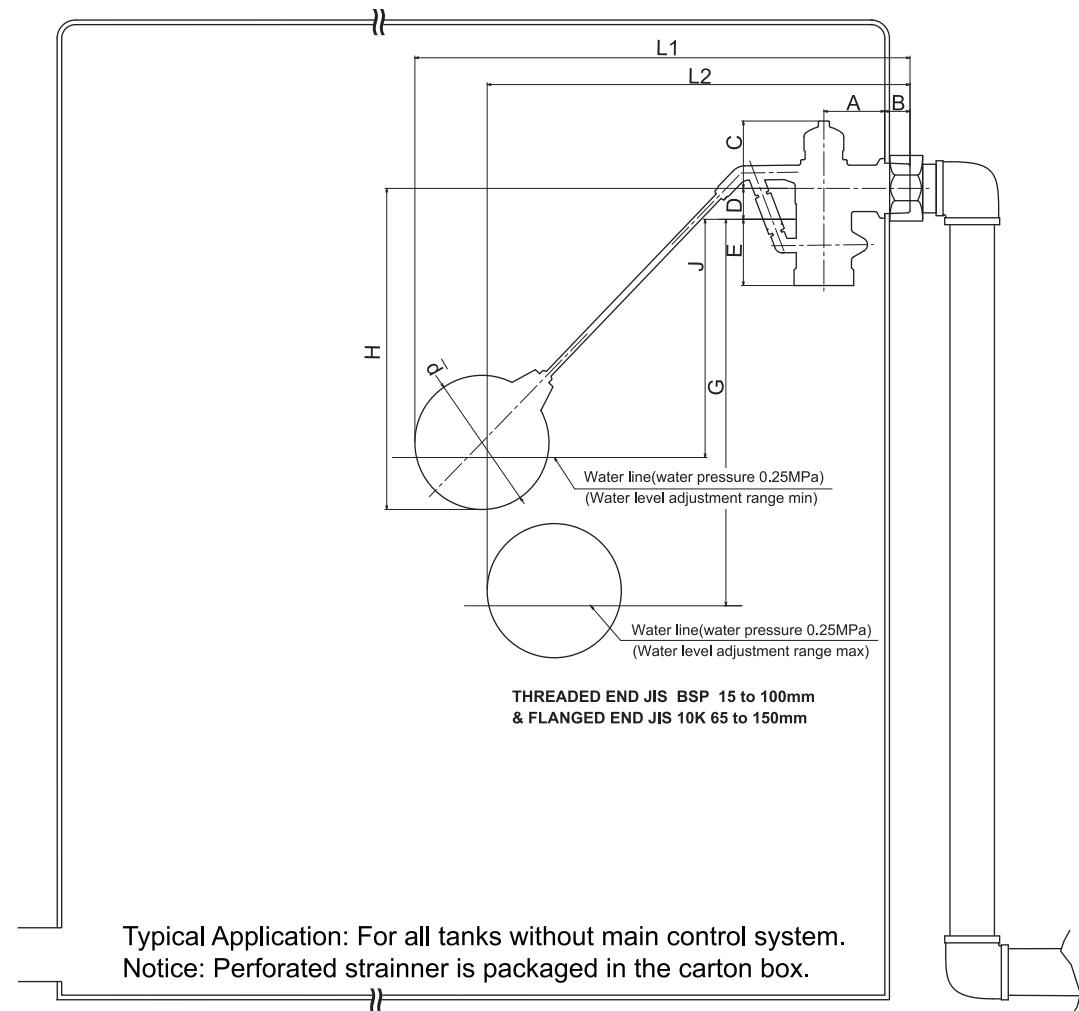
●Dimensions:

unit:mm

Nom.size		A	B	C	D	E	L ₁	L ₂	J	H
mm	inch									
15	1/2	25	30	27.5	15	27	(370)	(353)	50	98
20	3/4	40	35	33	20	37.5	(420)	(400)	50	103
25	1	50	35	36.5	25	53	(490)	(466)	50	110
32	1-1/4	50	22	60	25	54.5	(477)	(424)	100	180
40	1-1/2	55	23	62	27	60	(541)	(471)	100	186
50	2	68	26	72	28	69	(599)	(526)	100	188
65	2-1/2	90	28	80.5	46	74	(758)	(724)	100	195
80	3	100	28	87	53	85	(900)	(875)	120	243
100	4	130	30	105	70	102	(994)	(972)	140	266
125	5	168	32	132.5	92	144	(1300)	(1280)	350	490
150	6	168	32	132.5	92	144	(1300)	(1280)	350	490

Nom.size		Allowance of J	G	Allowance of G	Length of Lever arm	Float d	Connection Standard
mm	inch						
15	1/2	±20	(100)	±20	150	100	JIS B 2061
20	3/4	±20	(100)	±20	150	120	
25	1	±20	(130)	±20	200	120	
32	1-1/4	±25	(200)	±25	235	120	JIS B 0203 & BS21
40	1-1/2	±25	(220)	±25	280	120	
50	2	±25	(240)	±25	280	150	
65	2-1/2	±30	(190)	±30	450	150	JIS B 0202 & BS21
80	3	±30	(190)	±30	550	180	
100	4	±30	(200)	±30	600	180	
125	5	±30	(450)	±30	800	180/180	JIS B 2239
150	6	±30	(450)	±30	800	180/180	

() Rough estimate



Float Valve for combination method of drink water : Model FWHR



MODEL FWHR 25mm

●Operating Conditions:

MODEL		FWHR					
Nominal Size	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1-1/4	1-1/2	2
Applicable Fluid		Water					
Working Temperature		0 to 60°C					
Working Pressure (inlet)		0 to 0.75MPa					
Shell Test Pressure		1.75MPa					

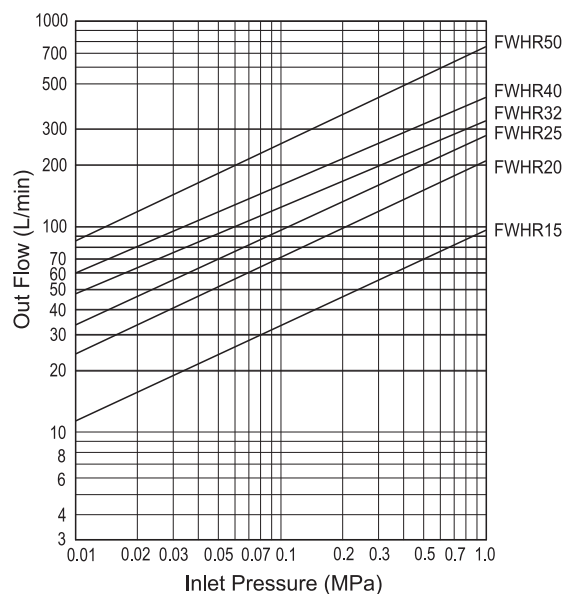
●Basic Application:

These float valves are specially designed for the drinking water as a part of the combination method of rain water and drinking water system.

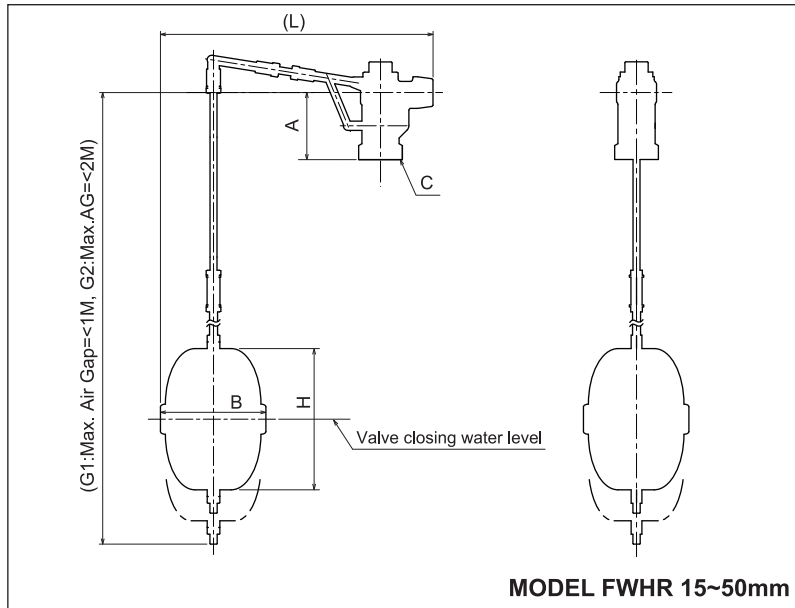
●Features:

1. FWHR designed for rain water reservoir tank combination method.
2. Model FWHR come with a built-in stainless steel strainer to protect the valve seat and preventing it from clogging, jamming or overflowing.
3. Bronze prevents rust contamination of drinking water.
4. The polyethylene float never pollutes the drinking water.

●Flow Characteristics:



Float Valve for combination method of drink water : Model FWHR



● Dimensions:

MODEL:FWHR Threaded End

unit:mm

Nom.size		A	φ B×H	C	(L)	(G1) 1M	(G2) 2M	Connection Standard
mm	inch							
15	1/2	65	131×187	—	330	515 ~ 1230	515 ~ 2230	JIS B 2061
20	3/4	72	131×187	G1-1/4	360	515 ~ 1230	515 ~ 2230	
25	1	78	131×187	G1-1/4	370	515 ~ 1230	515 ~ 2230	
32	1-1/4	65	131×187	G1-1/4	410	520 ~ 1240	520 ~ 2240	JIS B 0203
40	1-1/2	72	131×187	G1-1/2	420	540 ~ 1260	540 ~ 2260	
50	2	78	(131×187)×2	G2	500	660 ~ 1380	660 ~ 2380	

() Rough estimate

● Materials:

Description	Material
Body	Bronze
Valve Spindle	Brass
Strainer	Stainless Steel
Disk	NBR
Adjustable bolt	Stainless Steel
Lever Arm	Brass
Float	Polyethylene

Float Valve : Model SL, SH



● Operating Conditions:

MODEL		SL			SH		
Nominal Size	mm	10	15	20	15	20	25
	inch	3/8	1/2	3/4	1/2	3/4	1
Applicable Fluid		Water					
Working Temperature		0 to 60°C					
Working Pressure (inlet)		0 to 0.75MPa (SL10~20mm, SH25mm) 0 to 1.0MPa (SH15~20mm)					
Shell Test Pressure		1.75MPa					

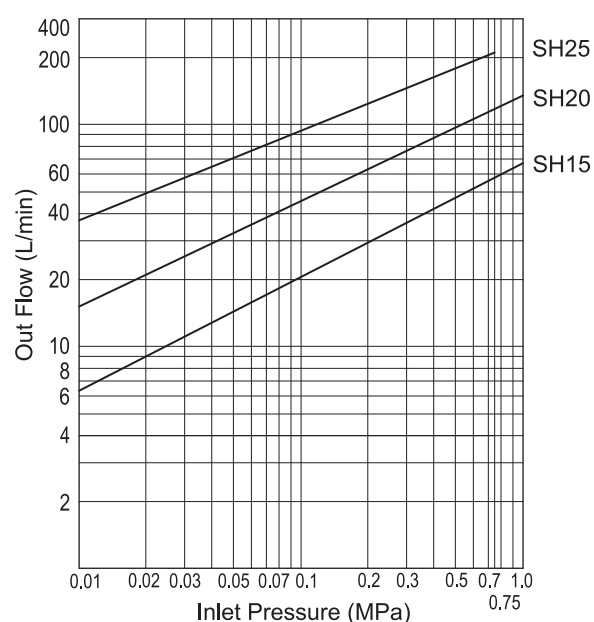
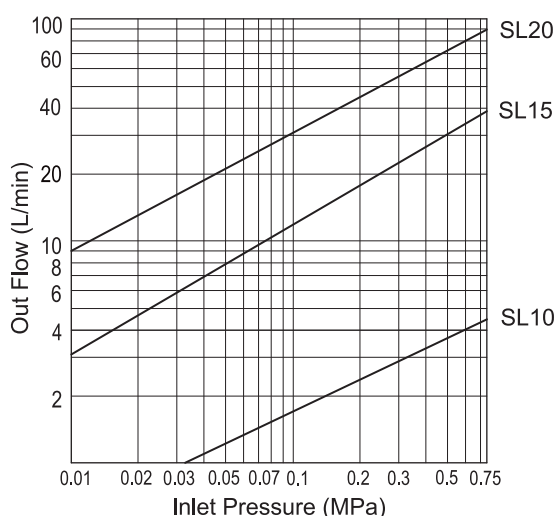
● Basic Application:

These float valves use the weight and buoyancy of their float to keep water levels constant inside water reservoir tanks.

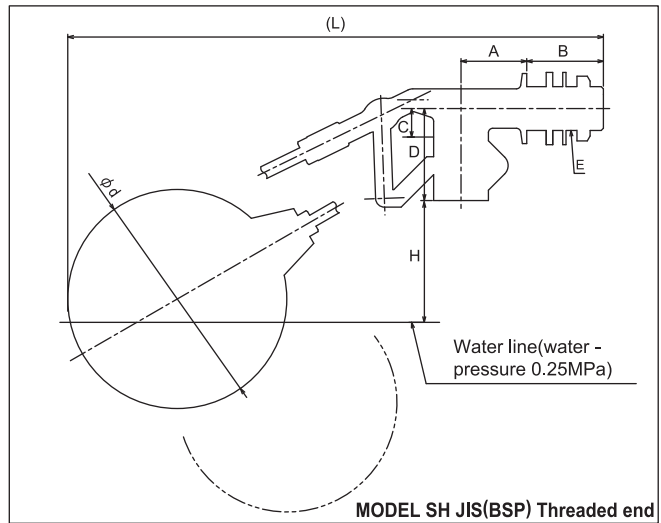
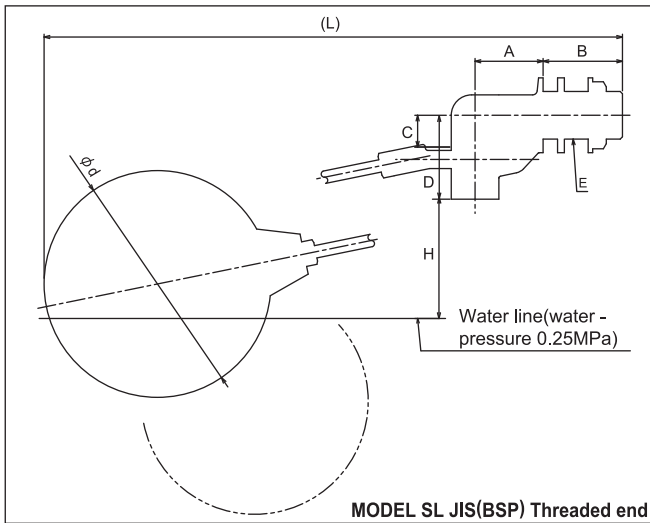
● Features:

1. SL10~20mm are single fulcrum type.
2. SH15~25mm are double fulcrum type.
3. Bronze prevents rust contamination of potable water.
4. The polyethylene float never pollutes the drinking water.

● Flow Characteristics:



Float Valve : Model SL,SH



●Dimensions:

unit:mm

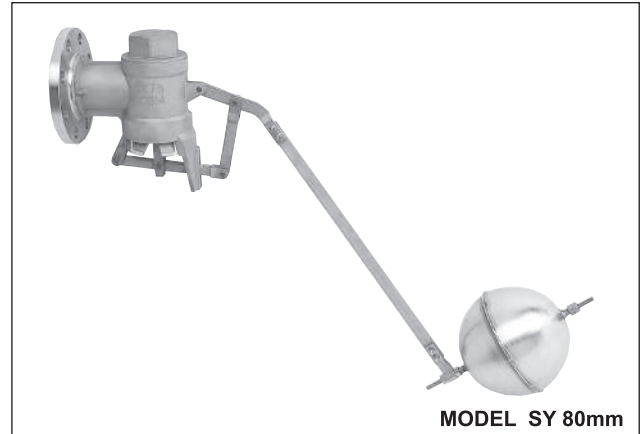
	Nom.size		A	B	C	D	E	H	L	Length of Lever arm	Float d
	mm	inch									
SL	10	3/8	24	20	16	33	JIS B0202 G3/8	25±10	153	L34×W3/16	φ60 (Polyethylene)
									164	L34×W3/16	φ70 (Copper)
	15	1/2	30	35	14	37	JIS B2061 PJ1/2	80±20	341	L150×M6	φ100
	20	3/4	40	30	17	41.5	JIS B2061 PJ3/4	90±20	425	L200×M6	φ120
SH	15	1/2	30	35	13	42	JIS B2061 PJ1/2	70±20	364	L150×M6	φ100
	20	3/4	40	35	21	50	JIS B2061 PJ3/4	85±20	434	L200×M6	φ120
	25	1	50	38	20	56	JIS B2061 PJ1	100±20	592	L280×M8	φ150

●Materials:

Description	Material
Body	Bronze
Lever Arm	Brass
Float	Polyethylene
Disc	NBR

※ Copper, Stainless Steel float are available.

Stainless Steel Float Valve : Model SY



●Operating Conditions:

MODEL		SY							
Nominal Size	mm	15	20	25	40	50	65	80	100
	inch	1/2	3/4	1	1-1/2	2	2-1/2	3	4
Applicable Fluid		Water							
Working Temperature		0 to 100°C							
Working Pressure (inlet)		above 0 to 1.0MPa							
Shell Test Pressure		1.75MPa							

●Basic Application:

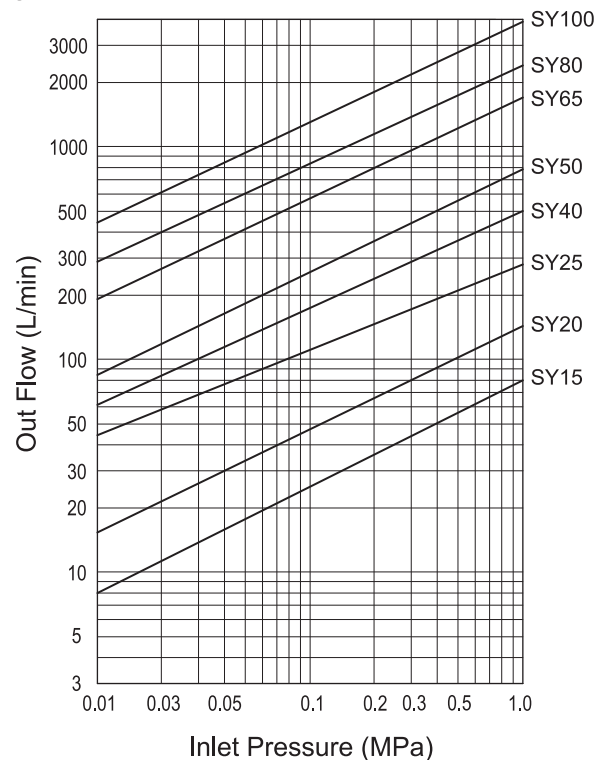
These float valves use the weight and buoyancy of their float to keep water levels constant inside water reservoir tanks. SY float valves cannot only be used with tap water, but can also be used with special fluids, such as pure water, seawater etc.

●Features:

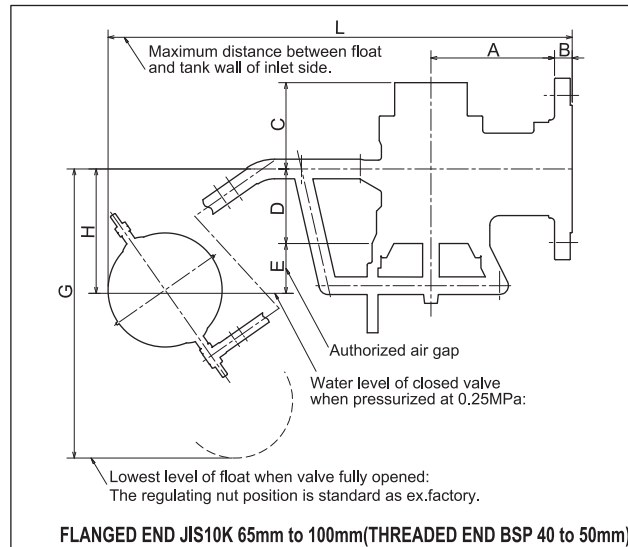
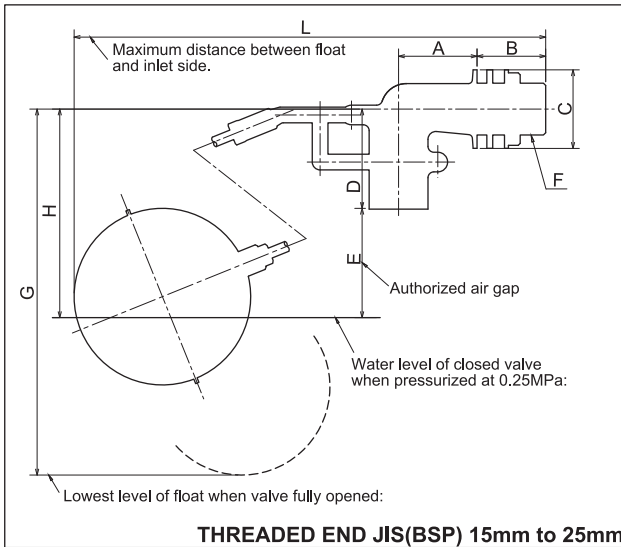
1. The S.S316 stainless steel body and parts prevent stains and rust.
2. Lost wax casting provides the benefits of thin walls and lightness.
3. SY 15~25 are double fulcrum type valves.
4. SY40-100 are pressure-balanced, double-linked types with built-in strainers. They don't fluctuate with water pressure.
5. SY can minimize water waves with a wide skirt.

※ S.S.316=316S31(BS),S31600(ASTM)

●Flow Characteristics:



Stainless Steel Float Valve : Model SY



●Dimensions:

unit:mm

Nom.size		A	B	C	D	E	L	H	F	Allowance of E	G	Length of Lever arm	Float	Connection Standard
mm	inch													
15	1/2	30	35	33	41	70	(363)	111	PJ1/2	±20	(277)	150	100	JIS B 2061 ※
20	3/4	40	35	40	51	85	(462)	136	PJ3/4	±20	(361)	210	120	
25	1	50	38	50	55	100	(586)	155	PJ1	±20	(474)	280	150	
40	1-1/2	68	23	56	41	100	(566)	141	R1-1/2	±25	(389)	280	120	JIS B 0203 & BS21
50	2	68	26	56	47	100	(598)	147	R2	±25	(417)	280	150	
65	2-1/2	120	24	88	76	130	(890)	206	^{2-1/2} JIS10K F	±30	(593)	432	180	JIS B 2240
80	3	120	24	88	76	140	(930)	216	³ JIS10K F	±30	(654)	482	180	
100	4	140	24	104.5	87	150	(1007)	237	⁴ JIS10K F	±30	(654)	534	180	

※ JIS B 2061 thread is able to use for BS21 thread.

() Rough estimate

●Materials: 15 to 25mm

Description	Material
Body	S.S.316
Guide	S.S.316
Disc / Option	FKM / NBR,EPDM,PTFE
Lever A	S.S.316
Rink	S.S.316
Lever B	S.S.316
Lever Arm	S.S.316
Float	S.S.316L/S.S.316(25mm)

※ S.S.316=316S31(BS),S31600(ASTM)

S.S.316L=316S11(BS),S31603(ASTM)

※ Casting Material: 316C16(BS) equivalent
: CF8M(ASTM)

●Materials: 40 to 100mm

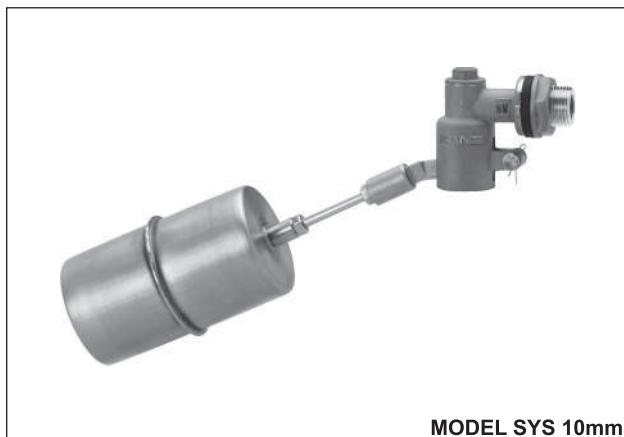
Description	Material
Body	S.S.316
Valve Spindle	S.S.316
Strainer	S.S.316
Lever A	S.S.316
Joint	S.S.316
Cylinder	S.S.316
Disc / Option	FKM / NBR,EPDM,PTFE
Guide	S.S.316
Lever B	S.S.316
Lever Arm	S.S.316
Float	S.S.316L(40mm)/S.S.316

※ S.S.316=316S31(BS),S31600(ASTM)

S.S.316L=316S11(BS),S31603(ASTM)

※ Casting Material: 316C16(BS) equivalent
: CF8M(ASTM)

Stainless Steel Float Valve : Model SYS



●Operating Conditions:

MODEL		SYS			
Nominal Size	mm	10	15	20	25
	inch	3/8	1/2	3/4	1
Applicable Fluid		Water			
Working Temperature		0 to 100°C			
Working Pressure (inlet)		above 0 to 0.75MPa			
Shell Test Pressure		1.75MPa			

●Basic Application:

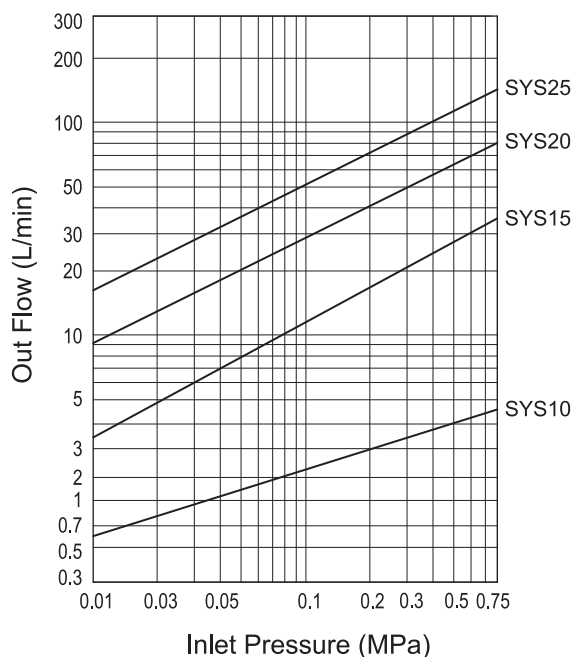
These float valves use the weight and buoyancy of their float to keep water levels constant inside water reservoir tanks. SY float valves cannot only be used with tap water, but can also be used with special fluids, such as pure water, seawater etc.

●Features:

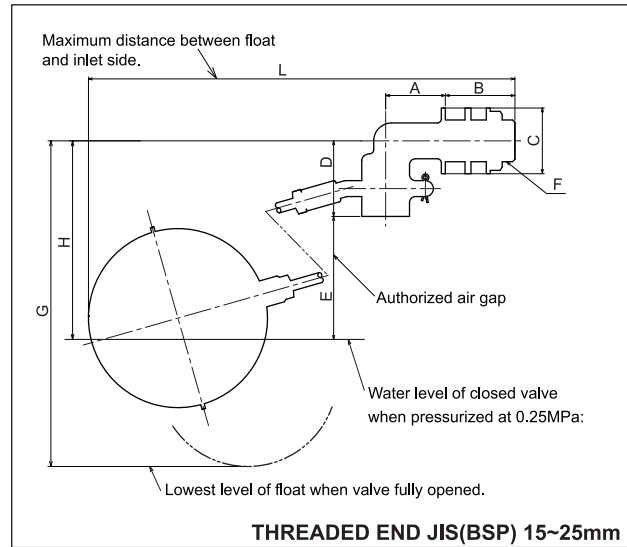
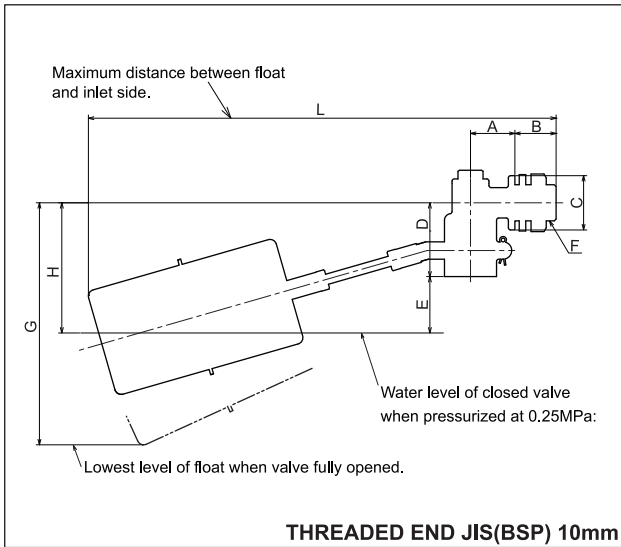
1. The S.S.316 stainless steel body and parts prevent stains and rust.
2. Lost wax casting provides the benefits of thin walls and lightness.
3. SYS 10~25 are single fulcrum type valves.

※ S.S.316=316S31(BS),S31600(ASTM)

●Flow Characteristics:



Stainless Steel Float Valve : Model SYS



●Dimensions:

unit:mm

Nom.size		A	B	C	D	E	L	H	F	Allowance of E	G	Length of Lever arm	Float	Connection Standard
mm	inch													
10	3/8	20	19	25	13	(48)	(218)	61	G3/8	(±10)	(148)	90	φ50×L90	JIS B 2061 ※
15	1/2	30	35	33	38	70	(367)	108	PJ1/2	±20	(228)	180	100	
20	3/4	40	35	40	51	85	(418)	136	PJ3/4	±20	(293)	200	120	
25	1	50	38	50	51	90	(539)	141	PJ1	±20	(360)	280	150	

※ JIS B 2061 is able to use BS21.

() Rough estimate

●Materials: 10mm

Description	Material
Body	S.S.316
Guide	S.S.316
Disc / Option	FKM / NBR,EPDM,PTFE
Lever	S.S.316
Lever Arm	S.S.316
Float	S.S.316
Cap	S.S.316

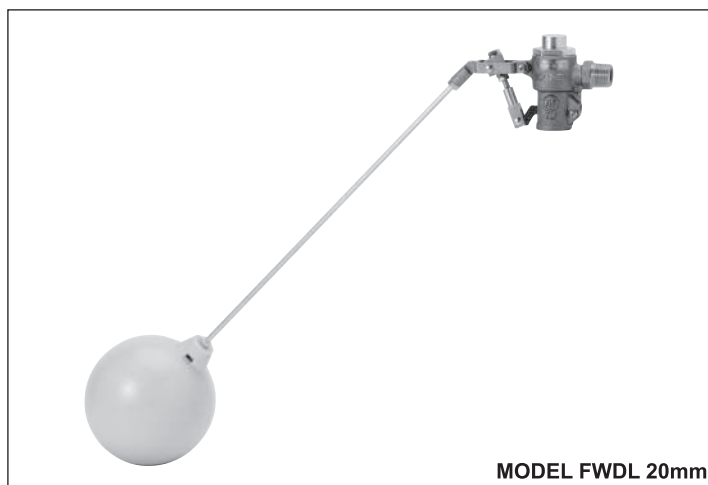
※ S.S.316=316S31(BS),S31600(ASTM)
 ※ Casting Material: 316C16(BS) equivalent
 : CF8M(ASTM)

●Materials: 15 to 25mm

Description	Material
Body	S.S.316
Lever	S.S.316
Disc / Option	FKM / NBR,EPDM,PTFE
Guide	S.S.316
Lever Arm	S.S.316
Float	S.S.316

※ S.S.316=316S31(BS),S31600(ASTM)
 ※ Casting Material: 316C16(BS) equivalent
 : CF8M(ASTM)

Pilot valve of level differential operating type : Model FWDL



●Operating Conditions:

MODEL		FWDL		Applicable Fluid	Water
Nominal Size	mm	15	20	Working Temperature	above 0 to 60°C
	inch	1/2	3/4	Working Pressure (inlet)	above 0 to 1.6MPa
Applicable Fluid		Water		Shell Test Pressure	2.4MPa
Level of Adjustable		Factory setting: 280mm(Max.), Minimum setting: 120mm			

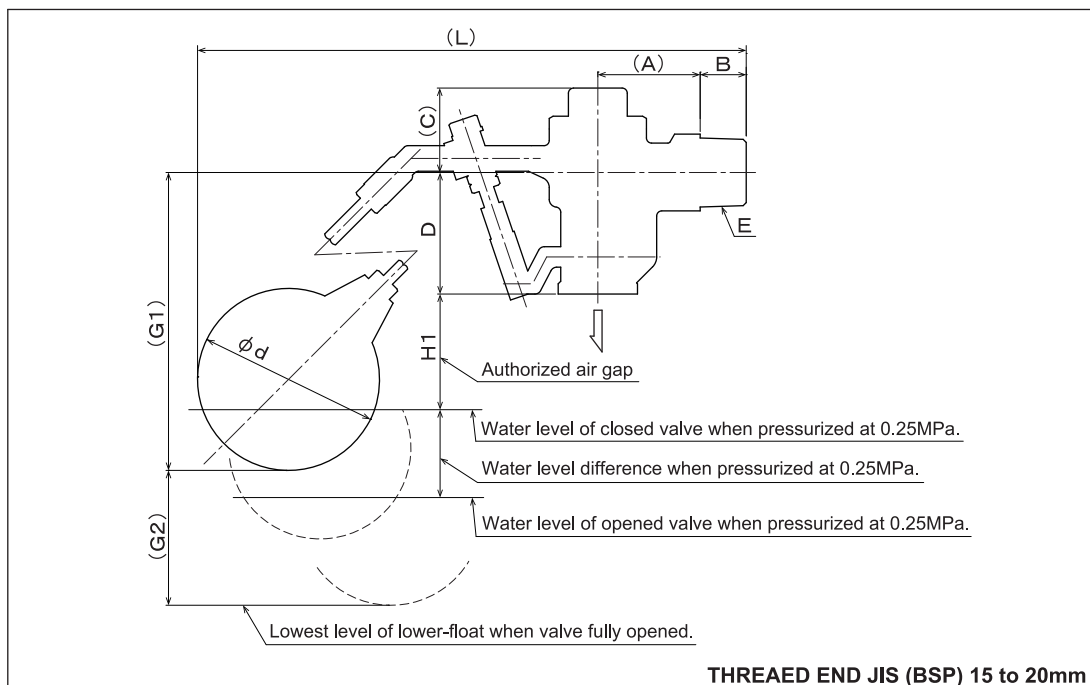
●Basic Application:

Model FWDL is used as a pilot valve with Model D series to reduce the energy costs of pumps by setting the water level suitable for water consumption.

●Features:

1. The specially designed level differential pilot valve helps to increase water storage capacity and to circulate the water inside a tank.
2. The water level can be easily adjusted as required by shortening or lengthening the turnbuckle of valve arms.
3. The valve comes with a built-in stainless steel perforated strainer to protect the valve seat and prevent it from clogging, jamming, or overflowing.
4. The angle patterned pilot valve triggers self-cleaning of the system on every run.
5. Bronze protects potable water from red rust and rust contamination.
6. The polyethylene float never pollutes the drinking water.

Pilot valve of level differential operating type : Model FWDL



●Dimensions:

unit:mm

Nom.size		B	(C)	D	E	Minimum Adjusted Water Level					MAXimum Adjusted Water Level(EX-FACTORY)					d	Connection Standard
mm	inch					H1	(H2)	(G1)	(G2)	(L)	H1	(H2)	(G1)	(G2)	(L)		
15	3/8	17	33	47.5	R1/2	120±30	100	217	207	588	280±30	60	377	121	492	120	JIS B 0203 & BS21
20	3/4	18	33	47.5	R3/4	120±30	100	217	207	596	280±30	60	377	121	500	120	

()Rough estimate

●Materials:

Description	Material	Description	Material
Body	Bronze	Guide	Bronze
Valve Spindle	Brass	Lever B	Brass
Strainer	Stainless Steel	Lever Arm	Stainless Steel
Lever A	Bronze	Float	Polyethylene
Bolt	Stainless Steel	Joint A	Brass
Cylinder	Brass	Joint B	Brass
Disc	EPDM		

FWDL Operating Principles:

Close Position: See Fig. 1

The FWDL is kept in the close position by the balancing mechanism when acted upon by the buoyancy of the float (used for valve closing) and the inlet pressure.

Water Level Drops:

When the water level starts dropping, the float begins to rest less and less on the water surface, until 100mm at which point it is practically hanging in the air. This is due to its pressure balancing mechanism.

Open Position : See Fig.2

When the water level drops more than 100mm, the weight of the float will exceed FWDL's pressure balance, and the valve will open to start water flow.

Water Level Rises:

The main valve will open when FWDL starts the flow.
The water level in the tank will start to rise.

Back to Close Position: See Fig.1

When the water level rises higher, the float (now used for valve closing) will start floating on the water. Then the FWD valve will close at the preset high water level.

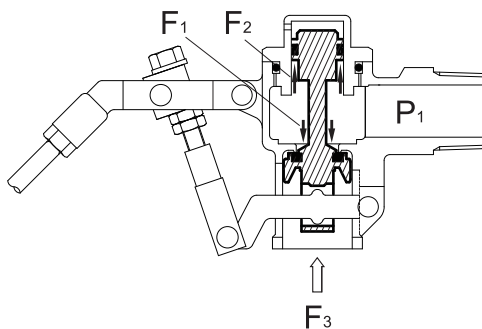


FIG1. case of non flowing

$$F_1 = P_1 \times S_1 = F_2 = P_1 \times S_2$$



Pilot Valve is closed by F_3 .
(Buoyancy of float)

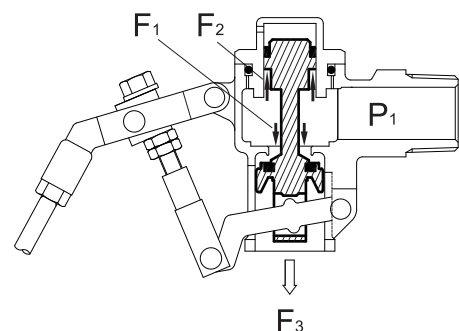


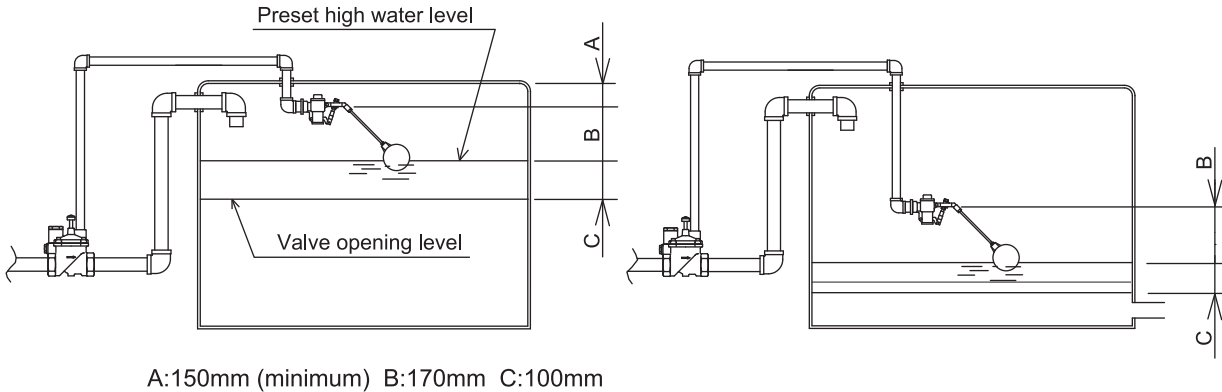
FIG2. case of flowing

$$F_1 = P_1 \times S_1 = F_2 = P_1 \times S_2$$



Pilot Valve is opened by F_3 .
(Float weight)

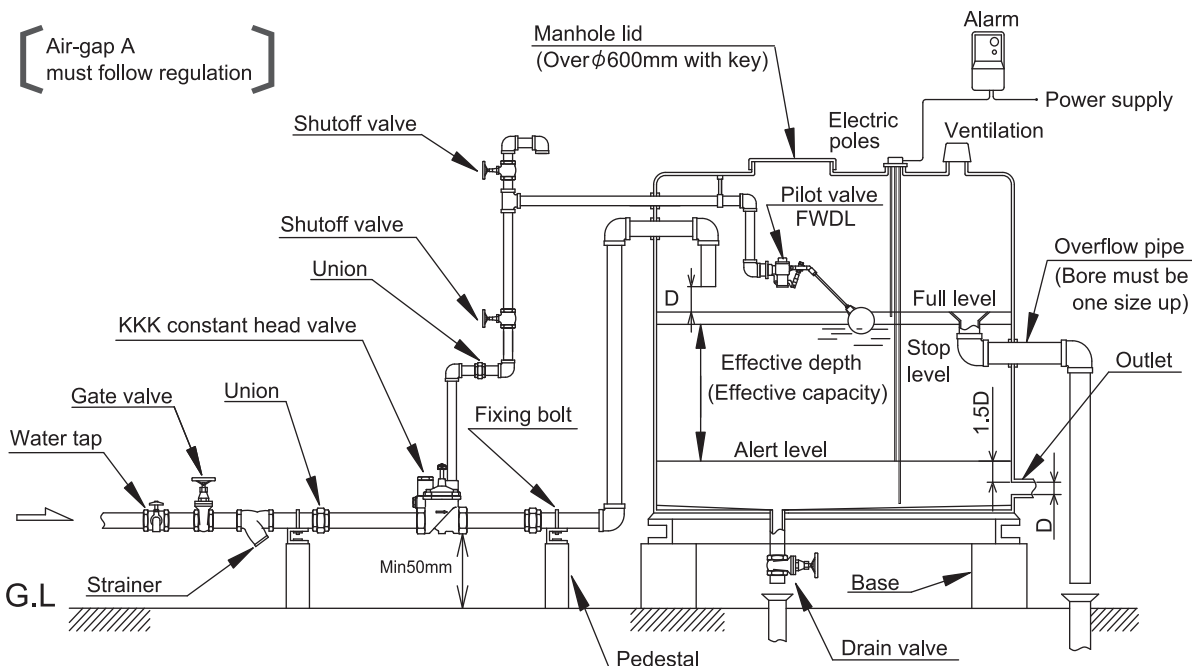
MODEL : DS PILOT VALVE(FWDL) INSTALLATION DIAGRAM



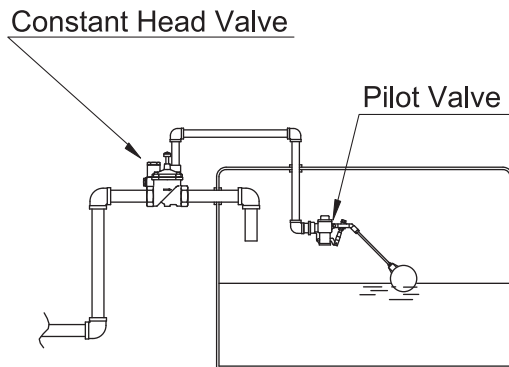
Advantages

1. FWDL pilot valve is designed to close tight when the water level reaches a preset maximum height (for first time operation). Afterwards, it opens whenever the water level drops approx. 100mm. Thus, FWDL provides accurate water level control in tanks.
2. FWDL provides a large water storage capacity.
3. FWDL can be installed at any height.
4. FWDL has no guide. This prevents water contamination from worms or dust from outside the tank.
5. FWDL can be easily removed for maintenance purposes.
6. Below is the standard installation in Japan.

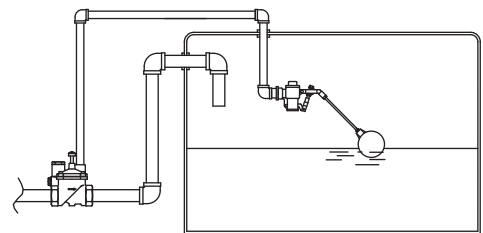
MODEL:DS INSTALLATION EXAMPLE (FWDL)



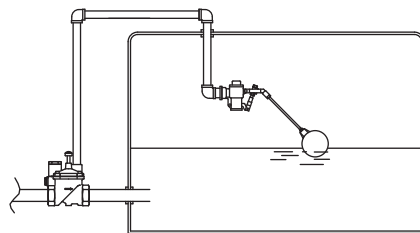
MODEL:DS INSTALLATION DIAGRAM (FWDL)



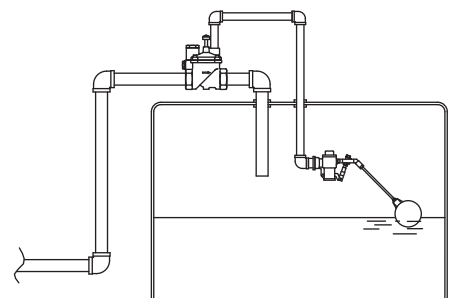
No.1



No.2

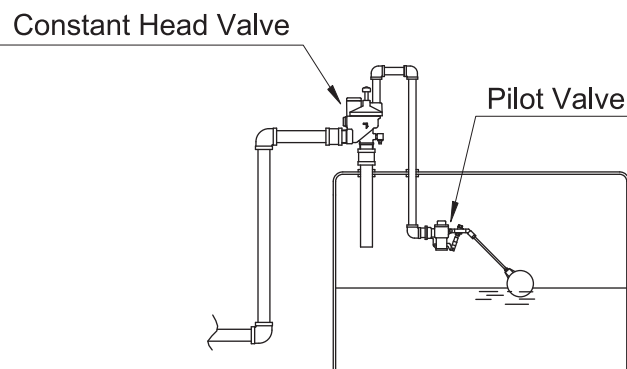


No.3



No.4

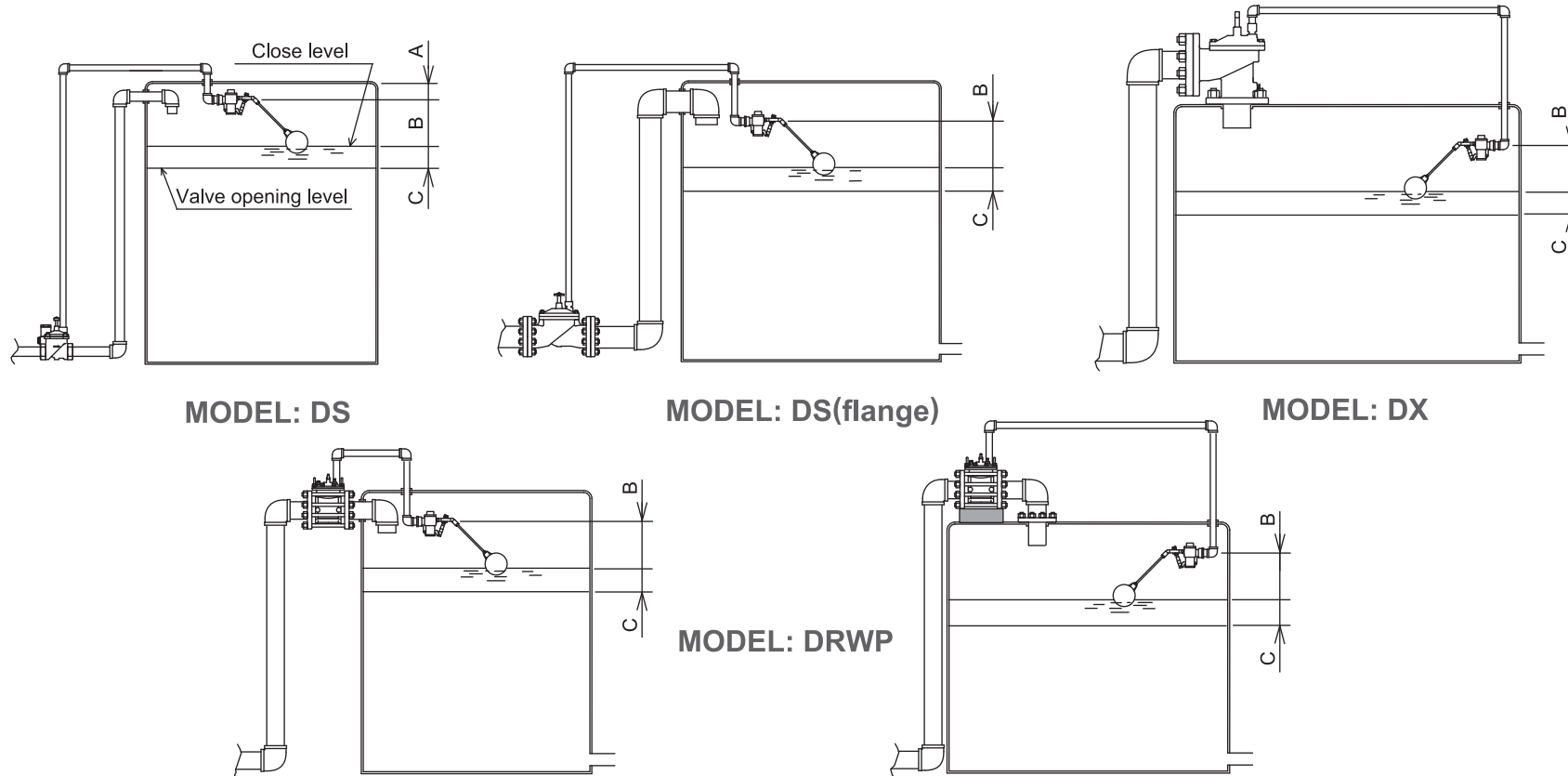
MODEL:DL INSTALLATION DIAGRAM (FWDL)



No.1

Main Valve and Pilot Valve Combination System :

By selecting FW series, dust and insects and rainwater will not be subject to intrusion from the hole for the pilot valve.
FLOAT VALVES PILOT: FWDL 15mm/ 1/2" SYSTEM DIAGRAM



APPLICATION for Portable and New Water system.

A:150mm (minimum) B:170mm C:100mm (level differential)

Typical Application: For big tanks in basements in order to save on electricity for pumps and to minimize flow-noise during the night. (Tank capacity: above 100 tons)

Recommendations: For pilot pipe, using sus 304/316 Sch40 pipe with size of 15mm/1/2" OD=21.7mm pipes. (hole opening for pilot pipe penetrating, is 25mm silicon sealing + pipe covering made of thin sus plate with headless allenkey screw)

Pressure Balanced Float Valves For Pilot : Model FWD



●Operating Conditions:

MODEL		FWD	
Nominal Size	mm	15	20
	inch	1/2	3/4
Applicable Fluid		Water	
Working Temperature		0.05 to 60°C	
Working Pressure (inlet)		above 0 to 1.6MPa	
Shell Test Pressure		2.4MPa	

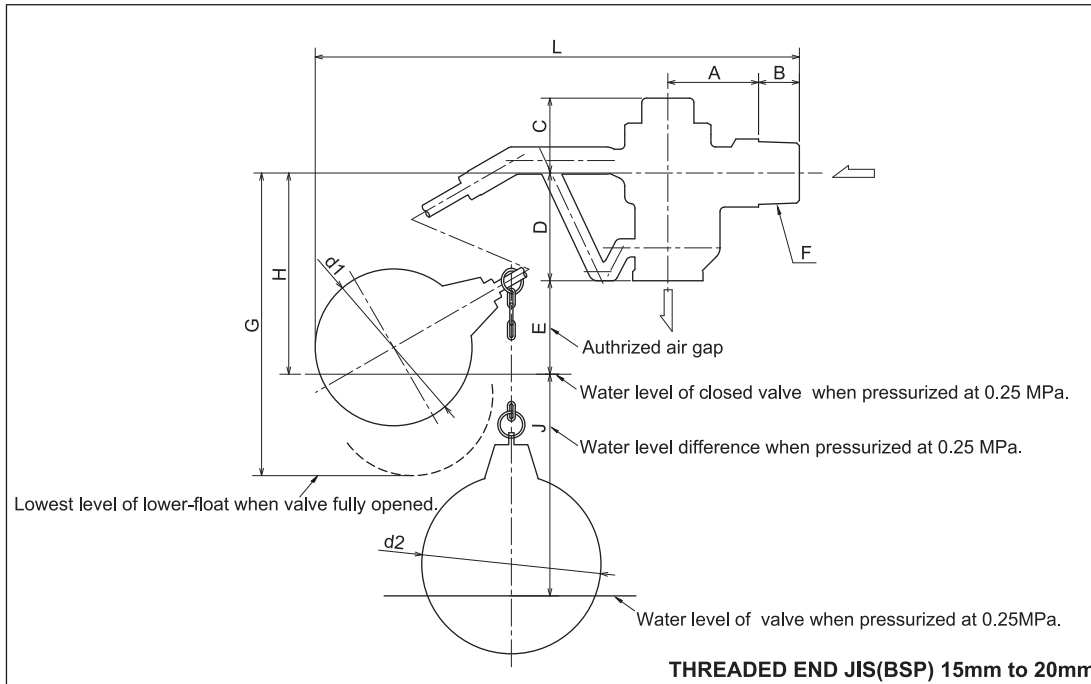
●Basic Application:

The FWD unit is used along with the DH unit in order to reduce the energy costs of pumps as well as conserve and refresh water by monitoring water levels that can greatly differ.

●Features:

1. The specially designed level differential pilot valve helps to increase water storage capacity and to circulate the water inside a tank.
2. The water level can be easily adjusted as required by shortening or lengthening the riser (vertical) pipe of the pilot valves.
3. The valve comes with a built-in stainless steel perforated strainer to protect the valve seat and prevent it from clogging, jamming or overflowing.
4. The angle-patterned pilot valve triggers self-cleaning of the seat on every run.
5. Bronze protects potable water from red rust contamination.
6. The polyethylene float never pollutes the drinking water.
7. The valve is designed to use chains for adjusting the level difference, a wide level difference minimizes the number of times the pumps turn on or off, therefore it is able to save on electricity costs for the pumps.

Pressure Balanced Float Valves For Pilot : Model FWD



●Dimensions:

unit:mm

Nom.size		A	B	C	D	E	L	H	F	Allowance of E	J	G	Length of Lever arm	Float d1	Float d2	Connection Standard
mm	inch															
15	1/2	33	17	33	47.5	117	(400)	168	R1/2	±30	(200~500)	(285)	250	100	120	JIS B 0203 & BS21
20	3/4	40	18	33	47.5	117	(408)	168	R3/4	±30	(200~500)	(285)	250	100	120	

()Rough estimate

●Materials:

Description	Material	Description	Material
Body	Bronze	Disc	EPDM
Valve Spindle	Bronze	Guide	Bronze
Strainer	Stainless Steel	Lever B	Brass
Lever A	Bronze	Lever Arm	Stainless Steel
Link	Stainless Steel	Float	Polyethylene
Cylinder	Bronze		

FWD Operating Principles:

Close Position: See Fig. 1

The FWD is kept in the close position by the balancing mechanism when acted upon by the buoyancy of float A (used for valve closing) and the inlet pressure.

Water Level Drops: See Fig. 2

When the water level drops, float A will remain hanging in the air because of FWD's pressure-balancing mechanism. Meanwhile, float B (used for valve opening), which is connected to float A by a chain, keeps floating on the water.

Open Position: See Fig. 3

When the chain is pulled to tension, the weight of float B (used for valve opening) will exceed FWD's pressure balance and the FWD valve will open to start water flow.

Water Level Rises: See Fig. 2

The main valve will open when FWD starts to flow. The water level in the tank will start to rise.

FWD Back to Close Position: See Fig. 1

Float B (used for valve opening) keeps floating on the water. When the water level rises higher, Float A (used for valve closing) will start floating on the water. Then the FWD valve will close.

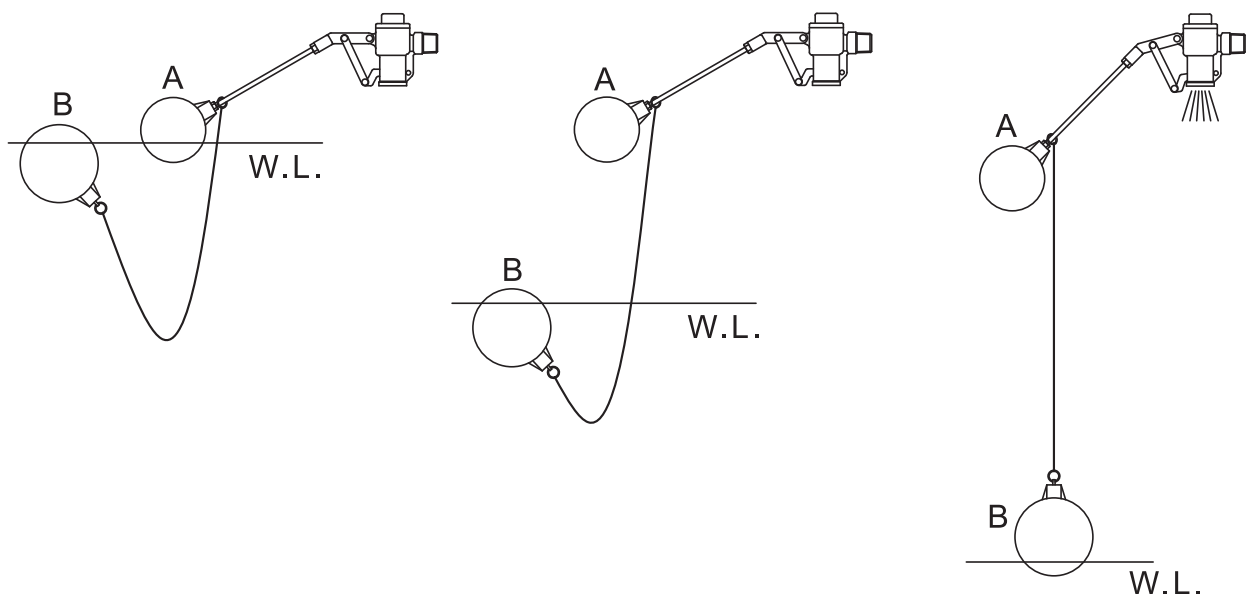


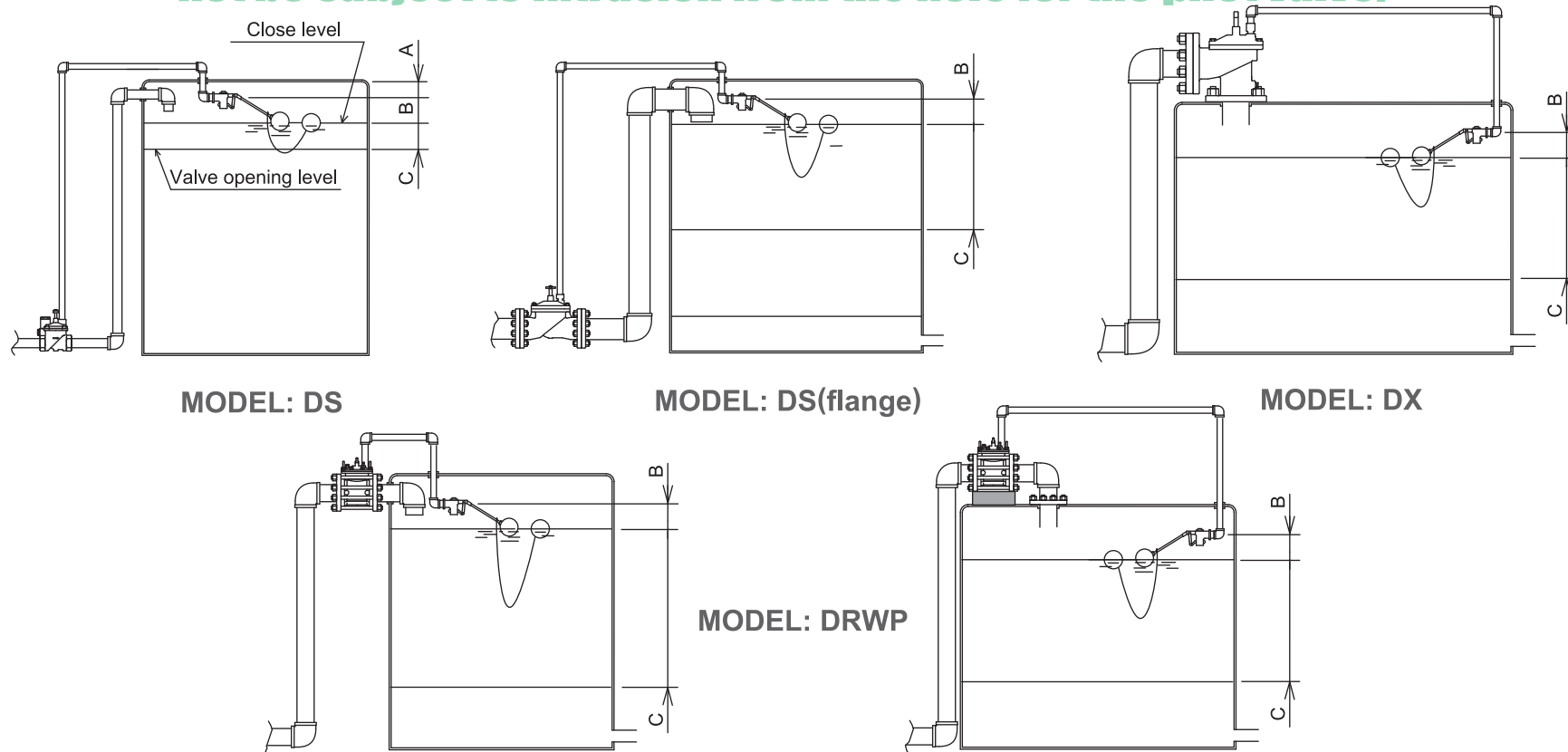
FIG1. close position

FIG2. water level drops/rises

FIG3. open position

Main Valve and Pilot Valve Combination System :

By selecting FW series, dust and insects and rainwater will not be subject to intrusion from the hole for the pilot valve.
FLOAT VALVES PILOT: FWD 15mm/ 1/2" SYSTEM DIAGRAM



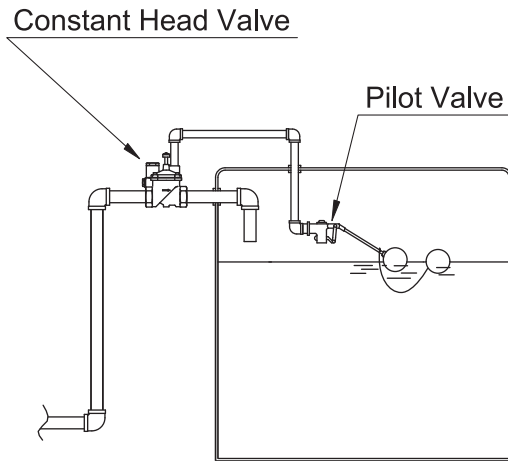
APPLICATION for Portable and New Water system.

A:150mm (minimum) B:170mm C:500, 1000, 1500, 2000mm

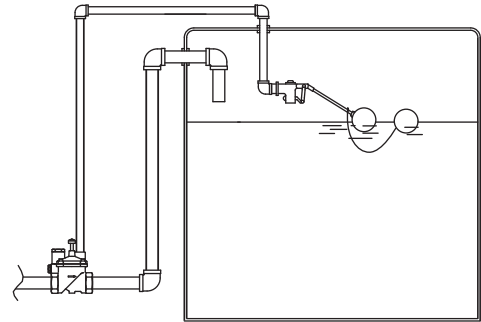
Typical Application: For tall tanks on rooftops or for big reservoirs to circulate dead water, save on pump electricity, lengthen pump life, and minimize flow-noise during the night. (Top tank size: 1 to 2.5 m³ / Big reservoirs: above 100 tons)

Recommendations: For pilot pipe, using sus 304/316 Sch40 pipe with size of 15mm/1/2" OD=21.7mm pipes. (hole opening for pilot pipe penetrating is Min.35mm, rubber bush + silicon sealing + pipe covering socket with headless allenkey screw)

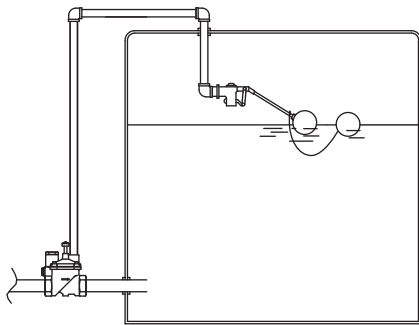
MODEL : DS INSTALLATION DIAGRAM (FWD)



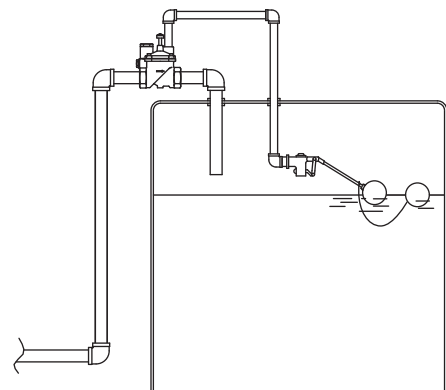
No.1



No.2



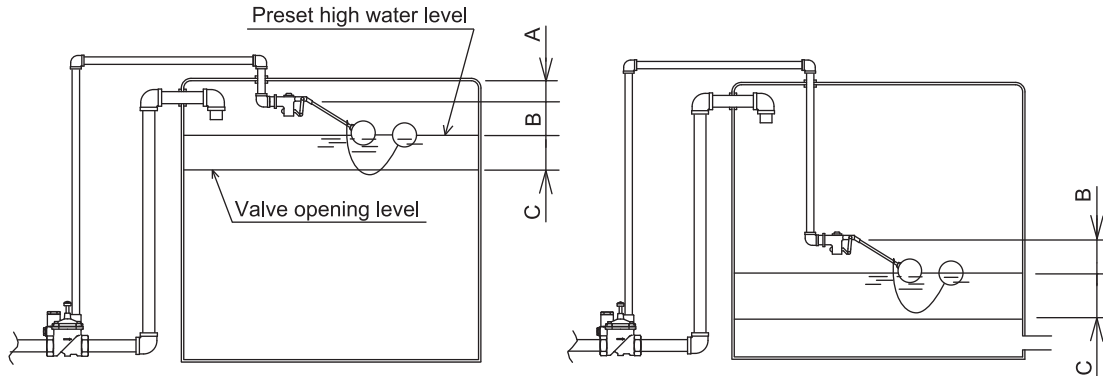
No.3



No.4

Pilot Operated : Operating Principles

MODEL : DS PILOT VALVE(FWD) INSTALLATION DIAGRAM

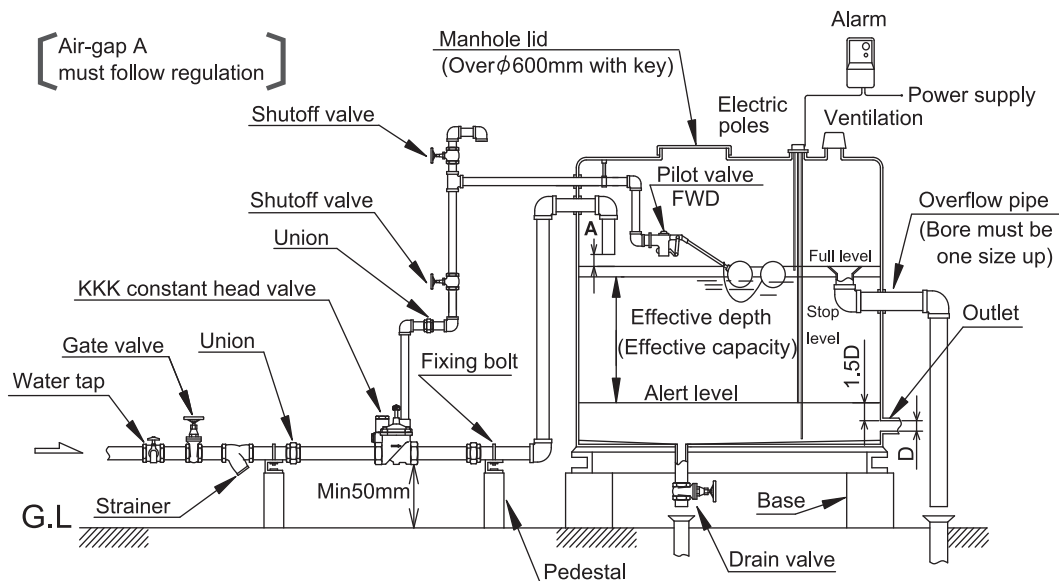


A:150mm (minimum) B:170mm C:500, 1000, 1500, 2000mm

Advantages

1. The FWD pilot valve is designed to close tight when the water level reaches a preset maximum height (for the first time operation). Afterwards, it opens whenever the water level drops approx. 500, 1000, 1500 or 2000mm. Thus FWD provides accurate water level control in the tank.
2. FWD provides large water storage capacity.
3. The FWD pilot valve is designed with a float attached at the end of a chain. Large water differential between the valve opening and closing can be achieved according to the chain length.
4. The FWD can be installed at any height.
5. The FWD has no guide. This prevents water contamination from worms or dust from outside the tank.
6. FWD can be removed easily for maintenance purposes.
7. FWD can reduce a lot of pump noise and pump electricity consumption, thus lengthening the pump's life.

MODEL:DS INSTALLATION EXAMPLE (FWD)



Caution

Please make sure to install FWD as such that during FWD operation, the float to open the valve and chain (of 500,1000,2000mm) won't wind into any nearby pipes, etc.