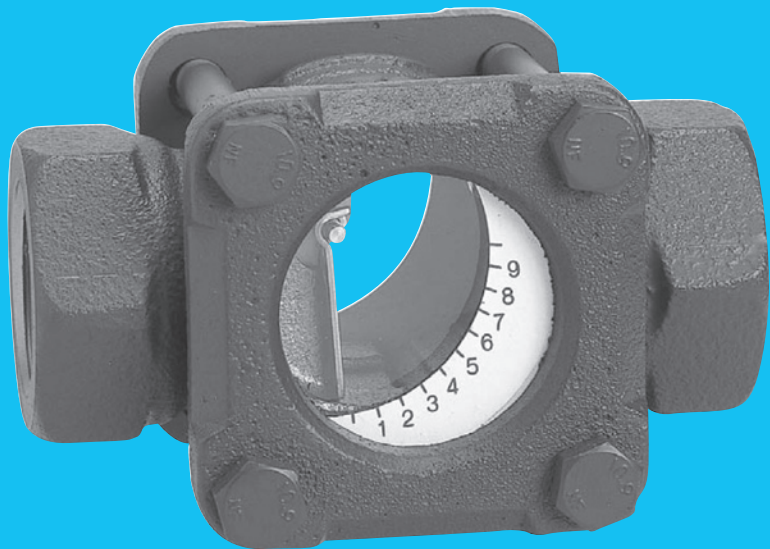


Sight Glass

7



Step 0 Type/Structure/Features

Please refer to this for structure and features of Sight Glasses.

Step 1 Selection

Please look at the ID chart to choose the right products depending on the intended of uses. Confirm the additional details in the main part.

Step 2 Sizing

Select sight glasses of same nominal size as that of the piping to which it will be connected.

Step 3 Attention for usage

Please check installation method for optimal usage of Sight Glasses.

Selection of Sight Glasses

Sight glasses are used as components for visually checking the flow of the fluid inside piping from outside.

Plain type



For checking whether a fluid is present or how two fluids are mixed.

Be able to check the color of the fluid or an intermittent flow.
The use of a mica plate makes this type of sight glass available for steam condensate.

Flap type



For visually checking the variation in the flow rate of the fluid.

The rough flow rate can be identified from the position of the flap.
For large flow rates.

Ball type



The variation in the flow rate can be identified from the movement of the ball.
For small to medium flow rates.

Spinner type



The variation in the flow rate can be identified from the rotation of the spinner.
For very small flow rates.

With protective wire mesh (option)



Use for protection of glass scattering.

With flap



Use for protection of glass damage.

(KAWAKI PRODUCT)

Guidelines for the Installation of a Sight Glass



Step
0

Minimum flow rate of sight glasses

Water: (m³/h)

Nominal size	150F	SF	SB	400
	Flap type		Ball type	Spinner type
10A	—	—	—	0.048
15A	1	1	0.6	0.060
20A	1	1	0.7	0.090
25A	1	1	0.8	0.138
32A	1.3	1.3	1.6	—
40A	1.3	1.3	2.0	—
50A	2	2	2.5	—
65A	4.4	—	—	—
80A	4.4	—	—	—
100A	10	—	—	—
125A	10	—	—	—
150A	13	—	—	—

- Use flap type, ball type, and spinner type sight glasses at a flow rate equal to or higher than the minimum flow rate.
- The flow rate shown by the scale on the scale plate for a flap type sight glass is just for reference. It is not available as a flowmeter.
- Sight glasses can be installed in any posture.

Minimum flow rate of sight flow

Water: (m³/h)

Nominal size	FS-B		FSJ-B	FS-II-P	
	Ball Type		screwed	Flap Type	
	screwed	flanged		screwed	flanged
10A	0.18	0.18	0.36	0.36	0.36
15A	0.18	0.18	0.36	0.36	0.36
20A	0.3	0.3	0.36	0.36	0.36
25A	0.6	0.6	0.36	0.6	0.6
32A	0.9	1.8	—	1.5	1.8
40A	2.4	1.8	—	1.5	1.8
50A	3.6	3	—	1.8	3
65A	—	6	—	—	6
80A	—	9	—	—	9
100A	—	—	—	—	12
125A	—	—	—	—	18
150A	—	—	—	—	30

- The maximum flow rate is 2 m/s.



Glass part is consumable supply. Please check the condition of glass carefully such as corrosion or damage on glass. Please replace when the glass is abnormal.



Normal glass
















Corrosion glass

What is heat resistance glass?










Resistance to rapid temperature change of glass.







Sight Glass ID-Charts

	Model	Type	Fluid	Material	Max. Pressure (MPa)	Max. Temperature (°C)	Connection	Size	Page
	SB-1S	Ball type	Cold and hot water	FCD450	1.0	85°C	JIS Rc	15-50A	Z -10
	SB-1F	Ball type	Cold and hot water	FCD450	1.0	85°C	JIS 10KFF	15-50A	Z -10
	SF-1S	Flap type	Cold and hot water, Oil	FCD450	1.0	150°C	JIS Rc	15-50A	Z -9
	SF-1F						JIS 10KFF	15-50A	Z -9
	SL-1S	Plain type	Cold and hot water, Oil	FCD450	1.0	150°C	JIS Rc	15-50A	Z -8
	SL-1F						JIS 10KFF	15-50A	Z -8
	150F-F	Flap type	Cold and hot water, Oil	FCD450	1.0	150°C	JIS 10KFF	65-150A	Z -12
	150L-F	Plain type	Cold and hot water, Oil	FCD450	1.0	150°C	JIS 10KFF	65-150A	Z -11
	150F-13S	Flap type	Cold and hot water, Oil	SCS13	1.0	150°C	JIS Rc	15-50A	Z -12
	150F-13F						JIS 10KFF	15-100A	Z -12
	150L-13S	Plain type	Cold and hot water, Oil	SCS13	1.0	150°C	JIS Rc	15-50A	Z -11
	150L-13F	Plain type	Cold and hot water, Oil	SCS13	1.0	150°C	JIS 10KFF	15-100A	Z -11
	400	Spinner type	Cold and hot water	CAC406	0.7	100°C	JIS Rc	10-25A	Z -14

Sight Glass for STEAM ID-Charts

Available with mica plate for steam condensate. (Model:150□M-□□□, S□M-1S)

	Model	Type	Fluid	Material	Max. Pressure (MPa)	Max. Temperature (°C)	Connection	Size	Page
	SFM-1S	Flap type	Steam condensate	FCD450	0.6	150°C	JIS Rc	15-50A	7 -9
	SFM-1F						JIS 10KFF	15-50A	7 -9
	SLM-1S	Plain type	Steam condensate	FCD450	0.6	150°C	JIS Rc	15-50A	7 -8
	SLM-1F						JIS 10KFF	15-50A	7 -8
	150LM-F	Plain type	Steam condensate	FCD450	0.6	150°C	JIS 10KFF	65-150A	7 -11
	150FM-13S	Flap type	Steam condensate	SCS13	0.6	150°C	JIS Rc	15-50A	7 -12
	150FM-13F						JIS 10KFF	15-50A	7 -12
	150LM-13S	Plain type	Steam condensate	SCS13	0.6	150°C	JIS Rc	15-50A	7 -11
	150LM-13F						JIS 10KFF	15-100A	7 -11

	Model	Type	Fluid	Material	Max. Pressure (MPa)	Max. Temperature (°C)	Connection	Size	Feature	Page
	FS-B	Ball type	Cold and hot water	FCD450	0.7	60°C	JIS Rc	10-50A	· Technically operation for minimum flow rate	7-16
				FC250			JIS 10KFF	10-80A		
				SUS304			JIS Rc	10-40A		
				SUS304			JIS 10KFF	10-80A		
	FSJ-B	Ball type	Cold and hot water	SUS304	0.7	60°C	JIS Rc	10-25A	· Technically operation for minimum flow rate · Compact type	7-17
	FS-II-P	Flap type	Cold and hot water, Oil	FCD450	0.7	60°C	JIS Rc	10-50A	· With flap	7-18
				FC250			JIS 10KFF	10-150A		
				SUS304		80°C	JIS Rc	10-40A		
				SUS304			JIS 10KFF	10-25A		
	FS-I-Z	Plain type	Cold and hot water, Oil	FCD450	0.7	60°C	JIS Rc	10-50A	· With nozzle · Visible even at minimum flow rate	7-19
				FC250			JIS 10KFF	10-50A		
	FS-M	Flap type, Magnet compliance type	Cold and hot water, Oil	FCD450	0.7	60°C	JIS Rc	10-50A	· Visible black oil by flap opening	7-20
				FC250			JIS 10KFF	10-150A		
				SUS304		80°C	JIS Rc	10-25A		
				SUS304			JIS 10KFF	10-150A		
	FS-IV	Flap type, Reverse dual use	Cold and hot water, Oil	FCD450	0.7	60°C	JIS Rc	8-50A	· Reverse dual use	7-22
				SUS304		80°C		10-40A		

* Please contact us for fluid and connection other than above mentioned.

Handling products of YOSHITAKE for KAWAKI are all standard flow rate.

Contact KAWAKI industry for accurate high flow measurement.

Available for accurate high quality products with special specification and flow rate at KAWAKI industry.

SL-1S, SL-1F

Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover

■Features

1. Mixed state or color of two component fluid can be checked.
2. Intermittent fluid flow can be checked.
3. Can be connected to horizontal/vertical piping.
4. Mica plate is used for this type of sight glass for steam condensate.

■Specifications

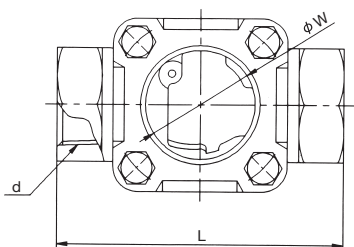
Model	SL-1S	SL-1F
Application	Cold and hot water, Oil, Other non-dangerous fluids	
Maximum working pressure	1.0 MPa	
Max. temperature	150°C	
Max. thermal shock	100°C	
Material	Body	Ductile cast iron
	Glass	Hardened glass
Connection	JIS Rc screwed	JIS 10K FF flanged

- Available with mica plate for steam condensate (SLM-1S-1F). However, maximum allowable working pressure is 0.6 MPa.
- Glass part is consumable supply.

■Dimensions (mm) and Weights (kg)

• SL-1S

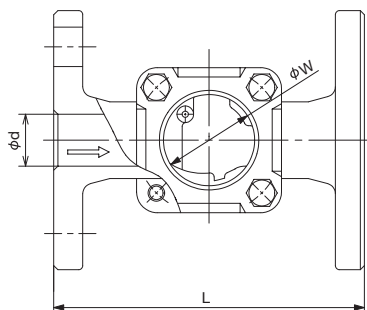
Nominal size	d	L	W	Weight
15A	Rc 1/2	80	35	0.7
20A	Rc 3/4	90	35	0.8
25A	Rc 1	115	44	1.4
32A	Rc 1-1/4	127	57	2.1
40A	Rc 1-1/2	140	57	2.7
50A	Rc 2	162	73	5.2



SL-1S

• SL-1F

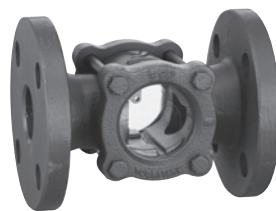
Nominal size	d	L	W	Weight
15A	15	130	35	2.2
20A	20	130	35	2.6
25A	25	150	44	4.1
32A	32	160	57	5.7
40A	40	170	57	6.0
50A	50	200	73	9.3



SL-1F



SL-1S



SL-1F

SF-1S, SF-1F

Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover

■Features

1. Variation in flow rate can be checked easily with flap and scale plates.
2. Can be connected to horizontal/vertical piping.
3. Mica plate is used for this type of sight glass for steam condensate.

■Specifications

Model	SF-1S	SF-1F
Application	Cold and hot water, Oil, Other non-dangerous fluids	
Maximum working pressure	1.0 MPa	
Max. temperature	150°C	
Max. thermal shock	100°C	
Material	Body	Ductile cast iron
	Glass	Hardened glass
	Flap	Stainless steel
Connection	JIS Rc screwed	JIS 10K FF flanged

- Available with mica plate for steam condensate (SFM-1S · 1F). However, maximum allowable working pressure is 0.6 MPa.
- Glass part is consumable supply.

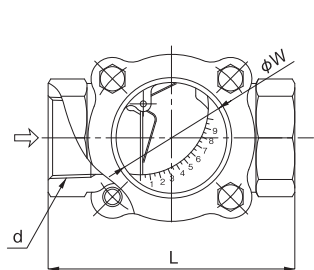
■Dimensions (mm) and Weights (kg)

· SF-1S

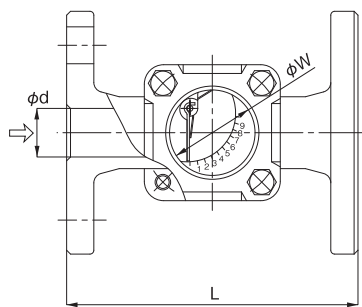
Nominal size	d	L	W	Weight
15A	Rc 1/2	80	35	0.7
20A	Rc 3/4	90	35	0.8
25A	Rc 1	115	44	1.4
32A	Rc 1-1/4	127	57	2.5
40A	Rc 1-1/2	140	57	2.8
50A	Rc 2	162	73	5.4

· SF-1F

Nominal size	d	L	W	Weight
15A	15	130	35	2.2
20A	20	130	35	2.6
25A	25	150	44	4.1
32A	32	160	57	5.9
40A	40	170	57	6.2
50A	50	200	73	9.5



SF-1S



SF-1F



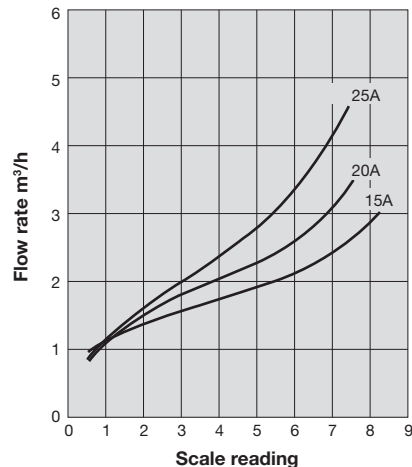
SF-1S



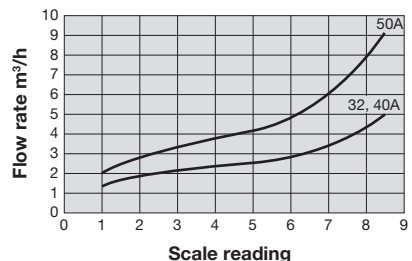
SF-1F

■Flow Rate Characteristics Chart (For Water, Horizontal Piping)

· 15A-25A



· 32A-50A



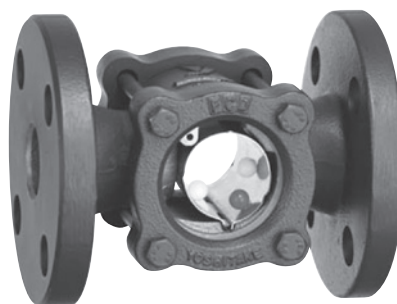
- The flow characteristics shown in the charts above are just for reference and cannot be used for actual measurement.

SB-1S, SB-1F

Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover



SB-1S



SB-1F

■Features

1. Flowing state of fluid can be checked with the movement of the balls inside the sight glass.
2. Inside glass surface is less liable to water scale since the balls roll and contact the surface.
3. Compact, lightweight and space saving.
4. Can be connected to horizontal/vertical piping (but glass part should face sideways).

■Specifications

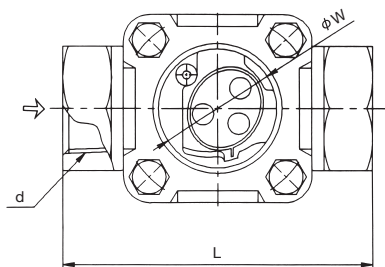
Model		SB-1S	SB-1F
Application		Cold and hot water	
Maximum working pressure		1.0 MPa	
Max. temperature		85°C	
Material	Body	Ductile cast iron	
	Glass	Hardened glass	
	Ball	Synthetic resin	
Connection		JIS Rc screwed	JIS 10K FF flanged

· Glass part and balls are consumable supply.

■Dimensions (mm) and Weights (kg)

· SB-1S

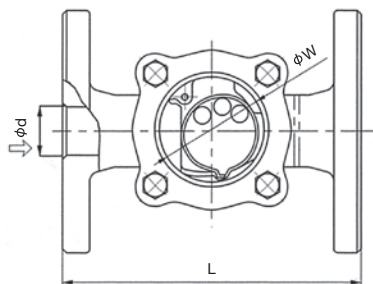
Nominal size	d	L	W	Weight
15A	Rc 1/2	80	35	0.7
20A	Rc 3/4	90	35	0.8
25A	Rc 1	115	44	1.4
32A	Rc 1-1/4	127	57	2.5
40A	Rc 1-1/2	140	57	2.8
50A	Rc 2	162	73	8.4



SB-1S

· SB-1F

Nominal size	d	L	W	Weight
15A	15	130	35	2.2
20A	20	130	35	2.6
25A	25	150	44	4.1
32A	32	160	57	5.9
40A	40	170	57	6.2
50A	50	200	73	9.5



SB-1F

150L



(150L-13S,13F)

Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover

■Features

1. Mixed state or color of two component fluid can be checked.
2. Intermittent fluid flow can be checked.
3. Can be connected to horizontal/vertical piping.
4. Mica plate is used for this type of sight glass for steam condensate.
5. The 150L Series sight glass come in a variety of materials, including ductile cast iron and cast stainless steel, which are available to choose from.

■Specifications

Model	150L-F	150L-13S	150L-13F
Application	Cold and hot water, Oil, Other non-dangerous fluids		
Nominal size	65A-150A	15A-50A	15A-100A
Maximum working pressure	1.0 MPa		
Max. temperature	150°C		
Max. thermal shock	100°C		
Material	Body	Ductile cast iron	
	Glass	Cast stainless steel	
		Hardened glass	
Connection	JIS 10K FF flanged	JIS Rc screwed	JIS 10K FF flanged

- Available with mica plate for steam condensate (150LM-□□S-□□F). However, maximum allowable working pressure is 0.6 MPa.
- Available with protector (150LP-□□S-□□F).
- Glass part is consumable supply.

■Dimensions (mm) and Weights (kg)

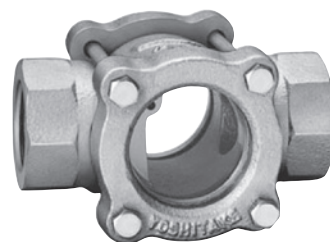
· 150L-13S

Nominal size	d	L	W	Weight
15A	Rc 1/2	76	35	0.73
20A	Rc 3/4	89	35	0.82
25A	Rc 1	114	44	1.5
32A	Rc 1-1/4	127	53	2.3
40A	Rc 1-1/2	140	57	2.9
50A	Rc 2	162	73	5.8

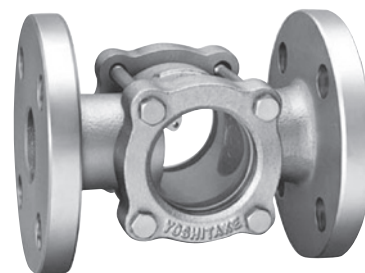
· 150L-F·150L-13F

Nominal size	d	L	W	Weight	
				150L-F	150L-13F
15A	15	130	35	—	2.12
20A	20	130	35	—	2.47
25A	25	150	44	—	4.1
32A	32	160	53	—	5.4
40A	40	170	57	—	5.6
50A	50	200	73	—	9.7
65A	65	235	97	14.7	16.0
80A	73	235	97	15.1	16.5
100A	100	277	130	26.5	29.2
125A	125	336	155	36.8	—
150A	140	380	165	60.5	—

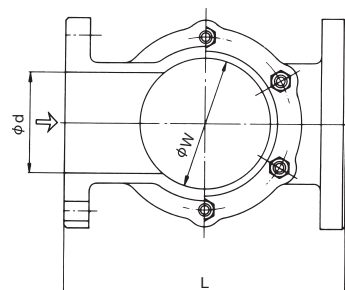
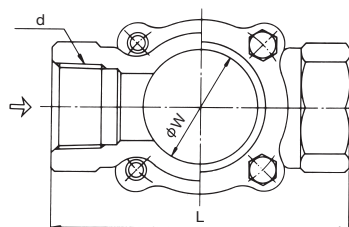
* For 150L-F, it is available from 65A to 150A. For 150L-13F, it is available from 15A to 100A.



150L-13S



150L-F·150L-13F



150F



(150F-13S,13F)

Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover

■Features

1. Variation in flow rate can be checked easily with flap and scale plates.
2. Pressure loss caused by the fluid flow is as low as 0.01 MPa even when the flap shows the maximum flow rate, and does not affect the pressure of the fluid.
3. Can be connected to horizontal/vertical piping.
4. Mica plate is used for this type of sight glass for steam condensate.
5. The 150F Series sight glass come in a variety of materials, including ductile cast iron and cast stainless steel, which are available to choose from.

■Specifications

Model	150F-F	150F-13S	150F-13F
Application	Cold and hot water, Oil, Other non-dangerous fluids		
Nominal size	65A-150A	15A-50A	15A-100A
Maximum working pressure	1.0 MPa		
Max. temperature	150°C		
Max. thermal shock	100°C		
Material	Body	Ductile cast iron	Cast stainless steel
	Glass	Hardened glass	
	Flap	Stainless steel	
Connection	JIS 10K FF flanged	JIS Rc screwed	JIS 10K FF flanged

- Available with mica plate for steam condensate (150FM-□□S-□□F). However, maximum allowable working pressure is 0.6 MPa.
- Available with protector (150FP-□□S-□□F).
- Glass part is consumable supply.

■Dimensions (mm) and Weights (kg)

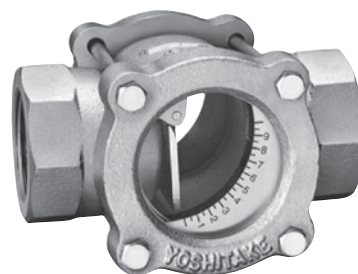
• 150F-13S

Nominal size	d	L	W	Weight
15A	Rc 1/2	76	35	0.75
20A	Rc 3/4	89	35	0.84
25A	Rc 1	114	44	1.6
32A	Rc 1-1/4	127	53	2.4
40A	Rc 1-1/2	140	57	3.0
50A	Rc 2	162	73	5.9

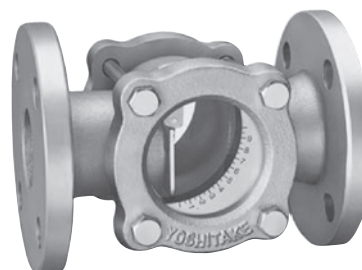
• 150F-F·150F-13F

Nominal size	d	L	W	Weight	
				150F-F	150F-13F
15A	15	130	35	—	2.14
20A	20	130	35	—	2.49
25A	25	150	44	—	4.2
32A	32	160	53	—	5.5
40A	40	170	57	—	5.7
50A	50	200	73	—	9.8
65A	65	235	97	15.1	16.4
80A	73	235	97	15.5	16.9
100A	100	277	130	27.0	29.7
125A	125	336	155	37.3	—
150A	140	380	165	62.0	—

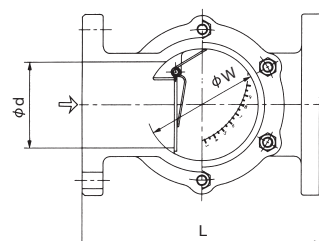
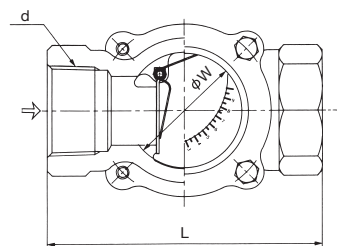
* For 150F-F, it is available from 65A to 150A. For 150F-13F, it is available from 15A to 100A.



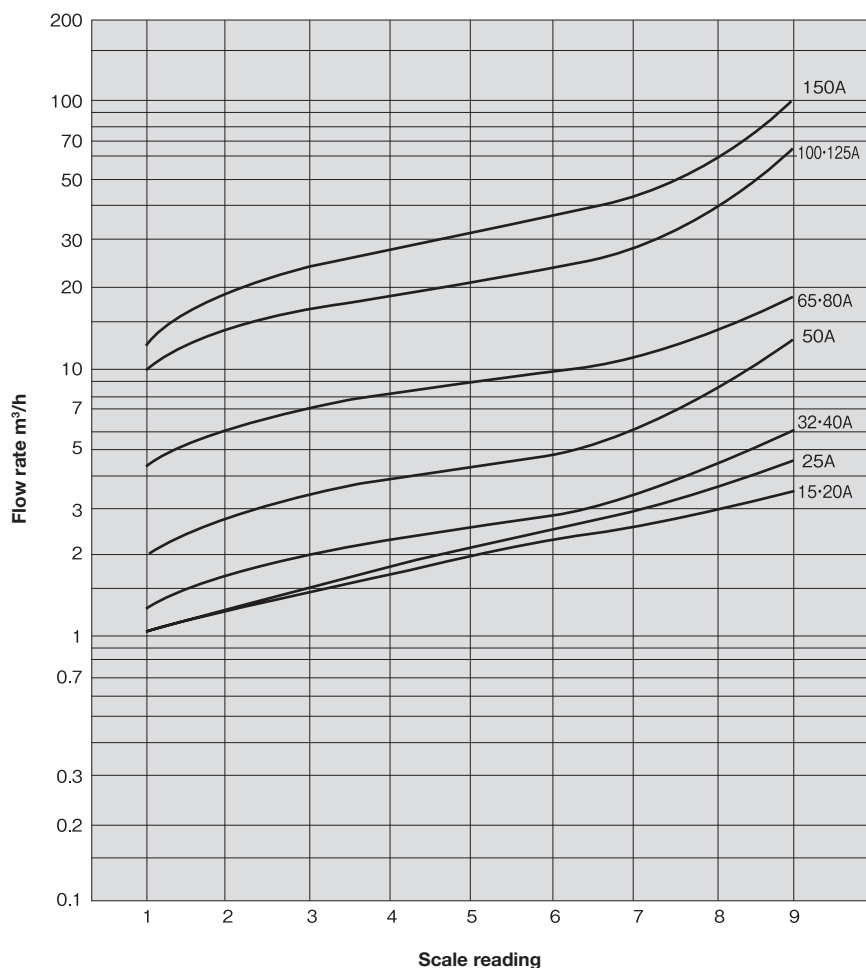
150F-13S



150F-F·150F-13F

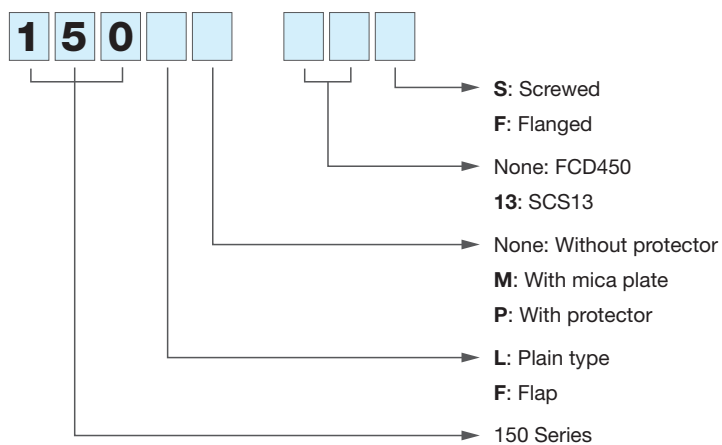


Flow Rate Characteristics Chart (For Water, Horizontal Piping)



The flow characteristics shown in the chart on the left are just for reference and cannot be used for actual measurement.

Sight glass model (type 150) code



400

Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover

■Features

1. No need for cleaning of the dome since rotating spinner keeps the inside of the dome clean.
2. Fluid flow can be detected from the rotation of the spinner, and flow rate change is identified by its rotating speed.
3. Easy to assemble and disassemble due to simple design.
Can be connected to horizontal/vertical piping.



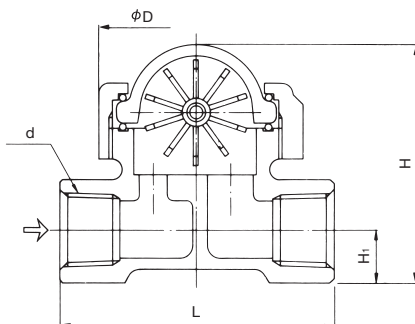
■Specifications

Application		Cold and hot water
Maximum working pressure		0.7 MPa
Max. temperature		100°C
Max. thermal shock		40°C
Material	Body	Cast bronze
	Glass	Heat-resistant glass
	Spinner	Special heat-resistant resin
Connection		JIS Rc screwed

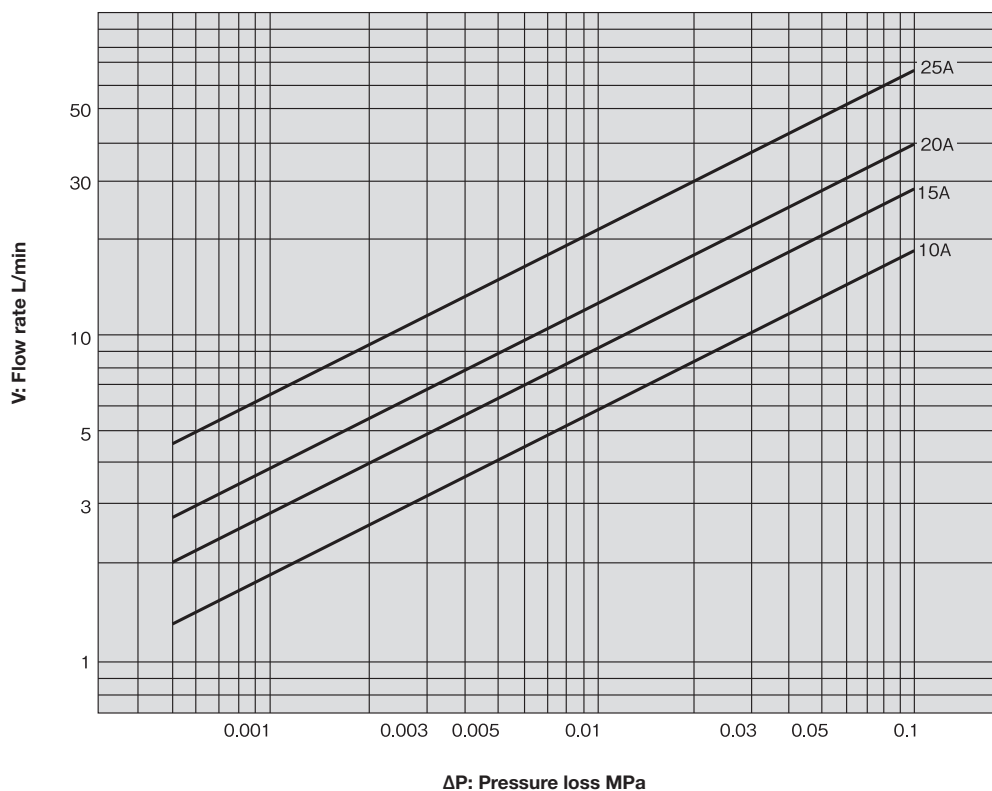
- When using this sight glass at a temperature difference of 40°C or more, note that the glass may get damaged if the temperature rapidly rises or the glass is cooled from outside.
- Glass part and spinner are consumable supply.

■Dimensions (mm) and Weights (kg)

Nominal size	d	L	H ₁	H	D	Weight
10A	Rc 3/8	76	12	67	54	0.45
15A	Rc 1/2	76	14.5	69.5	54	0.50
20A	Rc 3/4	83	17	76	54	0.60
25A	Rc 1	89	21.5	93.5	66.5	0.95



■Pressure Loss Chart (For Water)



■Min. & Max. Flow Rate (Water)

Nominal size	Min. flow rate L/min	Max. flow rate L/min
10A	0.8	8.3
15A	1.0	13
20A	1.5	18
25A	2.3	30

- The minimum flow rate is the value required for the spinner to continuously rotate.
 - The maximum flow rate is the value when pressure loss is approximately 0.02 MPa.
- For further information, see the pressure loss chart on the left.

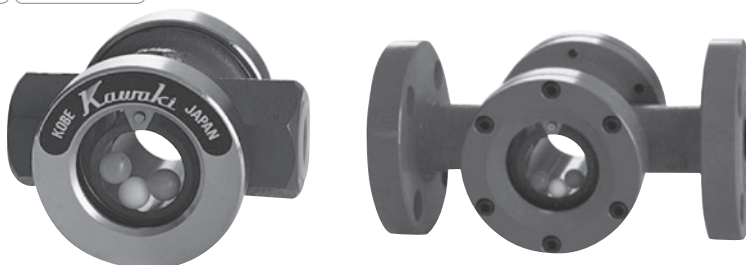
FS-B

Kawaki


Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover

■Features

Fluid flow can be checked by the movement of the ball inside the product.



■Specifications

Application		Cold and hot water			
Maximum working pressure		0.7 MPa			
Max. temperature		60°C			
Material	Body	Ductile cast iron	Cast iron	Stainless steel	
	Glass	Hardened glass			
	Ball	Polypropylene			
Nominal size		10-50A	10-80A	10-40A	10-80A
Connection		JIS Rc screwed	JIS 10K FF flanged	JIS Rc screwed	JIS 10K FF flanged

■Dimensions (mm) and Weights (kg)

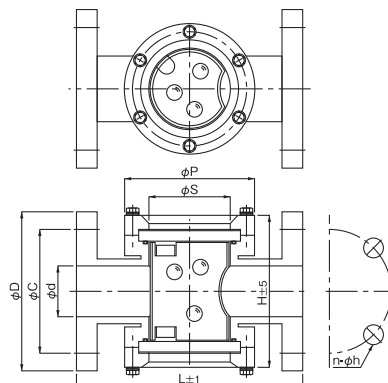
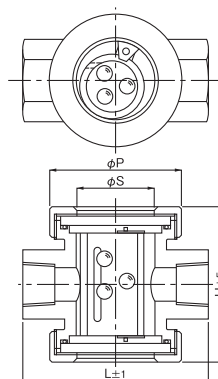
· Screwed type

Nominal size	L	H	S	P	Weight
10A	100	74	40	71	0.9
15A	100	74	40	71	1.0
20A	110	92	46	78	1.4
25A	120	94	52	84	1.8
32A	150	132	70	110	4.0
40A	150	132	70	110	4.0
50A	160	142	70	110	7.5

· Flanged type

Nominal size	C	D	H	S	P	L	Weight
10A	65	90	80 (82)	40	80	160	3.0
15A	70	95	80 (82)	40	80	160	3.0
20A	75	100	100	46	88	180	3.9
25A	90	125	102	52	96	180	5.4
32A	100	135	140	75	120	180	8.0
40A	105	140	140	75	120	180 (200)	8.0
50A	120	155	150	80	128	220 (200)	11.0
65A	140	175	200	120	180	270	19.0
80A	150	185	200	120	180	270	21.0

* The values in parentheses are the dimensions of stainless steel made.



For special specifications or high-precision flow measurement, please contact to us.

FSJ-B

Kawaki


Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover

■Features

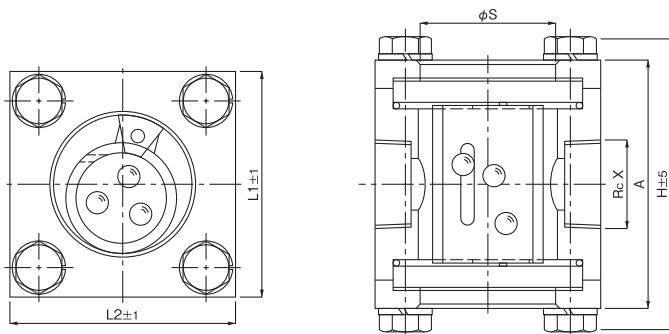
Compact type and even the small flow rate, it can be checked by the movement of the ball inside the product.



■Specifications

Application		Cold and hot water
Maximum working pressure		0.7 MPa
Max. temperature		60°C
Material	Body	Stainless steel
	Glass	Hardened glass
	Ball	Polypropylene
Connection		JIS Rc screwed

· Glass part and balls are consumable supply.



■Dimensions (mm) and Weights (kg)

Nominal size	L ₁	L ₂	S	A	H
10A	55	55	30	63	74
15A	60	60	35	66	77
20A	65	65	40	72	87
25A	70	70	45	83	98

For special specifications or high-precision flow measurement, please contact to us.

FS-II-P

Kawaki

Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover

■Features

Design with a protective cover attached to the glass window for risk prevention.



■Specifications

Application	Cold and hot water, Oil			
Maximum working pressure	0.7 MPa			
Max. temperature	60°C		80°C	
Material	Body	Ductile cast iron	Cast iron	Stainless steel
	Glass	Hardened glass		
	Ball	Brass		Stainless steel
Nominal size	10-50A	10-150A	10-40A	10-25A
Connection	JIS Rc screwed	JIS 10K FF flanged	JIS Rc screwed	JIS 10K FF flanged

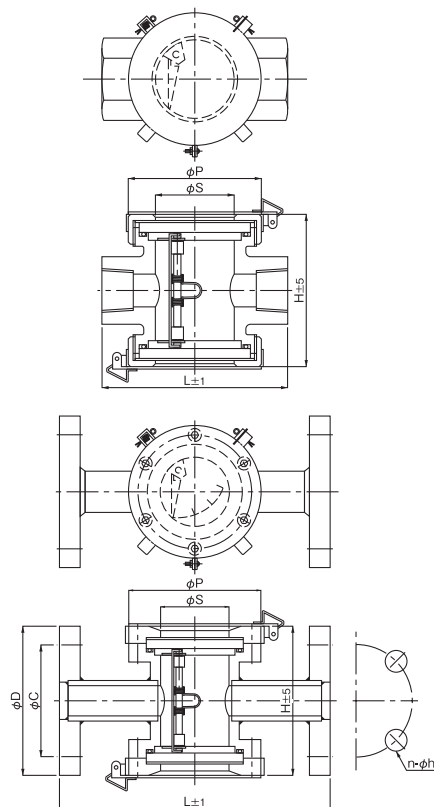
■Dimensions (mm) and Weights (kg)

· Screwed type

Nominal size	L	H	S	P	Weight
10A	100	74	40	71	0.9
15A	100	74	40	71	1.0
20A	110	92	46	78	1.4
25A	120	94	52	84	1.8
32A	150	132	70	110	4.0
40A	150	132	70	110	4.0
50A	160	142	70	110	7.5

· Flanged type

Nominal size	C	D	H	S	P	L	Weight
10A	65	90	80	40	80	160	3.0
15A	70	95	80	40	80	160	3.0
20A	75	100	100	46	88	180	3.9
25A	90	125	102	52	96	180	5.4
32A	100	135	140	75	120	180	8.0
40A	105	140	140	75	120	180	8.0
50A	120	155	150	80	128	220	11.0
65A	140	175	200	120	180	270	19.0
80A	150	185	200	120	180	270	21.0
100A	175	210	230	160	240	320	33.0
125A	210	250	270	180	260	380	43.0
150A	240	280	300	200	300	420	69.0



For special specifications or high-precision flow measurement, please contact to us.

FS-I-Z

Kawasaki

Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover



■Features

1. The absence or presence of fluid or color of fluid can be checked due to the transparent plate on both sides.
2. Excellent visibility by internal nozzle structure at the time of vertical piping.

■Specifications

Application		Cold and hot water, Oil	
Maximum working pressure		0.7 MPa	
Max. temperature		60°C	
Material	Body	Ductile cast iron	Cast iron
	Glass	Hardened glass	
	Nozzle	Brass	
Connection		JIS Rc screwed	JIS 10K FF flanged

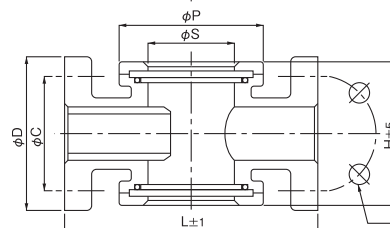
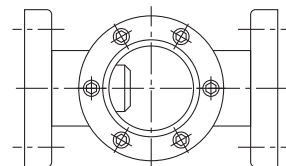
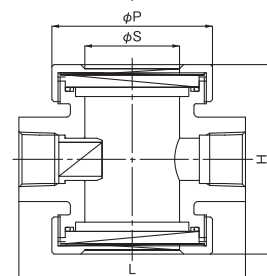
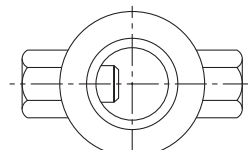
■Dimensions (mm) and Weights (kg)

· Screwed type

Nominal size	L	H	S	P	Weight
10A	100	74	40	71	0.9
15A	100	74	40	71	1.0
20A	110	92	46	78	1.4
25A	120	94	52	84	1.8
32A	150	132	70	110	4.0
40A	150	132	70	110	4.0
50A	160	142	70	110	7.5

· Flanged type

Nominal size	C	D	H	S	P	L	Weight
10A	65	90	80	40	80	160	3.0
15A	70	95	80	40	80	160	3.0
20A	75	100	100	46	88	180	3.9
25A	90	125	102	52	96	180	5.4
32A	100	135	140	75	120	180	8.0
40A	105	140	140	75	120	180	8.0
50A	120	155	150	80	128	220	11.0



For special specifications or high-precision flow measurement, please contact to us.

FS-M (Magnet following type)

Kawaki

Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover

■Features

1. Seen clearly the flap opening even in the opaque fluid.
One side is magnetic coupling and indicators are instructed by the outside of the contact body. The other side is the normal flow site and it can be checked the fluid state.
2. It can be used for low pressure piping of small pressure loss due to the main parts are only flap.
3. It can record the flow rate scale to the guide version.

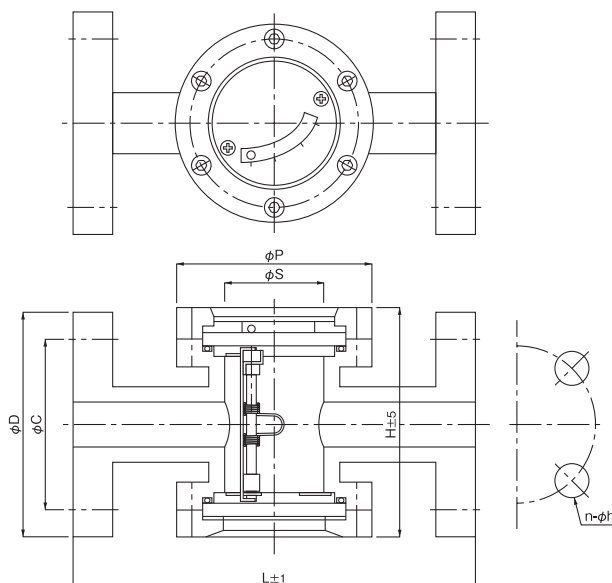
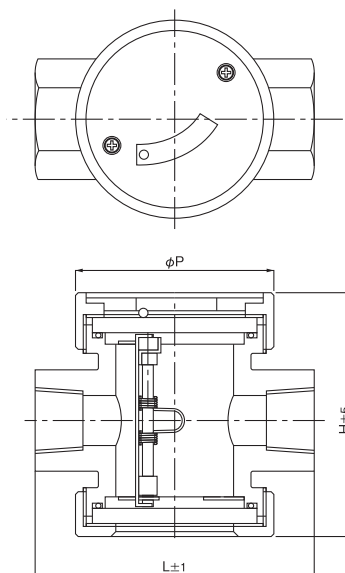


■Specifications

Application		Cold and hot water, Oil			
Maximum working pressure		0.7 MPa			
Max. temperature		60°C		80°C	
Material	Body	Ductile cast iron	Cast iron	Stainless steel	
	Glass	Hardened glass			
	Flap	Brass		Stainless steel	
Nominal size		10-50A	10-150A	10-25A	10-150A
Connection		JIS Rc screwed	JIS 10K FF flanged	JIS Rc screwed	JIS 10K FF flanged

For special specifications or high-precision flow measurement, please contact to us.

■Dimensions (mm) and Weights (kg)



• Screwed type

Nominal size	L	H	P	Weight
10A	100	74	71	1.0(0.8)
15A	100	74	71	1.1(0.9)
20A	110	92	78	1.5(1.2)
25A	120	94	84	1.8(1.5)
32A	150	132	110	4.2
40A	150	132	110	4.2
50A	160	142	110	8.3

* The values in parentheses are the weights of stainless steel made.

• Flanged type

Nominal size	C	D	H	S	P	L	Weight
10A	65	90	80	40	80	160	2.8(2.3)
15A	70	95	80	40	80	160	3.0(2.4)
20A	75	100	100	46	88	180	3.9(3.2)
25A	90	125	102	52	96	180	5.4(4.4)
32A	100	135	140	75	120	180	8.6(6.9)
40A	105	140	140	75	120	180	8.6(6.9)
50A	120	155	150	80	128	220	10.8(8.7)
65A	140	175	200	120	180	270	19.0(15.2)
80A	150	185	200	120	180	270	21.0(16.8)
100A	175	210	230	160	240	320	33.0(26.4)
125A	210	250	270	180	260	380	43.0(34.4)
150A	240	280	300	200	300	420	69.0(55.2)

* The values in parentheses are the weights of stainless steel made.

FS-IV

Kawaki

Plain	Flap	Ball	Spinner
Stainless	Mica plate	Protective wire mesh	With protective cover



■Features

This instrument is a flow sight for monitoring the direction of fluid in the condition of forward flow or reverse flow in the piping.

Flapper of flow site will swing to the left and right symmetry setting the middle to 0. In addition, the opening of the flapper will change by the flow rate.

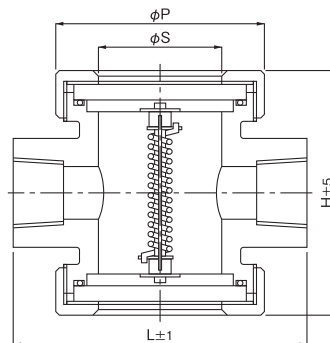
■Specifications

Application		Cold and hot water, Oil	
Maximum working pressure		0.7 MPa	
Max. temperature		60°C	80°C
Material	Body	Ductile cast iron	Stainless steel
	Glass	Hardened glass	
	Flap	Brass	Stainless steel
Nominal size		8-50A	10-40A
Connection		JIS Rc screwed	

* Available with the flow rate scale for option.

■Dimensions (mm) and Weights (kg)

Nominal size	S	P	H	L	Weight
8A	40	71	72	100	0.9
10A	40	71	72	100	0.9
15A	40	71	72	100	1.0
20A	46	78	90	110	1.4
25A	52	84	92	120	1.8
32A	70	110	130	150	4.0
40A	70	110	130	150	4.0
50A	70	110	140	160	7.5



For special specifications or high-precision flow measurement, please contact to us.