

#### GENERAL

**R-700** series is a glass tube area flowmeter with alarm contact(s). In addition to local flow rate indication by the position of float, reed switch alarm contact(s) are actuated at set flow rate.

**R-700** is useful and effective for prevention of flow cut-off for cooling water system etc.

#### STANDARD SPECIFICATION

##### Available sizes :

- a. General version R-7□□  
65,80 and 100mm  
(With float guiding road)
- b. Ribbed tapered tube version R-7□□-R  
10,15,20,25,40 and 50mm
- c. Wide designed tapered tube version R-7□□-E  
25,40,50,65,80 and 100mm  
(With float guiding road)

**Measuring object :** Liquids and gases

**Operating pressure :**

Size (mm)	Max.O.P. Press MPa		
	R-7□□	R-7□□-R	R-7□□-E
10	–	1.2	–
15	–	1	–
20	–	0.8	–
25	–	0.8	0.8
40	–	0.6	0.6
50	–	0.6	0.6
65	0.6	–	0.6
80	0.4	–	0.4
100	0.4	–	0.4

##### Operating temperature :

Max.120°C (Allowable thermal shock:70°C)

NB.1) upto 80°C for NBR gasket version

2) up to 60°C for PVC body version

**Indication accuracy :** std. ±1.5% (F.S)\*  
\*±2.5% (F.S) for resin float version

**Range ability :** 10 : 1

##### Material :

Tapered tube : Pyrex glass

Float : Standard For liquids SUS304

For gases Aluminum

Option SUS316, SUS316L, PTFE

Gaskets : Standard NBR

Option FPM, PTFE\*

\*Not available for R-7□□-E



**Body :** Standard FC200\*, SCS13, SCS14  
Option PVC  
\*SS400/SGP for R-7□□-E

**Process connection :** Through flanges  
Rating ; Standard JIS10KFF  
Option JIS10KRF, JIS5KFF (RF)  
ANSI#150class flanges

**Flow direction ;**

Standard Bottom→Top (R-7□1-□)

Option Bottom→Top side (R-7□-2-□)

Bottom side→Top side (R-7□3-□)

Bottom rear→Top rear (R-7□5-□)

**No.of alarm point :**

Size (mm)	Possible Alarm point		
	R-7□□	R-7□□-R	R-7□□-E
10	–	1x Low + 1x High	–
15	–	1x Low + 1x High	–
20	–	1x Low + 1x High	–
25	–	1x Low + 1x High	1x Low
40	–	1x Low + 1x High	1x Low
50	–	1x Low + 1x High	1x Low
65	1x Low	–	1x Low
80	1x Low	–	1x Low
100	1x Low	–	1x Low

**Alarm Contact :**

1) Reed Switch(R-75□-□)

2) Optical Switch(R-76□-□)

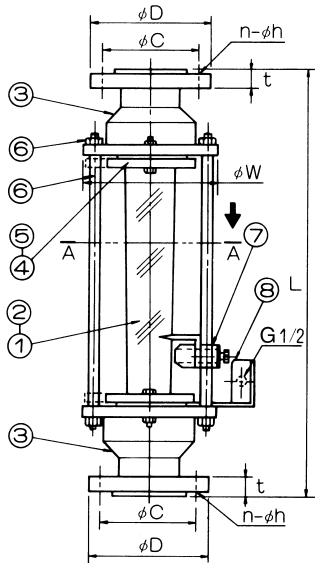
Refer to separate explanation for details



**DIMENSION**

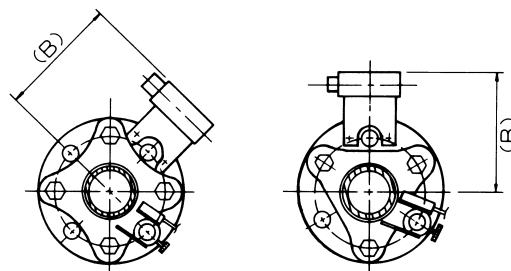
R-7 □ 1, R-7 □ 1-R

For meter size 10mm~40mm (B) For meter size 40mm (A) ~100mm



Front view

Part NO.	DESCRIPTION	Material
①	Tapered tube	Pyrex glass
②	Float	SUS304, Aluminum, others
③	Body	FC200, SCS13, others
④	Gasket retainer	FC200
⑤	Gasket	NBR, FPM, others
⑥	Column and nut	SS400, SUS304
⑦	Switch	Assembly
⑧	Terminal Box	ADC12

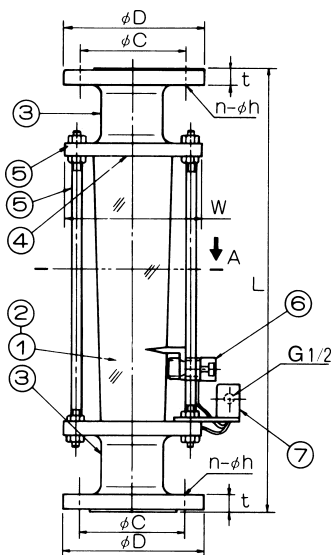


Top view

Meter Size (mm)	Dimension (mm)				Weight (kg)
	L	φW	B		
			1 point alarm	2 point alarm	
10	420	67	80 <sup>-1</sup>	115 <sup>-1</sup>	3.5
15	420	88	90 <sup>-1</sup>	125 <sup>-1</sup>	4.5
20	430	98	95 <sup>-1</sup>	135 <sup>-1</sup>	5.5
25	500	119	105	140	8.5
40B	500	129	110	145	12
40A	500	144	115	150	15
50	530	171	130	165	18
65	530	186	135	-	23
80	570	206	145	-	30
100	590	242	165	-	42

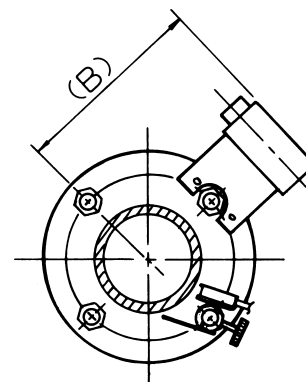
\*1:10mm is added for SUS304, SUS316 and SUS316L material.

R-7 □ 1-E



Front view

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③	Body	FC200, SCS13, others
④	Gasket	NBR, FPM, others
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⑥	Switch	Assembly
⑦	Terminal Box	ADC12



Top view

Meter Size (mm)	Dimension (mm)						Weight (kg)
	L		φW		B		
	Metal Body	PVC Body	Metal Body	PVC Body	Metal Body	PVC Body	
25	320	360	110	135	100	105	6.5
40	370	400	120	140	105	110	8
50	370	400	144	155	115	115	12
65	370	410	160	175	125	125	13
80	400	410	180	185	130	130	17
100	400	410	200	210	140	145	20

**ALARM CONTACTS**

**Reed switch type (R-75□)**

- Type of switch : Self holding type.  
Normal open or Normal close
- Capacity : AC.DC,10W(Resistance load)  
  
Max.voltage AC 120V, DC 170V  
Max.Current AC 0.25A, DC 0.25A
- Setting Accuracy : ± 2%
- Reset span : ≤15% F.S.
- Enclosure : Water tight

**Optical switch type (R-76□)**

- Components : 1) Optical projector and receiver  
(provided onto flowmeter)  
2) Amplifier unit  
(separate installation)

- Type of switch : In stantaneous transfer contact  
(Holding circut to be arranged by customer)
- Capacity : AC230V,1A(Resistance load)
- Setting Accuracy : ±2% F.S.
- Amb.Temp : -10 ~ +40°C
- Amb.Hurnid : 45 ~ 85%RH
- En closure : Non-weather proof
- power supply : AC 100/200V, ±10%, 50/60Hz
- Consumption : ≤5VA
- Cable : 1m cable provided (Max. 10m)

**ORDERING INFORMATION**

Model	
Q'ty	
Fluid name	
Density	
Viscosity	
Pressure	
Temperature	
Scale range	
Alarm setting point	<input type="checkbox"/> LO_____ <input type="checkbox"/> HI_____
Action	LO <input type="checkbox"/> open <input type="checkbox"/> close for decrease HI <input type="checkbox"/> open <input type="checkbox"/> close for increase
Cable Length (only for R-76□ - □)	<input type="checkbox"/> 1m <input type="checkbox"/> ____ m
Material	Body _____ Float _____ Gasket _____
Special instruction	

\* Specification subject to change without notice



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