



GA Series

Variable Area Flowmeter

- 전원 장치 없이 사용하는 현장 지시 유량계
- 전단 or 후단에 밸브 설치 가능 / 알람 기능 선택적으로 제공
- 유체의 순간 흐름 쉽게 확인 가능 (거품, 색상 등)

GA-10 Series General Specifications

Size	15A(1/2") ~ 100A(4")
Process Connection	Flange type - KS / JIS / ANSI / ASME / DIN Std Flange or Screw
Flow Ranges	Water - 0.12 m³/h ~ 60 m³/h Air - 1.2 Nm³/h ~ 800 Nm³/h
Range Ability	10 : 1
Accuracy	±2.0 % F.S (Option ±1.0 % F.S)
Fluid Temperature	Max 120 °C
Max. Pressure	Max. 10 kgf/cm².G

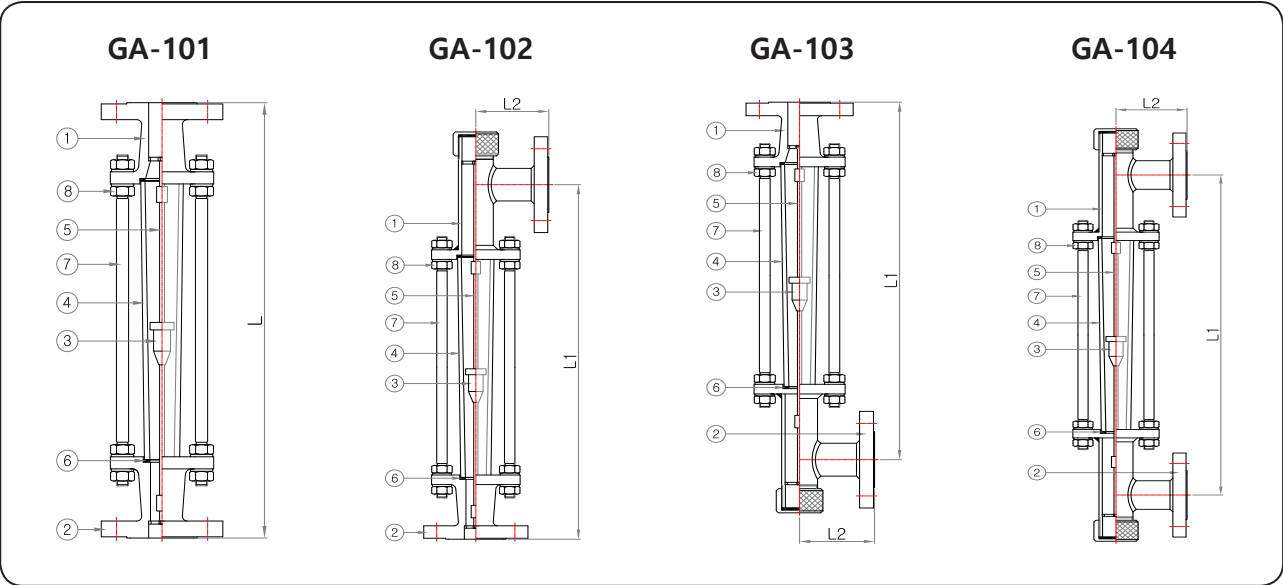
MODEL CODE

GA - 10	-	□	-	□	Specification
		1			Bottom to Top
		2			Bottom to Top side
		3			Bottom side to Top
		4			Bottom side to Top side
			A		Alarm Switch (High, Low)
			V		Valve

STANDARD MATERIAL

No.	Description	Material				
		A	B	C	D	E
1	Body	SS400	304SS	316SS	316LSS	PVC
2	Flange					
3	Float	304SS/316/316L, PVC, ACETAL, PTFE				
4	Taper tube	PYREX GLASS, PC				
5	Guide bar	304SS		316SS/316L, PTFE LINER		
6	Packing	NBR, EPDM, SILICON, FKM, PTFE				
7	Post	SS400	304SS			
8	Nut					

STRUCTURAL DRAWING



■ FLOW RANGE & DIMENSIONS

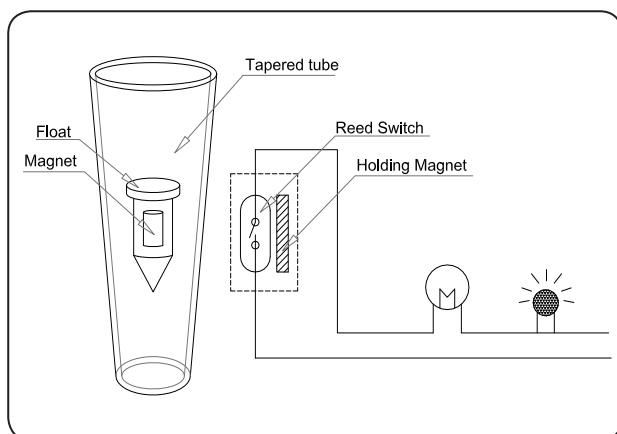
Size	L (mm)	L1 (mm)	L2 (mm)	Water		Air		압력손실 mmAq (≒)	
				m ³ /h	L/min	Nm ³ /h	NL/min	Water	Air
15A	360	370	70	0.12 - 1.2	2 - 20	1.2 - 12	20 - 200	100	20
20A	360	370	70	0.25 - 2.5	4 - 40	3 - 30	50 - 500	200	30
25A	400	410	80	0.45 - 4.5	7.5 - 75	7.5 - 75	125 - 1250	250	40
32A	420	430	80	0.7 - 7.5	12.5 - 125	10 - 100	170 - 1700	300	50
40A	440	450	100	1.2 - 12	20 - 200	15 - 150	250 - 2500	350	60
50A	480	500	100	1.8 - 18	30 - 300	21 - 210	350 - 3500	400	100
65A	550	580	120	3 - 30		35 - 350		400	100
80A	620	660	130	4.5 - 45		50 - 500		500	150
100A	740	790	150	6 - 60		80 - 800		500	150

■ PRODUCT WEIGHT & INTERNAL PRESSURE

규격	내압한도 (kgf/cm ² .G)		중량 (kg)		
	금속	PVC	금속		PVC
			1형	4형	1형
15A	10	5	4	5	2
20A	10	5	5	5	2
25A	7	4	7	8	3
32A	7	4	8	9	5
40A	7	4	9	11	6
50A	5	3	12	15	8
65A	4	3	18	25	12
80A	3	2	23	30	15
100A	3	2	38	50	20

√ 주문에 의한 내압한도 증가 가능함

■ ALARM OUTPUT UNIT (REED SWITCH TYPE)



Contact Reed switch	Self holding type
Max. Contact capacity	AC 10 VA DC 10 W
Max. Voltage	AC 125 V DC 100 V
Max. Temperature	-10 °C ~ 60 °C
Cable length	1 m

GA-20 Series General Specifications

Size	10A(3/8") ~ 25A(1")
Process Connection	Flange type - KS / JIS / ANSI / ASME / DIN Std Flange or Screw
Flow Ranges	Water - 0.06 L/h ~ 1200 L/h Air - 0.006 Nm³/h ~ 18 Nm³/h
Range Ability	10 : 1
Accuracy	±2.0 % F.S (Option ±1.0 % F.S)
Fluid Temperature	Max 120 °C
Max. Pressure	Max. 10 kgf/cm².G

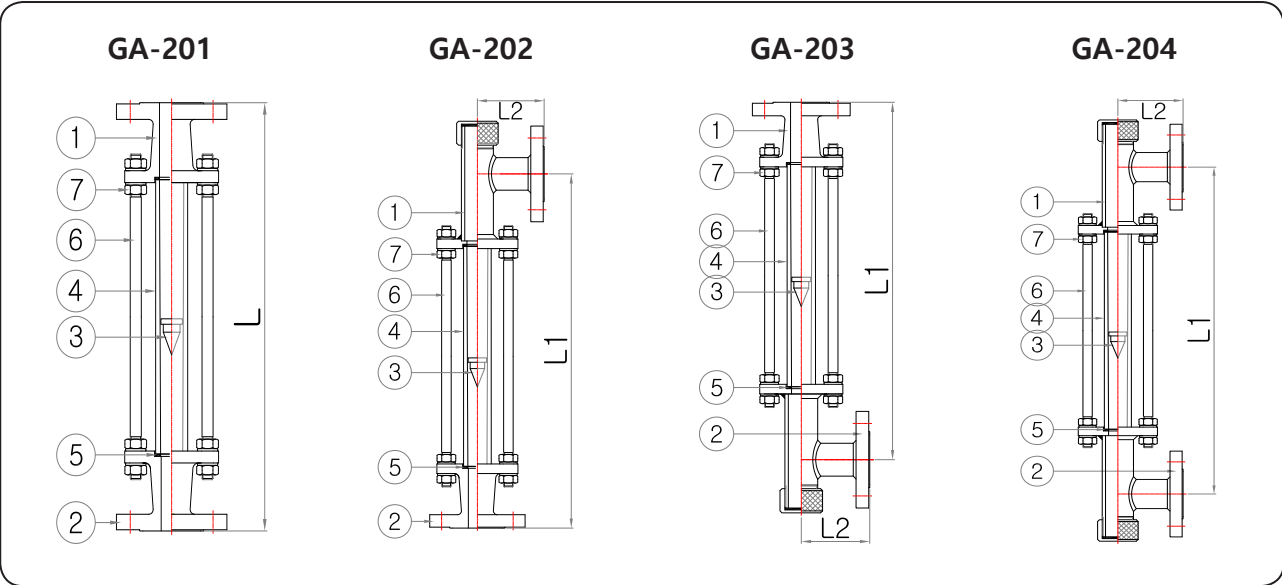
MODEL CODE

GA - 20	-	□	-	□	Specification
		1			Bottom to Top
		2			Bottom to Top side
		3			Bottom side to Top
		4			Bottom side to Top side
			A		Alarm Switch (High, Low)
			V		Valve

STANDARD MATERIAL

No.	Description	Material				
		A	B	C	D	E
1	Body	SS400	304SS	316SS	316LSS	PVC
2	Flange					
3	Float	304SS/316/316L, PVC, ACETAL, PTFE				
4	Taper tube	PYREX GLASS, PC				
5	Packing	NBR, EPDM, SILICON, FKM, PTFE				
6	Post	SS400	304SS			
7	Nut					

STRUCTURAL DRAWING



■ FLOW RANGE

Size	Water (L/h)		Air (Nm ³ /h)		압력손실 mmAq (≒)	
	304SS (120 °C)	PVC (50 °C)	PVC, PTFE (50 °C)	ALUMINUM 304SS (120 °C)	Water	Air
10A	0.06 - 0.6 10 - 100	1 - 10 6 - 60	0.006 - 0.06 0.1 - 1	0.01 - 0.1 0.15 - 1.5	100	20
15A	10 - 100 70 - 700	6 - 60 15 - 150	0.1 - 1 0.2 - 2	0.15 - 1.5 0.3 - 3	100	20
20A	10 - 100 70 - 700	6 - 60 60 - 600	0.1 - 1 0.7 - 7	0.15 - 1.5 1 - 10	200	30
25A	80 - 800 120 - 1200	60 - 600 100 - 1000	0.8 - 8 1.2 - 12	1 - 10 1.8 - 18	200	30

■ DIMENSIONS

규격	L (mm)	L1 (mm)	L2 (mm)
15A	360	370	70
20A	360	370	70
25A	400	410	80

■ WEIGHT & INTERNAL PRESSURE

규격	내압한도 (kgf/cm ² .G)		중량 (kg)		
	금속	PVC	금속		PVC
			1형	4형	1형
15A	10	5	4	5	2
20A	10	5	5	5	2
25A	7	4	7	8	3

GA-30 Series General Specifications

Size	65A(2-1/2") ~ 200A(8")
Process Connection	Flange type - KS / JIS / ANSI / ASME / DIN Std Flange
Flow Ranges	Water - 1.5 m³/h ~ 280 m³/h Air - 6 Nm³/h ~ 3000 Nm³/h
Range Ability	10 : 1
Accuracy	±2.0 % F.S
Fluid Temperature	Max 120 °C
Max. Pressure	Max. 4 kgf/cm².G

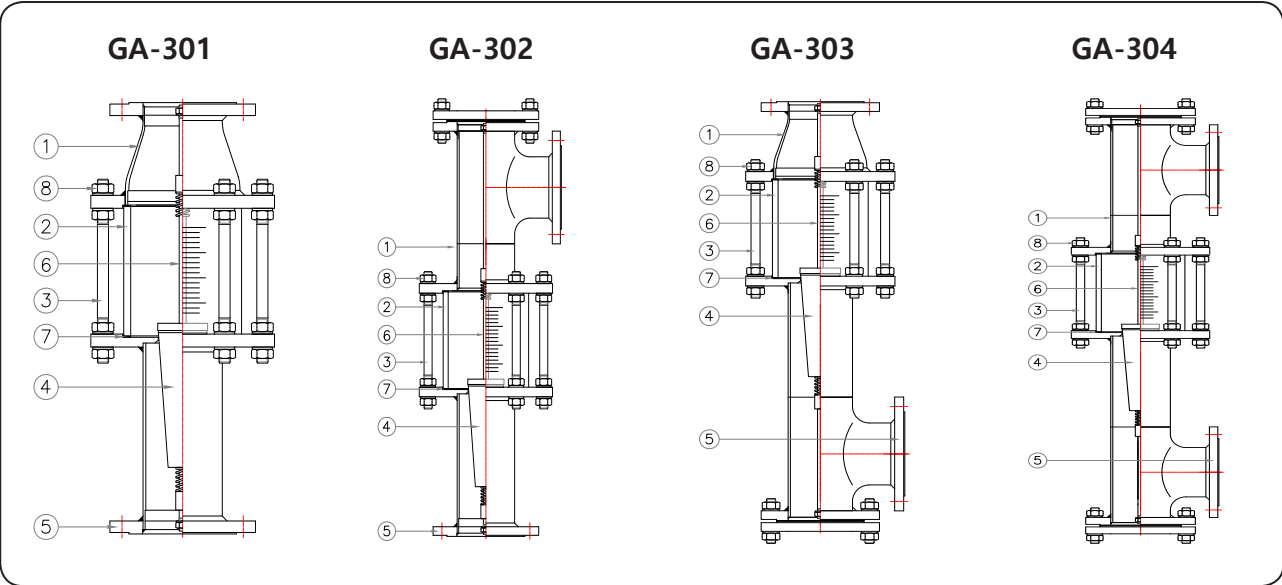
MODEL CODE

GA - 3 0	-	□	Specification
		1	Bottom to Top
		2	Bottom to Top side
		3	Bottom side to Top
		4	Bottom side to Top side

STANDARD MATERIAL

No.	Description	Material		
1	Body	SS400	304SS	316SS
2	Tube	ACRYL, HARD GLASS		
3	Post	SS400	304SS	
4	Float	304SS	304SS/316	
5	Flange	SS400	304SS	316SS
6	Guide bar	304SS		316SS
7	Packing	NBR, EPDM, PTFE		
8	Nut	SS400	304SS	

STRUCTURAL DRAWING



■ FLOW RANGE

Size	Water (m ³ /h)		Air (Nm ³ /h)		압력손실 mmAq (≒)	
	304SS (120 °C)	PVC (50 °C)	PVC, PTFE (50 °C)	ALUMINUM 304SS (120 °C)	Water	Air
65A	1.5 - 15 3 - 30	1.2 - 12 2.5 - 25	6 - 60 30 - 300	40 - 400 15 - 150	400	100
80A	2 - 20 5 - 50	1.6 - 16 4 - 40	10 - 100 50 - 500	70 - 700 20 - 200	500	150
100A	5 - 50 7 - 70	3 - 30 6 - 60	15 - 150 70 - 700	20 - 200 100 - 1000	500	150
125A	7 - 70 12 - 120	5 - 50 10 - 100	25 - 250 120 - 1200	40 - 400 150 - 1500	600	200
150A	12 - 120 15 - 150	8 - 80 12 - 120	40 - 400 200 - 2000	60 - 600 200 - 2000	600	250
200A	15 - 150 28 - 280	10 - 100 20 - 200	60 - 600 300 - 3000	100 - 1000 300 - 3000	700	300

■ DIMENSIONS

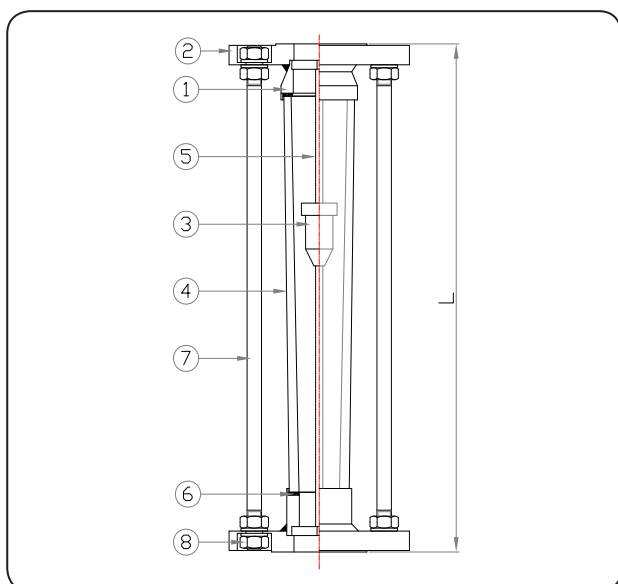
형식	접속관경		길이
	JIS	PT	mm
GA 65-A	65	2 1/2	470
GA 65-B	65	2 1/2	530
GA 65-C	65	2 1/2	530
GA 80-A	80	3	530
GA 80-B	80	3	600
GA 80-C	80	3	600
GA 100-A	100	4	600
GA 100-B	100	4	600
GA 100-C	100	4	600

형식	접속관경		길이
	JIS	PT	mm
GA 125-A	125	5	600
GA 125-B	125	5	600
GA 125-C	125	5	640
GA 150-A	150	6	600
GA 150-B	150	6	640
GA 150-C	150	6	715
GA 200-A	200	8	640
GA 200-B	200	8	715
GA 200-C	200	8	715

GA-50 Series General Specifications

Size	10A(3/8") ~ 50A(2")
Process Connection	Flange type - KS / JIS / ANSI / ASME / DIN Std Flange
Flow Ranges	Water - 0.03 m ³ /h ~ 20 m ³ /h Air - 0.8 Nm ³ /h ~ 210 Nm ³ /h
Range Ability	10 : 1
Accuracy	±2.0 % F.S
Fluid Temperature	Max 120 °C
Max. Pressure	Max. 10 kgf/cm ² .G

STRUCTURAL DRAWING



STANDARD MATERIAL

No.	Description	Material				
		A	B	C	D	E
1	Body	SS400	304SS	316SS	316LSS	PVC
2	Flange					
3	Float	304SS/316/316L, PVC, ACETAL, PTFE				
4	Taper tube	PYREX GLASS, PC				
5	Guide bar	304SS/316L, PTFE LINER				
6	Packing	NBR, EPDM, SILICON, FKM, PTFE				
7	Post	SS400	304SS			
8	Nut					

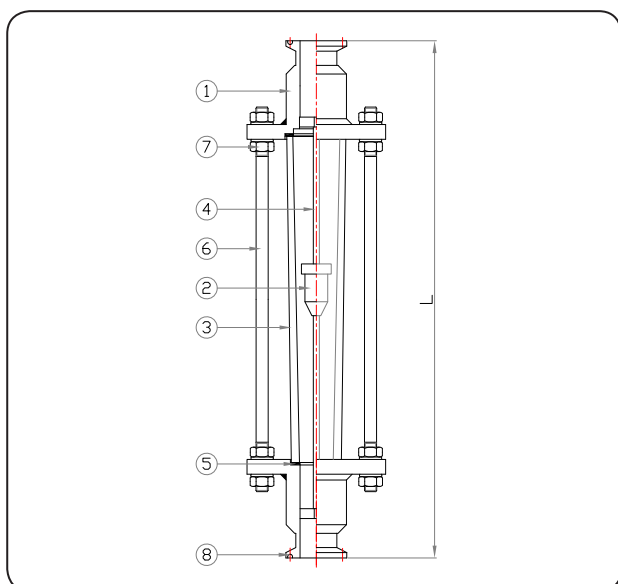
FLOW RANGE & DIMENSIONS

Size	L (mm)	Water (m ³ /h)		Air (Nm ³ /h)
		304SS	PVC	Ebonite, PVC, PTFE
15A	300	0.03 - 0.3 0.2 - 2	0.05 - 0.5 0.15 - 1.5	6 - 60 30 - 300
20A	300	0.03 - 0.3 0.2 - 2	0.05 - 0.5 0.15 - 1.5	10 - 100 50 - 500
25A	340	0.15 - 1.5 0.5 - 5	0.1 - 1 0.35 - 3.5	15 - 150 70 - 700
32A	360	0.3 - 3 0.7 - 7	0.25 - 2.5 0.6 - 6	25 - 250 120 - 1200
40A	380	0.35 - 3.5 1.2 - 12	0.3 - 3 1 - 10	40 - 400 200 - 2000
50A	420	1 - 10 2 - 20	0.8 - 8 1.5 - 15	60 - 600 300 - 3000

GA-60 Series General Specifications

Size	10A(0.5S) ~ 50A(2-1/2S)
Process Connection	IDE Clamp / Male
Flow Ranges	(0 ~ 25,000) L/h
Range Ability	10 : 1
Accuracy	±2.0 % F.S (Option ±1.0 % F.S)
Fluid Temperature	Max 120 °C
Max. Pressure	Max. 10 kgf/cm ² .G

STRUCTURAL DRAWING



STANDARD MATERIAL

No.	Description	Material		
		A	B	C
1	Body	SS400	304SS	316SS
2	Float			
3	Taper tube	PYREX GLASS		
4	Guide bar	304SS	316SS	316LSS
5	Packing	NBR, EPDM, SILICON, FKM, PTFE		
6	Post	304SS		
7	Nut			
8	Clamp	304SS	316SS	316LSS

FLOW RANGE & DIMENSIONS

Meter Size	Con'n. size	L (mm)	Flow rate (L/h)
10A	0.5S	360	min. 0 - 50 / max. 0 - 500
15A	1S	360	max. 0 - 1000
20A	1S	360	max. 0 - 2000
25A	1S ~ 1-1/2S	400	max. 0 - 3500
40A-①	1S ~ 2S	440	max. 0 - 8000
40A-②	1-1/2S ~ 2S	440	max. 0 - 10000
50A	2S ~ 2-1/2S	480	max. 0 - 25000

PA-60 Series General Specifications

Size	8A(1/4") ~ 25A(1")
Process Connection	Flange type - KS / JIS / ANSI / ASME / DIN Std Flange or Screw
Measured Fluid	Gas and Liquid
Range Ability	10 : 1
Accuracy	±2.0 % F.S
Fluid Temperature	Max 120 °C
Max. Pressure	Max. 10 kgf/㎠.G

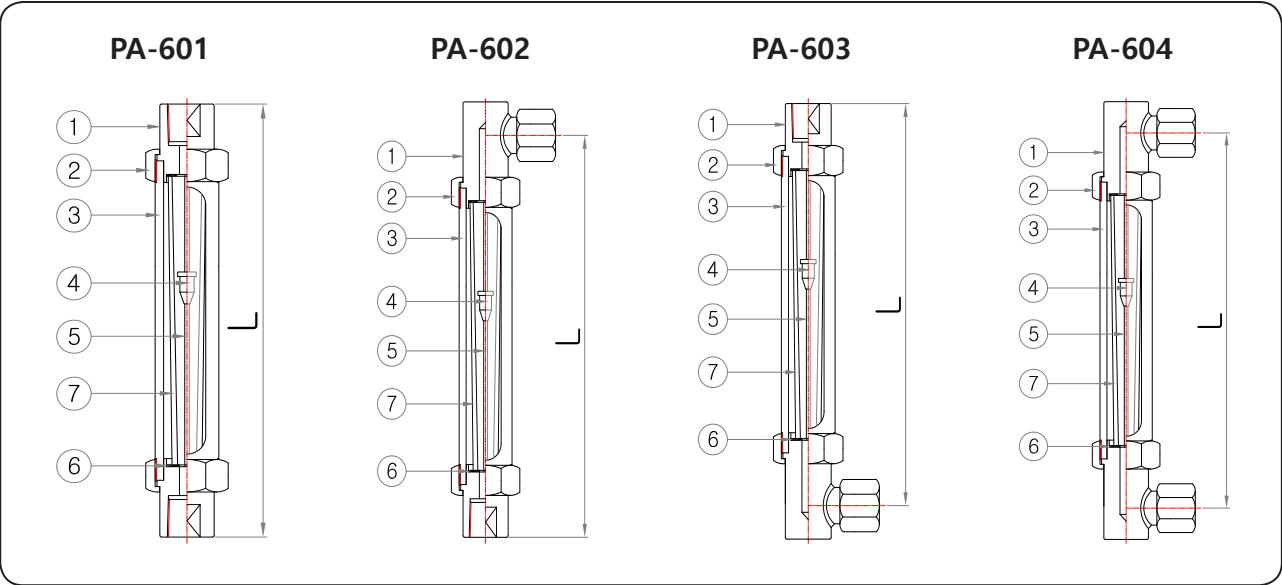
MODEL CODE

PA - 60	-	□	-	□	Specification
		1			Bottom to Top
		2			Bottom to Top side
		3			Bottom side to Top
		4			Bottom side to Top side
				A	Alarm Switch (High, Low)
				F	Flange
				V	Valve

STANDARD MATERIAL

No.	Description	Material		
1	Body	304SS	316SS	316LSS
2	Cap	ALUMINUM		
3	Case Tube	ALUMINUM		
4	Float	304/316/316LSS, PVC, ACETAL, PTFE		
5	Guide Bar	304SS, 316LSS, PTFE LINER		
6	Packing	NBR, EPDM,SILICON, FKM, PTFE		
7	Taper Tube	PYREX GLASS		

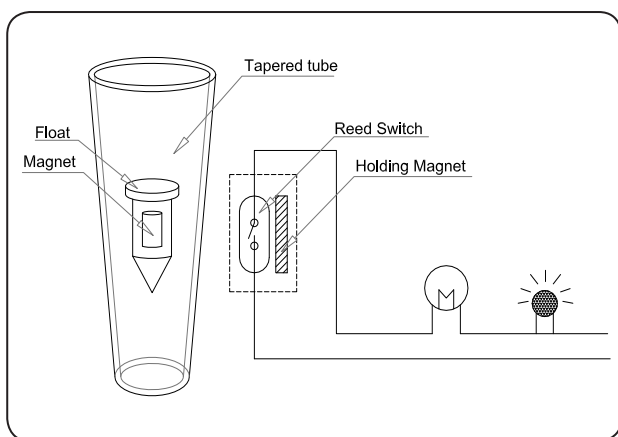
STRUCTURAL DRAWING



DIMENSIONS

Size \ Type			P A - 6 0 1	P A - 6 0 2 / 6 0 3	P A - 6 0 4
8A	S	PT 1/4B	240	240	240
10A	S	PT 3/8B	240	315	310
15A	S	PT 1/2B	240	235	240
	L		320	315	310
20A	S	PT 3/4B	240	235	240
	L		320	315	310
25A	S	PT 1B	320	315	310
	L		400	395	390

ALARM OUTPUT UNIT (REED SWITCH TYPE)

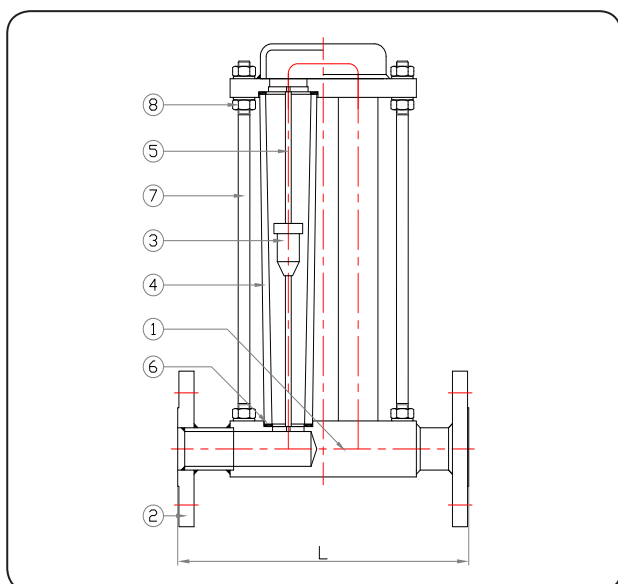


Contact Reed switch	Self holding type
Max. Contact capacity	AC 10 VA DC 10 W
Max. Voltage	AC 125 V DC 100 V
Max. Temperature	-10 °C ~ 60 °C
Cable length	1 m

GA-70 Series General Specifications

Size	15A(1/2") ~ 65A(2-1/2")
Process Connection	KS/JIS/ASME/DIN Std. Flange
Flow Ranges	Water - 0.03 m ³ /h ~ 30 m ³ /h Air - 0.3 Nm ³ /h ~ 400 Nm ³ /h
Range Ability	10 : 1
Accuracy	±2.0 % F.S
Fluid Temperature	Max 120 °C
Max. Pressure	Max. 10 kgf/cm ² .G

STRUCTURAL DRAWING



STANDARD MATERIAL

No.	Description	Material				
		A	B	C	D	E
1	Body	SS400	304SS	316SS	316LSS	PVC
2	Flange					
3	Float	304SS/316L, PVC, ACETAL, PTFE				
4	Taper tube	PYREX GLASS, PC				
5	Guide bar	304SS		316LSS, PTFE LINER		
6	Packing	NBR, EPDM, SILICON, FKM, PTFE				
7	Post	SS400	304SS			
8	Nut					

FLOW RANGE & DIMENSIONS

Size \ Float	Water (m ³ /h)		Air (Nm ³ /h)	
	304SS	PVC	Ebonite PVC, PTFE	ALUMINUM 304SS
15A	0.03 - 0.3 0.2 - 2	0.05 - 0.5 0.15 - 1.5	0.3 - 3 1.2 - 12	0.3 - 3 2 - 20
20A	0.03 - 0.3 0.2 - 2	0.05 - 0.5 0.15 - 1.5	0.3 - 3 2 - 20	0.3 - 3 3 - 30
25A	0.15 - 1.5 0.5 - 5	0.1 - 1 0.35 - 3.5	1 - 10 4 - 40	1.5 - 15 6 - 60
32A	0.3 - 3 0.7 - 7	0.2 - 2 0.5 - 5	2 - 20 7 - 70	3 - 30 10 - 100
40A	0.35 - 3.5 1.2 - 12	0.3 - 3 1 - 10	3 - 30 12 - 120	4.5 - 45 15 - 150
50A	1 - 10 2 - 20	0.8 - 8 1.5 - 15	3.5 - 35 15 - 150	5 - 50 20 - 200
65A	1.5 - 15 3 - 30	1.2 - 12 2.5 - 25	6 - 60 30 - 300	9-90 40 - 400