



PA Series

Variable Area Flowmeter

- 전원 장치 없이 사용하는 현장 지시 유량계
- 작은 공간에 적합하도록 디자인 되어 일반 공장 배관 라인 및 패널에 손쉽게 설치 가능
- 유체의 순간 흐름 쉽게 확인 가능 (거품, 색상 등)

PA-10 Series General Specifications

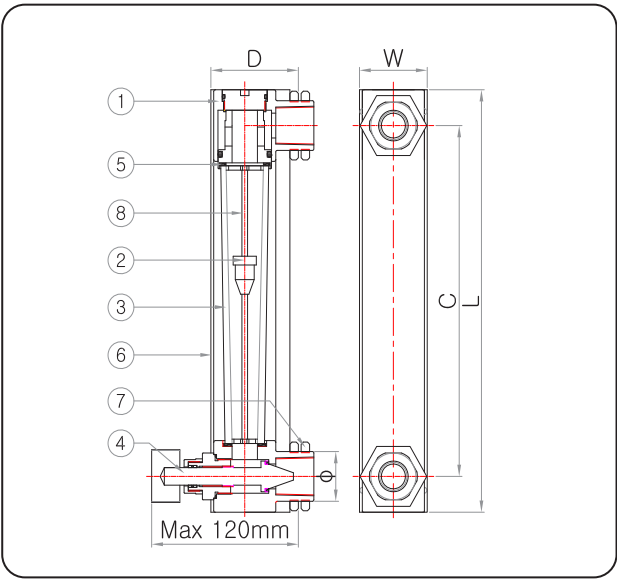


DESCRIPTION	SPECIFICATION
Size	1/2" ~ 3/4"
Process connection	PT, NPT (Female)
Flow ranges	Please see the specifications below
Turndown ratio	10 : 1
Measuring accuracy	±2.0 % F.S (Option ±1.0 % F.S)
Process temperature	Max. 120 °C
Max. pressure	Max. 10 kgf/cm ² .G
Certifications	CE RoHS (2011/65/EU)

MODEL CODE

PA-10	-	☐	SPECIFICATION
	A		Alarm switch

STRUCTURAL DRAWING



DIMENSIONS

치수 (mm)				
L	C	W	D	Ø
290	240	50	49	34

STANDARD MATERIAL

No.	DESCRIPTION	MATERIAL		
		A	B	C
1	Body	304SS	316SS	PVC
2	Float	304SS PTFE Acetal	316SS PTFE Acetal	PVC
3	Taper tube	PYREX GLASS		
4	Needle Valve	304SS	316SS	PVC
5	Packing	NBR, PTFE, FPM		EPDM
6	Cover	ACRYL		
7	Mounting Nut	BRASS		
8	Guide bar	304SS	316SS	PTFE LINER

FLOW RANGES

표준사양		특수사양	
Water (L/h)	Air (NL/h)	Water (L/h)	Air (NL/h)
16 - 160	400 - 4000	10 - 100	250 - 2500
20 - 250	600 - 6000		
40 - 400	1000 - 10000	250 - 2500	3000 - 30000
100 - 1000	1600 - 16000		



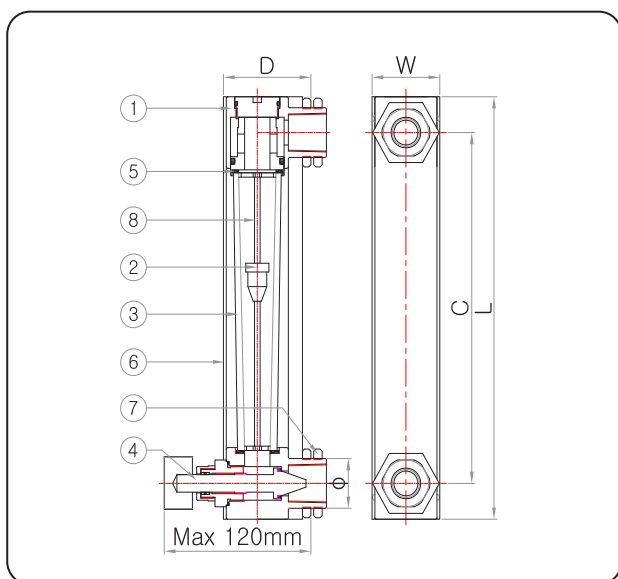
PA-20 Series General Specifications

DESCRIPTION	SPECIFICATION
Size	1/4" ~ 1/2"
Process connection	PT, NPT (Female)
Flow ranges	Please see the specifications below
Turndown ratio	10 : 1
Measuring accuracy	±2.0 % F.S (Option ±1.0 % F.S)
Process temperature	Max. 120 °C
Max. pressure	Max. 10 kgf/cm ² .G
Certifications	CE RoHS (2011/65/EU)

MODEL CODE

PA-20	-	□	SPECIFICATION
		A	Alarm switch

STRUCTURAL DRAWING



DIMENSIONS

치수 (mm)				
L	C	W	D	Ø
240	200	40	40	26

STANDARD MATERIAL

No.	DESCRIPTION	MATERIAL		
		A	B	C
1	Body	304SS	316SS	PVC
2	Float	304SS PTFE Acetal	316SS PTFE Acetal	PVC
3	Taper tube	PYREX GLASS		
4	Needle Valve	304SS	316SS	PVC
5	Packing	NBR, PTFE, FPM		EPDM
6	Cover	ACRYL		
7	Mounting Nut	BRASS		
8	Guide bar	304SS	316SS	PTFE LINER

FLOW RANGES

표준사양		특수사양	
Water (L/h)	Air (NL/h)	Water (L/h)	Air (NL/h)
1 - 10	16 - 160	0.6 - 6	10 - 100
1.6 - 16	25 - 250		
4 - 40	40 - 400		
6 - 60	100 - 1000	70 - 700	800 - 8000
10 - 100	160 - 1600		
16 - 160	250 - 2500		

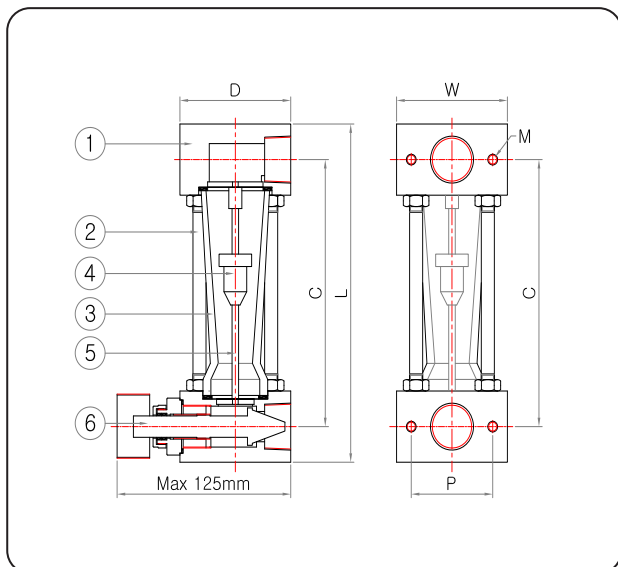
PA-30 Series General Specifications

DESCRIPTION	SPECIFICATION
Size	3/8" ~ 1"
Process connection	PT(F)
Flow ranges	Please see the specifications below
Turndown ratio	10 : 1
Measuring accuracy	±2.0 % F.S
Process temperature	Max. 120 °C
Max. pressure	Max. 10 kgf/cm ² .G

MODEL CODE

PA-30	-	□	SPECIFICATION
		S	304SS or 316SS
		P	PVC or CPVC
		T	PTFE

STRUCTURAL DRAWING



STANDARD MATERIAL

No.	DESCRIPTION	MATERIAL		
		S	P	T
1	Body	304SS	PVC	PTFE
2	Support bar	304SS		
3	Taper tube	PYREX GLASS		
4	Float	304SS	PVC	PTFE
5	Guide bar			PTFE LINER
6	Valve			PTFE

FLOW RANGES

Size		Water	Air
		L/min	NL/min
15A	1/2B	2 - 50	100 - 1000
20A	3/4B	4 - 80	
25A	1B	5 - 100	140 - 1400

DIMENSIONS

Size		Length (mm)				
		L	C	D	W	P
15A	1/2B	190	150	68	68	50
20A	3/4B					
25A	1B	210	160	68	68	50



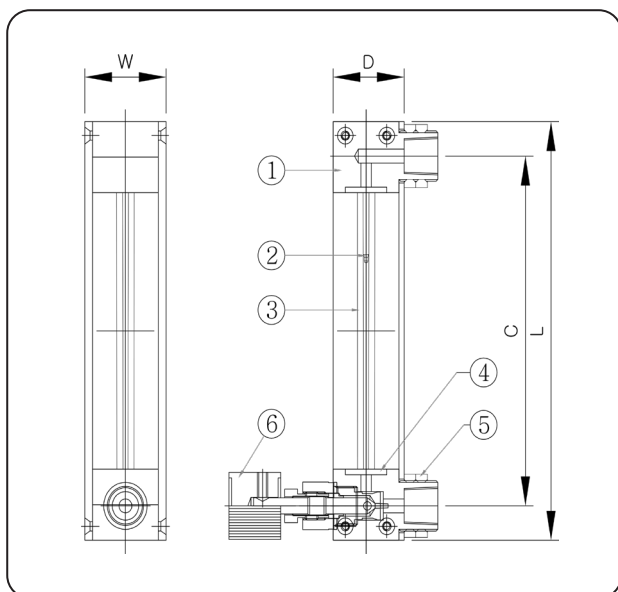
PA-40 Series General Specifications

DESCRIPTION	SPECIFICATION
Size	1/4"
Process connection	PT, NPT (Female)
Flow ranges	Please see the specifications below
Turndown ratio	10 : 1
Measuring accuracy	±2.0 % F.S
Process temperature	Max. 120 °C
Max. pressure	Max. 10 kgf/cm ² .G
Certifications	CE RoHS (2011/65/EU)

MODEL CODE

PA-40	-	☐	SPECIFICATION
		A	Alarm switch

STRUCTURAL DRAWING



DIMENSIONS

치수 (mm)				
L	C	W	D	Ø
150	125	31.5	27.5	19

STANDARD MATERIAL

No.	DESCRIPTION	MATERIAL
1	Body	304SS
2	Float	PTFE, Acetal, Agate, Ceramic
3	Taper tube	PYREX GLASS
4	Packing	NBR, VITON
5	Mounting Nut	BRASS
6	Needle Valve	304SS

FLOW RANGES

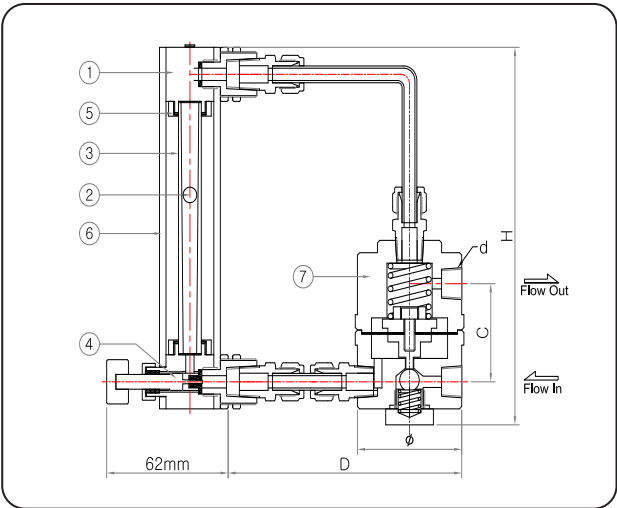
구분	구격	Water		Air	
		cc/min	L/h	Ncc/min	NL/h
표준 사양	PT 1/4	2 - 20	0.12 - 1.2	20 - 200	1 - 10
		3 - 30	0.2 - 2	30 - 300	2 - 20
		5 - 50	0.3 - 3	50 - 500	3 - 30
		8 - 80	0.5 - 5	80 - 800	5 - 50
		10 - 100	0.6 - 6	150 - 1500	10 - 100
특수 사양	최소	2 - 20	0.1 - 1	10 - 100	0.6 - 6
	최대	10 - 100	1 - 10	160 - 1600	12 - 120

PA-50 Series General Specifications

√ 본 제품은 PA-10, PA-20, PA-40 모델의 전단 또는 후단에 정유량 밸브를 장착한 사양입니다.
상세 유량 범위 및 외형 치수는 해당 모델의 사양표를 참조하시기 바랍니다.

DESCRIPTION	SPECIFICATION		
Size	With PA-10	With PA-20	With PA-40
	1/2" ~ 3/4"	1/4" ~ 1/2"	1/4"
Process connection	PT, NPT (Female)		
Flow ranges	Please see the specifications below		
Turndown ratio	10 : 1		
Measuring accuracy	±2.0 % F.S (Option ±1.0 % F.S)		
Process temperature	Max. 120 °C		
Max. pressure	Max. 10 kgf/㎠.G		

STRUCTURAL DRAWING



STANDARD MATERIAL

No.	DESCRIPTION	MATERIAL	
		A	B
1	Body	304SS	316SS(L)
2	Float	304SS, AGATE	316SS(L)
3	taper tube	PYREX GLASS	
4	Needle valve	304SS	316SS(L)
5	Packing	NBR, PTFE	
6	Cover	ACRYL	
7	Constant Flow Valve	304SS	316SS(L)

DIMENSIONS

Dia	Code	H	C	D	Ø	d
8A		155	125	36	19	PT1/4B
15A		240	200	40	25	PT1/2B
20A		290	240	49	34	PT3/4B

NPA-50 Series General Specifications

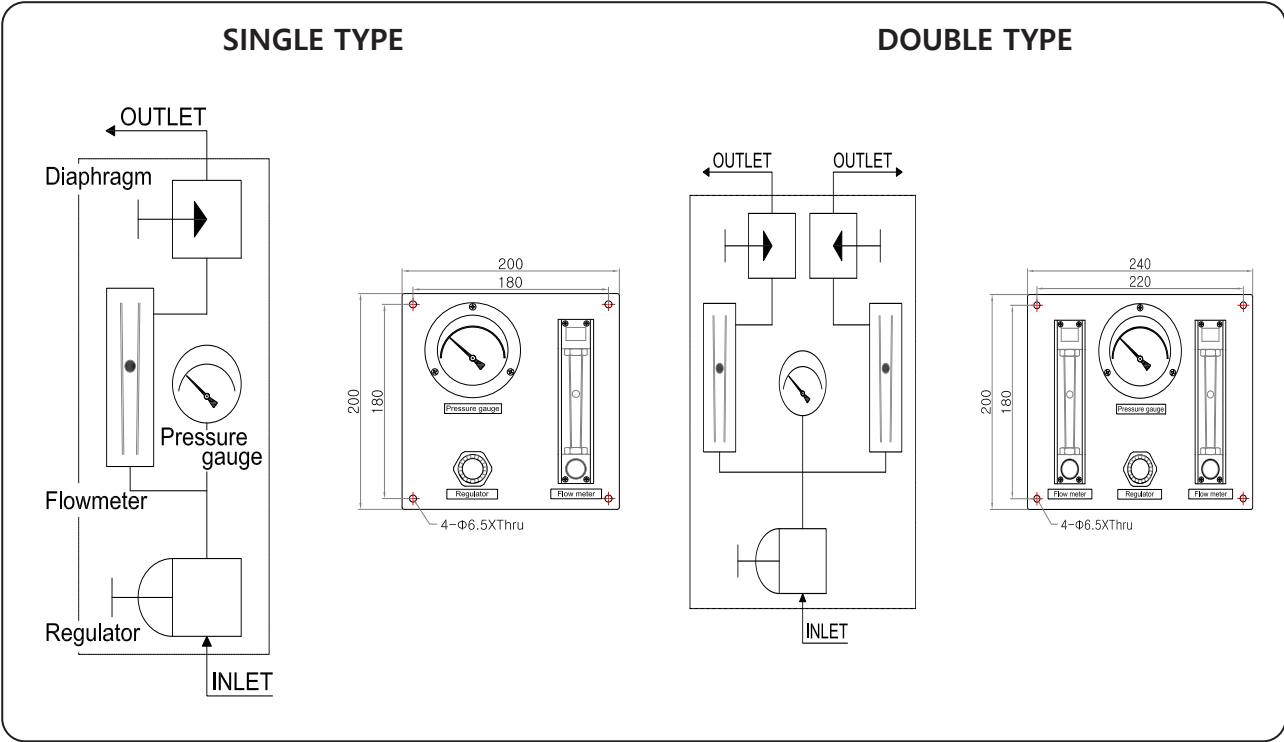
√ 본 제품은 PA-10, PA-20, PA-40 모델의 전단 또는 후단에 정유량 밸브를 장착한 후 판넬에 일체화 시킨 사양입니다.
상세 유량 범위 및 외형 치수는 해당 모델의 사양표를 참조하시기 바랍니다.

DESCRIPTION	SPECIFICATION		
Size	With PA-10	With PA-20	With PA-40
	1/2" ~ 3/4"	1/4" ~ 1/2"	1/4"
Process connection	PT, NPT (Female)		
Flow ranges	Please see the specifications below		
Turndown ratio	10 : 1		
Measuring accuracy	±2.0 % F.S (Option ±1.0 % F.S)		
Process temperature	Max. 120 °C		
Max. pressure	Max. 10 kgf/㎠.G		

MODEL CODE

N P A - 5 0		-	☐	SPECIFICATION
		1		Single Flowmeter
		2		Double Flowmeter

STRUCTURAL DRAWING



PA-60 Series General Specifications

DESCRIPTION	SPECIFICATION
Size	8A(1/4") ~ 25A(1")
Process connection	Flange type - KS / JIS / ANSI / ASME / DIN Std Flange or Screw
Measured fluid	Gas and Liquid
Turndown ratio	10 : 1
Measuring accuracy	±2.0 % F.S
Process temperature	Max 120 °C
Max. Pressure	Max. 10 kgf/㎠.G

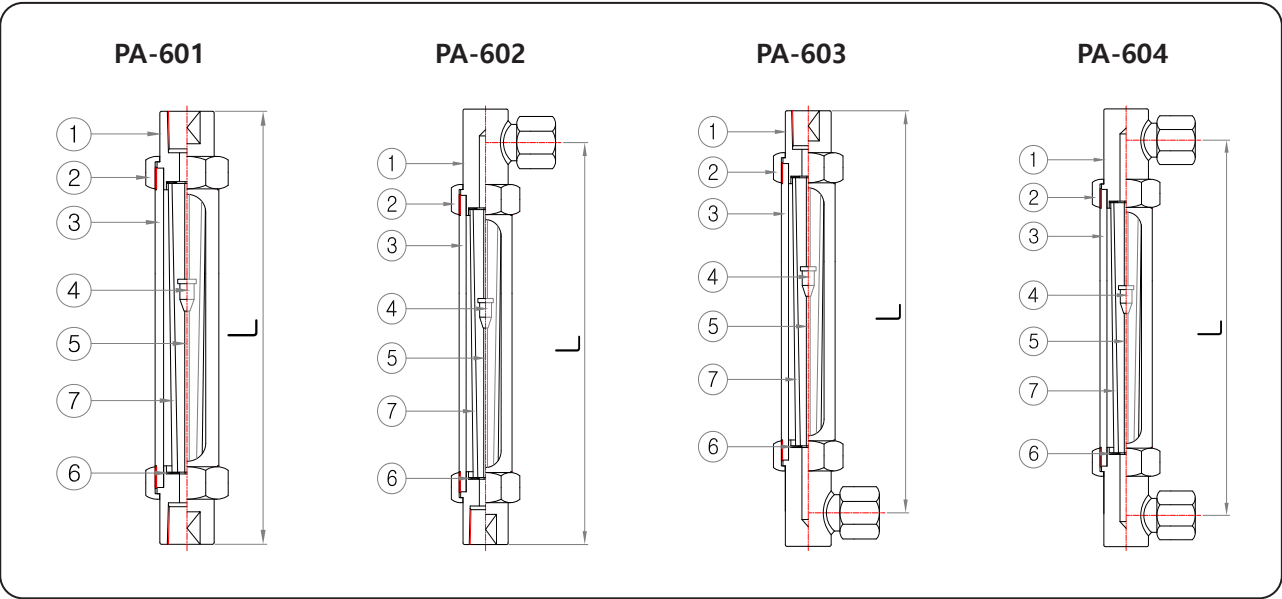
MODEL CODE

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		

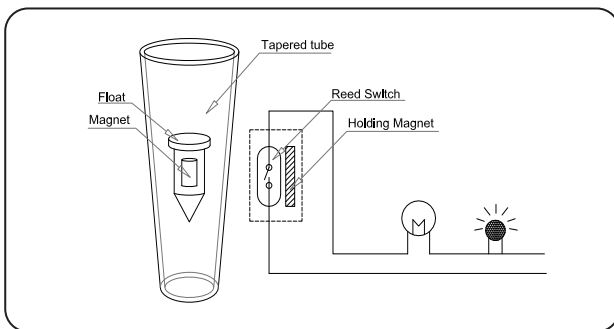
STRUCTURAL DRAWING



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)



DESCRIPTION	SPECIFICATION
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

PA-70 Series General Specifications

✓ 본 제품은 다채널 유량 제어 및 분배가 가능하도록 PA-10, PA-20, PA-40을 2개 이상 조합하여 제작한 제품입니다.
상세 유량 범위 및 외형 치수는 해당 모델의 사양표를 참조하시기 바랍니다.

DESCRIPTION	SPECIFICATION		
Size	With PA-10	With PA-20	With PA-40
	1/2" ~ 3/4"	1/4" ~ 1/2"	1/4"
Process connection	PT, NPT (Female)		
Flow ranges	Please see the specifications below		
Turndown ratio	10 : 1		
Measuring accuracy	±2.0 % F.S (Option ±1.0 % F.S)		
Process temperature	Max. 120 °C		
Max. pressure	Max. 10 kgf/㎠.G		

MODEL CODE

PA-70	-	☐	-	☐	SPECIFICATION
		☐			유량 분배 수 (2 ~ 6)
				S	304SS or 316SS
				P	PVC

STANDARD MATERIAL

No.	DESCRIPTION	MATERIAL		
		A	B	C
1	Body	BRASS	304SS	PVC
2	Float	304SS	PVC PTFE	316LSS
3	Taper tube	PYREX GLASS		
4	Needle Valve	BRASS	304SS	316SS
5	Packing	NBR, FPM, PTFE		
6	Cover	ACRYL		
7	Mounting shaft bar	BRASS	304SS	316SS
8	Guide bar	304SS	316SS	PTFE LINER

DIMENSIONS

분배 수	기호	A	B	C	D
2		36	41	36	41
3		36	23	72	59
4		36	23	108	77
5		36	23	144	95
6		36	23	180	113

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