S S E N P
FLOW METER

에스에스이엔피
경기도 화성시 새강1길 43번지
Tel: 031) 8015 2452 Fax: 031) 935 0452

SPM1

Specification

1. Measuring object : Liquid(viscosity < 5.0cP)
2. Range : Liquid − Min 2~20 CC/MIN
   Max 0.2~2 LPM
   Gas − Min 0.1~1 LPM
   Max 5~50 LPM
3. Accuracy : ±3% Full Scale
4. OP. Press : Max 8kg/㎠
   OP. Temp : 0~90℃

5. 적용유체 : 기체, 액체(viscosity < 5.0cP)
6. 측정유량 : Liquid − Min 2~20 CC/MIN
   Max 0.2~2 LPM
   Gas − Min 0.1~1 LPM
   Max 5~50 LPM
7. 측정오차 : ±3% Full Scale
8. 사용압력 : 8kg/㎠ max
9. 사용온도 : 0~90℃

Applications

- 반도체 장비의 DI water, Gas, Chemical 공급라인
- 소규모 연구소등의 Utility 유량측정
- 각종 계측장비의 Sampling line의 유량측정 및 제어
- 미생물, 화학, 의약 등 고순도 유체 사용분야

- DI water, gas and chemical lines for semiconductor equipment
- Utility flow measurement of small lab
- Flow measurement and control characteristics for sampling line of equipments
- Field in microbiology, chemistry and medicine using high purity fluid

Features

- DI Water, Gas, Chemical 대응
- 2LPM까지의 유량 측정 가능(Liquid 기준)
- 100% 1대 1 유량 Calibration
- 유량 조절용 Needle valve 장착
- 유량 level 감시용 Alarm 출력 가능
- 주문자 사양의 Connection 적용
- 주문자 사양의 유량측정 범위 제작

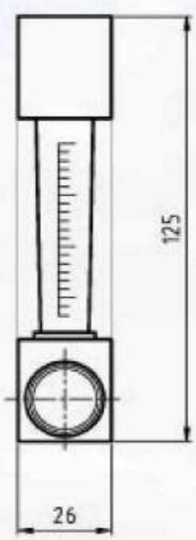
- Suitable for DI Water, Gas, Chemical
- Flow rate available until 2L/MIN(Liquid)
- Direct reading scale for flow rate
- Flow control needle valve
- Alarm for flow level sensor
- Wide flow ranges available to meet all requirements

Ordering Information

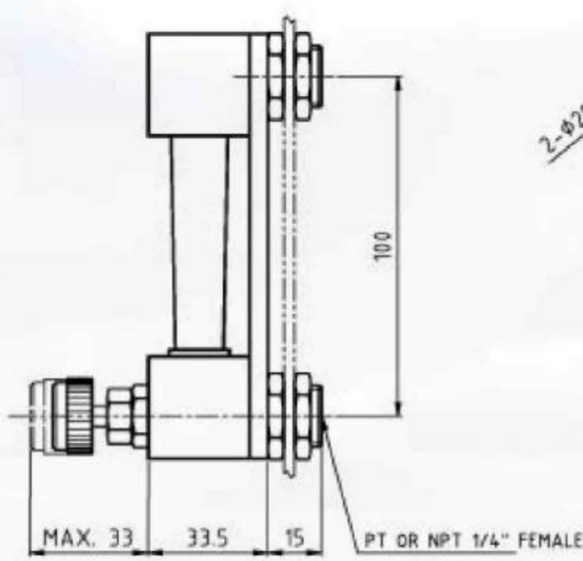
SPM 1 : □-□□-□□-□□
① ②③ ④⑤ ⑥⑦

	① Fluid	② Flow Rate	③ Material	④ Size	⑤ Connection	⑥ Valve	⑦ Alarm
SPM 1	유체기입	Max.유량기입	S : SUS 316	1 : 1/8" 2 : 1/4"	R : PT Female N : NPT Female V : VCR Female L : Lok Type	O : None L : Inlet U : Outlet	O : None E : Optic Sensor

Dimension



[FRONT]



[SIDE]

[PANEL MOUNT]

SPM2

Specification

1. Measuring object : Liquid (viscosity < 5.0cP)
2. Range : Liquid – Min 0.3~3LPM
   Max 0.5~5 LPM
   Gas – Min 5~50 LPM
   Max 20~200 LPM
3. Accuracy : 3% Full Scale
4. OP. Press : Max 8kg/㎠
   OP. Temp : 0~90℃

5. 적용유체 : 기체,액체 (viscosity < 5.0cP)
6. 측정유량 : Liquid – Min 0.3~3 LPM
   Max 0.5~5 LPM
   Gas – Min 5~50 LPM
   Max 20~200 LPM
7. 측정오차 : ±3% Full Scale
8. 사용압력 : 8kg/㎠ max
9. 사용온도 : 0~90℃

Applications

- 반도체 장비의 DI water, Gas, Chemical 공급라인
- 소규모 연구소등의 Utility 유량측정
- 각종 계측장비의 Sampling line의 유량측정 및 제어
- 미생물, 화학, 의약 등 고순도 유체 사용분야

- DI water, gas and chemical lines for semiconductor equipment
- Utility flow measurement of small lab
- Flow measurement and control characteristics for sampling line of equipments
- Field in microbiology, chemistry and medicine using high purity fluid

Features

- DI Water, Gas, Chemical 대응
- 최대 5LPM까지의 유량 측정 가능(Liquid 기준)
- 100% 1대 1 유량 Calibration
- 유량 조절용 Needle valve 장착
- 유량 level 감시용 Alarm 출력 가능
- 주문자 사양의 Connection 적용
- 주문자 사양의 유량측정 범위 제작

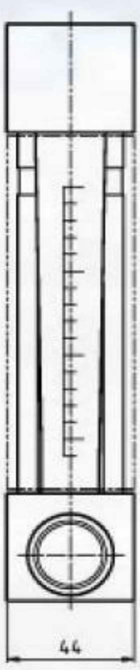
- Suitable for DI Water, Gas, Chemical
- Flow rate available until 5LPM(Liquid)
- Direct reading scale for flow rate
- Flow Control Needle valve
- Alarm for flow level sensor
- Wide flow ranges available to meet all requirements

Ordering Information

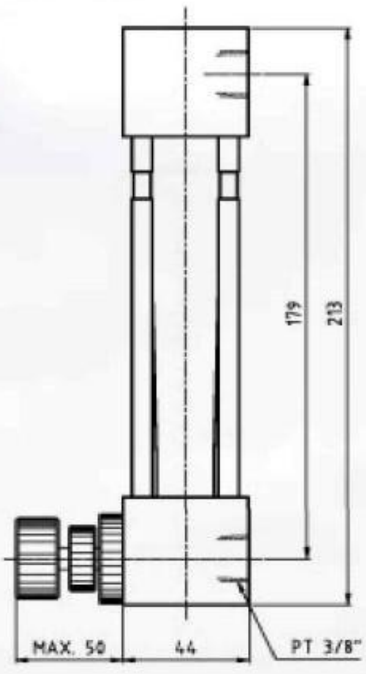
SPM 2 : □-□□-□□-□□
① ②③ ④⑤ ⑥⑦

	① Fluid	② Flow Rate	③ Material	④ Size	⑤ Connection	⑥ Valve	⑦ Alarm
SPM 2	유체기입	Max.유량기입	S : SUS 316 P : PVC F : PTFE	2 : 1/4" 3 : 3/8"	R : PT Female N : NPT Female V : VCR Female L : Lok Type T : Tube fitting	O : None L : Inlet U : Outlet	O : None E : Optic Sensor

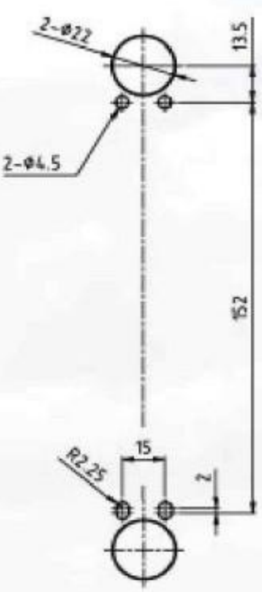
Dimension



[FRONT]



[SIDE]



[PANEL MOUNT]

SPM3

Specification

① Measuring object : Gas, Liquid(viscosity < 5.0
② Range : Liquid – Min 0.5~5 LPM
Max 2~20 LPM
Gas – Min 5~50 LPM
Max 60~600 LPM
③ Accuracy : ±3% F.S
④ OP. Press : Max 8kg/㎠
OP. Temp : 0~90℃

⑤ 적용유체 : 액체(viscosity < 5.0cP)
⑥ 측정유량 : Liquid – Min 0.5~5 LPM
Max 2~20 LPM
Gas – Min 5~50 LPM
Max 60~600 LPM
⑦ 측정오차 : ±3% F.S
⑧ 사용압력 : 8kg/㎠
⑨ 사용온도 : 0~90℃

Applications

- 반도체, LCD장비의 Gas, Chemical 공급라인
- 높은 압력의 PCW 라인
- 장치의 원가절감
- 다양한 각도의 배관구조용 유량계

- Provided gas & chemical line to semiconductor, LCD equipment
- PCW line of high pressure
- Low cost of device
- Flowmeter for piping system of various angles

Features

- Buffing 처리한 Stainless Body
- Gas, Chemical, Pcw 대응
- Borosilicate Glass의 우수한 내화학성
- 유량 Level 감시용 Alarm 출력
- 다양한 Connection 방향 및 Inline 배관 가능
- 주문자 사양의 유량측정 범위 제작

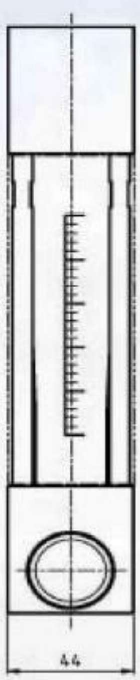
- Stainless body by buffing
- Available in gas, chemical, pcw
- Superior chemical resistance of borosilicate glass
- Alarm for flow level sensor
- Various connection direction and inline piping system
- Wide for range available to meet all requirements

Ordering Information

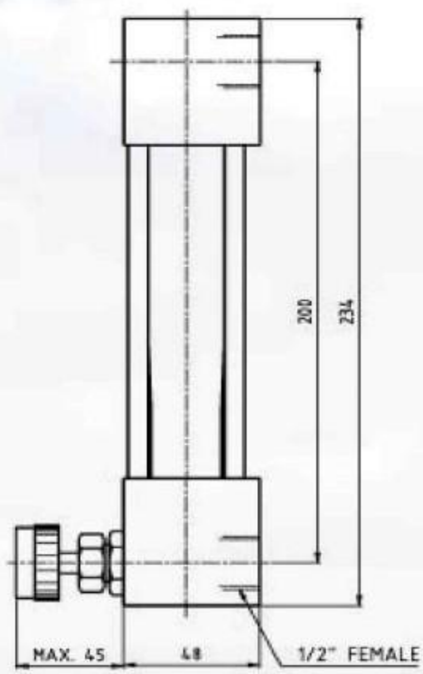
SPM3 : □ □ − □ □ − □ □ − □
①② ③④ ⑤⑥ ⑦

	① Fluid	② Flow Rate	③ Material	④ Size	⑤ Connection	⑥ Valve	⑦ Alarm
				3 : 3/8"	R : PT Female	O : None	O : None
SPM 3	유체기입	Max.유량기입	S : SUS316	4: 1/2"	N : NPT Female	L : Inlet	E : Optic Sensor
					L : Lok Fitting	U : Outlet	R : Reed Switch

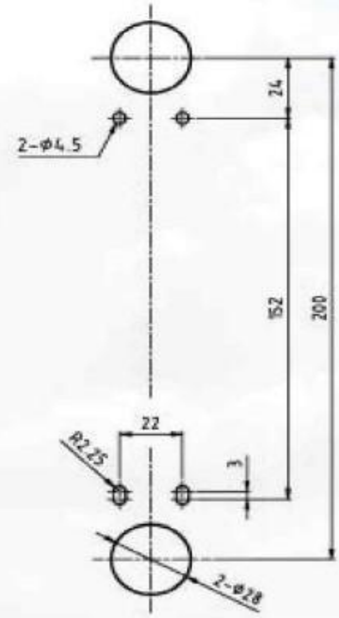
Dimension



[FRONT]



[SIDE]



[PANEL MOUNT]

SPM4

Specification

1. Measuring object : Gas, Liquid(viscosity < 5.0
2. Range : Liquid – Min 3~30 LPM
   Max 10~100 LPM
   Gas – Min 70~700 LPM
   Max 200~2000 LPM
3. Accuracy : ±3% Full Scale
4. OP. Press : Max 8kg/㎠
   OP. Temp : 0~90℃

5. 적용유체 : 기체, 액체(viscosity < 5.0cP)
6. 측정유량 : Liquid – Min 3~30 LPM
   Max 10~100 LPM
   Gas – Min 70~700 LPM
   Max 200~2000 LPM
7. 측정오차 : ±3% Full Scale
8. 사용압력 : 8kg/㎠ max
9. 사용온도 : 0~90℃

Applications

- 반도체, LCD장비의 Gas, Chemical 공급라인
- 높은 압력의 PCW 라인
- 장치의 원가절감
- 다양한 각도의 배관구조용 유량계

- Provided gas & chemical line to semiconductor, LCD equipment
- PCW line of high pressure
- Low cost of device
- Flowmeter for piping system of various angles

Features

- 100LPM까지의 유량측정 가능(Liquid 기준)
- Gas, Chemical, Pcw의 사용에 적합
- Borosilicate Glass의 우수한 내화학성
- 유량 Level 감시용 Alarm 출력
- 다양한 Connection 방향 및 Inline 배관 가능
- 주문자 사양의 유량측정 범위 제작

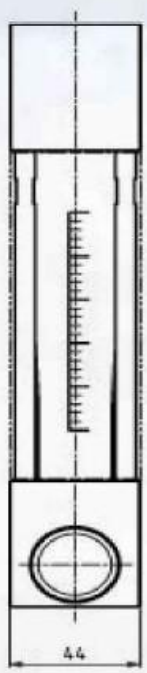
- Flow range available until 100LPM(Liquid)
- Available in gas, chemical, pcw
- Superior chemical resistance of borosilicate glass
- Alarm for flow level sensor
- Various connection direction and inline piping system
- Offer wide range flow available on request

Ordering Information

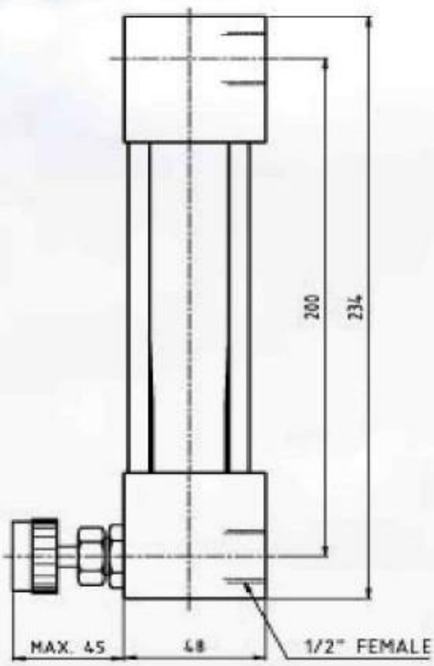
SPM4 : □□-□□-□□-□
①② ③④ ⑤⑥ ⑦

	① Fluid	② Flow Rate	③ Material	④ Size	⑤ Connection	⑥ Valve	⑦ Alarm
SPM 4	유체기입	Max.유량기입	S : SUS316	4 : 1/2"	R : PT Female	O : None	O : None
				5: 3/4"	N : NPT Female	L : Inlet	E : Optic Sensor
				6: 1"	L : Lok Fitting	U : Outlet	R : Reed Switch

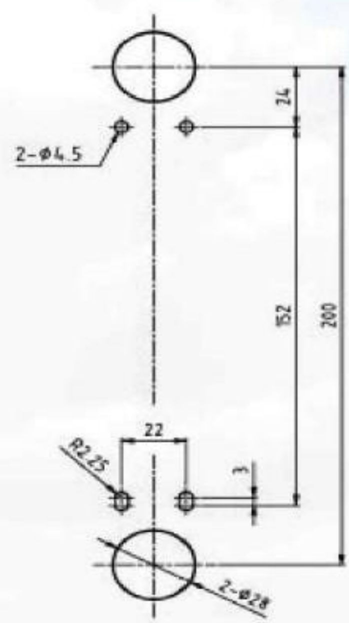
Dimension



[FRONT]



[SIDE]



[PANEL MOUNT]

SPM5

Specification

1. Measuring object : Liquid (viscosity < 5.0cP)
2. Range : Liquid – Min 1~10LPM
   Max 5~50LPM
3. Accuracy : 3% Full Scale
4. OP. Press : Max 5kg/㎠
   OP. Temp : 60℃

5. 적용유체 : 액체 (viscosity 5.0cP)
6. 측정유량 : Liquid – Min 10LPM
   Max 50LPM
7. 측정오차 : ±3% Full Scale
8. 사용압력 : 5kg/㎠ max
9. 사용온도 : 60℃

Applications

- 반도체 Wet process 장비의 DI water,Chemical 공급라인
- Chemical supply system의 유량측정
- 소규모 연구소등의 Utility 유량측정
- 미생물, 화학, 의학 등 고순도 유체사용분야

- DI water or chemical supply line for semiconductor wet process
- Chemical supply system
- Utility flow measurement of small lab
- Fields in microbiology, chemistry and medicine using high purity fluid

Features

- 유량 Level 감시용 Alarm 출력
- 50LPM까지의 유량측정 가능(Liquid 기준)
- 유량 조절용 Needle Valve 장착
- 전후면 Panel mounting 가능
- 주문자 사양의 유량측정 범위 제작

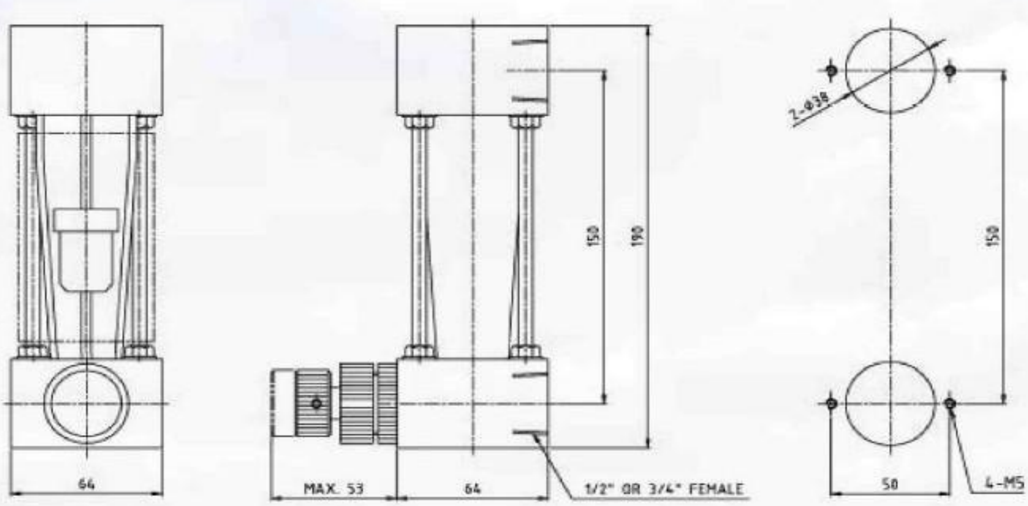
- Alarm for flow level sensor
- Flow range available until 50LPM(Liquid)
- Flow Control Needle valve
- Various flow direction inline for panel mounting
- Wide for range available to meet all requirements

Ordering Information

SPM 5 : □-□□-□□-□□
① ②③ ④⑤ ⑥⑦

	① Fluid	② Flow Rate	③ Material	④ Size	⑤ Connection	⑥ Valve	⑦ Alarm
SPM 5	유체기입	Max.유량기입	P : PVC F : PTFE	3 : 3/8"	R : PT Female	O : None	O : None
				4: 1/2"	N : NPT Female	L : Inlet	E : Optic Sensor
				5: 3/4"	T : Tube Fitting	U : Outlet	R : Reed Switch

Dimension



[FRONT]

[REAR]

SPM6

Specification

① Measuring object : Liquid(viscosity < 5.0cP)
② Range : Liquid – Min 5~50LPM
Max 10~100LPM
③ Accuracy : ±5% Full Scale
④ OP. Press : Max 4kg/㎠
OP. Temp : Max 60℃

⑤ 적용유체 : 액체(viscosity 5.0cP)
⑥ 측정유량 : Liquid – Min 5~50LPM
Max 10~100LPM
⑦ 측정오차 : ±5% Full Scale
⑧ 사용압력 : 4kg/㎠ max
⑨ 사용온도 : Max 60℃

Applications

- 반도체 Wet process 장비의 대유량 DI water, Chemical 공급라인
- Chemical supply system의 유량측정
- 유량측정 및 자체 Needle Valve로 유량 정밀제어
- 소규모 연구소등의 Utility 유량측정
- 미생물, 화학, 의학 등 고순도 유체사용분야

- Large sized DI water or chemical supply line for semiconductor wet process
- Chemical supply system
- Precise control by built-in control valve
- Utility flow measurement of small lab
- Fields in microbiology, chemistry and medicine using high purity fluid

Features

- 100LPM까지의 유량측정 가능(Liquid 기준)
- 탁월한 내화학성
- DI water, Chemical 등의 액체 유량측정
- 유량 조절용 Needle valve 장착
- 유량 level 감시용 Alarm 출력
- 주문자 사양의 유량측정 범위 제작

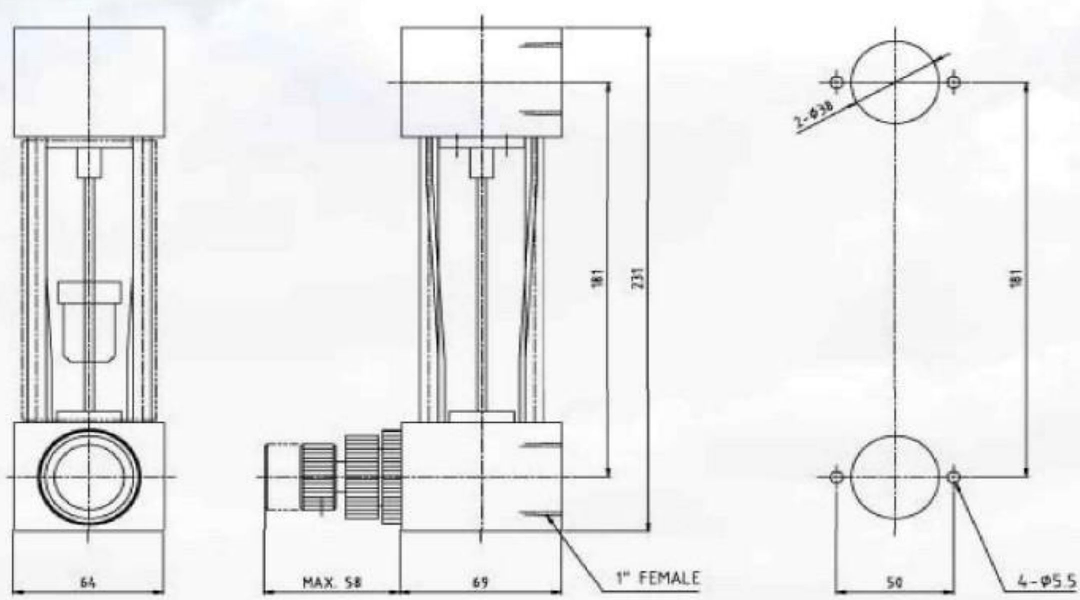
- Flow range awvailable until 100LPM(Liquid)
- Excellent chemical resistance
- Liquid measurement such as DI water, chemical
- Flow Control Needle valve
- Alarm for flow level sensor
- Wide for range available to meet all requirements

Ordering Information

SPM 6 : □-□□-□□-□□
① ②③ ④⑤ ⑥⑦

	① Fluid	② Flow Rate	③ Material	④ Size	⑤ Connection	⑥ Valve	⑦ Alarm
SPM 6	유체기입	Max.유량기입	P : PVC F : PTFE	5 : 3/4"	R : PT Female	O : None	O : None
				6 : 1"	N : NPT Female	L : Inlet	E : Optic Sensor
					T : Tube Fitting	U : Outlet	R : Reed Switch

Dimension



[FRONT] [SIDE] [REAR PANEL]

SPM7

Specification

① Measuring object : Gas, Liquid(viscosity < 5.0cP
② Range : Liquid – Min 2~20CCM
Max 0.2~2LPM
Gas – Min 0.1~1LPM
Max 5~50LPM
③ Accuracy : ±3% Full Scale
④ OP. Press : Max 5kg/㎠
OP. Temp : Max 70℃
⑤ 적용유체 : 기체, 액체(viscosity 5.0cP)
⑥ 측정유량 : Liquid – Min 2~20CCM
Max 0.2~2LPM
Gas – Min 0.1~1LPM
Max 5~50LPM
⑦ 측정오차 : ±3% Full Scale
⑧ 사용압력 : 5kg/㎠ max
⑨ 사용온도 : 70℃ (max)

Applications

- 반도체 Spin etching 장비의 소유량 Chemical, DI water 측정 및 제어용
- Wet process용 반도체 장비
- 고순도 Chemical 및 DI water를 사용하는 계측기 유량 측정
- 소규모 연구소 등의 고순도 유체 유량 측정
- 미생물, 화학, 의학 등 고순도 유체사용분야

- Minimal chemical of semiconductor spin etching equipment, for DI ter measurement and control
- Semiconductor equipment for wet process
- For purity chemical and DI water
- High purity liquids measurement of small labs
- Fields in microbiology, chemistry and medicine using high purity fluid

Features

- Particle free
- PFA Tube 연결용 Connection 구조
- Gas, DI water, Chemical 등의 유량측정
- 전제품의 신뢰성 Test 실시
- 유량 조절용 Needle valve 장착
- 주문자 사양의 유량측정 범위 제작

- Particle free
- Structure of PFA tube connection
- Flow measurement : gas, DI water, chemical
- Confidence test for all of products
- Flow Control Needle valve
- Wide for range available to meet all requirements

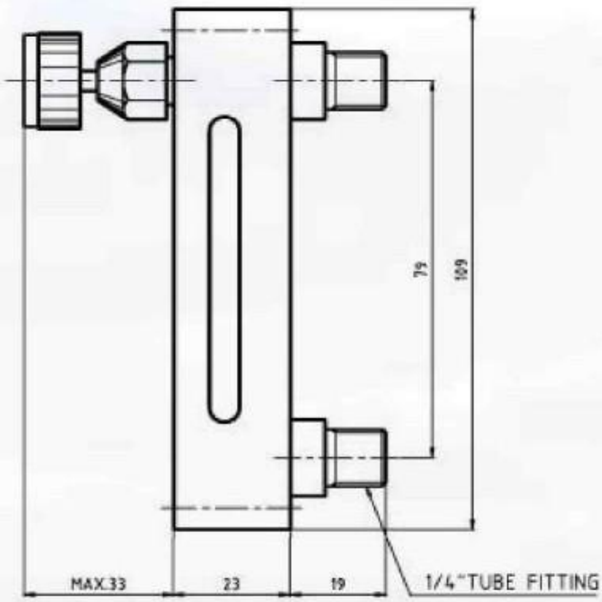
Ordering Information

SPM 7 : □−□□−□□−□□
① ②③ ④⑤ ⑥⑦

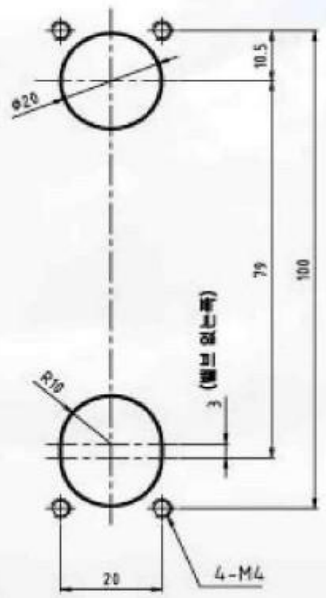
	① Fluid	② Flow Rate	③ Material	④ Size	⑤ Connection	⑥ Valve	⑦ Alarm
SPM 7	유체기입	Max.유량기입	P : PFA F : PTFE	1 : 1/8"	R : PT Female	O : None	O : None E : Optic Sensor
				2 : 1/4"	N : NPT Female	L : Inlet	
				A : 4mm B : 6mm	T : Tube Fitting	U : Outlet	

Dimension

[PRONT]



[SIDE]



[PANEL MOUNT]

SPM8

Specification

1. Measuring object : Gas, Liquid(viscosity < 5.0cP
2. Range : Liquid – Min 2~20CCM
   Max 0.2~2LPM
   Gas – Min 0.1~1LPM
   Max 5~50LPM
3. Accuracy : ±3% Full Scale
4. OP. Press : Max 3kg/㎠
   OP. Temp : Max 70℃
5. 적용유체 : 기체, 액체(viscosity 5.0cP)
6. 측정유량 : Liquid – Min 2~20CCM
   Max 0.2~2LPM
   Gas – Min 50~500CCM
   Max 5~50LPM
7. 측정오차 : ±3% Full Scale
8. 사용압력 : 3kg/㎠ max
9. 사용온도 : 70℃ (max)

Applications

- Provided chemical at semiconductor for wet process
- HF etching, flow measurement of cleaning equipment
- HF' s flow measurement
- Unusable glass for chemical flow measurement
- Ultra pure & high purity chemical' s flow measurement

- Wet process용 반도체 장비의 Chemical 공급라인
- HF etching, 세정 장비의 유량측정
- HF의 유량측정
- Glass를 사용할 수 없는 Chemical의 유량측정
- 초순수, 고순도 Chemical의 유량측정

Features

- Particle free
- 탁월한 내화학성
- PFA Welding 구조로 Leak free
- HF 등 모든 Chemical의 유량측정 및 제어에 최적
- Panel mounting 설치
- 유량 level 감시용 Alarm 출력

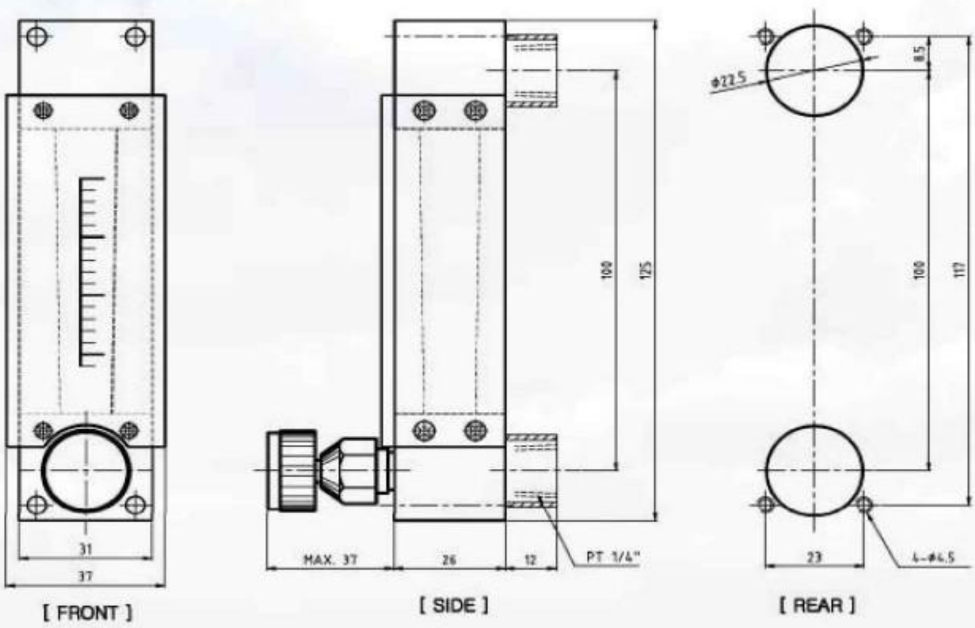
- Particle free
- Superior chemical resistance
- Leak free by PFA welding
- The most suitable for flow measurement and control of all kinds of chemicals
- Installed panel mounting
- Alarm for flow level sensor

Ordering Information

SPM 8 : □－□□－□□－□□
① ②③ ④⑤ ⑥⑦

SPM 8	① Fluid	② Flow Rate	③ Material	④ Size	⑤ Connection	⑥ Valve	⑦ Alarm
	유체기입	Max.유량기입	P : PFA	1 : 1/8"	R : PT Female	O : None	O : None E : Optic Sensor
				2: 1/4"	N : NPT Female	L : Inlet	
				A : 4mm B : 6mm	T : Tube Fitting	U : Outlet	

Dimension



SPM9

Specification

1. Measuring object : Liquid(viscosity < 5.0cP)
2. Range : Liquid – Min 0.5~5LPM
   Max 10~100LPM
3. Accuracy : ±5% Full Scale
4. OP. Press : Max 3kg/㎠
   OP. Temp : Max 70℃
5. 적용유체 : 기체, 액체(viscosity 5.0cP)
6. 측정유량 : Liquid – Min 1~10LPM
   Max 10~100LPM
7. 측정오차 : ±5% Full Scale
8. 사용압력 : 3kg/㎠ max
9. 사용온도 : 70℃ (max)

Applications

- Wet process 용 반도체 장비의 Chemical 공급라인
- 고순도 Chemical의 유량측정
- 유량측정 및 자체 Needle valve로 유량 정밀제어
- Glass를 사용할 수 없는 Chemical의 유량측정

- Provided chemical at semiconductor wet process
- Flow measurement of high purity chemical
- Flow Control Needle valve
- Unusable glass for chemical flow measurement

Features

- Particle free
- 모든 종류의 chemical의 유량측정 및 제어에 최적
- 외부 구성품은 All Teflon coating으로 부식 방지
- 물 기준 5~100 liter/min까지의 유량 측정 가능
- Inlet 혹은 Outlet에 유량조절용 Needle valve 장착
- Panel mounting 설치
- 유량 Level 감시용 Alarm 출력

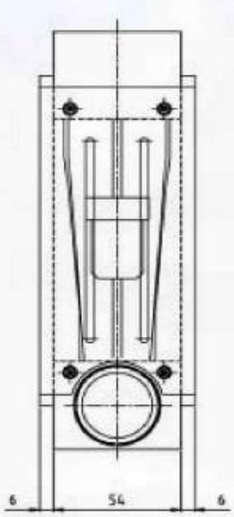
- Particle free
- The most suitable for flow measurement and control of all kinds of chemicals
- Prevent corrosion by Teflon coating(on request)
- Available up to 5~100 liter/min
- Installed needle valve for flow adjustment in inlet or outlet
- Installed panel mounting
- Alarm for flow level sensor

Ordering Information

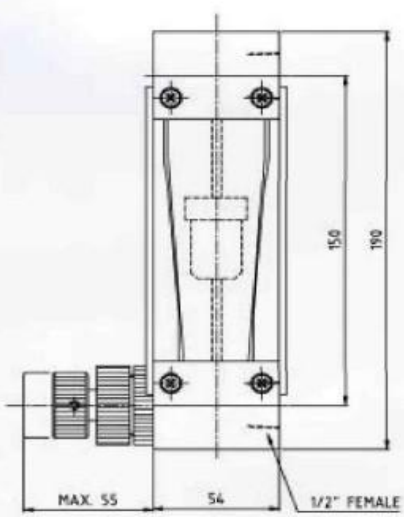
SPM 9 : □-□□-□□-□□
① ②③ ④⑤ ⑥⑦

	① Fluid	② Flow Rate	③ Material	④ Size	⑤ Connection	⑥ Valve	⑦ Alarm
SPM 9	유체기입	Max.유량기입	P : PFA	4 : 1/2"	R : PT Female	O : None	O : None E : Optic Sensor
				5: 3/4"	N : NPT Female	L : Inlet	
				6: 1"	T : Tube Fitting	U : Outlet	

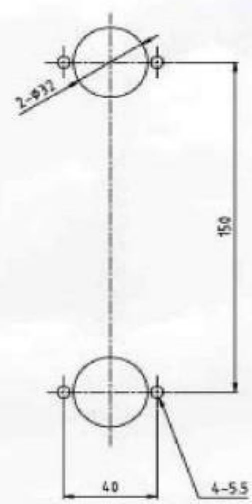
Dimension



[FRONT]



[SIDE]



[PANEL MOUNT]

SPM500 Series

General

- 간단하고 정확한 액체, 기체의 소유량 측정가능
- 플랜트 프로세서, 실험설비, 의약설비, 특수 기타설비의 유량감시에 적합
- 판넬에 부착하여 유량조절을 자유롭게 할 수 있도록 설계

- Available small flows of liquids and gases flow measurement
- suitable for plant processor, test equipment pharmaceutical field, and special equipment.
- Attached several use of panel mounting, controlled easily.

Ordering Information

SPM500 : □ - □ □
① ② ③

① Model	② Connection	③ Range	Temp.	Press.	Material
SPM500A (AIR)	1/8 PT	1 ℓ/min	MAX 60℃	MAX 8kg/㎠	Body (PC) 접액부 (SUS304)
		3 ℓ/min			
		5 ℓ/min			
		10 ℓ/min			
		25 ℓ/min			
		50 ℓ/min			
		70 ℓ/min			
		100 ℓ/min			O링 (NBR)
SPM500W (WATER)	1/8 PT	50 cc/min	MAX 60℃	MAX 8kg/㎠	
		100 cc/min			
		300 cc/min			

Dimension