

금속 테이퍼관 부유식 유량계 (Metal Taper Tube Flow Meters)

MLE Series

MLE-Series 모델 선택 (Model Selection Guide)

MLE - Series		
MODEL	CODE	DESCRIPTION
MLE		METAL TAPER TUBE FLOW METER
Flow Direction	1	Bottom to Top
	2	Bottom to Top side
	3	Bottom side to Top
	4	Bottom side to Top side
	5	Side to Side
Material	B	SUS 304
	C	SUS 316
	D	SUS 316L
	P	PVC
	T	Teflon Lining
	X	Special [주1]
Option	S	Local Indicator & 4 ~ 20 mA
	R1	1-Point Alarm (Reed)
	R2	2-Point Alarm (Reed)
	F1	1-Point (Fiber)
	F2	2-Point (Fiber)
	CF	Cooling Pin
	DR	Damper
	FJ	Heating Jacket (Full)
	SJ	Heating Jacket (Semi)
	EX	방폭형 (Ex-Proof)

[주1] 별도협의

금속 테이퍼관 부유식 유량계 (Metal Taper Tube Flow Meters)

MLE Series

◆ 개요

이 유량계는 몸체가 금속이므로 높은 온도와 높은 압력에도 잘 견디며 기계적인 강도가 우수합니다. 유량은 계기 Box 속에 지침과 결합된 자석과 플로트 Rod 속의 자석이 자기결합에 의하여 지시합니다. 계기 Box속의 지침은 유량에 비례하여 움직입니다.

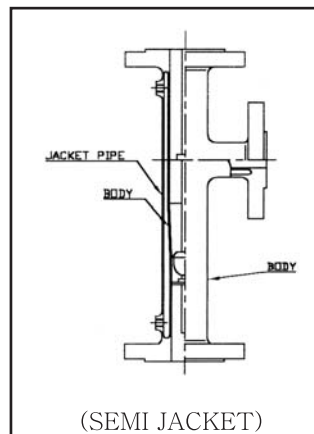
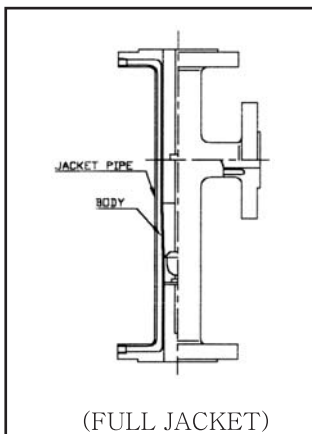
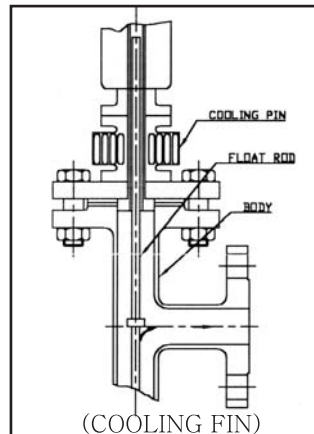
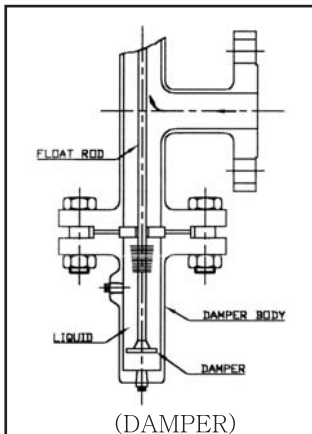
◆ Description

These flowmeters have metal bodies so they can stand up to high pressure and temperature and have superior mechanical intensity.

Flow rate is indicated by the magnetic coupling of the magnetic needle in the scale box and the magnet inside the float.

The needle inside the scale box moves in proportion to the flow rate.

◆ Option



MLE-1

◆ Features

1. Flow rating : 10 : 1
2. Accuracy : $\pm 2.0\%$ of F.S
3. Please inquire for special specifications.



MLE-1-SJ

금속 테이퍼관 부유식 유량계 (Metal Taper Tube Flow Meters)

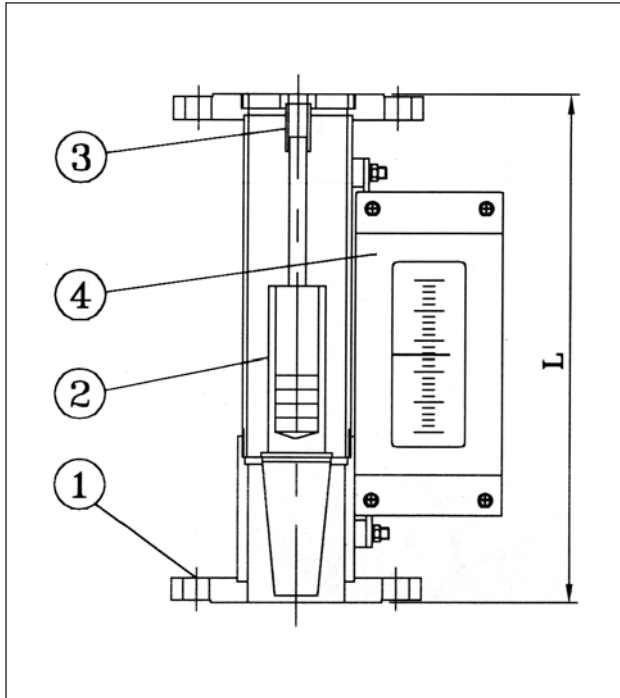
MLE – Series 유량범위 (Flow Rates Table)

SIZE FLOW RATE	H ₂ O (m ³ /H)			GAS (Nm ³ /H)	PRESSURE LIMIT ≒ (kgf/cm ² G)	
	STANDARD	SUS304	PVC	SUS304	SUS	PVC
15A	0.1-1	0.05-0.5 0.2-2	0.05-0.5 0.15-1.5	0.6-6 3-30	10	3
20A	0.2-2	0.08-0.8 0.35-3.5	0.1-1 0.25-2.5	1.6-16 5-50	10	3
25A	0.4-4	0.1-1 0.6-6	0.1-1 0.2-2	2-20 9-90	10	3
32A	0.6-6	0.1-1 1-10	0.1-1 0.8-8	2-20 15-150	7	3
40A	0.8-8	0.2-2 1.5-15	0.2-2 1.2-12	4-40 20-200	7	3
50A	1.5-15	0.5-5 2.5-25	0.5-5 1.5-15	6-60 40-400	7	3
65A	2.5-25	0.8-8 4-40	1.2-12 3-30	10-100 60-600	7	3
80A	4-40	1.2-12 5-50	1.5-15 4-40	12-120 80-800	7	2
100A	6-60	2.5-25 9-90	3-30 7-70	25-250 120-1200	7	2
125A	10-100	4-40 15-150	5-50 12-120	40-400 200-2000	5	2
150A	14-140	6-60 20-200	8-80 15-150	60-600 300-3000	5	2
200A	20-000	10-100 28-280	12-120 20-200	100-1000 400-4000	3	2

※ 참조 : 기체의 압력과 온도는 1 atm, 20℃일때 입니다. 압력 P kgf/cm²G 일경우는 본표의 수치에 $\sqrt{P-1}$ 를 곱해 주십시오.
 (Note : The pressure and the temperature of the gas are 1 atm and 20℃. If pressure P is kgf/cm²G, multiply $\sqrt{P-1}$ by the above rate. Please inquire for the rate not indicated)

금속 테이퍼관 부유식 유량계 (Metal Taper Tube Flow Meters)

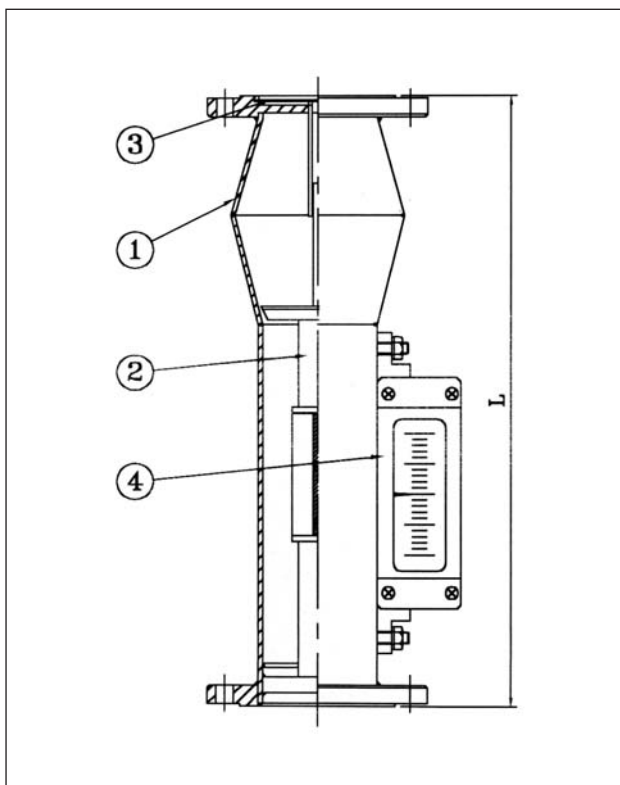
MLE – Series 구조 및 재질 규격 (MLE-1, 50A 이하)(Structure and Material Size)



SIZE		L	SIZE		L
15A	1/2B	350	32A	1-1/4B	360
20A	3/4B	350	40A	1-1/2B	360
25A	1B	350	50A	2B	360

PART NO.	TITLE	MATERIAL SELECTION	
1	Body	SUS304, SUS316, PVC	T/L
2	Float	SUS304, SUS316, PVC	T/L
3	Stopper	SUS304, SUS316, PVC	T/L
4	Scale Box	AL	

MLE – Series 구조 및 재질 규격 (MLE-1, 65A 이상)(Structure and Material Size)



SIZE		L	SIZE		L
65A	2-1/2B	600	125A	5B	800
80A	3B	650	150A	6B	850
100A	4B	700	200A	8B	950

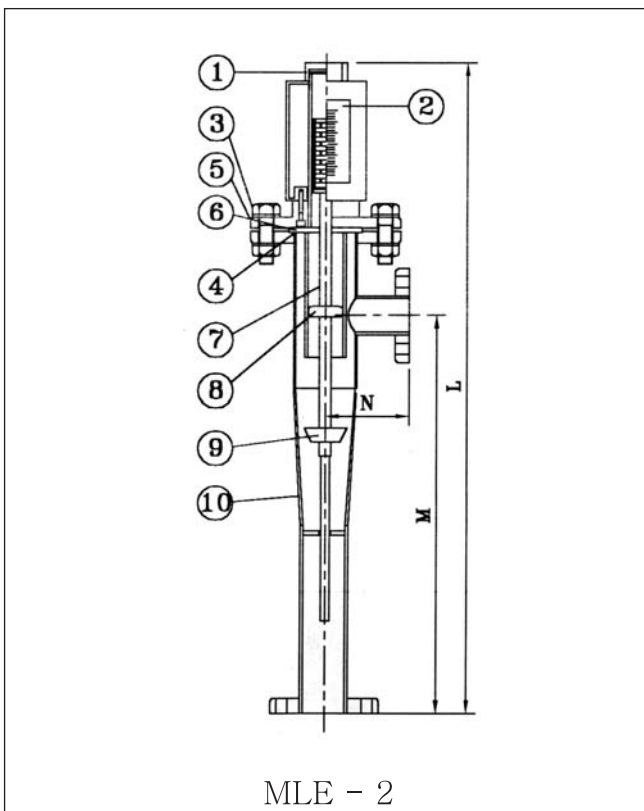
PART NO.	TITLE	MATERIAL SELECTION	
1	Body	SUS304, SUS316, PVC	T/L
2	Float	SUS304, SUS316, PVC	T/L
3	Stopper	SUS304, SUS316, PVC	T/L
4	Scale Box	AL	

금속 테이퍼관 부유식 유량계 (Metal Taper Tube Flow Meters)

MLE - 2 구조 및 재질 규격 (Structure and Material Size MLE-2 Series)



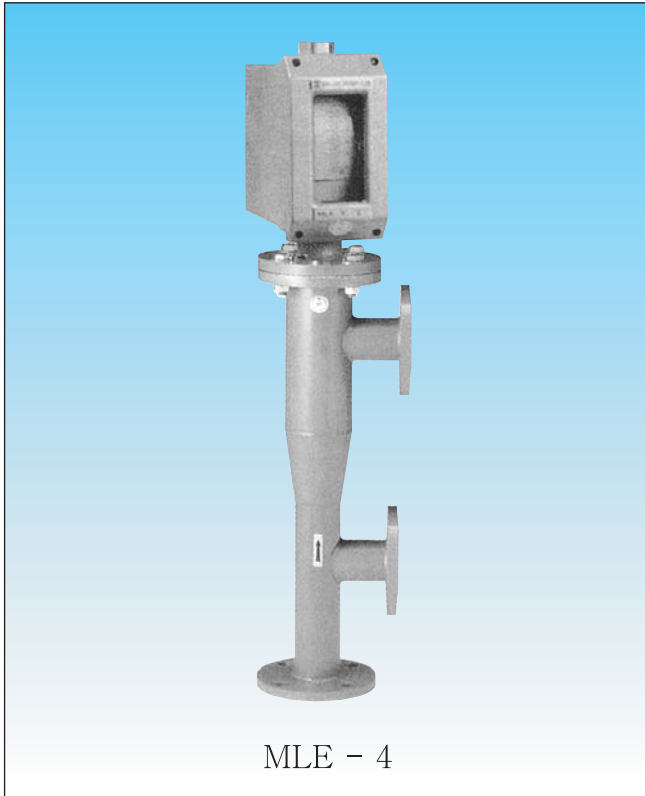
PART NO.	TITLE	MATERIAL
1	Cap	SUS304
2	Scale Box	AL
3	Bolt, Nut, Washer	SUS304
4	Packing	N.B.R, Viton, Teflon
5	Middle Flange	SS41, SUS304, SUS316,T / L
6	Guide Plate	SS41, SUS304, SUS316,T / L
7	Float Rod	SS41, SUS304, SUS316,T / L
8	Stopper	SS41, SUS304, SUS316,T / L
9	Float	SS41, SUS304, SUS316,T / L
10	Body	SS41, SUS304, SUS316,T / L



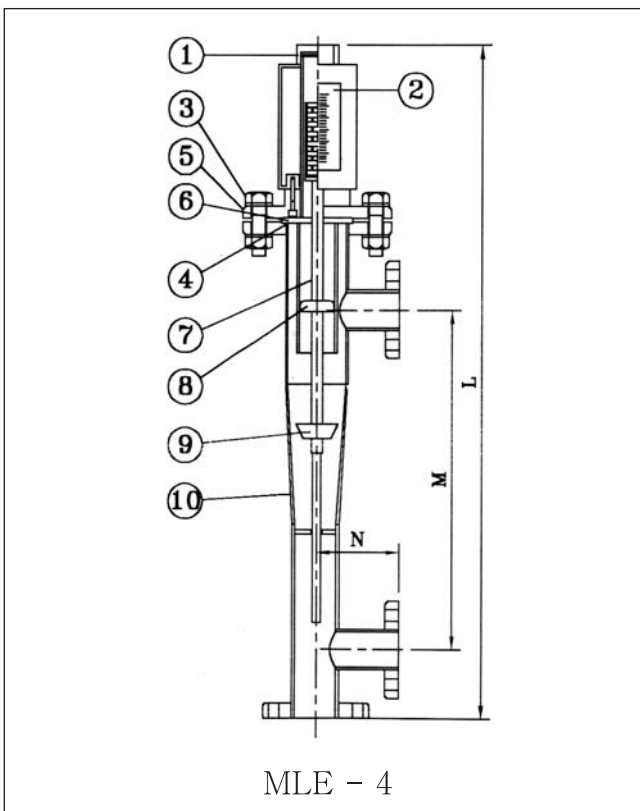
SIZE		LENGTH (mm)		
A	B	L	M	N
15A	1/2B	735	390	80
20A	3/4B	735	390	80
25A	1B	735	390	100
32A	1-1/4B	775	410	100
40A	1-1/2B	775	410	100
50A	2B	845	470	120
65A	2-1/2B	865	490	150
80A	3B	935	540	150
100A	4B	1015	590	180
125A	5B	1065	640	220
150A	6B	1125	690	240

금속 테이퍼관 부유식 유량계 (Metal Taper Tube Flow Meters)

MLE - 4 구조 및 재질 규격 (Structure and Material Size MLE-4 Series)



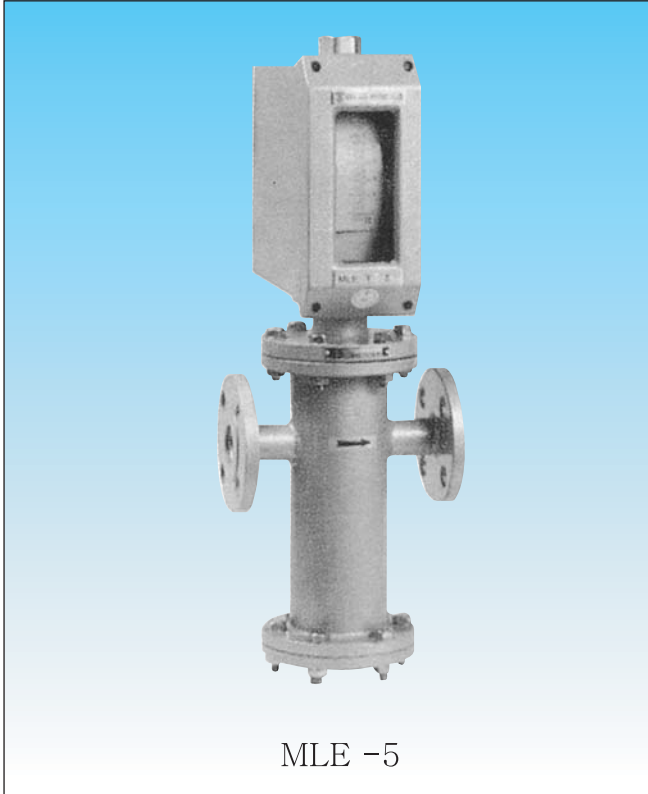
PART NO.	TITLE	MATERIAL
1	Cap	SUS304
2	Scale Box	AL
3	Bolt, Nut, Washer	SUS304
4	Packing	N.B.R, Viton, Teflon
5	Middle Flange	SS41, SUS304, SUS316,T / L
6	Guide Plate	SS41, SUS304, SUS316,T / L
7	Float Rod	SS41, SUS304, SUS316,T / L
8	Stopper	SS41, SUS304, SUS316,T / L
9	Float	SS41, SUS304, SUS316,T / L
10	Body	SS41, SUS304, SUS316,T / L



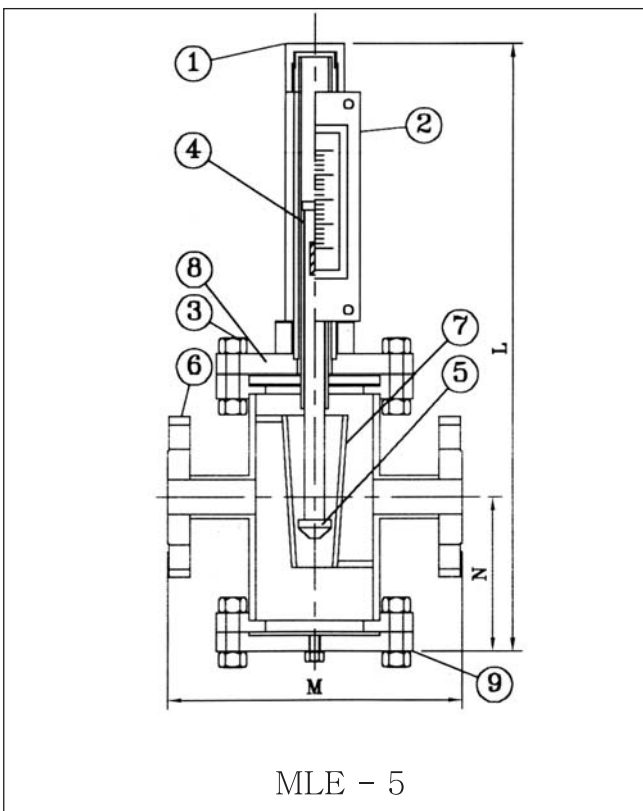
SIZE		LENGTH (mm)		
A	B	≒L	M	N
15A	1/2B	735	390	80
20A	3/4B	735	390	80
25A	1B	735	390	100
32A	1-1/4B	775	410	100
40A	1-1/2B	775	410	100
50A	2B	845	470	120
65A	2-1/2B	865	490	150
80A	3B	935	540	150
100A	4B	1015	590	180
125A	5B	1065	640	220
150A	6B	1125	690	240

금속 테이퍼관 부유식 유량계 (Metal Taper Tube Flow Meters)

MLE - 5 구조 및 재질 규격 (Structure and Material Size MLE-5 Series)



PART NO.	TITLE	MATERIAL
1	Cap	SUS304
2	Scale Box	AL
3	Bolt, Nut, Washer	SUS304
4	Packing	N.B.R, Viton, Teflon
5	Middle Flange	SS41, SUS304, SUS316,T/L
6	Guide Plate	SS41, SUS304, SUS316,T/L
7	Float Rod	SS41, SUS304, SUS316,T/L
8	Stopper	SS41, SUS304, SUS316,T/L
9	Float	SS41, SUS304, SUS316,T/L
10	Body	SS41, SUS304, SUS316,T/L



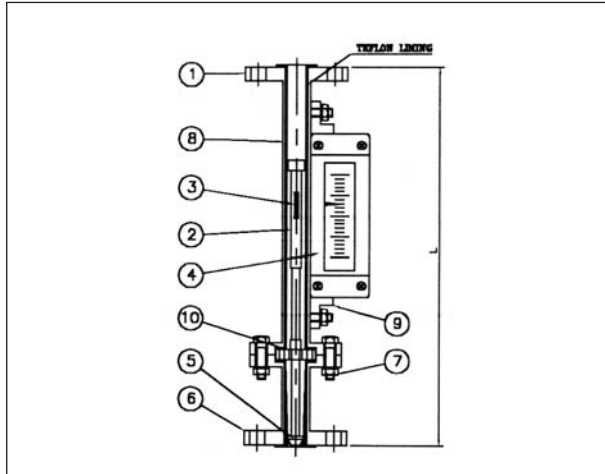
SIZE		LENGTH (mm)		
A	B	≒L	M	N
15A	1/2B	525	150	180
20A	3/4B	525	180	180
25A	1B	535	200	190
32A	1-1/4B	565	250	200
40A	1-1/2B	565	280	200
50A	2B	615	280	240
65A	2-1/2B	615	350	240
80A	3B	655	400	260
100A	4B	725	500	300
125A	5B	745	550	320
150A	6B	775	600	340

금속 테이퍼관 부유식 유량계 (Metal Taper Tube Flow Meters)

MLE (T/L) Series

◆ 개요

이 유량계는 유체가 직접 닿는 부위에 Teflon Lining 을 하며 부식성이 있는 유체, 산성이 있는 유체 등에 적용할수 있는 유량계입니다.



◆ 사용재질 50A 이하 (Material below 50A)

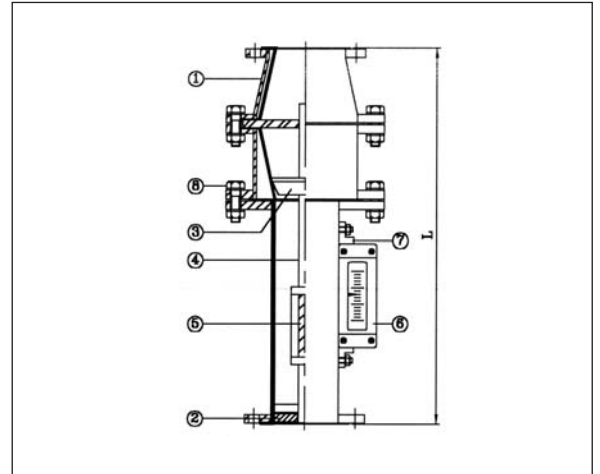
PART	TITLE	MATERIAL
1	Top Flange	SUS304
2	Float Rod	Teflon
3	Magnetic	-
4	Scale Box	AL
5	Float	Teflon
6	Bottom Flange	SUS304
7	Bolt, Nut, S/W	SUS304
8	Body	T/L
9	Bracket	SUS304
10	Stopper	Teflon

◆ 표준규격 (Standard Size)

SIZE		LENGTH
A	B	L
15A	1/2B	415
20A	3/4B	415
25A	1B	415
32A	1-1/4B	435
40A	2-1/2B	435
50A	2B	435
65A	2-1/2B	560
80A	3B	650
100A	4B	800

◆ Description

These flowmeters have excellent corrosion resistance by teflon lining in inner section.



◆ 사용재질 65A 이상 (Material over 65A)

PART	TITLE	MATERIAL
1	Body	SUS304+Teflon
2	Stopper	Teflon
3	Float	Teflon
4	Float Rod	SUS304+Teflon
5	Magnetic	-
6	Scale Box	AL
7	Bracket	SUS304
8	Nut, Washer, S/W	SUS304
9	Packing	Teflon

◆ 유량범위 (Flow Rate)

A	LIQUID(m ³ /H)	△P (mmAq)
15A	0.1 ~ 1	500
20A	1.2	600
25A	2.8	600
32A	4.5	600
40A	8	600
50A	12	650
65A	20	800
80A	30	900
100A	50	1100

금속 테이퍼관 부유식 유량계 (Metal Taper Tube Flow Meters)



MLE-1-B-S



MLE-2-B-S

◆ 원 리

금속테이퍼식 유량 트랜스미터는 플로오트가 유량에 따라 비례적으로 움직이며 이 움직임은 마그네틱 커플링에 의하여 관 내부에 있는 메인 레버에 전달됩니다. 메인레버와 연결되어 있는 위치 변화기는 기계적 변위를 전기적 신호를 변환시킵니다. 이 전기신호를 전자회로에 의하여 유량에 비례한 전기신호를 내 보냅니다.

◆ Principles

The float moves in proportional to the flow and this movement is transmitted to main lever inside pipe by means of magnetic coupling. The potentiometer which is linked to main lever converts mechanical displacement to electric signal. This electric signal through electronic circuit sends out electric signal in proportion to flow.

◆ 형 식

MLE - □

- ① * * * * * BOTTOM -> TOP
- ② * * * * * BOTTOM -> TOP SIDE
- ③ * * * * * BOTTOM SIDE -> TOP
- ④ * * * * * BOTTOM SIDE -> TOP SIDE
- ⑤ * * * * * SIDE -> SIDE



MLE-5-B-S-EX

금속 테이퍼관 부유식 유량계 (Metal Taper Tube Flow Meters)

◆ 특징

1. 현장 지시 적산 가능
2. 출력 DC4~20mA, pulse
3. 넓은 유량범위와 정확한 정도
4. 불투명액체, 슬러지액체, 고압력, 고온도에도 적용
5. 설치 및 보수가 간단
6. 기계적 강도가 우수

◆ Features

1. Local indicating & totalizing possible.
2. Output : DC 4~20mA.pulse.
3. Large flow rate range and exact accuracy.
4. Application to opaque and sludge fluids, and in high pressure and temperature.
5. Easy to install and repair.
6. High mechanical durability.

◆ 사양

1. 전원 : AC110/220V(60HZ), DC 24V(2-Wire)
2. 출력 : DC4~20mA, 12V pulse
3. 압력한계 : Max.10kgf/cm²G
4. 온도 : Max. 120℃(Max.300℃)(option)
5. 정도 : ±2.0% of F.S

◆ Specification

1. Power : AC 110/220V(60Hz), DC 24V(2-Wire)
2. Output : DC4~20mA, 12V pulse
3. Pressure limit : Max.10kgf/cm²G
4. Temperature : Max. 120℃(Max.300℃)
5. Accuracy : ±2.0% of F.S

