

# MERIT SERIES ULTRASONIC FLOW METER

High Performance Signal Processing Solution



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## MERIT 100 ULTRASONIC FLOW METER

### Comprehensive Solutions Liquid Flow Meter

SNC's ULTRASONIC FLOW METER, a comprehensive solution, is a non-contact flow meter for semiconductors and industries.



### Feature

- High-quality and high-precision semiconductor and industrial non-contact flow meter
- Enables monitoring of high flow rates according to communication RS-485 (Modbus)
- Protected from the external power noise by the power disconnection and RFI/EMC shielding of input/output (CE certification)
- 7' Segment 4Digit Display
- External Output Built-In - Analog Out : 4-20 mA (16 bits)  
-Output for Sol Valve control
- Various chemical solutions such as DI, nitric acid, sulfuric acid, hydrogen peroxide, hydrofluoric acid, ammonia water, and SC-1 can be measured
- Minimized footprint with 6-channel AMP integrated configuration (1/4 inch)

### Function

- Monitoring and Integration Flow Meter [ml/min]
- Precision flow measurement with ultrasonic wave analysis scope function
- Provides a variety of application technologies and Maintenance tools through serial communication



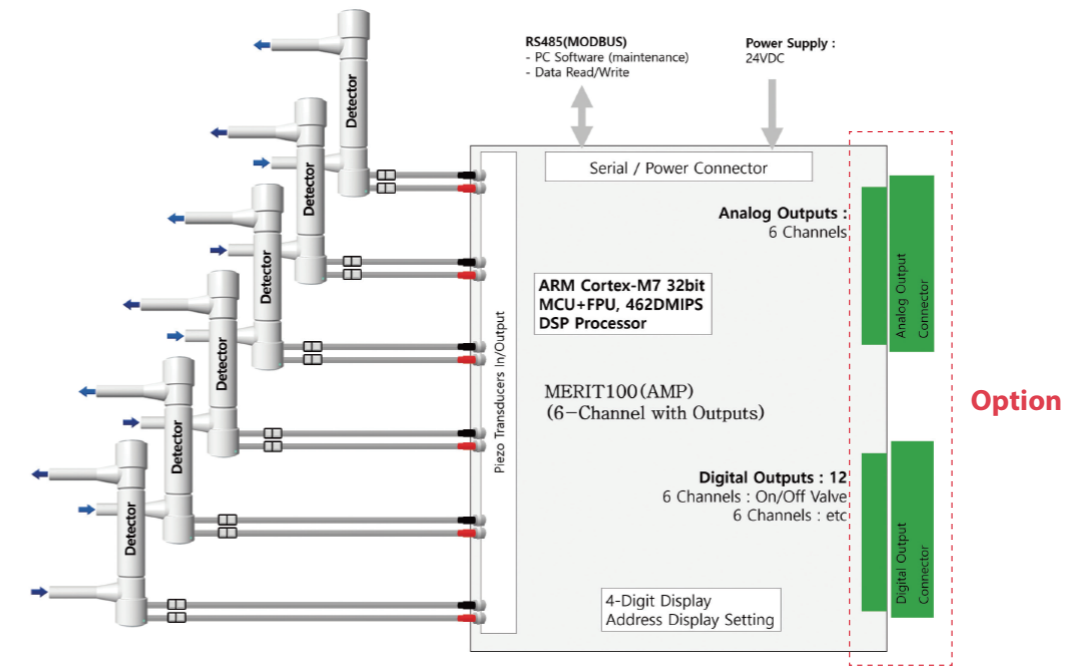
LED screen part

Aspect

Side

Upper terminal

### System Configuration Diagram



### Product Specifications

#### AMP specification

Contents	Specification
Power	DC+24V(± 10%)
Temperature	0 ~ 50°C
Consumption current	Approx. 25.2W(6 Channel)
Waterproof design	IP20
Communication standard	RS-485(MODBUS)
Product size(mm)	50(W) X 126(L) X 79.5(H)
Weight	293g(6 Channel)
Certified	EN 61326, 55011

#### Detector specification

Contents	Specification
Measurement target	The whole liquid
Fluid temperature (°C)	10 ~ 90°C
Fluid pressure (Mpa)	0 ~ 0.35Mpa(Internal pressure 0.5Mpa)
Range of sound waves	1000 ~ 2200m/Sec
Waterproof design	IP 65
Body & Tube Material	PFA
Standard tube area	1/4 inch, 3/8 inch, 1/2 inch, 3/4 inch
Standard Cable Length	(Relay cable) : 2M, 3M, 5M

#### Flow Range and Accuracy

Contents	A20(1/4")	A50(3/8")	A200(1/2")	A500(3/4")	Note
Fluid	Chemical, Slurry, DIW				
Flow range	0.02 ~ 2.5	0.1 ~ 5.0	0.5 ~ 20	1 ~ 50	L/min
Minimum Unit	1 mL/min		10 mL/min		
Tube	6.35(3.96)	9.52(6.35)	12.7(9.53)	19(15.87)	Outer diameter (inner diameter) mm
Accuracy	0.05 ~ 0.3(±3)	0.1 ~ 0.6(±6)	0.5 ~ 2.0(±20)	1.0 ~ 5.0(±50)	L/min(mL/min)
	0.3 ~ 2.5(±1%)	0.6 ~ 5.0(±1%)	2.0 ~ 20(±1%)	5.0 ~ 50(±1%)	of RD

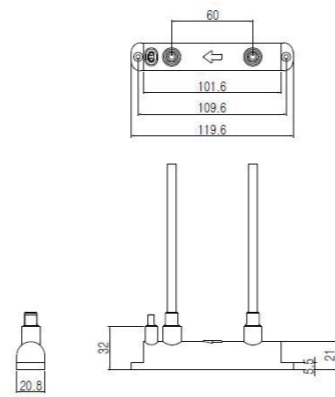
## Flow part specification

### 1/4 Inch Liquid Flow Meter (MERIT100 Series)

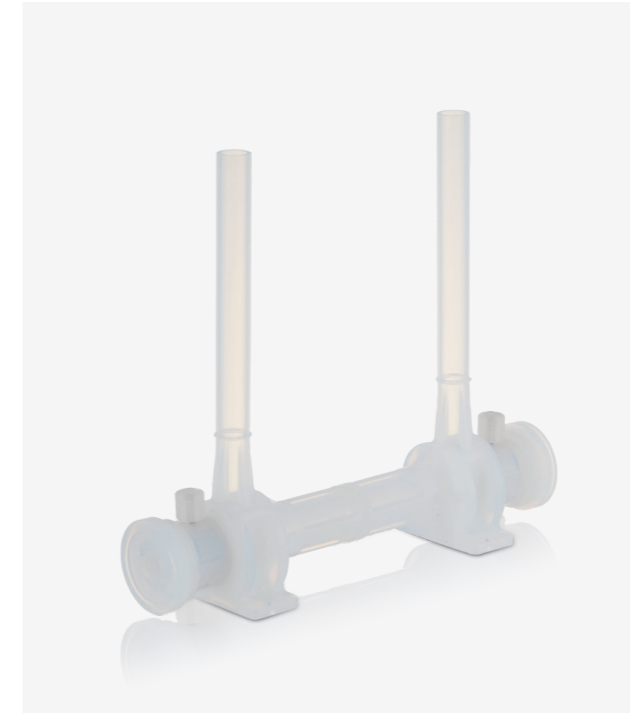


- Input/output piping 1/4 inch PFA piping
- The distance between the tubes and the distance between the holes may vary by +/- 1 mm depending on the dimensional deviation of the injection and the depth of fusion.
- **Screw bolts:** M3 wrench bolts

#### 1/4 Inch dimension

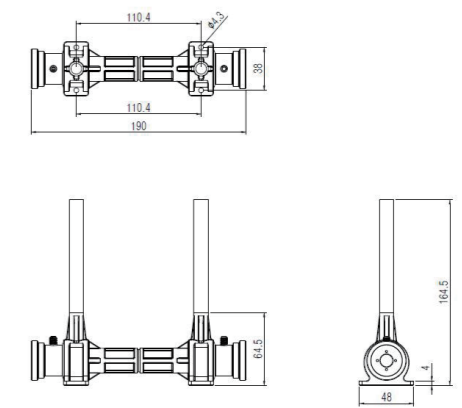


### 1/2 Inch Liquid Flow Meter (MERIT100 Series)



- Input/output piping 1/2 inch PFA piping
- The distance between the tubes and the distance between the holes may vary by +/- 1 mm depending on the dimensional deviation of the injection and the depth of fusion.
- **Screw bolts:** M4 wrench bolts

#### 1/2 Inch dimension

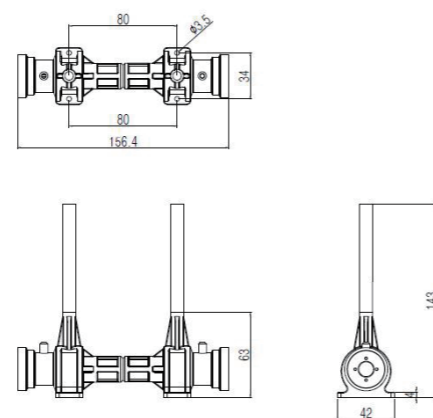


### 3/8 Inch Liquid Flow Meter (MERIT100 Series)



- Input/output piping 3/8 inch PFA piping
- The distance between the tubes and the distance between the holes may vary by +/- 1 mm depending on the dimensional deviation of the injection and the depth of fusion.
- **Screw bolts:** M3 wrench bolts

#### 3/8 Inch dimension



### 3/4 Inch Liquid Flow Meter (MERIT100 Series)



- Input/output piping 3/4 inch PFA piping
- The distance between the tubes and the distance between the holes may vary by +/- 1 mm depending on the dimensional deviation of the injection and the depth of fusion.
- **Screw bolts:** M5 wrench bolts

#### 3/4 Inch dimension

