

# Lowest Flow Sensor

(AMWF-50CC)



## FEATURES

- This sensor has excellent character in the lowest flow rate.
- Out charateristice(Hz) has linear character in flux change.
- This sensor has a half-permanent life by high sensitivity semiconductor sensor.

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## APPLICATION

This sensor is used in water flow sensing.

This sensor has application to coffee machine, water filtering appliance and so on.

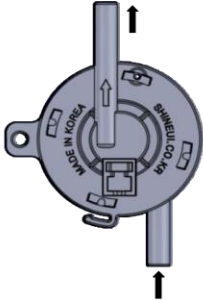
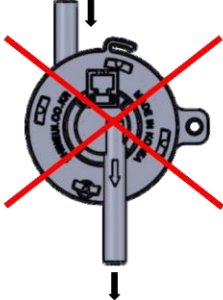
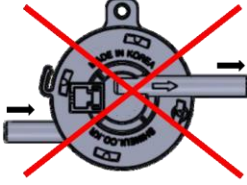
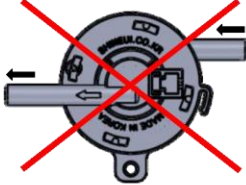
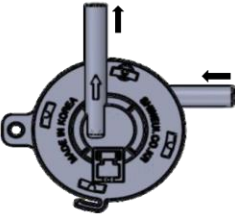
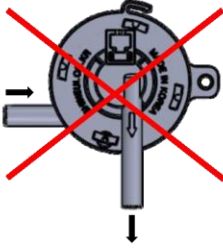
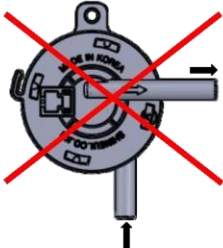
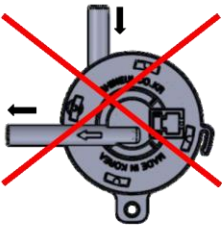




## SPECIFICATIONS

Type	: Magnet sensor	
Installation	: Arrow direction	
Ambient temperature	: 0 ~ 60℃	
Ambient humidity	: Room humidity (40 ~ 60%)	
Permissible fluid temperature	: 0 ~ 60℃ (It shall not be frozen)	
Material	Body	POM (※ Optional)
	Rotor	POM (※ Optional)
	Magnet	Ba – Ferrite
	Stop ring	SUS304
	※ Optional : FDA certified materials.	

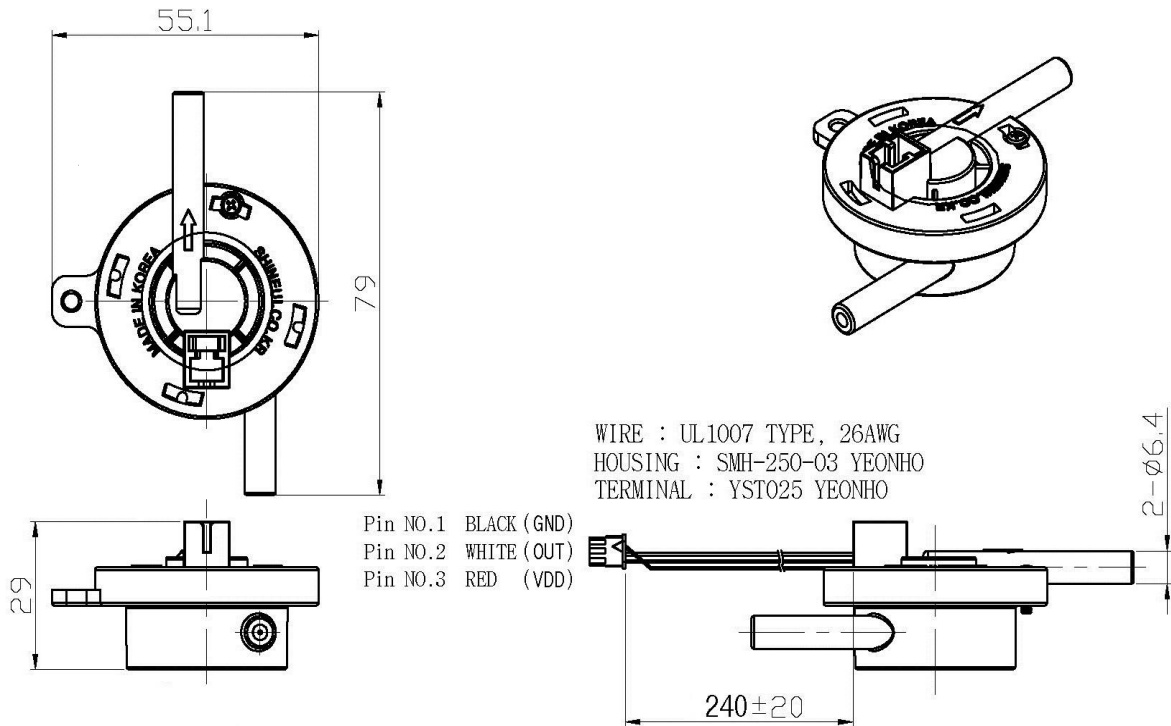
# SPECIFICATIONS

Efficiency	Fluid	: Water	
	Measuring range	: 0.05~0.5 ( ℓ / min)- It is possible to sense at 30(cc/min) in horizontal-type.	
Flow rate – pulse Formula $F(\text{Hz})=150Q(\ell / \text{min})$		Flow rate Q ( ℓ / min)	Pulse signal (Hz)
		0.05	7.5 ± 15%
		0.1	15
		0.2	30
		0.3	45
		0.4	60
		0.5	75
Option ( SMWF-50cc H12 : $F(\text{Hz})=110Q$ ) ( SMWF-50cc H12 : $F(\text{Hz})=84Q$ )		SMWF-50cc H12	SMWF-50cc H15
		0.1~1.0 ( ℓ / min)	0.2~1.4 ( ℓ / min)
Working pressure (MAX)		: 5 kg/cm <sup>2</sup>	
Electrical rating		: DC 2.8V ~ 24V, MAX 4.5mA	
Duty cycle		: 30 ~ 70%	
Insulation resistance		: Not less than 100 MΩ (Between the connector and body)	
Dielectric strength		: When AC 600V(50/60 Hz) is added between the connector and body, detecting current is under 3 mA.	
Pipe Connection		: ONE TOUCH NIPPLE(6.5mm or 1/4 fast connector)	
Weight		: 37g	
Graph (Hz vs LPM)			

**MICRO WATER FLOW SENSOR**

	Recommended	Not Recommended		
Installation	 <p>Land</p>	 <p>Land</p>	 <p>Land</p>	 <p>Land</p>
	 <p>Land</p>	 <p>Land</p>	 <p>Land</p>	 <p>Land</p>
	 <p>Land</p>	 <p>Land</p>		
	 <p>Land</p>	 <p>Land</p>		

## DIMENSIONS



**The specifications and dimensions can be changed without warning**

### - NOTE -

- Ensure there is no foreign substance.
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate intervals
- Avoid electrical current peaks
- Incorrect cabling of power supply +, signal and ground will destroy the flowmeter
- Do not mechanically load electrical contacts
- Avoid moisture on the electrical contacts
- Avoid stray pick-up via the cable (Do not lay cables in parallel with high current loads)
- Avoid strong magnetic materials.
- Avoid operation by air-flow.
- Avoid using at the condition of circumstance occurring condensation.

## APPLICATION CIRCUIT

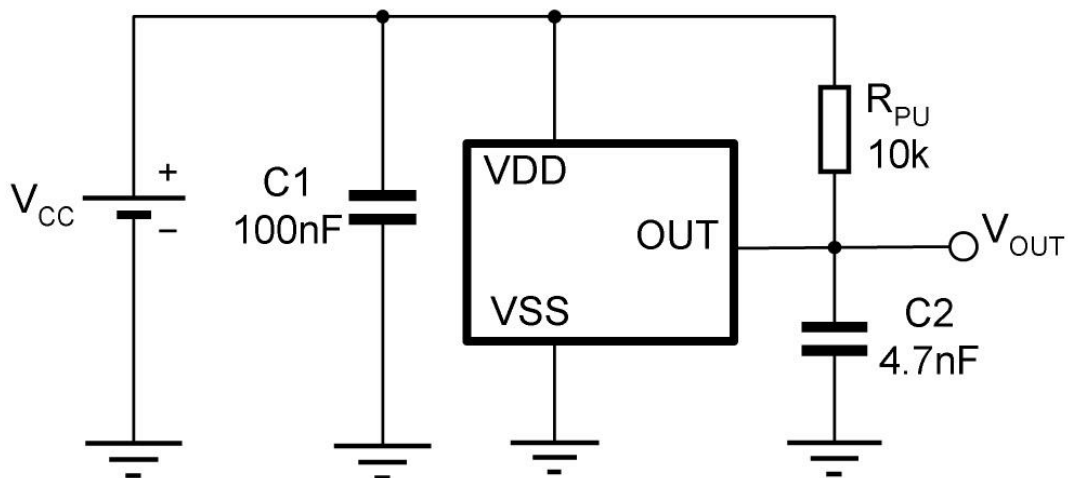
This product includes semiconductor IC.

So this have to be protected from noises of outside circuit.

Please refer to a circuit as below

(This circuit for protecting from noise was supported by the supplier of semiconductor)

### ***Typical Three-Wire Application Circuit***



### ***Automotive and Harsh, Noisy Environments Three-Wire Circuit***

