

Impeller flow meter FS Series FS-AR

Feature

Impeller type of flow meter.

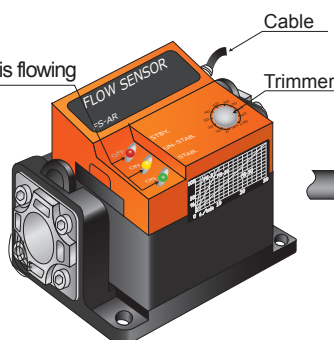
- Over 100,000 units supplied for use as device coolant-water monitors to leading manufacturers of semiconductor/liquid crystal product devices worldwide.
- Analog output
- Relay output
If the actual flow rate is more than the set value, or falls below, the relay circuit is activated.
It can use as a guide, such as stop and alarm operation of the device.
- Pulse output (Open collector)
- 3-color LED for confirming flow conditions.
Red---Power
Yellow---Relay
Green---Whether it is flowing



Wiring (Interface)

3-color LED

- Red---Power
- Yellow---Relay
- Green---Whether it is flowing



○ AWM20276 (9cores 0.2mm² 500mm)

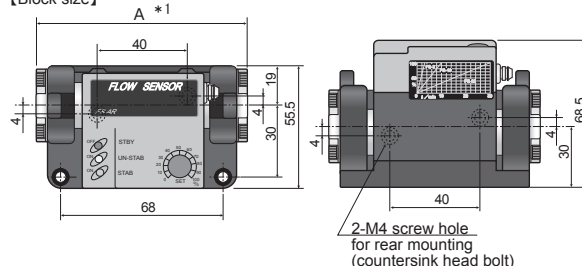
- Red Power Supply(+) DC12V±5% or DC24V±10%
- Black Power Supply(-)
- White Relay output commonly used
- Green Relay output (a)
- Yellow Relay output (b)
- Brown Analog voltage output DC0~10V or DC1~5V
- Orange Analog current output DC4~20mA
- Blue Pulse output open collector output
- Gray Spare

Specifications

Model		FS-3AR	FS-10AR	FS-30AR
Rated flow range		0.5～3.0L /min	1.5～10.0L /min	5.0～30.0L /min
Applicable fluid		Industrial water, Water		
Detection type		Impeller type		
Fluid temperature		0～60℃ (No freezing , no dewing)		
Operating temperature		0～40℃ (No freezing , no dewing)		
Accuracy *2		±2.5% F.S.		
Max.working pressure		1.0MPa		
Power supply voltage *3		DC12V±5% or DC24V±10%		
Current consumption		Max. 50mA (DC1～5V, 4～20mA : MAX70mA)		
Cable		AWM20276 (9cores 0.2mm ² 500mm)		
*4 Relay output	Max. load current	Less than DC2A		
	Max. applied voltage	Less than DC30V		
	Output mode	a or b contact output		
*5 Analog output	Output mode	DC0～10V		
	Voltage output	DC1～5V		
	Current output	DC4～20mA		
*6 Pulse output	Max. load current	Less than DC100mA		
	Max. applied voltage	Less than DC40V		
	Output mode	A or B open collector output		
	Frequency outputs	0～43Hz	0～93Hz	0～121Hz
Standard		RoHS compliance (Only SUS adapter)		
Wetted material		Polyacetal,Polyamide		
Connection material		SUS or BsBM (Ni plating)		
O-ring for sealing		Chloroprene or Fluoro rubber		
Orifice diameter		φ5	φ7	φ10
Adapter connection size		Rc3/8 or Rc1/2		
Weight		Approx. 380g		
Mounting position		Free		
Flow direction		Both direction		
Construction		Water drip-proof against electronic circuit		

Dimensions

【Block size】



【A Dimension Table】

Adapter connection size	A Dimension	
Rc3/8	BsBM	SUS
Rc1/2	92	98
	115	115

*1 Dimension A differ depending upon the adapter type.
Adapter connection size is determined by the selection at the time of the order.

*2 Since F.S.(Full scale) is { 30L/min
10L/min, the deflection could be of { ±0.75L/min.
3 L/min ±0.25L/min.
±0.075L/min.

*3 Power supply is transmitted of either DC 12V or DC 24V on the time of the order.

*4 Relay output is set on the time of the order, 3AR = 2.0L/min, 10AR = 6.0L/min, and 30AR = 20.0L/min.

*5 Analog output is selected of either voltage or current output on the time of the order.
Please select and use one or the other.
When the analog voltage output is selected, the analog current output cannot be selected.

*6 When the pulse output is selected, the analog output cannot be selected.

Order form

■ ISO screw(Rc) is used.

Flow range Output Wetted Materials Adapter Materials Adapter size (ISO) O ring Power supply

FS- - - - - - -

How to order : FS-10S-0-J-B-3/8-F-24

	Flow range	Output	Wetted Materials	Adapter Materials	Adapter size	O ring	Power supply
FS-S type	3S 0.5~3 ℓ/min	0 0~10V	J Standard (Polyacetal)	B Standard (BsBM+Ni plating)	3/8 Standard	F Chloroprene rubber	24 DC24V±10%
	10S 1.5~10 ℓ/min	4 4~20mA	B 150°C-compatible (SUS304·316)	S SUS	1/2 *	V Fluoro rubber	12 DC12V±5%
	30S 5~30 ℓ/min		T fluorine resin		1/4 Only on 150°C-compatible bodies		
FS-AR type	3AR 0.5~3 ℓ/min	0 0~10V	J Standard (Polyacetal)	B Standard (BsBM+Ni plating)	3/8 Standard	F Chloroprene rubber	24 DC24V±10%
	10AR 1.5~10 ℓ/min	1 1~5V	B 150°C-compatible (SUS304·316)	S SUS	1/2 *	V Fluoro rubber	12 DC12V±5%
	30AR 5~30 ℓ/min	4 4~20mA P Puls Output	T fluorine resin		1/4 Only on 150°C-compatible bodies		
FS-C type	3C 0.5~3 ℓ/min	0 0~10V	J Standard (Polyacetal)	B Standard (BsBM+Ni plating)	3/8 Standard	F Chloroprene rubber	24 DC24V±10%
	10C 1.5~10 ℓ/min			S SUS	1/2	V Fluoro rubber	
	30C 5~30 ℓ/min						
FS-N type	3N 0.5~3 ℓ/min	P Pulse Output	J Standard (Polyacetal)	B Standard (BsBM+Ni plating)	3/8 Standard	F Chloroprene rubber	24 DC24V±10%
	10N 1.5~10 ℓ/min		B 150°C-compatible (SUS304·316)	S SUS	1/2 *	V Fluoro rubber	12 DC12V±5%
	30N 5~30 ℓ/min		T fluorine resin		1/4 Only on 150°C-compatible bodies		

Regarding <Adapter size>

The diameter type of the connection section differs depending on the type of body material.
Please refer to the table below when filling out your order form.

Wetted Materials	Connection diameter		
	3/8	1/2	1/4
Standard type(J)	●	●	—
150°C/Compliant(B)	●	●	●
fluorine resin type(T)	●	—	—

Regarding <Adapter size> Regarding <Adapter material/O-ring>

- When selecting "B: 150°C-compatible" as the body material, do not fill in the adapter material and O-ring fields.
- When selecting "T: Fluororesin" as the body material, do not fill in the O-ring field. We also offer products in which the adapter material is fluororesin. Please contact our sales department for details.

* 1/4 diameter cannot be selected for 30L specification.

Other

- ① Please contact our sales department for other specifications.
- ② Please contact our sales department for inquiries regarding date of delivery, etc.
- ③ Shape and specification may change without notice due to performance improvements.