

# Impeller Flow Meter FS-SC Series



Over 100,000 units supplied for use as device coolant-water monitors to leading manufacturers of semiconductor / liquid crystal product devices worldwide.

- Alarm output, Analog output
- For measuring the fluid flow rate and temperature
- Digital display

	FS-3SC	FS-10SC	FS-30SC
Rated flow rate range	0.5 - 3.0 L/min.	1.5 - 10 L/min.	5.0 - 30.0 L/min.
Accuracy	±2.5%F.S.		
Fluid type	Industrial water, water		
Maximum allowable	1.0 MPa		
Fluid temperature	0 - 60°C (No freezing or condensation)		
Ambient temperature	0 - 50°C (No freezing or condensation)		
Power-supply voltage	DC 12 V ± 5% or DC 24 V ± 10%		
Current consumption	Max. 70 mA (at the time of current output)		
Cable	AWM20276 7 core / 0.2 (mm <sup>2</sup> ) / length 500 mm		
Flow rate display	0.1 step LCD display		
Temperature display	0.1 step LCD display		
Flow rate analog	DC0 - 10 V (Voltage output) 4 - 20 mA (Current output)		
Temperature analog output	DC0 - 10 V (Voltage output) 4 - 20 mA (Current output)		
Flow rate alarm output	Maximum load current: Less than DC100 mA Maximum applying voltage: Less than DC40 V		
Temperature alarm output	Maximum load current: Less than DC100 mA Maximum applying voltage: Less than		
Alarm display	One 2-color LED of each for flow rate and temperature		
Power-down display	One for power supply x 75% Blinking		
Certification and standard	RoHS Directives (SUS adapter specification only)		
O-ring seal material	Fluororubber		
Orifice diameter	φ5	φ7	φ10
Material of Wetted	Polyacetal, Polyamide, SUS		
Material of Adapter	SUS or BsBM (Ni plating)		
Pipe size	Rc 3/8 or Rc 1/2		
Accuracy	±2.5% (F.S.)		
Flow direction	Both direction		
Mounting direction	Free		
Mass	Approx. 380 g		
Protective structure	Protection for reverse connection of power supply (for DC24 V specification)		
External dimensions	55.5 x 92 (*98, 115) x 68.5		

## Definition of alarm output and display LED

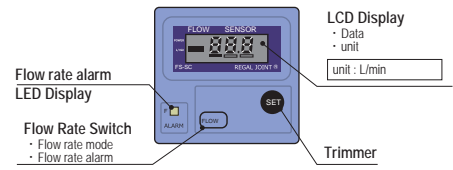
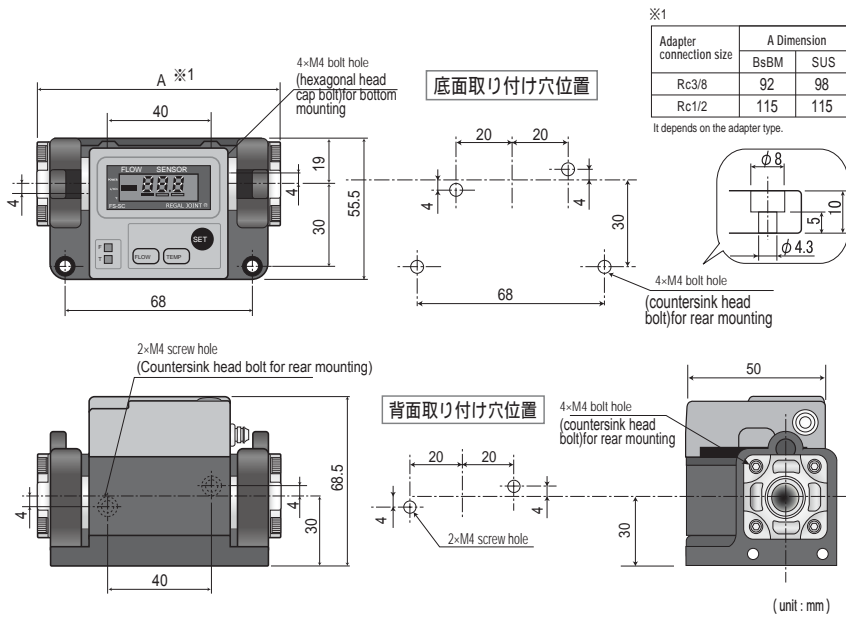
Measured value \ Alarm	A (OFF)	B (ON)
	Above the set value	Lit in Green ON
Below the set value	Lit in Red OFF	Lit in Green ON

Conductive when the MOS-FET is ON (conduction), non-conductive when it is OFF (non-conduction).

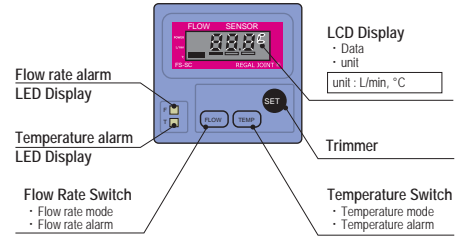
For the alarm, the flow rate and the temperature can be specified independently.

Definition of alarm output and display LED

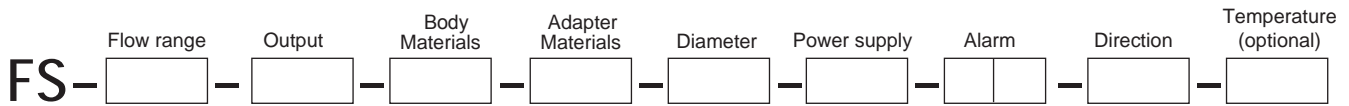
# Dimensions



## Optional : With Temperature Function



# Order Informations



Flow rate	Output	Body material	Adapter material	Diameter	Power source	Alarm		Direction	Temperature (optional)	
						Flow rate	Temp. (optional)			
<b>FS</b>	<b>3SC</b> 0.5 - 3.0 L/min.	<b>0</b> 0 - 10 V <b>4</b> 4 - 20 mA	<b>J</b> Standard (Polyacetal) <b>B</b> Supports 150°C (SUS304, 316) <b>T</b> Fluororesin	<b>B</b> Standard (BsBM + Ni Plating) <b>S</b> SUS	<b>3/8</b> Standard <b>1/2</b> <b>1/4</b> 150°C-supported body only	<b>24</b> DC24 V ± 10% <b>12</b> DC12 V ± 5%	<b>A</b>	<b>A</b>	<b>N</b> Normal rotation <b>R</b> Reverse rotation	<b>T</b> Available
	<b>10SC</b> 1.5 - 10.0 L/min.						<b>B</b>	<b>B</b>		
	<b>30SC</b> 5.0 - 30.0 L/min.									

\*The O-ring is limited to Fluororubber.

\*The alarm output temperature (optional) cannot be specified when the output 4 - 20 mA, body materials B, T, or power source DC12 V are selected.

**DENG FANG (Shanghai) Electronics CO., Ltd.**

TEL:021-51692959 FAX: 021-51280798

www.toho-inc.cn  
sales@toho-inc.cn