



TECHNICAL GUIDANCE

Highly durable construction made of compact and light metal
Flow indicator with alarm contact

FA-3000 Series FLOW MONITOR

■ OUTLINE

FA-3000, flow indicator with alarm contact is the standard model among a series of FLOW MONITORS which have been widely appreciated by customers.

In addition to the indicator, **FA-3000** outputs an alarm contact signal at preset value. The body constructed of metal frame offers high durability against the stress caused from the mounted piping.

■ FEATURES

- COMPACT AND LIGHTWEIGHT
FA-3000 is suitable for assembling onto the packaged equipment and devices thanks to its compact and lightweight design.
- DURABLE CONSTRUCTION
Rugged and armored construction endures stress from the piping.
- WATERPROOF CONSTRUCTION
FA-3000 can also be used under splashes of water.
- QUICK DELIVERY AND COMPETITIVE PRICE

■ RECOMMENDED APPLICATIONS

- Monitoring of sealing liquid supply and its stoppage
- Monitoring of cooling water supply and its stoppage
- Liquid cultivating medium supply

■ STANDARD SPECIFICATION

Measuring fluid	Water or liquids equivalent to water
Measuring range	0.3 to 3L/min (FA-31 □□-□) 0.5 to 5L/min (FA-32 □□-□) 1 to 10L/min (FA-33 □□-□) 2 to 20L/min (FA-34 □□-□) 3 to 30L/min (FA-35 □□-□) 5 to 50L/min (FA-36 □□-□)
Process connection	Rc3/8, Rc1/2, Rc3/4, Rc1* *Installation length for Rc1 is 160mm. For pressure loss, see the table on the following page.
Flow direction	Left to Right, Right to Left, Bottom to Top, Top to Bottom
Fluid temp.	Max. 60°C *: It is general data, and the maximum temperature may change by terms of use and environment.
Fluid press.	Max. 0.8MPa
Indication accuracy	±5% of full scale
Alarm setting accuracy	±5% of full scale (Against flow calibration)
Alarm setting range	20 to 90% of full scale (H: 50 to 90%, L: 20 to 50%)
Alarm reset span	Less than 15% of full scale (Against flow calibration) (at 20 to 70% of full scale)
Alarm contact	Reed switch (Self-holding type)
Contact capacity	10VA AC (Max. Volt. 125V, Max. Curr. 0.5A) 10W DC (Max. Volt. 100V, Max. Curr. 0.5A)
Alarm action	Closed at or higher than set point FA-3□□1-□ Opened at or higher than set point FA-3□□2-□



Closed at or lower than set point

FA-3□□3-□

Opened at or lower than set point

FA-3□□4-□

Electric connection

Lead wire connection

(Lead wire 30cm provided)

Mass (Approx.)

400g

Material

Refer to DIMENSION AND MATERIAL for details.

■ MODEL CODE

Model code	Detail Model Code	Description
FA - 3 □ □ □ - □	- □ □ □ - □	
Measuring range	1	0.3 to 3L/min
	2	0.5 to 5L/min
	3	1 to 10L/min
	4	2 to 20L/min
	5	3 to 30L/min
	6	5 to 50L/min
Process connection	1	Rc3/8
	2	Rc1/2
	3	Rc3/4
	4	Rc1
	5	NPT3/8
	6	NPT1/2
	7	NPT3/4
	8	NPT1
Alarms	1	Closed at or higher than set point
	2	Opened at or higher than set point
	3	Closed at or lower than set point
	4	Opened at or lower than set point
	0	No alarm
Flow direction	- 1	Bottom to top
	- 6	Left to right
	- 7	Right to left
	- 8	Top to bottom
Wetted part materials	- 4	SUS304 (Standard)
	- 6	SUS316
Gasket materials	0	NBR (Standard)
	1	Fluorocarbon rubber
	2	EPDM
	3	CR
Reed switch	0	Standard
	1	Complying with UL
Alarm set point	- 0	Not specified *
	- Numerals	set at designated scale

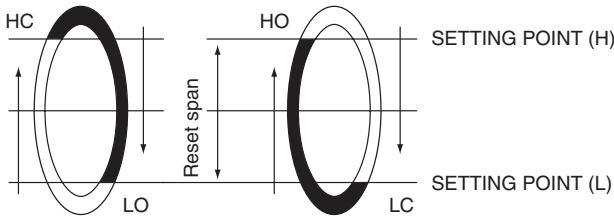
* If alarm set point is not designated, set points will be set as 20% of full scale for low alarm and 80% of full scale for high alarm.

ALARM ACTION

FA-3□□1-□
FA-3□□4-□

FA-3□□2-□
FA-3□□3-□

■ : CLOSE
□ : OPEN



REFERENCE 1

When the inductive load such as relays, solenoid valves or likes are connected, the capacity of them must be less than 1/10 of the maximum contact capacity. In such cases, provide the protective circuit.

REFERENCE 2

When cable length between the contacts and load is more than 5m, provide with a protective circuit such as the surge suppressor or resistance near this product within 20cm in series as shown at Fig.1.

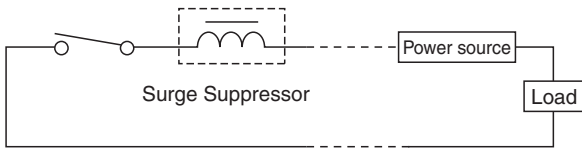


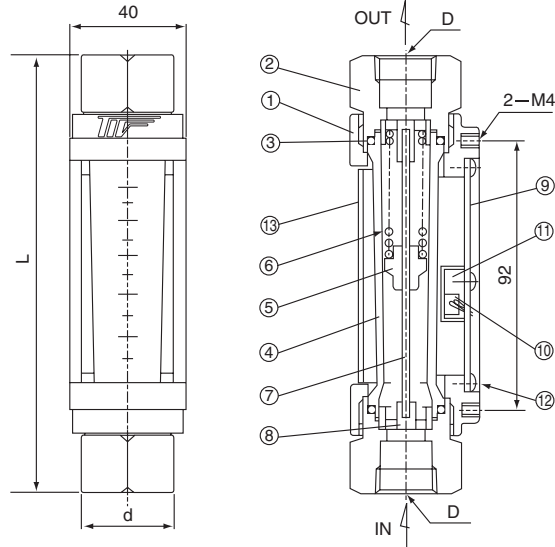
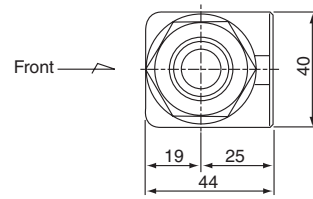
Fig. 1

DIMENSION AND MATERIAL

No.	Parts name	Material
1	Body	Aluminium Die-casting
2	Fittings	SUS304
3	O ring	NBR
4	Tapered tube	Acryl
5	Float	PPS resin
6	Spring	SUS316
7	Float rod	SUS316
8	Float stopper	POM
9	Rear cover	ABS(White)
10	Reed switch	—
11	Switch holder	POM
12	Screw	SUS304
13	Scale plate	Transparent resin

Connection	L (mm)	d (mm)
Rc3/8, NPT3/8	150	32
Rc1/2, NPT1/2	150	32
Rc3/4, NPT3/4	150	32
Rc1, NPT1	160	41

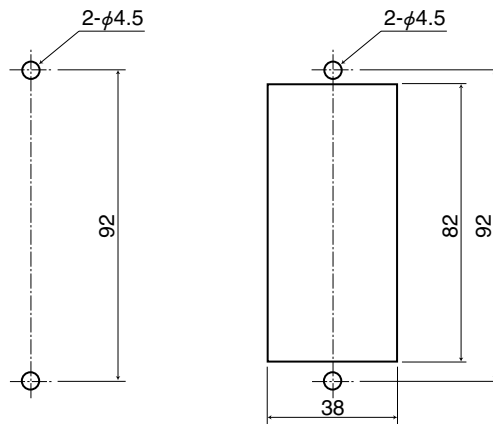
- Parts made of SUS304 may be changed to SUS316 due to production circumstances.
- ASTM or AISI materials corresponding to JIS materials may be used due to production circumstances.



PANEL CUT

Model without alarm

Model with alarm



Pressure loss (kPa)

Max. flow rate (L/min)	Process connection			
	Rc3/8	Rc1/2	Rc3/4	Rc1
3	5	5	5	5
5	10	10	10	10
10	30	25	25	25
20	40	20	20	20
30	90	50	50	50
50	—	120	125	125

* Specification is subject to change without notice.

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