

Paddle Style Flow Switch Series IF3

IF3 series flow switches detect and confirm liquid flow, generally used in fields such as air conditioning, water supply equipment, etc.

- Piping sizes ranges from 3/4B to 6B.
- Wide range of applicable fluids.
Wetted metal part materials: Copper alloy, Stainless steel
- Various enclosures (No water protected).
Open type, Dripproof/Rainproof, Splashproof /Low jetproof type



How to Order

IF3 1 1 - N 10 - 1 1

Paddle style flow switch

Enclosure

0	Open type
1	Dripproof/Rainproof type (Equivalent to IP42)
2	Splashproof/Low jetproof type (Equivalent to IP44)

ON-flow range

0	14 to 60 l/min
1	20 to 1500 l/min
3	36 to 2600 l/min

Thread type

Nil	Rc
N	NPT

Seal material of wetted parts

0	NBR
1	FPM

Metal material for wetted parts

0	Brass, Phosphor bronze
1	Stainless steel 304

Port size

06	3/4
10	1

Note 1) IF3□0 is available for "06".
Note 2) IF3□1 and IF3□3 are available for "10".

Specifications

Fluid	Copper alloy	Water/Non corrosive liquid
	Stainless steel 304	Liquid, which do not corrode stainless steel 304.
Max. pressure	1 MPa	
Water resistance	1.75 MPa	
Insulation resistance	100 MΩ (500 DC by megameter)	
Withstand voltage	1500 VAC for one min.	
Contact	1ab	
Port size	3/4, 1	

Micro Switch Ratings

Voltage	Non inductive load (A)				Inductive load (A)			
	Load resistance		Light load		Inductive load		Motor load	
	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.
125 VAC	15	15	4	2	10	10	4	2
250 VAC	15	15	3	1.5	10	10	3	1.5
8 VDC	15	15	3	1.5	15	15	5	2.5
14 VDC	15	15	3	1.5	10	10	5	2.5
30 VDC	6	6	3	1.5	5	5	5	2.5
125 VDC	0.5	0.5	0.3	0.3	0.05	0.05	0.05	0.05
250 VDC	0.25	0.25	0.2	0.2	0.03	0.03	0.03	0.03

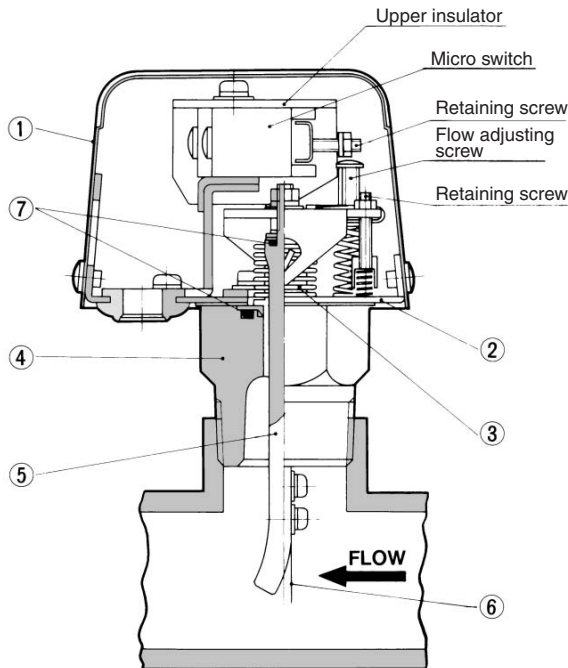
Fluid and Ambient Temperature Range

Fluid temperature	Applicable ambient temperature ^(Note)
70°C or less	70°C (70°C) or less
80°C	58°C (60°C) or less
90°C	47°C (50°C) or less
100°C	35°C (40°C) or less

Note) () For IF32□

* To protect the microswitch, ambient temperature must be lowered when the fluid temperature exceeds 70°C.

Construction



Component Parts

No.	Description	Material		
		IF30□	IF31□	IF32□
①	Cover	SPCD	SPCD	12 ADC
②	Mounting plate	SPCC	Stainless steel 304	Stainless steel 304
③	Bellows	PBP or Stainless steel 304		
④	Body	C3604B or Stainless steel 304		
⑤	Mobile bar	C2700W or Stainless steel XM7		
⑥	Paddle	Stainless steel 304		
⑦	O-ring	NBR or FPM		

Enclosure

Open type	Using indoors away from water drop.
Dripproof/Rainproof type (JIS C 0920)	When using indoors or outdoors, where it is exposed to water drop. (Equivalent to IP42)
Splashproof/Low jetproof type (JIS C 0920)	Sealed construction. When using in a bad environment, such as outdoors, or areas exposed to water stream temporarily, or near the coast. (Equivalent to IP44)

Flow Characteristics

Fluid: Water, Outlet pressure: 0 MPa
Sealing thread depth: 9 mm (3/4), 11 mm (1)

Flow switch	Mounting		Flow range (ℓ/min)				ON-flow rate/setting (m/s)
			Minimum		Maximum		
	Port size	Paddle size	ON flow	OFF flow (min)	ON flow	OFF flow (min)	
IF3□0-06	3/4	Long	14	7	38	33	0.66 to 1.79
	3/4	Middle	18	9	50	44	0.85 to 2.36
	3/4	Short	22	11	60	53	1.04 to 2.83
IF3□1-10	1	Short	20	10	60	55	0.56 to 1.67
	1 1/4	Short	34	17	100	90	0.57 to 1.67
	1 1/2	Short	52	26	160	140	0.63 to 1.95
	2	Middle	45	23	140	125	0.34 to 1.06
	2 1/2	Middle	90	45	280	250	0.41 to 1.29
	3	Middle	80	40	250	220	0.26 to 0.81
	4	Long	170	85	550	480	0.33 to 1.05
	5	Long	300	150	1,000	870	0.37 to 1.24
	6	Long	460	230	1,500	1,300	0.40 to 1.32
IF3□3-10	1	Short	36	18	110	100	1.00 to 3.05
	1 1/4	Short	54	27	160	140	0.90 to 2.67
	1 1/2	Short	90	45	270	230	1.10 to 3.29
	2	Middle	90	45	270	230	0.68 to 2.05
	2 1/2	Middle	160	80	500	420	0.74 to 2.30
	3	Long	160	80	500	420	0.52 to 1.63
	4	Long	320	160	1,000	800	0.61 to 1.91
	5	Long	560	280	1,800	1,450	0.69 to 2.23
	6	Long	800	400	2,600	2,000	0.70 to 2.28

ON-flow: Flow volume under which a microswitch starts activation while flow is increasing.

OFF-flow: Flow volume under which a microswitch starts activation while flow is decreasing.

- The maximum flow is twice the maximum ON-flow.
- Operating flow volume varies depending on sealing depth and direction, etc. Data shows the reference value.

ZSE□
ISE□

PSE

ZSE3
I SE3

PS

ZSE1
I SE2

ZSP

ISA2

IS□

ZSM

PF2□

IF□

Data