Diaphragm Style Flow Switch
Series IFW5

The flow switch, series IFW is used for detection and confirmation of the flow as a relaying device for the general water applications in some various equipment such as cooling water fixture in the industrial machinery.

- **Low flow setting possible (1 ℓ/min)**
- **Simple flow setting**
  Without removing the cover, you can set with a screwdriver from the outside.

PAT. PEND

How to Order

IFW5 10 — N 03 — 1 1

Diaphragm style flow switch

Flow range

10	1 to 10 ℓ/min
20	10 to 20 ℓ/min
50	20 to 50 ℓ/min

Thread type

Nil	Rc
N	NPT
F	G

Port size

03	3/8
04	1/2
06	3/4

Terminal box

0	Without terminal box (Contact: 1ab)
1	With terminal box (Contact: 1ab)
2	With terminal box (Contact: 1b)
5 Note)	With terminal box (24 VDC, ⊕COM, Contact: 1b)
6 Note)	With terminal box (24 VDC, ⊕COM, Contact: 1a)
7 Note)	With terminal box (24 VDC, ⊖COM, Contact: 1b)
8 Note)	With terminal box (24 VDC, ⊖COM, Contact: 1a)

Note) Terminal box for 24 VDC is available for 5, 6 (LED light).

Light

0	None
1	With neon light (110 VAC, Red)
2	With neon light (110 VAC, Green)
3	With neon light (220 VAC, Red)
4	With neon light (220 VAC, Green)
5 Note)	With LED light (24 VDC, Red)
6 Note)	With LED light (24 VDC, Green)

Note) LED light is available for 5, 6, 7, 8 (with terminal box for 24 VDC).

Specifications

Fluid	Water/Non-corrosive liquid *	
Operating pressure	0.1 to 0.6 MPa	
Water resistance	1.2 MPa	
Operating temperature range	–5 to 60°C (No freezing)	
Operation	Diaphragm style	
Insulation resistance	100 MΩ (500 DC by megameter)	
Withstand voltage	1500 VAC for one min.	
Contact	Without terminal box: 1ab	
	With terminal box: 1a or 1b	
Port size	3/8, 1/2, 3/4	
Body material in contact with fluid material	Body	BC6
	Rod	C3604B
	Diaphragm	NBR

About the use of *, please confirm SMC.

Micro Switch Ratings

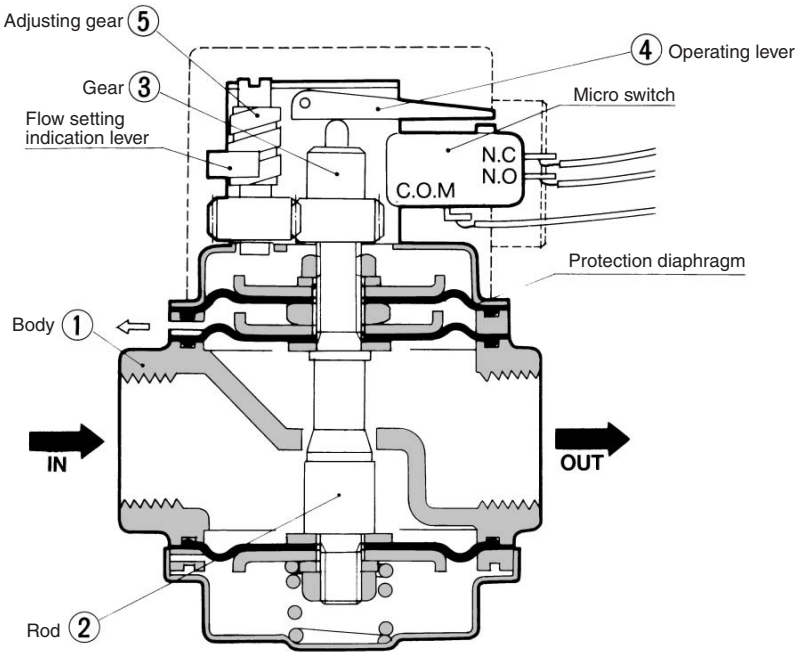
Voltage	Non inductive load (A)				Inductive load (A)			
	Load resistance		Light load		Inductive load		Motor load	
	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.
125 VAC	5	5	1.5	0.7	4	4	2.5	1.3
250 VAC	5	5	1	0.5	4	4	1.5	0.8
8 VDC	7	5	3	3	5	4	3	3
14 VDC	5	5	3	3	4	4	3	3
30 VDC	5	5	3	3	4	4	3	3
125 VDC	0.4	0.4	0.1	0.1	0.4	0.4	0.1	0.1
250 VDC	0.3	0.3	0.05	0.05	0.3	0.3	0.05	0.05

Model

Model	Flow range (ℓ/min)	Max. flow (ℓ/min)	Hysteresis Note) (ℓ/min)
IFW510	1 to 10	20	1 or less
IFW520	10 to 20	25	1.5 or less
IFW550	20 to 50	60	3 or less

Note) Hysteresis is the flow rate that is necessary for moving the microswitch from the operation position (ON signal) to the return position (OFF signal).

Construction/Working Principle



Working Principle

Liquid flow creates a pressure differential nearby the orifice of the port of the body ①. One set of diaphragms monitors the pressure differential and operates the micro switch through the rod ② and operating lever ④.

The rod ② moves downward with increased flow, and upward with decreased flow. Moving the gear ⑤ upward or downward by the adjusting gear ③ manually offers an electric signal at various flow rates.

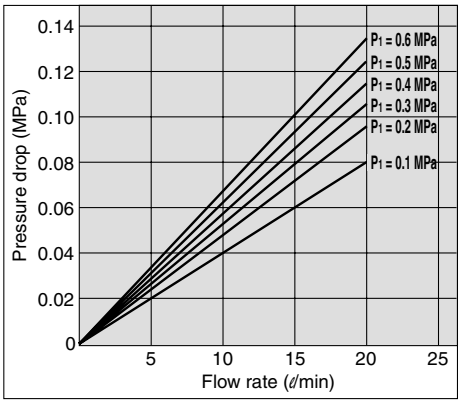
Component Parts

No.	Description	Material
①	Body	BC6
②	Rod	C3604B
③	Gear	POM

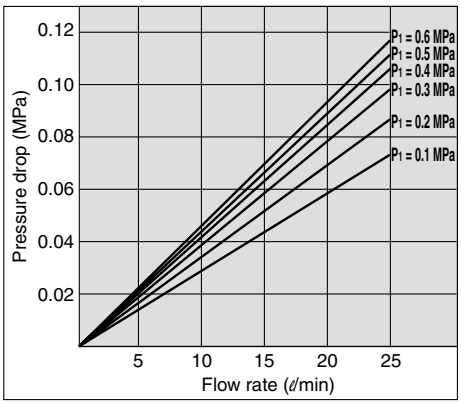
No.	Description	Material
④	Operating lever	SPCC
⑤	Adjusting gear	POM

Flow Characteristics

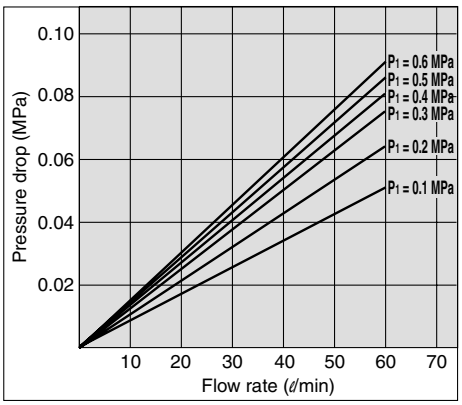
IFW510



IFW520

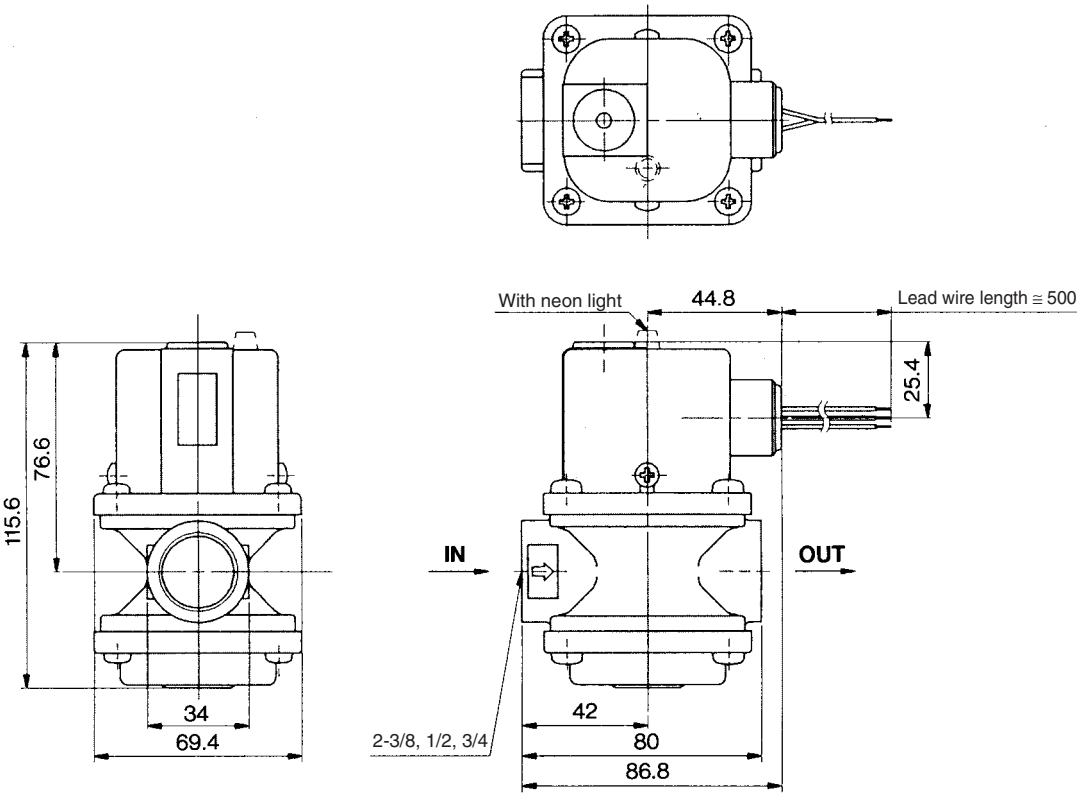


IFW550

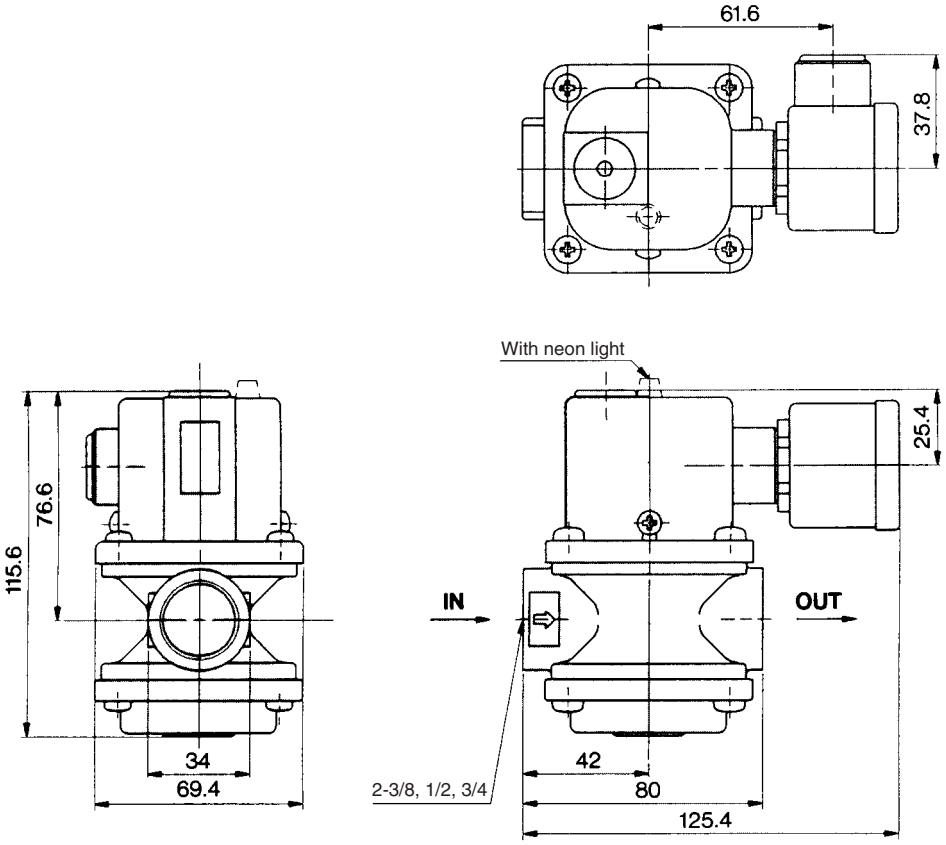


Dimensions

IFW5□0-□□-00 to 04
(Without terminal box)



IFW5□0-□□-10 to 24
(With terminal box)



IFW5□0-□□-55 to 86
(With light, Terminal box for 24 VDC)