Variable area flowmeter for instrument panel for small flow rate Water, Liquid, Air, Gases (Various fluid)

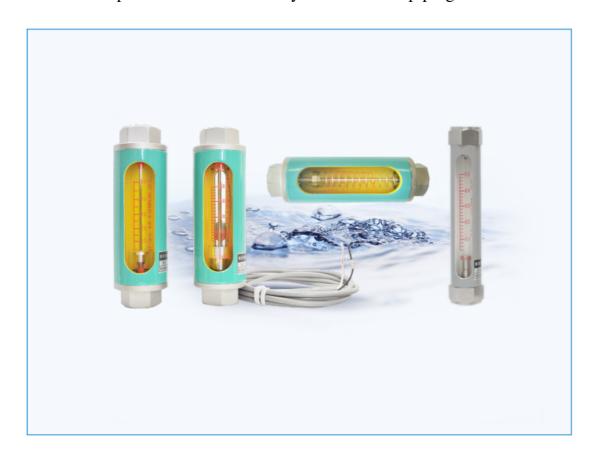
# MODEL: P5 SERIES P5 type / P5-S type / P5 (turn sideways) type PL - 5 type RYUKI

This is a simple type area flow meter manufactured for relatively small flow rate measurements such as equipment installation, carrying, and piping installation.

The one with an alarm electronic contact can be used as a flow switch.

# Notes on handling each product

- 1. Install the product in a place where there is little vibration.
- 2. Do not mount the product at an angle. (Inclination within  $\pm 2$  degrees)
- 3. Avoid sudden movements of the product.
- 4. Please prevent foreign substances from flowing into the product.
- 5. Make sure that the product is not stressed by the connected piping.



東京流機工業株式会社

TOKYO RYUKI KOGYO CO.,LTD.



# MODEL : **P5** SERIES

P5 type is the basic type of the series. Since it is designed as a mass-produced product, it can be manufactured in a shorter time than other models depending on the flow rate of the standard type.

#### Model: P5 (Standard type) Flow direction: From bottom to top



# **Model: P5 (turn sideways type)**

Flow direction: horizontal direction or from top to bottom



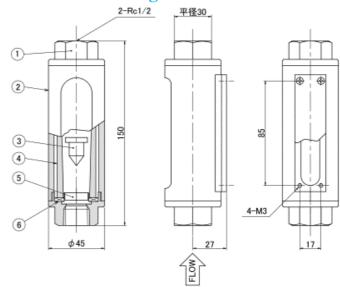
## **Specifications**

Measuring fluid	Various liquids and air (gases)	
Scale range	10:1	
Maximum operating flow rate	For liquid (H2O): 5~50 L/min	
	For air: 50~300NL/min	
Body material	SCS13	
Taper tube material	Hard glass	
Float material	For liquid: SUS304	
	For air : Alminum	
Connection diameter	Rc 1/2B	
Flow rate accuracy	Within ±2% FS	
Mass	About 0.5kg	
Maximum working pressure	0.7MPa	
Maximum working temerature	80°C	
External dimensions	150mm	

#### \* For Air measurement

The flow rate display is a value converted into a standard condition of  $0^{\circ}$ C and atmospheric pressure of 0.101MPa(A) by flowing air of  $20^{\circ}$ C (unit: NL/min).

#### **Dimensional drawing**



- ① Fitting: SCS13 ② Case: AC2B ③ Float: SUS304 or Al ④ Taper tube: Hard glass ⑤ Stopper: SUS304 ⑥ Gasket: NBR
- \* The above is a standard type material

## **Operating flow rate range**

For Water (L/min)	For Air (NL/min)	Standard product	
From (0.3) ~ 3.0	From (3) ~ 30	5W	50A
to (5) ~ 50	to (50) ~ 300	10W	100A
Produce a flow range between the above.		20W	200A
For other flow rate range, please contact us.		30W	300A

<sup>\*</sup> This number is the maximum flow rate value.

#### **Model code**

P5 - 1 2 type

① Maximum operating flow rate

2 Measuring fluid ————

W ··· For Water
L ··· For Liquid
A ··· For Air
G ··· For Gas

For example: P5-30W type

For measuring  $(5)\sim 30$  L/min of water.

P5-30W-L type

\* If the flow direction is not standard, write it after the model. Right => Left : R / Left => Right : L / Top => Bottom : D



# MODEL : **P5-S** SERIES

Model P5-S is a type with electrical contacts. The ON/OFF signal can be obtained at the set flow rate value, so it can also be used as a flow switch. The set flow rate value is designed to be variable.

Model: P5-S
(Standard type for liquid / air with electronic contacts)

Model: P5-S (turn sideways type)

Flow direction: horizontal direction or from top to bottom.

\* For liquid type only.



## **Specifications**

Measuring fluid	Various liquids and air (gases)	
Scale range	10:1	
Maximum operating	For liquid (H2O): 5~50 L/min	
flow rate	For air: 50~300NL/min	
Body material	SCS13	
Taper tube material	Hard glass	
Float material	For liquid: SUS304	
	For air : Alminum	
Connection diameter	Rc 1/2B	
Flow rate accuracy	Within ±2% FS	
Mass	About 0.6kg	
Maximum working	0.7MPa	
pressure		
Maximum working	80°C	
temerature		
External dimensions	150mm	

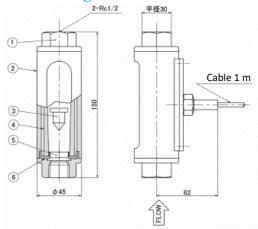
#### \* For Air measurement

The flow rate display is a value converted into a standard condition of  $0^{\circ}$ C and atmospheric pressure of 0.101MPa(A) by flowing air of  $20^{\circ}$ C (unit: NL/min).

# **Operating flow rate range**

For Water (L/min)	For Air (NL/min)	Standard product	
(5) ∼ 50	$(50) \sim 300$	5W	50A
Produce a flow range between the above.		10W	100A
For other flow rate range, please contact us.		20W	200A
This number is the maximum flow rate value.		30W	300A

#### **Dimensional drawing**



① Fitting: SCS13 ② Case: AC2B ③ Float: SUS304 or Al ④ Taper tube: Hard glass ⑤ Stopper: SUS304 ⑥ Gasket: NBR

\* The above is a standard type material

#### Model code



- ① Maximum operating flow rate
- 2 Measuring fluid
- 3 S with electric contact
- 4 N: Float goes down and turns on
- / S: Float goes up and turns on.

A ··· For Air
G ··· For Gas

For Water

For Liquid

W

L

For example: P5-30W-S-S type

For measuring (5) $\sim$ 30 L/min of water with electronic contacts.

# **About Electronic contacts**

#### >> Outline

An electrical contact is attached to the flow meter, and ON/OFF signals can be obtained at the set flow rate. An alarm buzzer and lamp can be displayed when the flow rate is higher or lower than the set flow rate. Automatic control is possible by connecting to solenoid valve operation. (Please note the load capacity)

#### >> Theory

A magnet is inserted in the float, and when this float passes the lead switch mounted on the side due to the change in flow rate, it operates and emits a signal.

#### >> Lead switch specifications

- 1. For liquid: It can be installed from 0.5 to 5 L/min at 0.5 MPa (G) 20°C.
- 2. For air: It can be installed from 5 to 50 NL/min at 0.101 MPa (A) 20°C.
- \* Number of electric operations: 20 times/second
- \* Operating life: 1 million times \* Contact capacity: AC100V 0.1A
- \* Installation voltage: AC1500V/1min \* Switching voltage: MAX.DC200V
- \* Self-holding type



# MODEL: **PL-5** SERIES

This model is for small flow rates. (This product does not have electrical contacts)

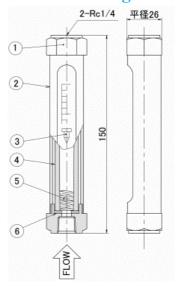
• For Water: 2 L/min or less.

• For Air : 20 NL/min or less.

# Model: PL-5 (For Liquid / Air)



#### **Dimensional drawing**



① Fitting: SUS304 ② Case: BS

3 Float: SUS or Al 4 Taper tube : Hard glass 5 Stopper: SUS304, etc...

(6) Gasket: NBR

# **Specifications**

Various liquids and air (gases)		
1:10		
For liquid (H2O) : 2 L/min		
For air : 20 NL/min		
SUS304		
Hard glass		
For liquid: SUS304		
For air : Alminum		
Rc 1/4B		
Within ±2% FS		
Vertical direction		
Bottom => Top		
0.7MPa		
80°C		
150mm		
About 0.27kg		

#### \* For Air measurement

The flow rate display is a value converted into a standard condition of 0°C and atmospheric pressure of 0.101MPa(A) by flowing air of 20°C (unit: NL/min).

# **Operating flow rate range**

For Water (L/min)	For Air (NL/min)	Standard product	
From (0.01) ~ 0.1	From (0.1) ~ 1.0	0.5W	10A
to (0.2) ~ 2.0	to (2.0) ~ 20	1W	20A
Produce a flow range between the above			

<sup>\*</sup> For other flow rate range, please contact us.

#### **Model code**

PL5 -**1** 



type

① Maximum operating flow rate

2 Measuring fluid

For Water For Air

For example: PL5-1W type

For measuring 1 L/min of liquid.

