Compact read switch type mechanical pressure switch standard white series

P1100-W/P4100-W/P8100-W Series

Compatible with module connection to SELEX F.R.L.







Specifications

Descriptions		P*100-W		
Working fluid		Compressed air		
Max. working pressure	MPa	1.0		
Set pressure range	MPa	0.1 to 0.6		
Hysteresis	MPa	0.08 or less		
Repeatability	MPa	±0.02 or less		
Contact configuration		1a Note 1		
Wiring		Lead wire (oil resistant vinyl cabtire code 2-conductor 0.2mm²)		
Ambient temperature / fluid temperature		5 to 60°C		
Protective structure Note 2		IP20 or equivalent		

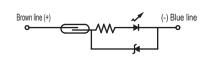
Note 1: The contact turns on if air pressure exceeding the scale setting pressure is applied.

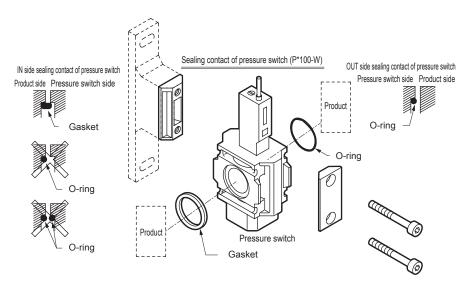
Note 2: Note that when connecting an option joint into the atmospheric release port and extend the tube until water does not entrain, IP65 or equivalent is applied. This port can not be used outdoors.

Electric component section specifications				
Load voltage	12/24 VDC	100 VAC		
Load current	5 to 50mA	7 to 20mA		
Internal voltage drop	3 V or less			
Light	LED (ON lighting)			
Maximum shock resistance	294m/S ²			
Insulation resistance	20MΩ and over at 500 VDC megger			
Withstand voltage	No failure when 1000 VAC is applied for one minute			

Internal circuit design

How to assemble (P1100-W, P4100-W, P8100-W)





Refrigerating type dryer

Desiccant type dryer

High polymer membrane type dryer

Air filter

Auto, drain / others F.R.L. (Module unit)

F.R.L. (Separate)

Compact F.R. Precise regulator F.R.L.

F.R.L. (Related products)

Clean F.R.

Electro pneumatic regulator

Air booster Speed control valve

Silencer Check valve / others

Joint / tube Vacuum filter

Vacuum regulator Suction plate

Magnetic spring buffer Mechanical pressure SW

Electronic pressure SW Contact / close contact conf.

Air sensor

Pressure SW for coolant

Small flow sensor Small flow controller

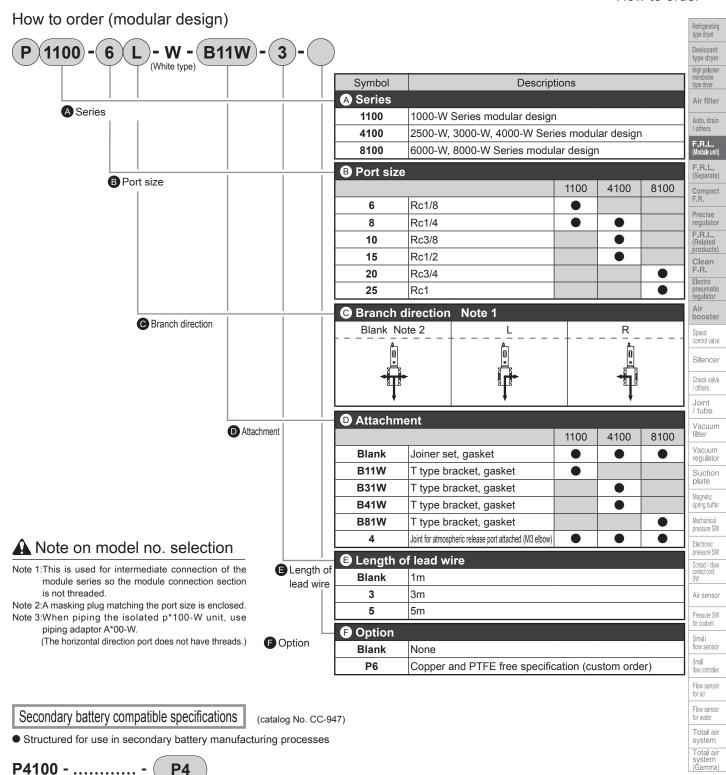
Flow sensor for air

Total air system Total air

system (Gamma) Ending

P*100-W Series

How to order



Standard series F.R.L. unit

Ending

P*100-W Series

Dimensions

● P1100-W



Desiccant type dryer High polymer membrane type dryer

type dryer

Air filter

Auto, drain / others

F.R.L. (Module uni

F.R.L. (Separate) Compact F.R.

Precise regulator F.R.L. (Related products)

Clean F.R. Electro pneumatic regulator

Air booster

Speed control valve

Check valve / others

Joint / tube Vacuum filter

Vacuum regulator Suction plate

Magnetic spring buffer

Mechanical pressure SW Electronic pressure SW

Contact / close contact conf. SW

Air sensor Pressure SW for coolant

Small flow sensor

Small flow controller Flow sensor for air

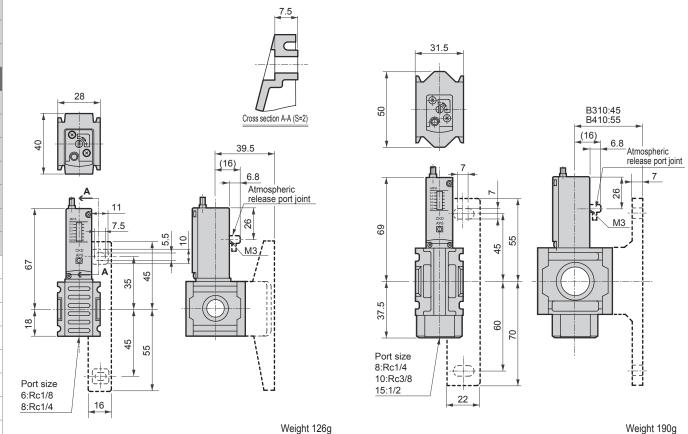
Total air system

Total air system

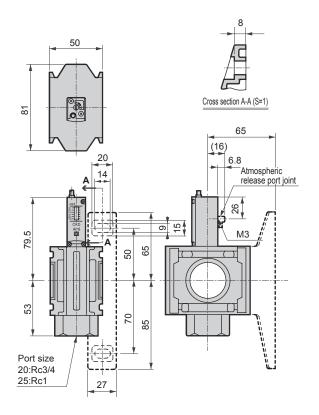
(Gamma)

Ending

● P4100-W



● P8100-W



Safety precautions

▲ Safety precautions

■ Installation & Adjustment

A Caution

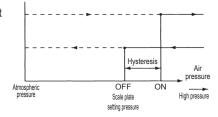
Setting pressure

Pressure displayed on the scale plate is used as the reference.
 When setting pressure, refer to the separate pressure gauge.

Pressure displayed on the scale plate is the value when the contact is off. To set the scale plate to a value smaller than that from which hysteresis has been subtracted. Refer to the chart diagram below. If not set, operation may not take place at the set value.

(Hysteresis refer to the pressure width from when the switch operates once with the set pressure to when the pressure drops and the switch turns off.)

Operation chart



2 Installation

Do not drop or bump the panel when handling it.

 Wire the lead so that the repeated bending strain and tensile strength are not applied to the wire. Failure to do so could lead to disconnection.

 Do not use this sensor near a strong magnetic field or large current (large magnet or spot water, etc.) because the sensor could malfunction.

The pressure switch is equivalent to IP-20, but the installation direction is limited to upward vertical. If water enters the atmospheric release port for atmospheric pressure from below, pipe an M3 joint and extend with tubing to where water will not enter. Do not plug the introduction port for atmospheric pressure or else malfunctions could occur.

This port can not be used outdoors.

P*100 Series
If there is drainage in pneumatic piping, install so that the

pressure switch is higher than the drain.

 Do not pressurize the atmospheric release port or blow it with compressed air. Product performance could drop or the product could be damaged.

3

Connecting the lead

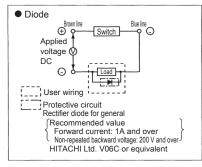
- (1) Do not connect the lead directly to the power supply. Connect the load serially. Failure to do so could result in lamp blowing or contact melting.
- (2) When using for DC, connect the brown wire to the + side and the blue wire to the - side. The lamp will not light if wires are connected in reverse.
- (3) When connected to the AC relay or PC input, if half wave rectification is done with these circuits, the switch lamp may not light. In this case, the lamp will light if the switch lead polarity is reversed.
- Contact capacity
 Do not exceed the specified load voltage and load current range.

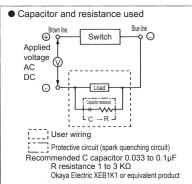
Failure to observe this could result in problems such as lamp blowing and contact melting.

The lamp may not light if the current is less than the rated current value.

Contact protection

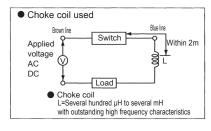
(1) When using this sensor with a conductive load such as a relay, provide the contact protection circuit shown at right. The contact could melt if this protection circuit is not provided.

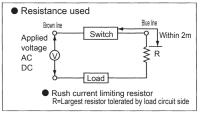




(2) DC wiring exceeds 50m or AC wiring exceeds 10m, the wiring capacity will be attained. A rush current will occur, damaging the switch or shortening life.

Install a contact protection circuit if the wiring length is exceeded.





type dryer

Desiccant
type dryer

High polymer membrane type dryer

Air filter

Auto, drain / others F.R.L.

(Module unit)

F.R.L. (Separate) Compact F.R.

Precise regulator F.R.L. (Related products)

Electro pneumatic regulator Air booster

Clean F.R.

Speed control valve

Silencer

Check valve / others

Joint / tube

Vacuum filter Vacuum regulator

Suction plate Magnetic spring buffer

Mechanical pressure SW Electronic pressure SW

Contact / close contact conf. SW

Pressure SW

Small flow sensor

Small flow controller Flow sensor for air

for air
Flow sensor
for water

Total air system Total air system (Gamma)

Ending

Standard series F.R.L. unit