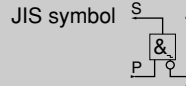


Threshold sensor

PWS Series

Detect exhaust pressure near the stroke end accurately

● Port size: (Rc or R)1/8 to 1/2



Maker



Specifications

Universal coupling type connector

Descriptions	PWS-B155	PWS-B1882	PWS-B1992	PWS-B1332	PWS-B1222
Working fluid	Compressed air				
Max. working pressure MPa	0.8				
Min. working pressure MPa	0				
Withstanding pressure MPa	1.5				
Working air temperature °C	5 to 60				
Ambient temperature °C	-10 to 60 (no freezing)				
Port size	M5	R (c)1/8	R (c)1/4	R (c)3/8	R (c)1/2
Effective sectional area mm ²	3	20	50	80	120
Flow ℓ/min. (ANR) Note1	190	1300	3200	5200	7800
Product weight kg	0.01	0.04	0.05	0.08	0.11

Built-in sensor module

Descriptions	PWS-P111	PWS-M1012
Output method	Compressed air	Electric
Switchover pressure MPa Note2	0.04	0.06
Working air temperature °C	5 to 60	
Ambient temperature °C	-10 to 60 (no freezing)	
Effective sectional area mm ²	1.2	—
Flow ℓ/min. (ANR) Note1	80	—
Output connection	ø4 push-in joint	0.5mm ² × 3 wire
Voltage	—	250 VAC 5A or 48 VDC 5W or less
Contact	—	C Contact
Insulation class	—	Class B
Applicable tube	O.D. ø4.0, bore size ø2.5 rigid nylon tube	—

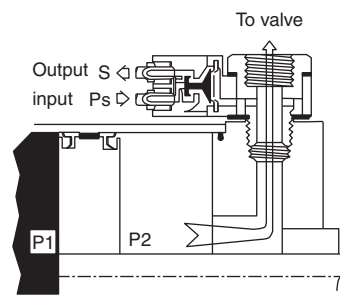
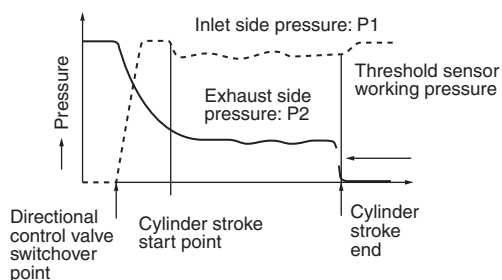
Note 1: The flow is a value at pressure 0.5MPa.

Note 2: Select pressure for PSW-P111 is that output by the air pressure signal to port S.

Select pressure for PSW-M1012 is the pressure changed by the electrical contact.

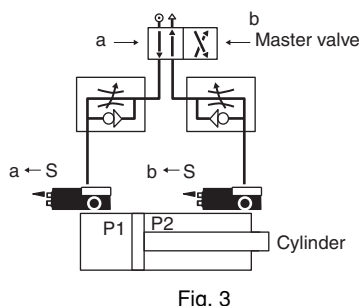
Operational principle

The threshold sensor is attached like a joint to the cylinder port. This sensor detects pressure change generated at both ends of the piston or a drop in exhaust pressure (P2) near the stroke end and issues an air pressure signal (S) when $P2 < 1/10 P$. (Refer to Fig. 1, 2)



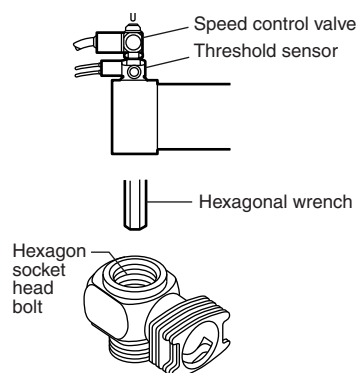
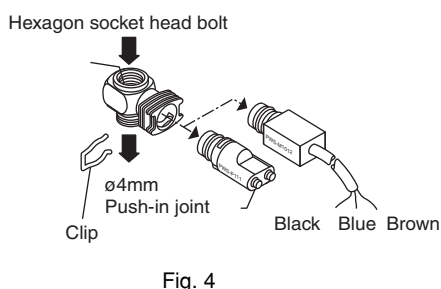
How to use

A limit switch is used to confirm cylinder operation. If it is difficult or a problem to install a limit switch, this joint threshold sensor can be used. (Refer to Fig. 3)



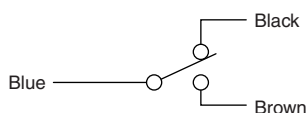
Connection and installation

- The modular threshold sensor consists of two parts, a build-in sensor module and free joint connector.
- Connector (free joint type)
The sensor (detector) to be installed directly above the cylinder port is attached to the connector with a clip. The speed control valve or cylinder stop valve, etc., can be attached above the connector. Parts are tightened in the connector port with the hexagon socket bolt found inside the connector. (Refer to Fig. 5)
- Built-in sensor module
Signal output can be either by selected from air pressure or electric. (Refer to Fig. 4)



Connection

- Pneumatic outlet module
ø4mm tube connection
- Electric output module
(C contact)



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. (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 cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

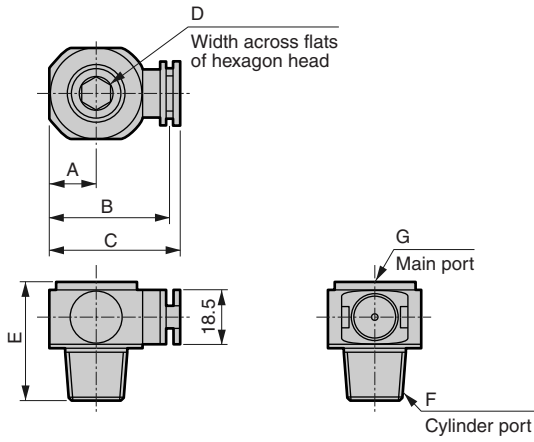
Threshold sensor
Auxiliary valve

Dimensions

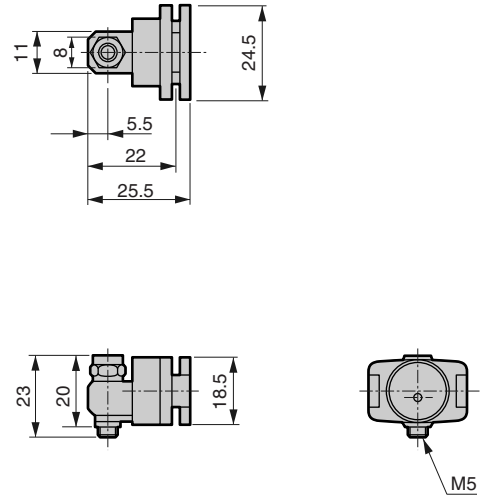


- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane type dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)
- Ending

● PWS-B1**2

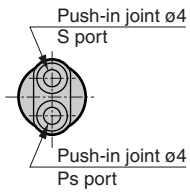
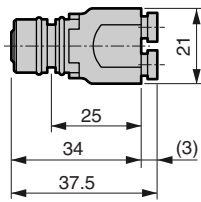
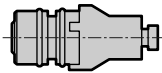


● PWS-B155



Model no.	A	B	C	D	E	F	G
PWS-B1882	8	28	31.5	5	28	R1/8	Rc1/8
PWS-B1992	10.5	32.5	36	8	32.5	R1/4	Rc1/4
PWS-B1332	14	39	43.5	10	35	R3/8	Rc3/8
PWS-B1222	16.5	42.5	46	12	42	R1/2	Rc1/2

● PWS-P111



● PWS-M1012

