Air Checker: Electronic Pressure Switch
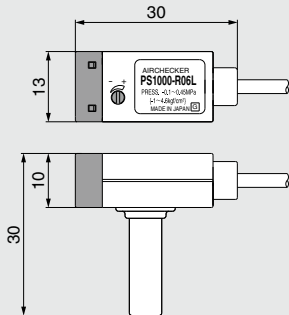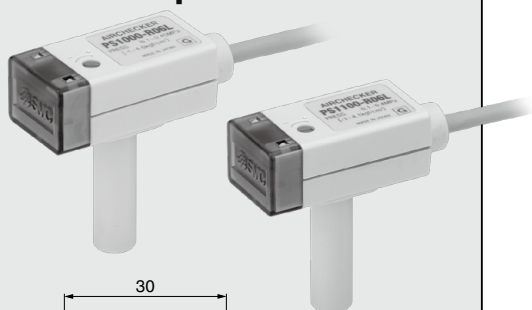
PS1000/PS1100/PS1200 *Series*

(For Positive Pressure)   (For Vacuum, Residual Pressure)   (For Vacuum)
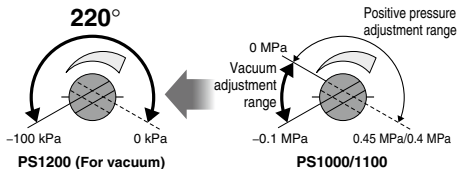
Applicable fluid:
Air, Non-corrosive gas, Non-flammable gas

CE [Option]

RoHS

Compact/lightweight electronic pressure switch

Addition of vacuum range (–100 to 0 kPa)
Easy adjustment of pressure setting trimmer

30

13

AIRCHECKER
PS1000-R06L
PRESS. –0.1~0.4MPa
(–1~4.0kgf/cm²)
MADE IN JAPAN

10

30

220°

−100 kPa   0 kPa

PS1200 (For vacuum)

Positive pressure adjustment range

0 MPa

Vacuum adjustment range

−0.1 MPa   0.45 MPa/0.4 MPa

PS1000/1100

Easy mounting
Plug-in reducer port for One-touch fittings
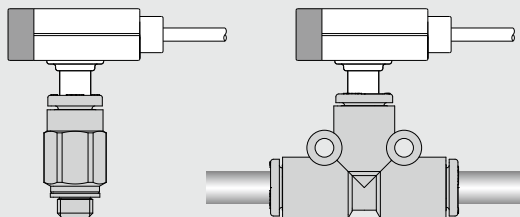
High visibility
A large LED display for an easily visible switch

2-wire type
Applicable to either NPN or PNP output

Air Checker:
Electronic Pressure Switch
PS1000/1100/1200 Series

CE [Option]

RoHS

How to Order

PS **10** 00 – **R06** **L** – **Q**

Output specifications

10	For positive pressure
11	For vacuum and residual pressure
12	For vacuum

Option (CE-compliant*)

Nil	None
Q	CE-compliant

* The PS1200 series is CE-compliant (with Q) only.

Piping specifications

R06	ø6 reducer
R07	1/4" reducer

Lead wire length

L	3 m
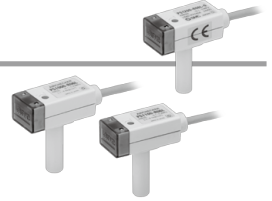
Specifications

Model	PS1000	PS1100	PS1200
Switch output	Present pres. ≥ Setting pres.: ON	Present pres. ≤ Setting pres.: ON	
Max. operating pressure	1 MPa		500 kPa
Set pressure range	−0.1 to 0.45 MPa	−0.1 to 0.4 MPa	−100 to 0 kPa
Fluid	Air/Non-corrosive gas/Non-flammable gas		
Indicator light	ON: When red LED turns on		
Temperature characteristics	±3% F.S.		
Repeatability	±1% F.S.		
Hysteresis	4% F.S. or less		10% F.S. or less
Load voltage	12 to 24 VDC ±10%, Ripple (p-p) 10% or less		
Load current	5 to 40 mA		
Leakage current	1 mA or less		
Internal voltage drop	5 V or less		
Operating temperature range	0 to 60°C (No condensation)		
Insulation resistance	2 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing		
Withstand voltage	1000 VAC (in 50/60 Hz) for 1 minute between terminals and housing		
Weight	5 g (Excluding lead wire)		
Port size	R06: ø6 reducer, R07: 1/4" reducer		
Enclosure	IP40		
Lead wire	Grommet oilproof heavy-duty vinyl cable 2 cores, ø2.55, 3 m, Conductor area: 0.18 mm², Insulator O.D.: 0.96 mm		
Wetted parts material	Pressured sensor part: Silicon, Body part: PBT, O-ring: HNBR		
Standards	CE (Option), RoHS		

SMC

Switch Specifications

PS1000, PS1100

MPa

0.4
0.2
0
−0.1

Set pressure
t

PS1000 ON / OFF — The switch turns ON when the set pressure is reached or exceeded.

PS1100 ON / OFF — The switch turns ON when at the set pressure or below.

PS1200

kPa

0
−50
−100

Set pressure
t

PS1200 ON / OFF — The switch turns ON when at the set pressure or below.
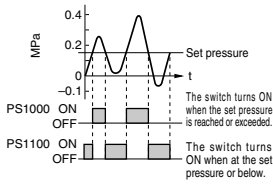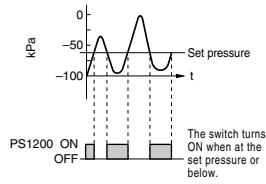
Setting of Pressure Switch

- Use the pressure setting trimmer to set ON pressure.
- Rotate clockwise to increase the set pressure. For setting vacuum, rotate counterclockwise.
- To set, use a flat head screwdriver suited for the groove of the trimmer, and rotate it lightly with finger tip.

− +
High vacuum   High pressure
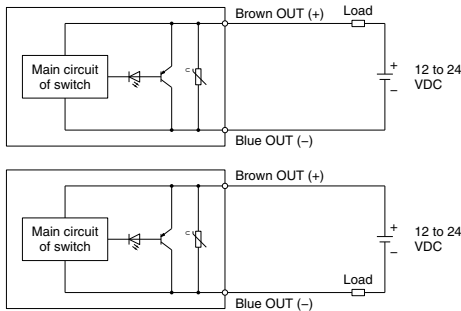Pressure setting trimmer
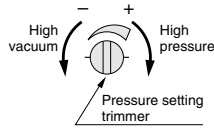
Trimmer

Rotation angle of the trimmer is 220°.
There is a stop provided to prevent the trimmer from rotating beyond its limits. Rotation beyond the limit can damage the trimmer. Adjust the trimmer gently within the rotation angle.
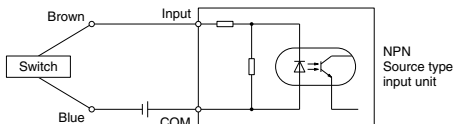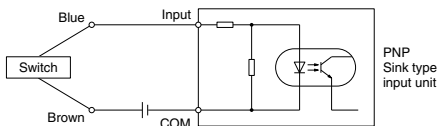
220°

Left end adjustment limit   Right end adjustment limit

Internal Circuits and Wiring Examples

Brown OUT (+) Load
Main circuit of switch
12 to 24 VDC
Blue OUT (−)

Brown OUT (+)
Main circuit of switch
12 to 24 VDC
Load
Blue OUT (−)

Example of connection with a PLC (Sequence controller)

For source type input unit

Brown   Input
Switch
Blue   COM

NPN Source type input unit

For sink type input unit

Blue   Input
Switch
Brown   COM

PNP Sink type input unit

Dimensions

30
25.5
3000
13
AIRCHECKER
PS1000-R06L
PRESSL:-4.7~+0.45MPa
(−1~4.5kgf/cm²)
MADE IN JAPAN

LED indicator   Pressure setting trimmer

A
10
30
ø6 reducer
1/4" reducer
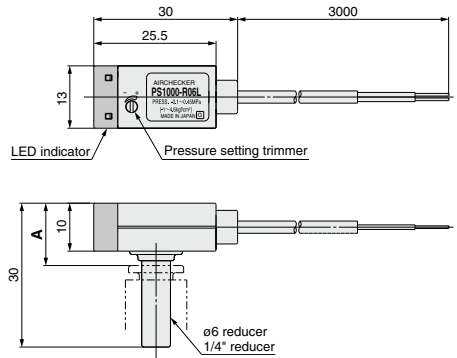
Dimensions

Applicable One-touch fittings	A
KQ2H/L/T/S/Y06-M5	16
KQ2H/L07-M5	16
Other KQ2/KS series	13
KJ series	16