






Series Variations

Model Selection Table

Self-contained Type

| Model | ZSE20(F) ISE20 | ZSE30A(F) ISE30A | ZSE40A(F) ISE40A | ZSE10(F) ISE10 |
|---|---|---|--|---|
| Fluid | General pneumatic | | | |
| Calibration method | Push-button calibration | | | |
| Set pressure range | -105 to 105 kPa 10 to -105 kPa -0.105 to 1.05 MPa | | | |
| Power supply voltage | 12 to 24 VDC $\pm 10\%$ (Ripple $\pm 10\%$) | | | |
| Temperature characteristics (based on 25°C) | $\pm 2\%$ F.S. (-5 to 50°C) | $\pm 2\%$ F.S. (0 to 50°C) | $\pm 2\%$ F.S. (-5 to 50°C) | |
| Repeatability | $\pm 0.2\%$ F.S. ± 1 digit | | | |
| Hysteresis | Hysteresis mode: Variable Window comparator mode: Variable | | | |
| Output | NPN/PNP open collector | NPN/PNP open collector Analog voltage output Analog current output | | NPN/PNP open collector Analog voltage output |
| Display | 2-color display | | | 1-color display |
| Enclosure | IP40 | | IP65 | IP40 |
| Note | Panel mounting possible Selectable pressure unit Anti-chattering function Display calibration function Power-saving mode Sub screen setting function | Panel mounting possible Selectable pressure unit Anti-chattering function Display calibration function Power-saving mode Copy function | Panel mounting possible Selectable pressure unit Anti-chattering function Auto shift function Power-saving mode Copy function | Panel mounting possible DIN rail mountable Selectable pressure unit Anti-chattering function Display calibration function Power-saving mode Copy function |
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|  <p>ISE70</p> |  <p>ISE75 ISE75H</p> |  <p>ZSE80(F) ISE80(H)</p> |  <p>PS1000 PS1100 PS1200</p> |  <p>ISE35</p> |
|---|--|---|--|---|
| General fluids | | | General pneumatic | |
| -0.1 to 1 MPa | 0.4 to 10 MPa 0.5 to 15 MPa | -110 to 110 kPa 10 to -111 kPa -0.105 to 1.1 MPa -0.105 to 2.2 MPa | Trimmer calibration -0.1 to 0.45 MPa -0.1 to 0.4 MPa -100 to 0 kPa | Push-button calibration -0.1 to 1 MPa |
| ±2% F.S. (0 to 50°C) | ±3% F.S. (-5 to 50°C) | ±3% F.S. (0 to 50°C) | ±3% F.S. (0 to 60°C) | |
| ±0.5% F.S. | | ±0.2% F.S. ±1 digit | ±1% F.S. | |
| 1 setting NPN/PNP 2 settings NPN/PNP open collector PNP open collector | | | NPN/PNP open collector Analog voltage output Analog current output | Fixed 4% F.S. or less Fixed 10% F.S. or less |
| 2-color display | | | 2-color display | Hysteresis mode: Variable Window comparator mode: Variable |
| IP67 | | IP65 | IP40 | |
| Selectable pressure unit Anti-chattering function Display calibration function | | R thread, URJ, TSJ Panel mounting possible Selectable pressure unit Anti-chattering function Auto shift function Display calibration function Power-saving mode | Modular type mountable Series ARM10/11 mountable Selectable pressure unit Anti-chattering function Power-saving mode | |
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| | | | P.126 | |

ZSE20
ISE20
ZSE30
ISE30
ZSE40
ISE40
ZSE10
ISE10
ISE70
ZSE80
ISE80
PS
ISA3
ISA2
ISE35
PSE
IS
ISG
ZSM1

Series Variations



Model Selection Table

Sensor

| Model | PSE53□ | PSE54□ | PSE550 | PSE56□ | PSE57□ |
|---|--|---|-------------------------|--|--|
| Fluid | General pneumatic | | General pneumatic | General fluids | |
| Calibration method | | | | | |
| Set pressure range | 0 to 1MPa 0 to -101kPa 0 to 101kPa -101 to 101kPa | 0 to 1MPa 0 to -101kPa -100 to 100kPa | 0 to 2kPa | 0 to 1MPa 0 to -101kPa -100 to 100kPa 0 to 500kPa | -100 to 100kPa 0 to 500kPa 0 to 1MPa |
| Power supply voltage | 12 to 24 VDC ±10% (Ripple ±10%) | | | | |
| Temperature characteristics (based on 25°C) | ±2% F.S. (0 to 50°C) | | ±3% F.S. (0 to 50°C) | ±2% F.S. (0 to 50°C) ±3% F.S. (-10 to 60°C) | PSE570 ±2% F.S. (0 to 50°C) ±3% F.S. (-10 to 60°C) PSE573/574 ±3% F.S. (0 to 50°C) ±4% F.S. (-10 to 60°C) |
| Repeatability | ±1% F.S. | ±0.2% F.S. | ±0.3% F.S. | ±0.2% F.S. | |
| Hysteresis | | | | | |
| Output | Analog voltage output | | | Analog voltage output Analog current output | |
| Display | | | | | |
| Enclosure | IP40 | | IP40 | IP65 | |
| Note | | | | | |
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Model Selection Table

Controller

| Model | PSE200 | PSE300 |
|---|--|--|
| |  |  |
| Sensor input amount | 4 inputs | 1 input |
| Calibration method | Push-button calibration | |
| Set pressure range | -0.1 to 1 MPa 10 to -101 kPa -101 to 101 kPa -10 to 101 kPa | -0.1 to 1 MPa 10 to -101 kPa -101 to 101 kPa -10 to 100 kPa |
| Power supply voltage | 12 to 24 VDC $\pm 10\%$ (Ripple $\pm 10\%$) | |
| Temperature characteristics (based on 25°C) | $\pm 0.5\%$ F.S. (0 to 50) | |
| Repeatability | $\pm 0.1\%$ F.S. ± 1 digit | $\pm 0.1\%$ F.S. |
| Hysteresis | Hysteresis mode: Variable Window comparator mode: Fixed (3 digits) | Hysteresis mode: Variable Window comparator mode: Fixed (3 digits) |
| Output | NPN/PNP open collector 1 CH: 2 outputs 2 to 4 CH: 1 output | NPN/PNP open collector 2 outputs Analog voltage output Analog current output |
| Display | 1-color display | 2-color display |
| Enclosure | Front only IP65 The rest IP40 | IP40 |
| Note | Panel mounting possible Auto shift function Display calibration function Anti-chattering function Channel to channel copy function Selectable pressure unit | Panel mounting possible DIN rail mountable Auto shift function Display calibration function Anti-chattering function Selectable pressure unit Current input possible |
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ZSE20
ISE20

ZSE30
ISE30

ZSE40
ISE40

ZSE10
ISE10

ISE70

ZSE80
ISE80

PS

ISA3

ISA2

ISE35

PSE

IS

ISG

ZSM1

Series Variations

| Model Selection Table | | | |
|--|---|--|------------------|
| Positive Pressure | | | |
| Model | IS10 | IS3000 | ISG11□/ISG21□ |
| Fluid | General pneumatic | | |
| Calibration method | | | |
| Set pressure range | 0.1 to 0.4 MPa (Option 0.1 to 0.6 MPa) | 0.1 to 0.7 MPa | 0.02 to 0.3 MPa |
| Voltage | Up to 100 VDC Up to 100 VAC | Up to 125 VDC Up to 250 VAC | |
| Repeatability | ±0.05 MPa | ±0.05 MPa | ±3%F.S. |
| Hysteresis (Calibration range of ISG) | 0.08 MPa or less | 0.05 MPa or less | 0.015 to 0.2 MPa |
| Contacts | 1a | 1ab | |
| Drip-proof type | | | |
| Note | | Micro-load type available Available indicator light | |
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Negative Pressure

ISG12□/ISG22□



ISG13□/ISG23□



ISG19□/ISG29□



ZSM1



General fluids

General pneumatic

Pressure adjustment screw

0.05 to 0.7 MPa

0.1 to 1.0 MPa

-10 to -100 kPa

-27 to -80 kPa

Up to 220 VDC
Up to 440 VAC

4.5 to 28 VDC
(ZSM1-115)

100 VAC/DC or less
(ZSM1-121)

±3% F.S.

±10% F.S.

0.02 to 0.35 MPa
(Without pointer scale)

0.02 to 0.45 MPa
(With pointer scale)

0.03 to 0.4 MPa
(Without pointer scale)

0.03 to 0.6 MPa
(With pointer scale)

7 to 53kPa

15 kPa or less
(ZSM1-115)

20 kPa or less
(ZSM1-121)

1a1b

NPN open collector
(ZSM1-115)

1a
(ZSM1-121)

Possible with ISG2□□ (Equivalent to IP44)

- 2ab contact type (Semi-standard)
- With light (Refer to Series IS2761.)

Compliant with
ZM ejector

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ISE10

ISE70

ZSE80
ISE80

PS

ISA3

ISA2

ISE35

PSE

IS

ISG

ZSM1

Pressure Switch Application Example

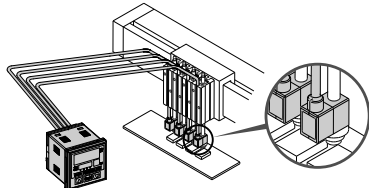
When selecting a model, please thoroughly review and confirm beforehand, that the model will meet the necessary specification.

Suction Verification

Sensor installed close to a pad

(No. 1)

PSE54□ + PSE200 Series



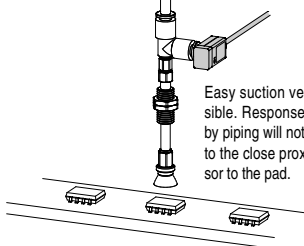
Due to the small size, the sensor can be installed close to a pad.

Calibration is easy with the auto-preset function.

Sensor installed close to a pad

(No. 2)

PS1100 Series

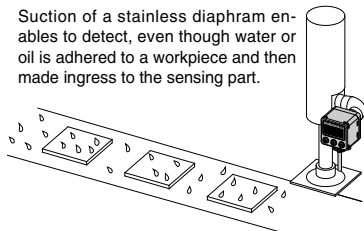


Easy suction verification is possible. Response delays, caused by piping will not be a factor, due to the close proximity of the sensor to the pad.

Suction verification of workpieces containing moisture

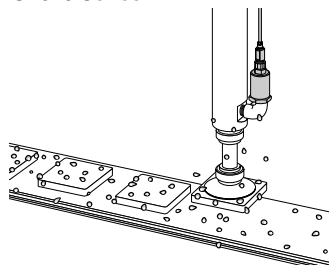
ZSE80F Series

Suction of a stainless diaphragm enables to detect, even though water or oil is adhered to a workpiece and then made ingress to the sensing part.



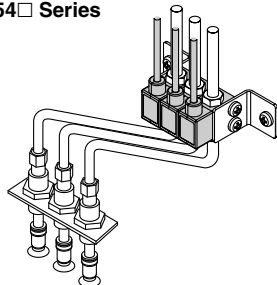
Suction verification of workpieces containing moisture

PSE570 Series



Installation of a group of sensors in a manifold style

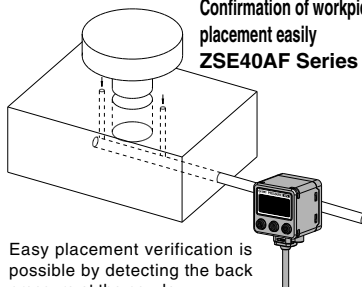
PSE54□ Series



Placement Verification

Confirmation of workpieces placement easily

ZSE40AF Series

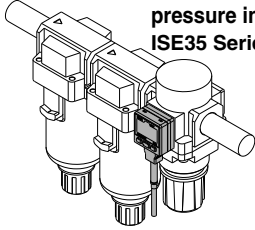


Easy placement verification is possible by detecting the back pressure at the nozzle.

Pressure Switch Application Example

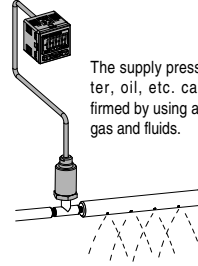
Supply Pressure Confirmation

Confirmation of supply pressure in air line ISE35 Series



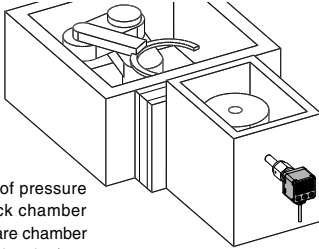
The line pressure can be adjusted by monitoring the digital readout. Which provides a visual verification of the operating pressure. The output can be programmed to respond to supply pressure drops, etc.

Confirmation of supply pressure of cleaning lines PSE560 + PSE300 Series



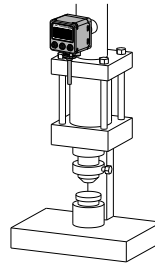
The supply pressure of water, oil, etc. can be confirmed by using a sensor for gas and fluids.

Confirmation of atmospheric pressure for a load lock chamber ZSE80F Series

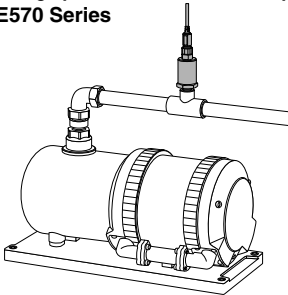


Verification of pressure in a load lock chamber (vacuum spare chamber of the main chamber)

Confirmation of working pressure of hydraulic cylinder ISE80 Series

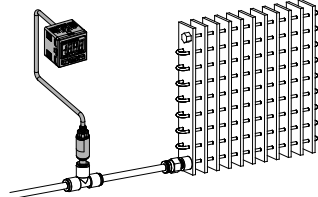


Discharge pressure control for compressor PSE570 Series



Leak Test

Inspection of a radiator PSE532 + PSE300 Series



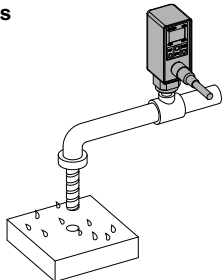
A low pressure sensor (PSE532-□) is used to detect minute differences. The auto shift function reduces the influence of fluctuations in the supply pressure.

| |
|-------|
| ZSE20 |
| ISE20 |
| ZSE30 |
| ISE30 |
| ZSE40 |
| ISE40 |
| ZSE10 |
| ISE10 |
| ISE70 |
| ZSE80 |
| ISE80 |
| PS |
| ISA3 |
| ISA2 |
| ISE35 |
| PSE |
| IS |
| ISG |
| ZSM1 |

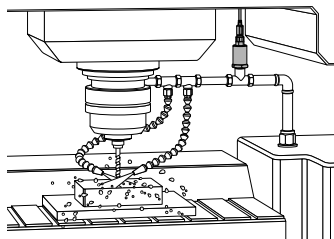
Pressure Switch Application Example

Liquid Coolant Pressure Control

Liquid pressure control of a gun drill ISE75(H) Series

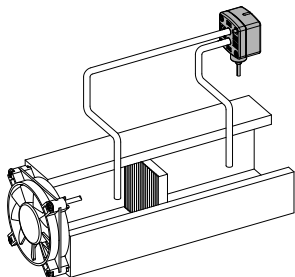


Liquid coolant pressure control PSE570 Series



Monitoring Filter Clogging

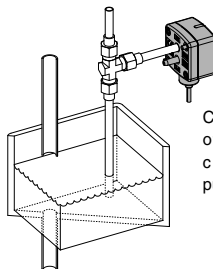
PSE550 Series



The filtration and replacement periods can be controlled by monitoring the clogging of the filter.

Liquid Level Detection

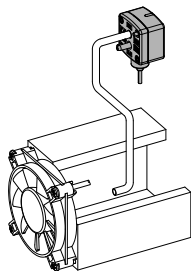
PSE550 Series



Can detect the level of a liquid through changes in the purge pressure.

Air Flow Control

PSE550 Series



Can monitor the air flow in the duct and control air blasts.