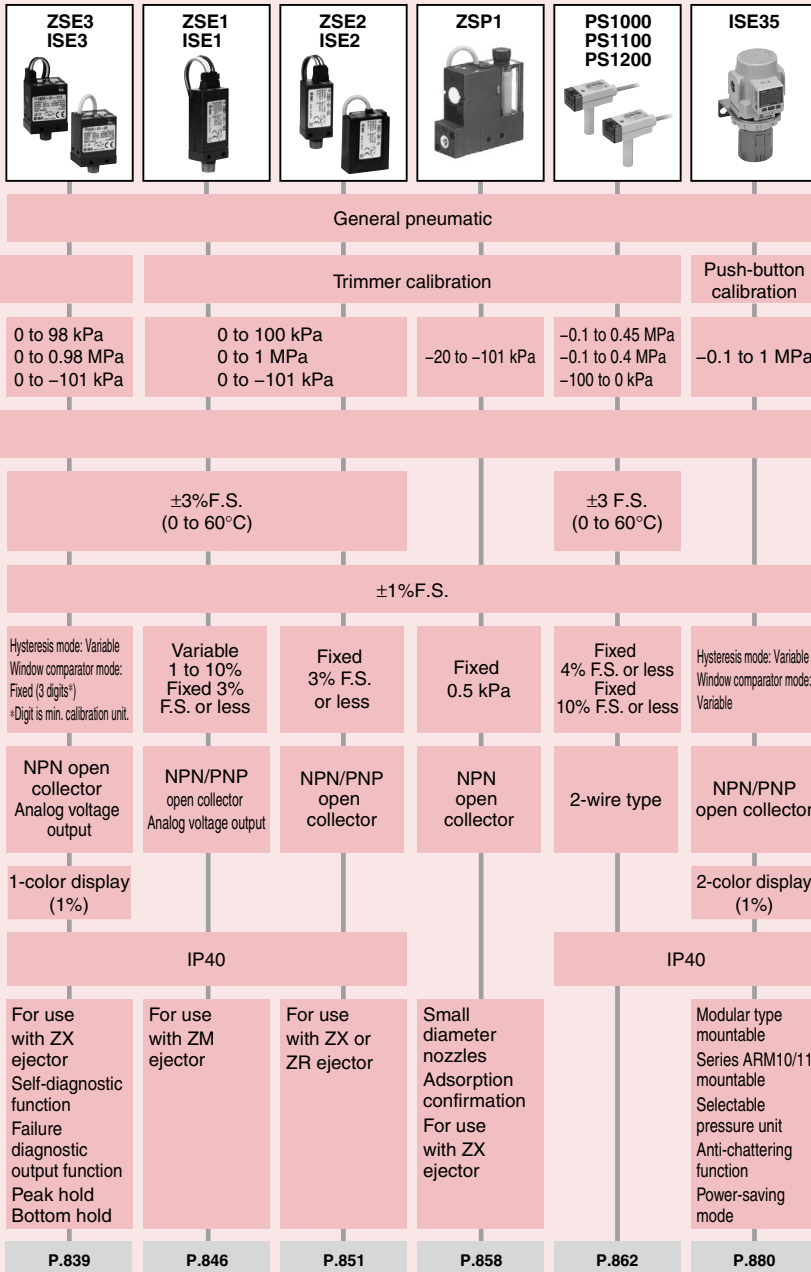


# Series Variations

Model Selection Table

Self-contained Type

Model	ZSE30A(F) ISE30A	ZSE40A(F) ISE40A	ZSE10(F) ISE10	ISE70	ISE75 ISE75H	ZSE80(F) ISE80(H)
Fluid	General pneumatic			General fluids		
Calibration method	Push-button calibration					
Set pressure range	-105 to 105 kPa 10 to -105 kPa -0.105 to 1.05 MPa			-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
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)
Repeatability	±0.2%F.S.±1digit			±0.5%F.S.		±0.2%F.S.±1 digit
Hysteresis	Hysteresis mode: Variable Window comparator mode: Variable					
Output	NPN/PNP open collector Analog voltage output Analog current output		NPN/PNP open collector Analog voltage output	1 setting NPN/PNP 2 settings NPN/PNP open collector PNP open collector		NPN/PNP open collector Analog voltage output Analog current output
Display (Resolution)	2-color display (0.1%)		1-color display (0.1%)	2-color display (1%)		2-color display (0.1%)
Enclosure	IP40	IP65	IP40	IP67		IP65
Note	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	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
Page	P.767	P.779	P.801	P.813		P.823



ZSE30  
ISE30

ZSE40  
ISE40

ZSE10  
ISE10

ISE70

ZSE80  
ISE80

ZSE□  
ISE□

ZSP

PS

ISA2





PSE

IS

ISG



ZSM1

# Series Variations

Model Selection Table				
Sensor				
Model	 PSE53□	 PSE54□	 PSE550	 PSE56□
Fluid	General pneumatic		General pneumatic	General fluids
Calibration method				
Set pressure range	0 to 1 MPa 0 to -101 kPa 0 to 101 kPa -101 to 101 kPa	0 to 1 MPa 0 to -101 kPa -100 to 100 kPa	0 to 2 kPa	0 to 1 MPa 0 to -101 kPa -100 to 100 kPa 0 to 500 kPa
Power supply voltage	12 to 24 VDC $\pm 10\%$ (Ripple $\pm 10\%$ )			
Temperature characteristics (based on 25°C)	$\pm 2\%$ F.S. (0 to 50°C)		$\pm 3\%$ F.S. (0 to 50°C)	$\pm 2\%$ F.S. (0 to 50°C) $\pm 3\%$ F.S. (-10 to 60°C)
Repeatability	$\pm 1\%$ F.S.	$\pm 0.2\%$ F.S.	$\pm 0.3\%$ F.S.	$\pm 0.2\%$ F.S.
Hysteresis				
Output	Analog voltage output		Analog voltage output Analog current output	
Display (Resolution)				
Enclosure	IP40		IP40	IP65
Note				
Page	P.888	P.891	P.894	P.897




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. $\pm$ 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 (Resolution)	1-color display (0.1%)	2-color display (0.1%)
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
Page	P.900	P.905

ZSE30  
ISE30  
ZSE40  
ISE40  
ZSE10  
ISE10  
ISE70  
ZSE80  
ISE80  
ZSE□  
ISE□  
ZSP  
PS  
ISA2  
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	
Page	Page 917	Page 920	

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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Page 928

ZSE30  
ISE30

ZSE40  
ISE40

ZSE10  
ISE10

ISE70

ZSE80  
ISE80

ZSE□  
ISE□

ZSP

PS

ISA2

PSE

IS

ISG

ZSM1

# Pressure Switch Application Example

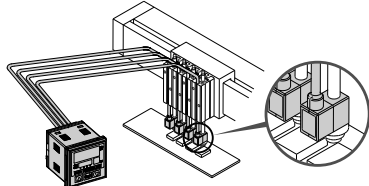
When selecting a model, please thoroughly review and confirm beforehand, that the model will meet the necessary specification.

## Suction Verification

### Sensor installed close to a pad

(No. 1)

Series PSE54□ + PSE200



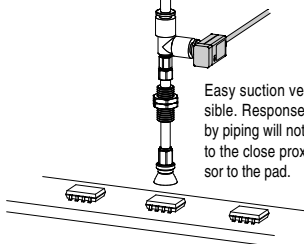
Due to the small size, the sensor can be installed close to a pad.

Calibration is easy with the auto-preset function.

### Sensor installed close to a pad

(No. 2)

Series PS1100

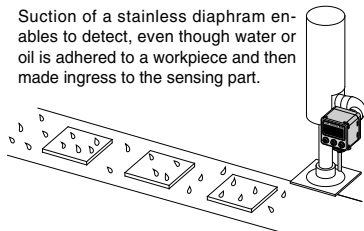


Easy suction verification is possible. Response delays, caused by piping will not be a factor, due to the close proximity of the sensor to the pad.

### Suction verification of work pieces containing moisture

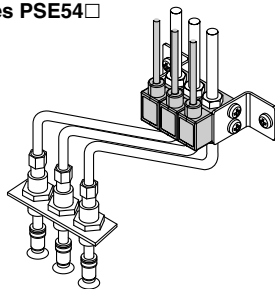
Series ZSE80F

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.



### Installation of a group of sensors in a manifold style

Series PSE54□

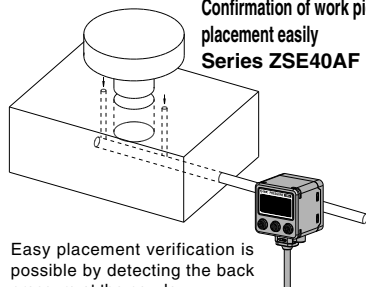


## Placement Verification

Confirmation of work pieces

placement easily

Series ZSE40AF

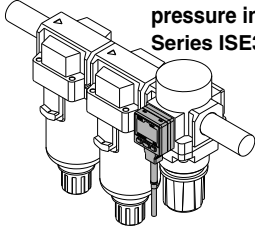


Easy placement verification is possible by detecting the back pressure at the nozzle.

# Pressure Switch Application Example

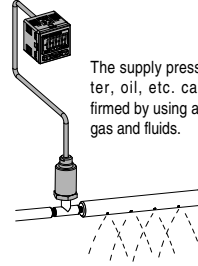
## Supply Pressure Confirmation

### Confirmation of supply pressure in air line Series ISE35



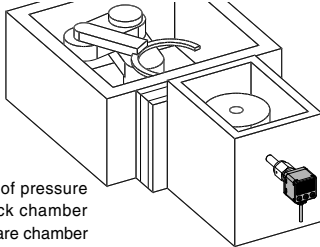
The line pressure can be adjusted by monitoring the digital readout. Which provides a visual verification of the operating pressure. The output can be programmed to respond to supply pressure drops, etc.

### Confirmation of supply pressure of cleaning lines Series PSE560 + PSE300



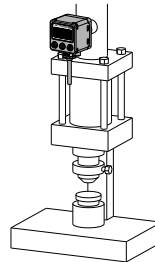
The supply pressure of water, oil, etc. can be confirmed by using a sensor for gas and fluids.

### Confirmation of atmospheric pressure for a load lock chamber Series ZSE80F



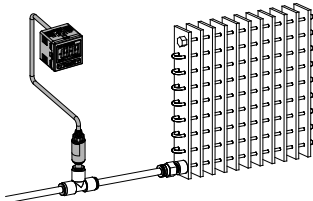
Verification of pressure in a load lock chamber (vacuum spare chamber of the main chamber)

### Confirmation of working pressure of hydraulic cylinder Series ISE80



## Leak Test

### Inspection of a radiator Series PSE532 + PSE300



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

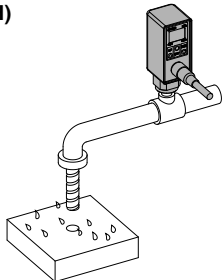
ZSE30
ISE30
ZSE40
ISE40
ZSE10
ISE10
ISE70
ZSE80
ISE80
ZSE□
ISE□
ZSP
PS
ISA2
PSE
IS
ISG
ZSM1



# Pressure Switch Application Example

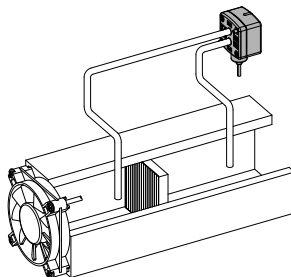
## Liquid Coolant Pressure Control

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



## Monitoring Filter Clogging

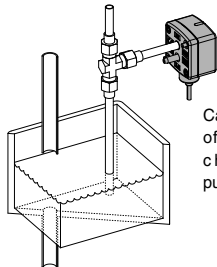
Sereis PSE550



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

## Liquid Level Detection

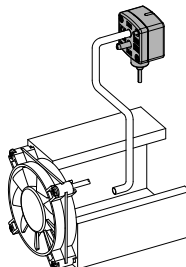
Series PSE550



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

## Air Flow Control

Series PSE550



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