

# Pressure Sensor *PSE530 Series*



## How to Order

**PSE53** 0 - M5 -  

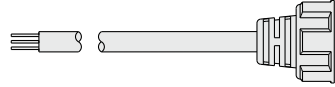
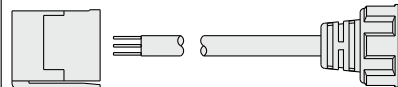
### Sensor range

<b>0</b>	Positive pressure [0 to 1 MPa]
<b>1</b>	Vacuum [0 to -101 kPa]
<b>2</b>	Low pressure [0 to 101 kPa]
<b>3</b>	Compound pressure [-101 to 101 kPa]

### Port size

<b>M5</b>	M5 x 0.8
<b>R06</b>	ø6 reducer
<b>R07</b>	1/4 inch reducer

### Option

<b>Nil</b>	None
<b>L</b>	Sensor cable (3 m) 
<b>C2L</b>	Connector for pressure sensor controller (1 pc.) + Sensor cable (3 m) 

\* The connector is not attached to the cable, but is included with the shipment.

## Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

Description	Part no.	Note
Connector for pressure sensor controller	ZS-28-C	1 pc. per set
Sensor cable	ZS-26-F	Cable length: 3 m
Connector for pressure sensor controller + Sensor cable	ZS-26-J	Cable length: 3 m The connector is not attached to the cable at the time of shipment.

## Specifications

For pressure switch precautions and specific product precautions, refer to the "Operation Manual" on the SMC website.



Model		PSE530 (Positive pressure)	PSE531 (Vacuum)	PSE532 (Low pressure)	PSE533 (Compound pressure)
Rated pressure range		0 to 1 MPa	0 to −101 kPa	0 to 101 kPa	−101 to 101 kPa
Extension analog output range		−0.1 to 0 MPa	10.1 to 0 kPa	−10.1 to 0 kPa	—
Proof pressure		1.5 MPa	500 kPa		
Applicable fluid		Air/Non-corrosive gas/Non-flammable gas			
Power supply voltage		12 to 24 VDC ±10%, Ripple (p-p) 10% or less (with reverse connection protection)			
Current consumption		15 mA or less (with no load)			
Output specifications		Analog output 1 to 5 V (within rated pressure range), 0.6 to 1 V (within extension analog output range), Output impedance: Approx. 1 kΩ			
Accuracy (Ambient temperature at 25°C)		±2% F.S. (within rated pressure range), ±5% F.S. (within extension analog output range)			
Linearity		±1% F.S.			
Repeatability		±1% F.S.			
Power supply voltage effect		±1% F.S. based on the analog output at 18 V ranging from 12 to 24 VDC			
Environment	Enclosure	IP40			
	Temperature range	Operating: 0 to 50°C; Stored: −10 to 70°C (No freezing or condensation)			
	Withstand voltage	1000 VAC (in 50/60 Hz) for 1 min between terminals and housing			
	Insulation resistance	5 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing			
Temperature characteristics		±2% F.S. (25°C reference)			
Sensor cable/Option		Halogen-free heavy-duty cable, 3 cores, ø2.7, 3 m, Conductor area: 0.15 mm², Insulator O.D.: 0.8 mm			
Standards		CE/UKCA marking			

## Piping Specifications

Part no.	M5	R06	R07
<b>Port size</b>	M5 x 0.8 male thread	ø6 reducer type	1/4 inch reducer type
<b>Materials of parts in contact with fluid</b>	Pressure sensor: Silicon, O-ring: NBR		
	Body: Stainless steel 304	Body: PBT	
<b>Weight</b>	With sensor cable (3 m)	41 g	38 g
	Without sensor cable	7 g	3.8 g

PSE530

PSE540

PSE550

PSE560

PSE570

PSE200A

PSE300A

PSE300AC

Digital Sensor Monitors

# Compact Pneumatic Pressure Sensor/Switch



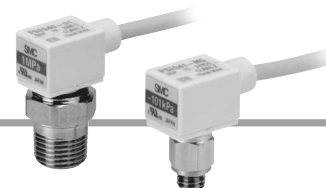
## PSE540 Series

RoHS

Analog output type

IO-Link / 1-output type ▶ p. 11

### How to Order

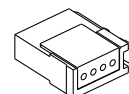


Sensor range	
0	Positive pressure [0 to 1 MPa]
1	Negative pressure [0 to -101 kPa]
3	Compound pressure [-100 to 100 kPa]

Accuracy	
Nil	±2% F.S.
A	±1% F.S.

#### Option (Connector)

Option (Connector)	
Nil	None
C2	Connector for pressure sensor controller (1 pc.)



\* The connector is not attached to the cable, but is included with the shipment.

PSE54 1 - M3 -

#### Port size

M3	M3 x 0.5	
M5	M5 x 0.8	
01	R1/8 (with M5 female thread)	
N01	NPT1/8 (with M5 female thread)	
R04	ø4 reducer	
R06	ø6 reducer	

IM5	M5 female thread, through type	
IM5H	M5 female thread, through type (with mounting hole)	

#### Option/Part No.

Description	Part no.	Note
Connector for pressure sensor controller	ZS-28-C	1 pc.

### Specifications

For pressure switch precautions and specific product precautions, refer to the "Operation Manual" on the SMC website.



Model		PSE540	PSE541	PSE543
Rated pressure range		0 to 1 MPa	0 to −101 kPa	−100 to 100 kPa
Extension analog output range		−0.1 to 0 MPa	10.1 to 0 kPa	—
Proof pressure		1.5 MPa	500 kPa	
Applicable fluid		Air/Non-corrosive gas/Non-flammable gas		
Power supply voltage		12 to 24 VDC ±10%, Ripple (p-p) 10% or less (with reverse connection protection)		
Current consumption		15 mA or less		
Output specifications		Analog output 1 to 5 V (within rated pressure range), 0.6 to 1 V (within extension analog output range), Output impedance: Approx. 1 kΩ		
Accuracy (Ambient temperature at 25°C)		PSE54□: ±2% F.S. (within rated pressure range), ±5% F.S. (within extension analog output range) PSE54□A: ±1% F.S. (within rated pressure range), ±3% F.S. (within extension analog output range)		
Linearity		±0.7% F.S. or less	±0.4% F.S.	
Repeatability		±0.2% F.S.		
Power supply voltage effect		±0.8% F.S.		
Environment	Enclosure	IP40		
	Operating temperature range	Operating: 0 to 50°C, Stored: −20 to 70°C (No freezing or condensation)		
	Operating humidity range	Operating/Stored: 35 to 85% RH (No condensation)		
	Withstand voltage	1000 VAC (in 50/60 Hz) for 1 min between terminals and housing		
	Insulation resistance	50 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing		
Temperature characteristics		±2% F.S. (25°C reference)		
Sensor cable		Oilproof heavy-duty vinyl cable (ellipse), 3 cores, 2.7 x 3.2, 3 m, Conductor area: 0.15 mm², Insulator O.D.: 0.9 mm		
Standards		CE/UKCA marking, UL/CSA (E216656)		

### Piping Specifications

Part no.		M3	M5	01	N01	R04	R06	IM5	IM5H
Port size		M3 x 0.5	M5 x 0.8	R1/8 M5 x 0.8	NPT1/8 M5 x 0.8	ø4 reducer	ø6 reducer	M5 female thread, through type	M5 female thread, through type (with mounting hole)
Material	Case	Resin case: PBT Fitting: Stainless steel 303		Resin case: PBT Fitting: C3604BD		PBT		Resin case: PBT Fitting: A6063S-T5	
	Pressure sensing section	Pressure sensor: Silicon, O-ring: NBR							
Weight	With sensor cable	42.4 g	42.7 g	49.3 g		41.4 g	41.6 g	43.3 g	44.1 g
	Without sensor cable	2.9 g	3.2 g	9.8 g		1.9 g	2.1 g	3.8 g	4.6 g

PSE530

PSE540

PSE550

PSE560

PSE570

PSE200A

PSE300A

PSE300AC

Digital Sensor Monitors

# Compact Pneumatic Pressure Sensor/Switch

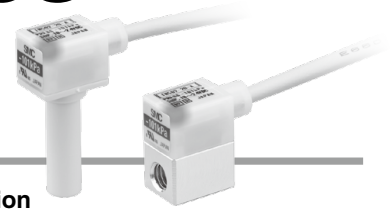


## PSE540 Series

IO-Link / 1-output type

Analog output type ▶ p. 10

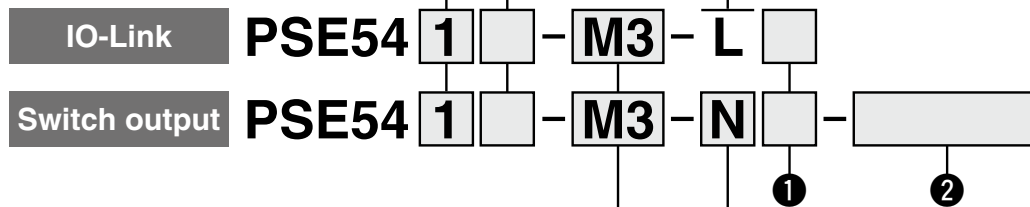
### How to Order



Sensor range	
0	Positive pressure [0 to 1 MPa]
1	Negative pressure [0 to -101 kPa]
3	Compound pressure [-100 to 100 kPa]

Accuracy	
Nil	±2% F.S.
A	±1% F.S.

Output specification	
L	IO-Link/Switch: 1 output (PNP or NPN switching type for switch output)



### Port size

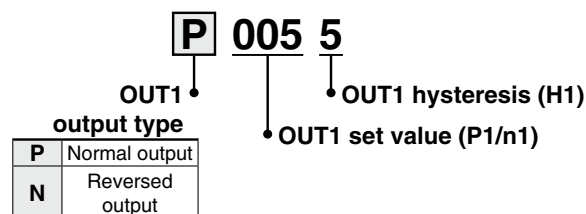
M3	M3 x 0.5		IM5	M5 female thread, through type	
M5	M5 x 0.8		IM5H	M5 female thread, through type (with mounting hole)	
01	R1/8 (with M5 female thread)				
N01	NPT1/8 (with M5 female thread)				
R04	ø4 reducer				
R06	ø6 reducer				

Output specification	
N	NPN open collector 1 output
P	PNP open collector 1 output

### ① Lead wire termination

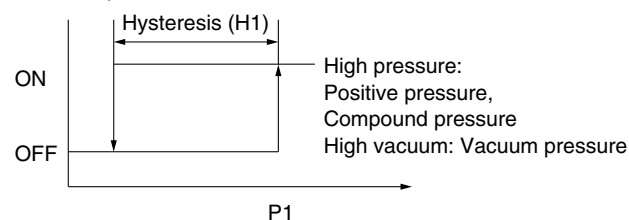
Nil	Basic	
S	With M12-4 pin connector, 500 mm	

### ② Set value (When output specification “N” or “P” is selected)



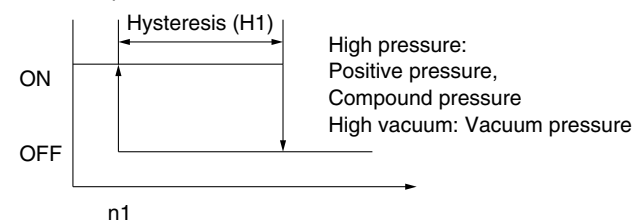
#### Normal output

Switch output



#### Reversed output

Switch output



# Low Differential Pressure Sensor

## PSE550 Series



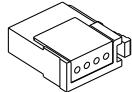
### How to Order

PSE550-□-□-□

#### Output specifications

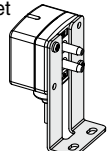
Nil	Voltage output type 1 to 5 V
28	Current output type 4 to 20 mA

#### Option 2 (Connector)

Nil	None
C2	Connector for pressure sensor controller (1 pc.) 

- \* Not applicable to the PSE200 series.
- \* The connector is not attached to the cable, but is included with the shipment.

#### Option 1 (Bracket)

Nil	None
A	Bracket 

- \* The bracket is not attached to the product, but is included with the shipment.

### Options/Part Nos.

Description	Part no.	Note
Bracket	ZS-30-A	With M3 x 5 L (2 pcs.)
Connector for pressure sensor controller	ZS-28-C	1 pc.

### Specifications

For pressure switch precautions and specific product precautions, refer to the "Operation Manual" on the SMC website.



Model		PSE550	PSE550-28
Rated differential pressure range		0 to 2 kPa	
Operating pressure range		-50 to 50 kPa*1	
Extension analog output range		-0.2 to 0 kPa	—
Proof pressure		65 kPa	
Applicable fluid		Air/Non-corrosive gas/Non-flammable gas	
Power supply voltage		12 to 24 VDC $\pm 10\%$ , Ripple (p-p) 10% or less (with reverse connection protection)	
Current consumption		15 mA or less	—
Output specifications		Analog output: 1 to 5 VDC (within rated differential pressure range) 0.6 to 1 VDC (within extension analog output range) Output impedance: Approx. 1 k $\Omega$	Analog output: 4 to 20 mA DC (within rated differential pressure range) Maximum load impedance: 500 $\Omega$ or less (at 24 VDC) 100 $\Omega$ or less (at 12 VDC)
Accuracy (Operating temperature at 25°C)		$\pm 1\%$ F.S. (within rated differential pressure range), $\pm 3\%$ F.S. (within extension analog output range)	
Linearity		$\pm 0.5\%$ F.S.	
Repeatability		$\pm 0.3\%$ F.S.	
Indicator light		Orange light is turned on. (When energized)	
Environment	Enclosure	IP40	
	Operating temperature range	Operating: 0 to 50°C, Stored: -20 to 70°C (No freezing or condensation)	
	Operating humidity range	Operating/Stored: 35 to 85% RH (No condensation)	
	Withstand voltage	1000 VAC (in 50/60 Hz) for 1 min between terminals and housing	
Insulation resistance		50 M $\Omega$ or more (500 VDC measured via megohmmeter) between terminals and housing	
Temperature characteristics		$\pm 3\%$ F.S. (25°C reference)	
Port size		$\phi 4.8$ ( $\phi 4.4$ in the end) resin piping (Applicable to I.D. $\phi 4$ air tubing)	
Materials of parts in contact with fluid		Resin pipe: Nylon, Piston area of sensor: Silicon	
Sensor cable		Oilproof heavy-duty vinyl cable (ellipse), 3 cores, $\phi 2.6$ , 3 m Conductor area: 0.15 mm <sup>2</sup> , Insulator O.D.: 0.9 mm	Oilproof heavy-duty vinyl cable (ellipse), 2 cores, $\phi 2.6$ , 3 m Conductor area: 0.15 mm <sup>2</sup> , Insulator O.D.: 0.9 mm
Weight	With sensor cable	75 g	
	Without sensor cable	35 g	
Standards		CE/UKCA marking, UL/CSA (E216656)	

\*1 Can detect differential pressure from 0 to 2 kPa within the range of -50 to 50 kPa.

PSE530

PSE540

PSE550

PSE560

PSE570

PSE200A

PSE300A

PSE300AC

Digital Sensor Monitors

# Pressure Sensor for General Fluids

## PSE560 Series



### How to Order

#### Sensor range

0	Positive pressure [0 to 1 MPa]
1	Vacuum [0 to -101 kPa]
3	Compound pressure [-100 to 100 kPa]
4	Positive pressure [0 to 500 kPa]

#### Option (Connector)

Nil	None
C2	Connector for pressure sensor controller (1 pc.)

\* Current output type cannot be connected to the PSE200 series.  
\* The connector is not attached to the cable, but is included with the shipment.

PSE56 0 - 01 -

#### Port size

01	R1/8 (with M5 female thread)
02	R1/4 (with M5 female thread)
C01	Rc1/8
N01	NPT1/8 (with M5 female thread)
N02	NPT1/4 (with M5 female thread)
A2	URJ1/4 (Face seal fitting)
B2	TSJ1/4 (Compression fitting)

#### Output specifications

Nil	Voltage output type 1 to 5 V
28	Current output type 4 to 20 mA

### Options/Part Nos.

Description	Part no.	Material	Note
Connector for pressure sensor controller	ZS-28-C	—	1 pc.
Adapter with restrictor Rc1/4	ZS-31-X175	Stainless steel 304	1 pc.
Adapter with restrictor NPT1/4	ZS-31-X186		1 pc.
Adapter with restrictor Rc1/8	ZS-31-X188		1 pc.
Adapter with restrictor NPT1/8	ZS-31-X189		1 pc.
Orifice M5	ZS-48-A	Stainless steel 303	1 pc.

For pressure switch precautions and specific product precautions, refer to the "Operation Manual" on the SMC website.



### Specifications

Model	PSE560 (Positive pressure)	PSE561 (Vacuum)	PSE563 (Compound pressure)	PSE564 (Positive pressure)
Rated pressure range	0 to 1 MPa	0 to -101 kPa	-100 to 100 kPa	0 to 500 kPa
Extension analog output range	-0.1 to 0 MPa	10.1 to 0 kPa	—	-50 to 0 kPa
Proof pressure	1.5 MPa	500 kPa	500 kPa	750 kPa

Model	PSE56□-□	PSE56□-□-28
Applicable fluid	Liquid or gas that will not corrode or attack stainless steel 316L	
Power supply voltage	12 to 24 VDC ±10%, Ripple (p-p) 10% or less (with reverse connection protection)	
Current consumption	10 mA or less	—
Output specifications	Analog output: 1 to 5 V (within rated pressure range) 0.6 to 1 V (within extension analog output range) Output impedance: Approx. 1 kΩ	Analog output: 4 to 20 mA DC (within rated pressure range) Maximum load impedance: 500 Ω or less (at 24 VDC) 100 Ω or less (at 12 VDC)
Accuracy (Ambient temperature at 25°C)	±1% F.S. (within rated pressure range), ±3% F.S. (within extension analog output range)	
Linearity	±0.5% F.S.	
Repeatability	±0.2% F.S.	
Power supply voltage effect	±0.3% F.S.	
Environment	Enclosure	IP65
	Operating temperature range	Operating: -10 to 60°C, Stored: -20 to 70°C (No freezing or condensation)
	Operating humidity range	Operating/Stored: 35 to 85% RH (No condensation)
	Withstand voltage	250 VAC for 1 min between terminals and housing
	Insulation resistance	50 MΩ or more (50 VDC measured via megohmmeter) between terminals and housing
Temperature characteristics	±2% F.S. (0 to 50°C: 25°C reference), ±3% F.S. (-10 to 60°C: 25°C reference)	
Sensor cable	PSE56□-□: Oilproof heavy-duty vinyl cable with air tubing, 3 cores, ø5.1, 3 m, Conductor area: 0.2 mm², Insulator O.D.: 1.12 mm PSE56□-□-28: Oilproof heavy-duty vinyl cable with air tubing, 2 cores, ø5.1, 3 m, Conductor area: 0.2 mm², Insulator O.D.: 1.12 mm	
Standards	CE/UKCA marking, UL/CSA (E216656)	

### Piping Specifications

Part no.	01	02	N01	N02	C01	A2	B2
Port size	R1/8 M5 x 0.8	R1/4 M5 x 0.8	NPT1/8 M5 x 0.8	NPT1/4 M5 x 0.8	Rc1/8	URJ1/4	TSJ1/4
Material	Case: C3604 + Nickel plating, Piping port/Pressure sensor: Stainless steel 316L, Grease-free						
Weight	With sensor cable	193 g	200 g	194 g	201 g	187 g	203 g
	Without sensor cable	101 g	108 g	102 g	109 g	95 g	101 g

# Pressure Sensor/Switch for General Fluids



## PSE570 Series

Analog output type

IO-Link / 2-output type ▶ p. 25

### How to Order



PSE57 0 - 01 - □ □

#### Sensor range

0	Positive pressure [0 to 1 MPa]
3	Compound pressure [-100 to 100 kPa]
4	Positive pressure [0 to 500 kPa]
5	Positive pressure [0 to 2 MPa]
6	Positive pressure [0 to 5 MPa]
7	Positive pressure [0 to 10 MPa]

#### Option (Lead wire)

Nil	Lead wire and M12 connector (3 m), Straight
L	Lead wire and M12 connector (3 m), Right angle
N	None

\* See page 58 for connection to the PSE300AC.

### Options/Part Nos.

	Description	Part no.	Material	Note
①	Lead wire and M12 connector (3 m), Straight	ZS-37-A	—	1 pc.
②	Lead wire and M12 connector (3 m), Right angle	ZS-37-B	—	1 pc.
③	Assembly-type connector	PCA-1557743	—	1 pc.
④	Adapter with restrictor Rc1/4	ZS-31-X175	Stainless steel 304	1 pc.
⑤	Adapter with restrictor Rc1/8	ZS-31-X188	—	1 pc.
⑥	Orifice M5	ZS-48-A	Stainless steel 303	1 pc.
⑦	① + ③	ZS-37-A-X448	—	The lead wire and connector are shipped together. (Not assembled)
⑧	② + ③	ZS-37-B-X449	—	
⑨	Connector for pressure sensor controller connection	ZS-28-CA-4	—	1 pc.

#### Output specification

Nil	Voltage output type 1 to 5 V
28	Current output type 4 to 20 mA

#### Port size

Symbol	Port size	Model					
		PSE570	PSE573	PSE574	PSE575	PSE576	PSE577
01	R1/8 (with M5 female thread)	●	●	●	—	—	—
02	R1/4 (with M5 female thread)	●	●	●	●	●	●

For pressure switch precautions and specific product precautions, refer to the "Operation Manual" on the SMC website.



### Specifications

Model		PSE570	PSE573	PSE574	PSE575	PSE576	PSE577
Fluid	Applicable fluid	Gas or liquid that will not corrode materials of parts in contact with fluid					
Pressure	Rated pressure range	0 to 1 MPa	−100 to 100 kPa	0 to 500 kPa	0 to 2 MPa	0 to 5 MPa	0 to 10 MPa
	Proof pressure	3.0 MPa	600 kPa	1.5 MPa	5.0 MPa	12.5 MPa	30 MPa
Electrical	Power supply voltage	12 to 24 VDC ±10% with 10% voltage ripple or less					
	Current consumption	10 mA or less					
	Protection	Reverse connection protection					
Accuracy	Analog output accuracy (Ambient temperature at 25°C)	±1.0% F.S.			±2.5% F.S.		
	Linearity	±0.5% F.S.					
	Repeatability (Ambient temperature at 25°C)	±0.2% F.S.			±0.5% F.S.		
	Temperature characteristics (25°C reference)	±2% F.S. (0 to 50°C) ±3% F.S. (−10 to 60°C)	±3% F.S. (0 to 50°C) ±4% F.S. (−10 to 60°C)		±5% F.S. (−10 to 60°C)		
Environment	Enclosure	IP65					
	Withstand voltage	500 VAC for 1 min between terminals and housing					
	Insulation resistance	100 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing					
	Operating temperature range	Operating: −10 to 60°C, Stored: −20 to 70°C (No freezing or condensation)					
	Operating humidity range	Operating/Stored: 35 to 85% RH (No condensation)					
Standards		CE/UKCA marking, UL/CSA (E216656)					
Materials of parts in contact with fluid		Piping port: C3604 + Nickel plating, Pressure sensor: Al2O3 (Alumina 96%), Sensor seal: FKM + Grease			Piping port: C3604 + Nickel plating, Pressure sensor: Al2O3 (Alumina 96%), Sensor seal: FKM		
Model		PSE57□-□			PSE57□-□-28		
Analog output	Output	Voltage output: 1 to 5 V			Current output: 4 to 20 mA		
	Impedance	Output impedance: Approx. 1 kΩ			Maximum load impedance: 500 Ω or less (at 24 VDC) 100 Ω or less (at 12 VDC)		

PSE530

PSE540

PSE550

PSE560

PSE570

PSE200A

PSE300A

PSE300AC

Digital Sensor Monitors



# Pressure Sensor/Switch for General Fluids



## PSE570 Series

IO-Link / 2-output type

Analog output type ▶ p. 24

### How to Order



#### Output specification

L2	IO-Link/Switch: 1 output + 2 outputs (PNP or NPN switching type for switch output)
----	---

IO-Link PSE57 0 - 01 - L2

Switch output PSE57 0 - 01 - A

#### Sensor range

0	Positive pressure [0 to 1 MPa]
3	Compound pressure [-100 to 100 kPa]
4	Positive pressure [0 to 500 kPa]
5	Positive pressure [0 to 2 MPa]
6	Positive pressure [0 to 5 MPa]
7	Positive pressure [0 to 10 MPa]

#### Port size

Symbol	Port size	PSE570	PSE573	PSE574	PSE575	PSE576	PSE577
01	R1/8 (with M5 female thread)	●	●	●	—	—	—
02	R1/4 (with M5 female thread)	●	●	●	●	●	●

#### Option (Lead wire)

Nil	Lead wire and M12 connector (3 m), Straight
L	Lead wire and M12 connector (3 m), Right angle
N	None

#### Output specification

A	NPN open collector 2 outputs
B	PNP open collector 2 outputs

### ① Set value (When output specification “N” or “P” is selected)

Not filled in when “OF” is selected

P 005 5 P 005 5

OUT1 output type

P	Normal output
N	Reversed output

OUT1 set value (P1/n1)

OUT1 hysteresis (H1)

OUT2 hysteresis (H2)

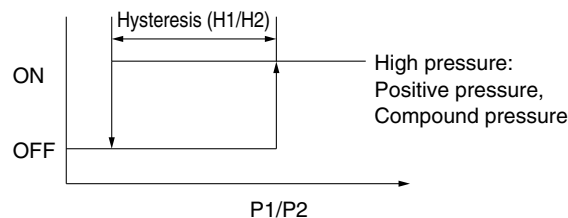
OUT2 set value (P2/n2)

OUT2 output type

P	Normal output
N	Reversed output
OF	Unused

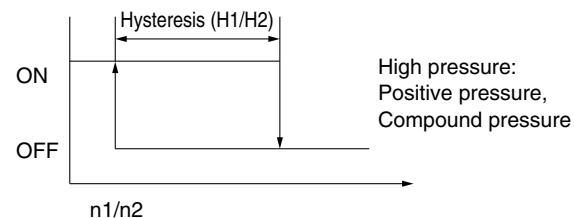
#### Normal output

Switch output



#### Reversed output

Switch output



### Options/Part Nos.

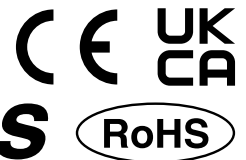
	Description	Part no.	Material	Note
①	Lead wire and M12 connector (3 m), Straight	ZS-37-A	—	1 pc.
②	Lead wire and M12 connector (3 m), Right angle	ZS-37-B	—	1 pc.
③	Assembly-type connector	PCA-1557743	—	1 pc.
④	Adapter with restrictor Rc1/4	ZS-31-X175	Stainless steel 304	1 pc.
⑤	Adapter with restrictor Rc1/8	ZS-31-X188	Stainless steel 304	1 pc.
⑥	Orifice M5	ZS-48-A	Stainless steel 303	1 pc.
⑦	① + ③	ZS-37-A-X448	—	The lead wire and connector are shipped together. (Not assembled)
⑧	② + ③	ZS-37-B-X449	—	

	Description	Part no.	Material	Note
⑨	Lead wire and M12 connector (Connector on both sides)	EX9-AC005-SSPS	—	Length: 0.5 m, Straight
		EX9-AC010-SSPS	—	Length: 1 m, Straight
		EX9-AC020-SSPS	—	Length: 2 m, Straight
		EX9-AC030-SSPS	—	Length: 3 m, Straight
		EX9-AC050-SSPS	—	Length: 5 m, Straight
		EX9-AC100-SSPS	—	Length: 10 m, Straight
⑩	Connector for pressure sensor controller connection	ZS-28-CA-4	—	1 pc.

\* The lead wire with an M12 connector is not included with the product. Please order it separately.

# 3-Screen Display Multi-channel Digital Sensor Monitor

## PSE200A Series



### How to Order



PSE20 0 A - M

#### Input/Output specification

0	NPN 5 outputs + Auto-shift input
1	PNP 5 outputs + Auto-shift input
2	IO-Link + NPN 4 outputs or NPN 5 outputs (SIO mode)
3	IO-Link + PNP 4 outputs or PNP 5 outputs (SIO mode)

#### Unit specification

Nil	With unit selection function*1
M	SI units only*2

\*1 Under the New Measurement Act, switches with the unit selection function are no longer allowed for use in Japan.  
\*2 Fixed unit: kPa, MPa, Pa

#### Option 1

Nil	None
A	<p>Panel mount adapter ZS-26-B</p> <p>Waterproof seal (Accessory) Tapping screw (3 x 8 L) (Accessory) Panel mount adapter Panel</p>
B	<p>Front protection cover + Panel mount adapter ZS-26-C</p> <p>Front protection cover ZS-26-01 Waterproof seal (Accessory) Tapping screw (3 x 8 L) (Accessory) Panel mount adapter Panel</p>

\* Options are not assembled, but shipped together.

#### Option 3

Nil	Power supply/Output connection cable (2 m)
N	<p>Power supply/Output connection cable ZS-26-L</p>
	None

\* Cable is shipped together, but not connected.

#### Option 2

Nil	None
4C	<p>Sensor connector (4 pcs.) ZS-28-C</p> <p>Connector</p>

\* Connector is not connected, but shipped together.  
\* This connector cannot be used with the PSE570 series.

### Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

Description	Part no.	Note
Panel mount adapter	ZS-26-B	Waterproof seal, Tapping screw: Nominal size 3 x 8 L (2 pcs.) included
Front protection cover + Panel mount adapter	ZS-26-C	Waterproof seal, Tapping screw: Nominal size 3 x 8 L (2 pcs.) included
<input type="checkbox"/> 48 conversion adapter * This adapter is used to mount the PSE200A series on the panel fitting of the PSE100 series.	<p>ZS-26-D</p> <p>Order panel mount adapter separately.</p>	<input type="checkbox"/> 48 conversion adapter
Front protection cover	ZS-26-01	
Sensor connector (1 pc. per set)	ZS-28-C	For the PSE500 series (Excludes the PSE570 series)
	ZS-28-CA-4	For PSE570 series
Power supply with M12 connector/Output cable (Made to Order) * For use when using an M12 connector for IO-Link communication	<p>ZS-26-LM12</p>	



# 3-Screen Display Sensor Monitor

## PSE300A Series



### How to Order

PSE3 **0** **0** A - **M**      

1
2
3
4
5
6

#### 1 Input specification

Symbol	Description
<b>0</b>	Voltage input
<b>1</b>	Current input

#### 2 Output specification

Symbol	Description	Factory default settings
<b>0</b>	NPN/PNP open collector 2 outputs switching type + Analog voltage/Auto-shift/Copy function switching type	NPN open collector 2 outputs + Analog voltage*1 PNP open collector 2 outputs + Analog voltage*1
<b>1</b>	NPN/PNP open collector 2 outputs switching type + Analog current/Auto-shift/Copy function switching type	NPN open collector 2 outputs + Analog current*2 PNP open collector 2 outputs + Analog current*2
<b>4</b>	Analog current/Auto-shift/Copy function switching type	
<b>6</b>	NPN/PNP open collector 2 outputs switching type + Copy function	NPN open collector 2 outputs + Copy function

\*1, 2 Although the default output specifications differ, the output specifications are the same.

#### 3 Unit specification

Symbol	Description
<b>Nil</b>	With unit selection function*1
<b>M</b>	SI units only*2

\*1 Under the New Measurement Act, switches with the unit selection function are no longer allowed for use in Japan.

\*2 Fixed unit: MPa, kPa, Pa

#### 4 Option 1

Symbol	Description
<b>Nil</b>	Without lead wire
<b>L</b>	Lead wire with connector (2 m lead wire)

ZS-46-5L

Power supply/output lead wire with connector

#### 6 Option 3

Symbol	Description
<b>Nil</b>	None
<b>C</b>	Sensor connector

ZS-28-C

Sensor connector

\* This connector cannot be used with the PSE570 series.

#### 5 Option 2

Symbol	Description
<b>Nil</b>	None
<b>A</b>	Bracket
<b>B</b>	Panel mount adapter
<b>D</b>	Panel mount adapter + Front protection cover

ZS-46-A1

ZS-46-B

ZS-46-D

Panel mount adapter

### Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

Description	Part no.	Note
Bracket	<b>ZS-46-A1</b>	—
Panel mount adapter	<b>ZS-46-B</b>	—
Panel mount adapter + Front protection cover	<b>ZS-46-D</b>	—
Lead wire with connector	<b>ZS-46-5L</b>	5-core, 2 m
Front protection cover	<b>ZS-27-01</b>	—
Sensor connector (1 pc. per set)	<b>ZS-28-C</b>	For the PSE500 series (Excludes the PSE570 series)
	<b>ZS-28-CA-4</b>	For the PSE570 series

PSE530

PSE540

PSE550

PSE560

PSE570

PSE200A

PSE300A

PSE300AC

Digital Sensor Monitors

# 3-Screen Display Sensor Monitor

# PSE300AC Series

CE UK CA RoHS



## How to Order

PSE3 0 0AC - AB - M -

### Input specification

0	Voltage input
1	Current input

### Output specification

AB	2 output type (NPN or PNP switching type)
----	---

### Option (Power supply/Output lead wire)

Nil	Straight lead wire
L	Right angle lead wire
N	None

## Options/Part Nos.

Description	Part no.	Note
Power supply/ output lead wire	ZS-31-B	Straight (5 m) 1 pc.
	ZS-31-C	Right angle (5 m) 1 pc.

\* For details on the lead wire with M12 connector and the assembly type connector for connecting to the sensor, refer to pages 24 and 25.

### Unit specification

Nil	With unit selection function*1
M	SI unit only*2
P	With unit selection function (Initial value psi)*1

\*1 Under the New Measurement Act, switches with a unit selection function are no longer allowed for use in Japan.

\*2 Fixed unit: Pa, kPa, MPa

For pressure switch precautions and specific product precautions, refer to the "Operation Manual" on the SMC website.



## Specifications

### M12 Connector Type

Series		PSE300AC								
Applicable SMC pressure sensor		PSE550	PSE531/PSE541 PSE561	PSE533/PSE543 PSE563/PSE573	PSE532	PSE564 PSE574	PSE530/PSE540 PSE560/PSE570	PSE575	PSE576	PSE577
Rated pressure range		0 to 2 kPa	0 to -101 kPa	-100 to 100 kPa	0 to 100 kPa	0 to 500 kPa	0 to 1 MPa	0 to 2 MPa	0 to 5 MPa	0 to 10 MPa
Display/Set pressure range		-0.2 to 2.1 kPa	10 to -105 kPa	-105 to 105 kPa	-10 to 105 kPa	-50 to 525 kPa	-0.105 to 1.05 MPa	-0.105 to 2.1 MPa	-0.1 to 5.25 MPa	-0.1 to 10.5 MPa
Display/Smallest settable increment		0.001 kPa	0.1 kPa	0.1 kPa	0.1 kPa	1 kPa	0.001 MPa	0.001 MPa	0.01 MPa	0.01 MPa
Electrical	Power supply voltage	12 to 24 VDC (±10%) with 10% voltage ripple or less								
	Current consumption	25 mA or less								
	Protection	Reverse connection protection								
Accuracy	Display accuracy	±0.5% F.S. ±Min. display unit (Ambient temperature of 25°C)								
	Repeatability	±0.1% F.S. ±Min. display unit (Ambient temperature of 25°C)								
	Temperature characteristics	±0.5% F.S. (Ambient temperature of 0 to 50°C, 25°C reference)								
Switch output	Output type	Select from NPN or PNP open collector output.								
	Output mode	Select from hysteresis mode, window comparator mode, error output or switch output OFF.								
	Switch operation	Select from normal output or reverse output.								
	Max. load current	20 mA								
	Max. applied voltage (NPN only)	30 VDC								
	Internal voltage drop (Residual voltage)	1 V or less (with load current of 20 mA)								
	Delay time *1	1 ms or less (with anti-chattering function: 20, 100, 500, 1000, 2000, 5000 ms)								
	Hysteresis	Variable from 0*2								
Sensor input	Protection	Over current protection								
	Input type	Voltage input: 1 to 5 VDC (Input impedance: 1 MΩ), Current input: 4 to 20 mA DC (Input impedance: 51 Ω)								
	Number of inputs	1 input								
	Connection method	M12-4 pin connector								
Display	Protection	Over voltage protection (up to a voltage of 26.4 VDC)								
	Unit *3	MPa, kPa, Pa, kgf/cm <sup>2</sup> , bar, mbar, psi, inHg, mmHg, mmH <sub>2</sub> O								
	Display type	LCD								
	Number of screens	3-screen display (Main screen, Sub screen x 2)								
	Display color	1) Main screen: Red/Green, 2) Sub screen: Orange								
	Number of display digits	1) Main screen: 4-digit (7-segment), 2) Sub screen: 4-digit (Upper 1-digit 11-segment, 7-segment for other)								
Digital filter *4	Indicator light	Lights up when switch output is turned ON. OUT1/OUT2: Orange								
		0, 10, 50, 100, 500, 1000, 5000 ms								
Environment	Enclosure	IP65								
	Withstand voltage	1000 VAC for 1 min between terminals and housing								
	Insulation resistance	50 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing								
	Operating temperature range	Operating: 0 to 50°C, Stored: -10 to 60°C (No freezing or condensation)								
Standards	Operating humidity range	Operating/Stored: 35 to 85% RH (No condensation)								
		CE/UKCA								
Weight		55.4 g (without power supply or output lead wires)								

\*1 Value without digital filter (at 0 ms)

\*2 If the applied pressure fluctuates around the set value, the hysteresis must be set to a value more than the amount of fluctuation, or chattering will occur.

\*3 This setting is only available for models with the unit selection function. Only MPa, kPa, or Pa is available for models without this function.

\*4 The response time indicates when the set value is 90% in relation to the step input.

PSE530

PSE540

PSE550

PSE560

PSE570

PSE200A

PSE300A

PSE300AC

Digital Sensor Monitors