

Multi-Channel Controller Series *PSE200*



How to Order

PSE20 0 - M

Input/Output specifications

0	NPN 5 outputs + Auto-shift input
1	PNP 5 outputs + Auto-shift input

Unit specifications

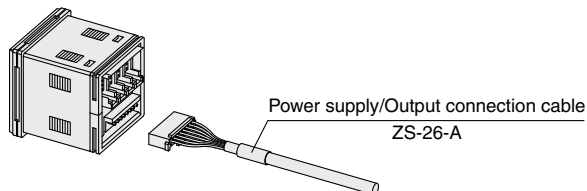
Nil	With display unit switching function Note 1)
M	Fixed SI unit Note 2)

Note 1) Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.

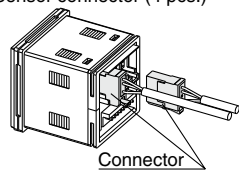
Note 2) Fixed unit
For vacuum, low pressure and compound pressure: kPa
For positive pressure: MPa

Accessory: Power supply/Output connection cable (2 m)

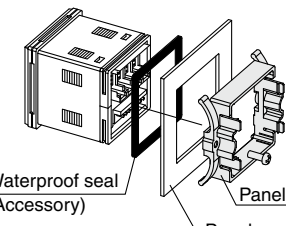
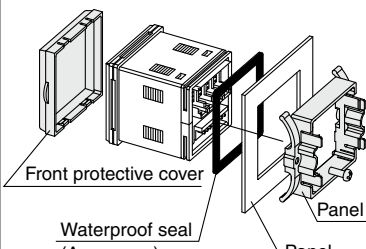
Included with the controller.



Option 2

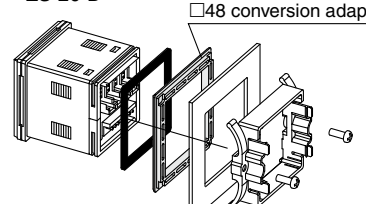
Nil	None
4C	Sensor connector (4 pcs.) 

Option 1

Nil	None
A	Panel mount adapter  Waterproof seal (Accessory) Mounting screw (M3 x 8L) (Accessory) Panel mount adapter Panel
B	Front protective cover + Panel mount adapter  Front protective cover Waterproof seal (Accessory) Mounting screw (M3 x 8L) (Accessory) Panel mount adapter Panel

Option/Part No.

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, mounting screws M3 x 8L (2 pcs.) included
Front protective cover + Panel mount adapter	ZS-26-C	Waterproof seal, mounting screws M3 x 8L (2 pcs.) included
☐ 48 conversion adapter * This adapter is used to mount the PSE200 series on the panel fitting of the PSE100 series.	ZS-26-D  ☐ 48 conversion adapter Order panel mount adapter separately.	
Front protective cover	ZS-26-01	
Sensor connector	ZS-28-C (1 pc. per set)	

Specifications

For Pressure Switch Precautions and Specific Product Precautions, refer to “Handling Precautions for SMC Products” and the Operation Manual on SMC website.

Model	PSE200	PSE201
Power supply voltage	12 to 24 VDC $\pm 10\%$, Ripple (p-p) 10% or less (with reverse connection protection)	
Current consumption	55 mA or less (Current consumption for sensor is not included.)	
Power supply voltage for sensor	[Power supply voltage] -1.5 V	
Power supply current for sensor ^{Note 1)}	Maximum 40 mA (100 mA maximum for the total power supply current when 4 sensors are input.)	
Sensor input	1 to 5 VDC (Input impedance: Approx. 800 k Ω)	
Number of inputs	4 inputs	
Input protection	With excess voltage protection (Up to 26.4 V)	
Switch output	NPN open collector output: 5 outputs (Sensor input CH1: 2 outputs, CH2 to 4: 1 output)	PNP open collector output: 5 outputs (Sensor input CH1: 2 outputs, CH2 to 4: 1 output)
Maximum load current	80 mA	
Maximum load voltage	30 V	—
Residual voltage	1 V or less (with load current of 80 mA)	
Response time	5 ms or less (Response time selections with anti-chattering function: 20 ms, 160 ms, 640 ms)	
Short circuit protection	With short circuit protection	
Repeatability	$\pm 0.1\%$ F.S. ± 1 digit	
Hysteresis	Hysteresis mode	Adjustable (can be set from 0)
Window comparator mode	Fixed (3 digits)	
Display	For measured value display: 4-digit, 7-segment indicator, Display color: Orange (Sampling frequency: 4 times/sec) For channel display: 1-digit, 7-segment indicator, Display color: Red	
Display accuracy (Operating temperature at 25°C)	$\pm 0.5\%$ F.S. ± 1 digit	
Indicator light	Red (Lights up when output is turned ON.)	
Auto-shift input	Non-voltage input (Reed or Solid state), Input 10 ms or more, Independently controllable auto-shift function ON/OFF	
Auto-identification function	With auto-identification function ^{Note 2)}	
Environment	Enclosure	Front face: IP65 (when panel-mounted), Others: IP40 ^{Note 3)}
Ambient temperature range	Operating: 0 to 50°C, Stored: -10 to 60°C (No freezing or condensation)	
Ambient humidity range	Operating/Stored: 35 to 85% RH (No condensation)	
Temperature characteristics	$\pm 0.5\%$ F.S. (25°C reference)	
Connection	Power supply/Output connection: 8P connector, Sensor connection: e-con connector	
Material	Housing: PBT; Display: Transparent nylon; Back rubber cover: CR	
Weight	Approx. 60 g (Excluding power supply/output cable)	
Power supply/Output connection cable	Heat resistant heavy-duty cable, 8 cores, $\phi 4.8$, 2 m, Conductor area: 0.15 mm ² , Insulator O.D.: 0.9 mm	
Standards	CE, RoHS	

Note 1) If the Vcc and 0 V side of the sensor input connector are short circuited, the inside of the controller will be damaged.

Note 2) Auto-identification function comes with “the PSE53□ series” pressure sensor only. Other SMC series (PSE540, 560, 570) are not equipped with this function.

Note 3) IP40 when using the □48 conversion adapter.

Applicable Pressure Sensor

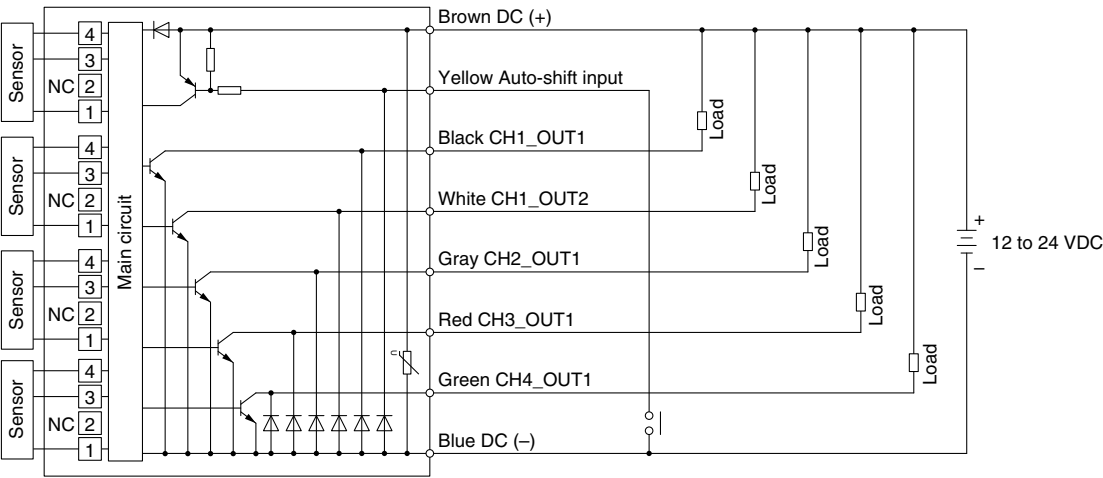
Applicable sensor					Rated pressure range				Set/Display resolution
PSE53□	PSE54□	PSE55□	PSE56□	PSE57□	-100 kPa	0	100 kPa	1 MPa	
PSE531	PSE541	—	PSE561	—	-101 kPa		0		0.1 kPa
PSE533	PSE543	—	PSE563	PSE573	-101 kPa		101 kPa		0.1 kPa
PSE530	PSE540	—	PSE560	PSE570		0		1 MPa	0.001 MPa
PSE532		—		—		0	101 kPa		0.1 kPa

Series PSE200

Internal Circuit and Wiring Example

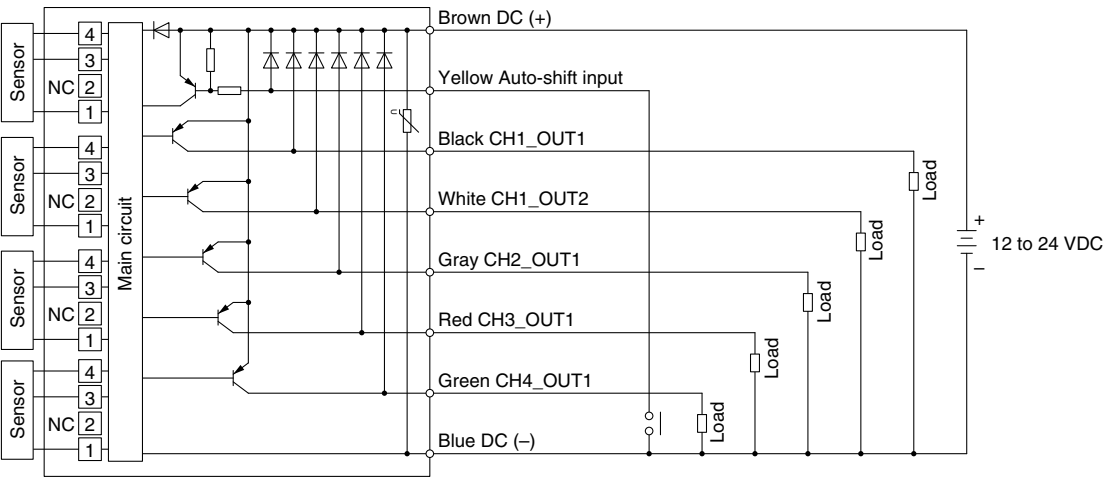
PSE200-(M)□

· NPN open collector 5 outputs + Auto-shift 1 input



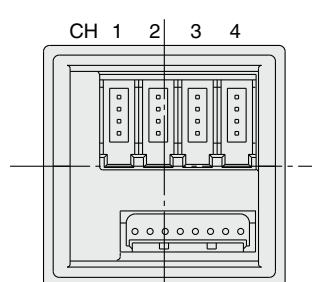
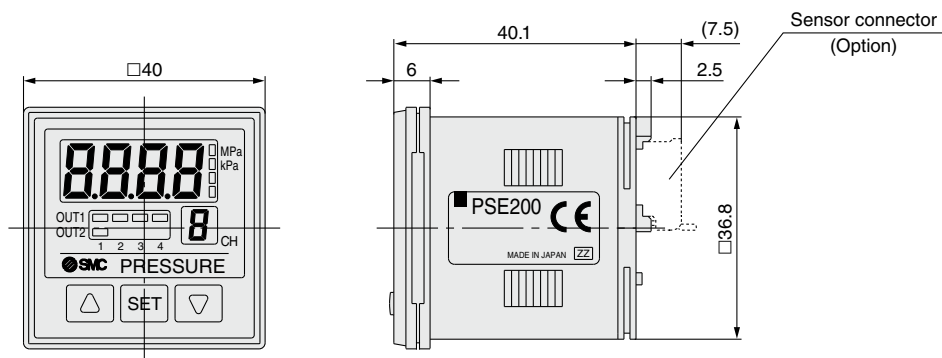
PSE201-(M)□

· PNP open collector 5 outputs + Auto-shift 1 input

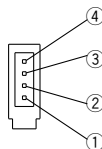


Dimensions

PSE200/201

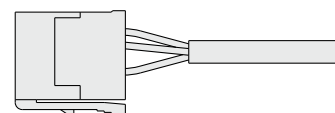


Sensor connector (4P x 4)

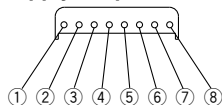


PIN no.	Terminal
①	DC (+)
②	N.C.
③	DC (-)
④	IN (1 to 5 V)

Connector (Option)

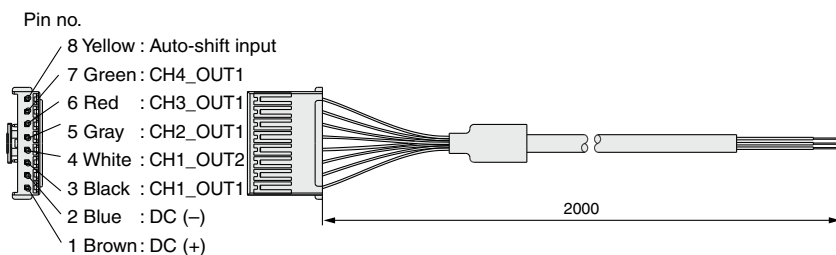


Power supply/Output connector (8P)



PIN no.	Terminal
①	DC (+)
②	DC (-)
③	CH1_OUT1
④	CH1_OUT2
⑤	CH2_OUT1
⑥	CH3_OUT1
⑦	CH4_OUT1
⑧	Auto-shift input

Power supply/Output connection cable (Accessory)



PSE530

PSE540

PSE550

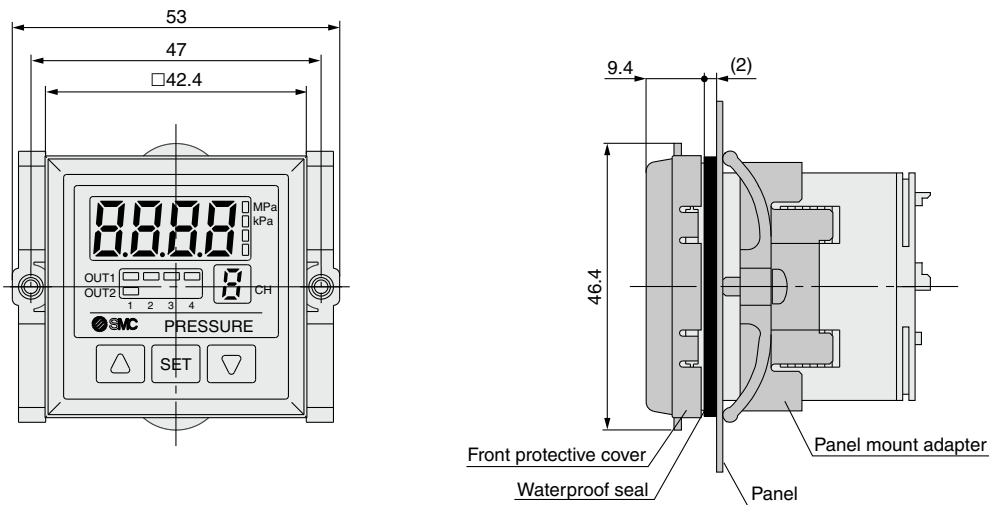
PSE560

PSE570

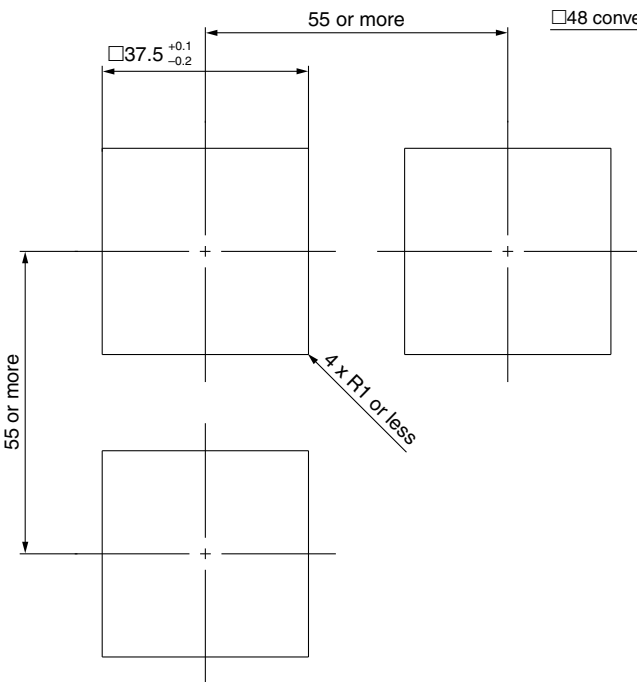
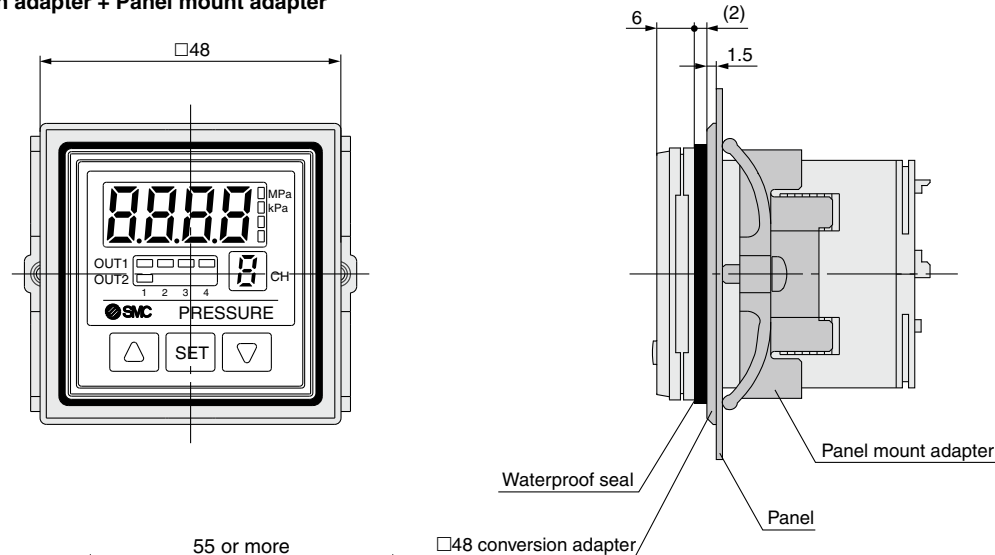
Controller
PSE200
PSE300

Dimensions

Front protective cover + Panel mount adapter



48 conversion adapter + Panel mount adapter



Panel fitting dimensions
Applicable panel thickness: 0.5 to 8 mm