

# Controller Series PSE300



## Features

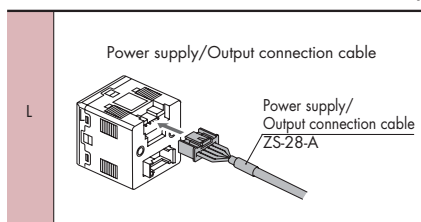
- Display unit for remote sensors
- Red / Green dual colour LCD display
- Two independent digital outputs
- Programmable response time and auto-setting function
- Optional analogue output or autoshift input
- Suitable for all SMC remote sensors with 1-5v output
- Power output for sensor to simplify wiring
- Can also display imperial units
- Panel mounting kit and brackets available, compact design to reduce panel sizes
- Keys can be locked to prevent accidental adjustment



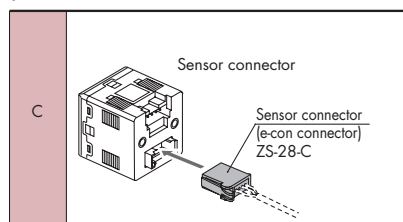
## How to Order

Input/Output specifications	
0	NPN2 output + 1-5 V output
1	NPN2 output + 4-20 mA output
2	NPN2 output + Auto shift input
3	PNP2 output + 1-5 V output
4	PNP2 output + 4-20 mA output
5	PNP2 output + Auto shift input

PSE30 0 - L C



Note) The cable is unassembled in the factory, but is included with the shipment.



Note) The connector is unassembled in the factory, but is included with the shipment.

## Accessories

ZS-28-B	Bracket	
ZS-27-C	Panel mount adapter	
ZS-27-D	Panel mount adapter + Front protective cover	

## Specifications

Conforms to CE marking and UL (CSA) standards.

Model		PSE30□					
Set (differential) pressure range		−101 to 101 kPa	10 to −101 kPa	−10 to 100 kPa	−0.1 to 1 MPa	−50 to 500 kPa	−0.2 to 2 kPa
Pressure range <sup>Note 1)</sup>		For compound pressure	For vacuum	For low pressure	For positive pressure		For low difference pressure
Rated (differential) pressure range		−100 to 100 kPa	0 to −101 kPa	0 to 100 kPa	0 to 1 MPa	0 to 500 kPa	0 to 2 kPa
Power supply voltage		12 to 24 VDC, Ripple (p-p) 10% or less (With power supply polarity protection)					
Current consumption		50 mA or less (Current consumption for sensor is not included.)					
Sensor input		1 to 5 VDC (Input impedance: 1 MΩ)					
No. of inputs		1 input					
Input protection		With excess voltage protection (Up to 26.4 V)					
Hysteresis		Hysteresis mode: Variable, Window comparator mode: Variable					
Switch output		NPN or PNP open collector output: 2 outputs					
Maximum load current		80 mA					
Maximum load voltage		30 VDC (at NPN output)					
Residual voltage		1 V or less (With load current of 80 mA)					
Output protection		With short circuit protection					
Response time		1 ms or less					
Anti-chattering function		Response time settings for anti-chattering function: 20 ms, 160 ms, 640 ms, 1280 ms					
Repeatability		±0.1% F.S. or less					
Analogue output	Voltage output <sup>Note 2)</sup>	Output voltage: 1 to 5 V (Within rated pressure range (Differential pressure)), Output impedance: Approx. 1 kΩ Linearity: ±0.2% F.S. (Not including sensor accuracy), Response speed: 150 ms or less					
	Accuracy (To display value) (25°C)	±0.6% F.S. or less				±1.0% F.S. or less	±1.5% F.S. or less
	Current output <sup>Note 2)</sup>	Output current: 4 to 20 mA (Within rated pressure range) Maximum load impedance: 300 Ω (at 12 VDC), 600 Ω (at 24 VDC), Minimum load impedance: 50 Ω Linearity: ±0.2% F.S. (Not including sensor accuracy), Response time: 150 ms or less					
	Accuracy (To display value) (25°C)	±1.0% F.S. or less				±1.5% F.S. or less	±2.0% F.S. or less
Display accuracy (Ambient temperature of 25°C)		±0.5% F.S. ±2 digits or less	±0.5% F.S. ±1 digit or less				
Display		3 + 1/2 digit, 7 segment indicator, 2-color display (Red/Green), Sampling frequency: 5 times/sec					
Indicator light		OUT1: Lights up when ON (Green), OUT2: Lights up when ON (Red)					
Auto shift input <sup>Note 2)</sup>		Non-voltage input (Reed or Solid state), Low level input: 5 ms or more, Low level: 0.4 V or less					
Resistance	Enclosure	IP40					
	Operating temperature range	Operating: 0 to 50°C, Stored: −10 to 60°C (No freezing or condensation)					
	Operating humidity range	Operating/Stored: 35 to 85% RH (No condensation)					
	Withstand voltage	1000 VAC for 1 minute between live parts and case					
	Insulation resistance	50 MΩ or more between live parts and case (at 500 VDC Mega)					
Temperature characteristics		±0.5% F.S. or less (Based on 25°C)					
Connection		Power supply/Output connection: 5P connector, Sensor connection: 4P connector					
Material		Front case: PBT, Rear case: PBT					
Weight	With power supply/output connection cable	85 g					
	Without power supply/output connection cable	30 g					

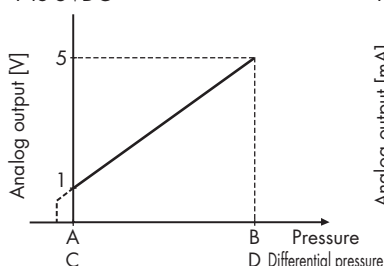
Note 1) Pressure range can be selected during initial setting.

Note 2) Auto shift function is not available when analogue output option is selected.  
Also, analog output option is not available when auto shift function is selected.

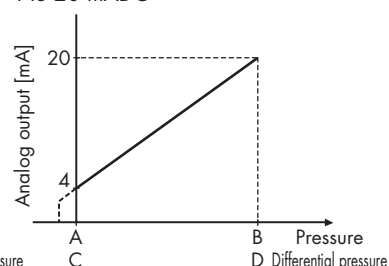
Note 3) The following units can be selected:  
For vacuum & compound pressure: kPa·kgf/cm<sup>2</sup>·bar·psi·mmHg·inHg  
For positive pressure & low pressure: MPa·kPa·kgf/cm<sup>2</sup>·bar·psi  
For low differential pressure: kPa·mmH<sub>2</sub>O

## Analog Output

1 to 5VDC



4 to 20 mADC



Range	Rated pressure range	A	B
For vacuum	0 to -101 kPa	0	-101 kPa
For compound pressure	-100kPa to 100 kPa	-100 kPa	100 kPa
For positive pressure	0 to 1 MPa	0	1 MPa
	0 to 500 kPa	0	500 kPa
Range	Rated differential pressure range	C	D
For low differential pressure	0 to 2 kPa	0	2 kPa



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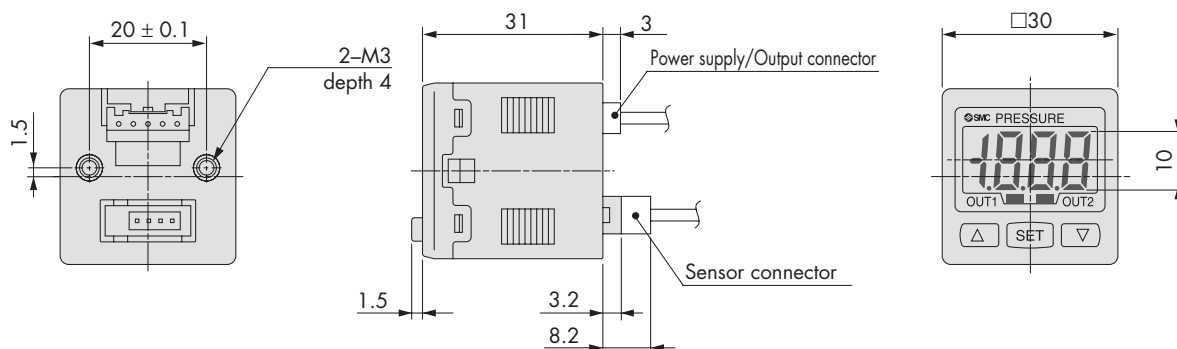


CATALOGUE E5100-47A AVAILABLE

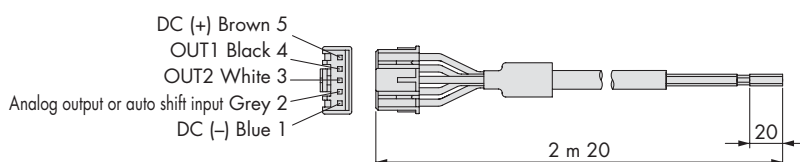


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## Dimensions

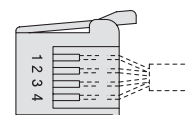


### Power supply/Output connection cable (ZS-28-A)

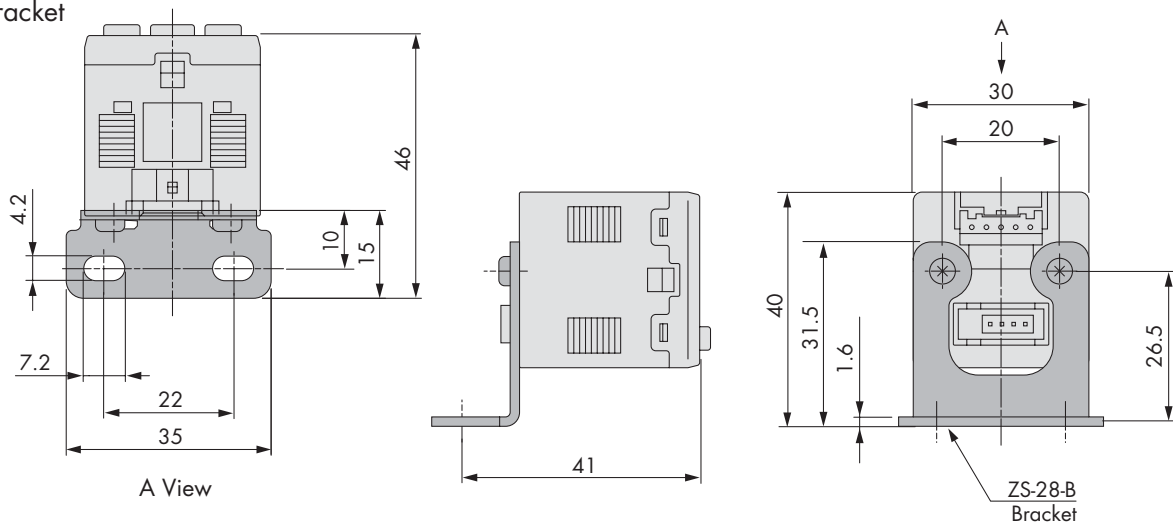


### Sensor connector

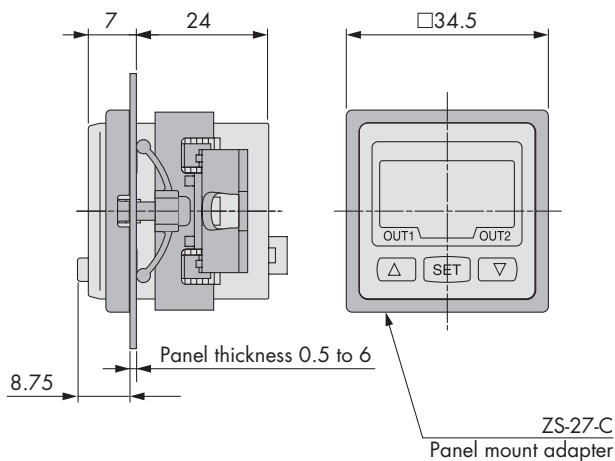
PIN no.	Terminal
1	DC (+)
2	N.C.
3	DC (-)
4	IN (1 to 5 V)



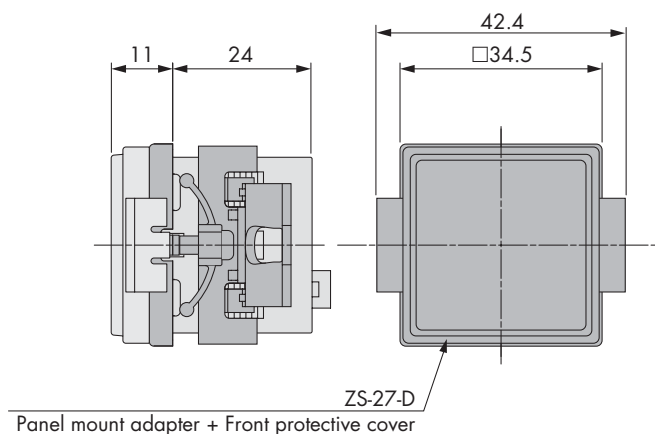
### With bracket



### With panel mount adapter



### With panel mount adapter + Front protective cover



## Dimensions

### Panel cutout dimensions

