# 2-Color Display High-Precision Digital Pressure Switch
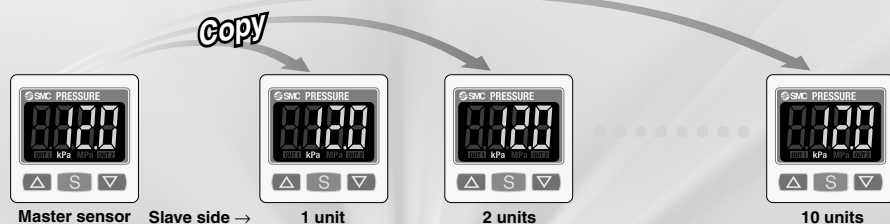## *Series* *ZSE30A(F)/ISE30A*

C E   c **UL** US   RoHS

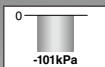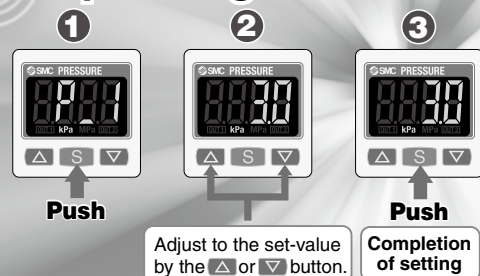## Can copy to up to 10 switches simultaneously.

**The settings of the master sensor can be copied to the slave sensors.**

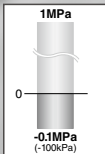● **Reducing setting labor**    ● **Minimizing risk of mistakes in setting**

*Copy*

**Master sensor**    **Slave side →**    **1 unit**    **2 units**    **10 units**

## **3**-step setting

❶    ❷    ❸

**Push**    **Push**

Adjust to the set-value by the △ or ▽ button.    **Completion of setting**

### Added vacuum range.
● **Rated pressure range: 0.0 to –101.0 kPa**

0
-101kPa

### Expanded pressure range for positive-pressure type to the vacuum range.
● **Rated pressure range: –0.100 to 1.000 MPa**

1MPa
0
-0.1MPa
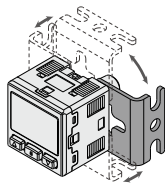(-100kPa)

### 2 added outputs
● **NPN or PNP open collector 2 outputs**
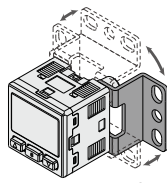● **NPN or PNP open collector 1 output + Analog output (1 to 5 V or 4 to 20 mA)**

*SMC*

## Mounting

**Bracket configuration allows mounting in four orientations.**

### Bracket A



Mounting example
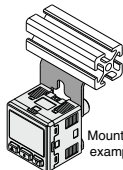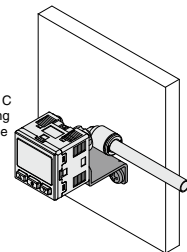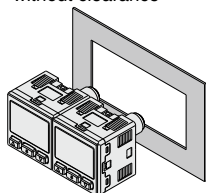
### Bracket B/C



Bracket B Mounting example
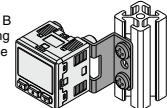
Bracket C Mounting example

### Panel mount

Mountable side by side without clearance



**One opening!**
• **Reduced panel fitting labor**
• **Space-saving**

## Series

| Series | ZSE30A (vacuum) | ZSE30AF (compound) | ISE30A (positive) |
|---|---|---|---|
| |  |  |  |
| Rated pressure range | **0.0 to −101.0 kPa** | −100.0 to 100.0 kPa | −0.100 to 1.000 MPa |
| Set pressure range | **10.0 to −105.0 kPa** | −105.0 to 105.0 kPa | −0.105 to 1.050 MPa |
| Withstand pressure | **500 kPa** | 500 kPa | 1.5 MPa |
| Minimum unit setting | **0.1 kPa** | 0.1 kPa | 0.001 MPa |
| Output | NPN or PNP open collector 1 output<br>NPN or PNP open collector 2 outputs<br>NPN or PNP open collector 1 output + Analog output (voltage or current) | | |
| Piping | R1/8, NPT1/8 (M5 female threaded)<br>ø4, ø6, ø5/32, ø1/4 One-touch fittings | | |

## Replaceable One-touch fittings

**The clip type allows easy removal of fittings. Fitting's type and size can be changed.**



Clip

One-touch fitting
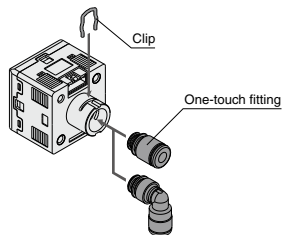
## Lead wire

**Added the connector cover.**



Connector cover

Lead wire with connector (2 m)
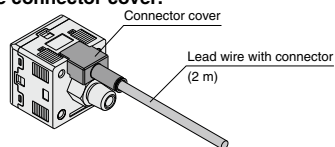
## 4-digit display

**4-digit display allows easy reading of displayed values.**
Example: 0.5 MPa



**Series 30A (New)**

Series 30 (Conventional)

## Possible to check set-value during key locking

## Additional functions

◆ **Secret code setting function**
The key locking function keeps unauthorized persons from tampering with buttons.

◆ **Power-saving function**
Power consumption is reduced by turning off the monitor. (Reduce power consumption by up to 20%.)

◆ **Resolution-switch function**
It reduces the monitor to flicker.



1/1000            1/100
(Accuracy is not changed, only the displayed values.)

◆ **MPa/kPa switch function**
Vacuum, compound and/or positive pressure can be displayed in MPa or kPa.



MPa            kPa

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# 2-Color Display High-Precision Digital Pressure Switch

# Series ZSE30A(F)/ISE30A

CE  c UL us

RoHS

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

## How to Order

### Output specifications

| | |
|---|---|
| N | NPN open collector 1 output |
| P | PNP open collector 1 output |
| A | NPN open collector 2 outputs |
| B | PNP open collector 2 outputs |
| C* | NPN open collector 1 output + Analog voltage output |
| D* | NPN open collector 1 output + Analog current output |
| E* | PNP open collector 1 output + Analog voltage output |
| F* | PNP open collector 1 output + Analog current output |

* Made to Order

### Rated pressure range

| ISE30A | −0.1 to 1 MPa |
|---|---|

**For positive pressure**

ISE30A – 01 – N – M □ □ □ – □

**For vacuum/compound pressure**

ZSE30A – 01 – N – M □ □ □ – □

### Rated pressure range

| ZSE30A | 0 to −101 kPa |
|---|---|
| ZSE30AF | −100 to 100 kPa |

### Made to Order (P.778)

| Symbol | Specifications/Description |
|---|---|
| X510 | For M12 4-pin pre-wired connector |

Available only for output specifications "A", "B", and option 1 "G".

### Option 3

| Symbol | Operation manual [Note] | Calibration certificate [Note] |
|---|---|---|
| Nil | ○ | — |
| Y | — | — |
| K | ○ | ○ |
| T | — | ○ |

Note) All texts in both English and Japanese.

### Piping specifications

| 01 | R1/8 (M5 female threaded) | |
|---|---|---|
| N01 | NPT1/8 (M5 female threaded) | |
| C4H | One-touch fitting ø4 mm, ø5/32 inch | Straight type |
| C6H | One-touch fitting ø6 mm | |
| N7H | One-touch fitting ø1/4 inch | |
| C4L | One-touch fitting ø4 mm, ø5/32 inch | Elbow type |
| C6L | One-touch fitting ø6 mm | |
| N7L | One-touch fitting ø1/4 inch | |

### Option 2

| Nil | None | |
|---|---|---|
| A1 | Bracket A | |
| A2 | Bracket B | |
| A3 | Bracket C | |
| B | Panel mount adapter | |
| D | Panel mount adapter + Front protection cover | |

### Unit specifications

| Nil | With display unit [Note 1] switching function |
|---|---|
| M | Fixed SI unit [Note 2] |
| P* | With display unit [Note 1] switching function (Initial value psi) |

* Made to Order

Note 1) Under the New Measurement Law, sales of switches with the unit switching function have not been allowed for use in Japan.
Note 2) Unit: kPa, MPa

### Option 1

| Nil | Without lead wire | |
|---|---|---|
| L | Lead wire with connector (Lead wire length 2 m) [Note] | |
| G | Lead wire with connector (Lead wire length 2 m) [Note] With connector cover | Connector cover |

Note) For output types N and P, the number of core of lead wires will be 3, and for other types, it will be 4.

**SMC**

769

# Series *ZSE30A(F)/ISE30A*

## Specifications

> For details about the Pressure Switch Precautions, refer to pages 763 and 764. For details about the Specific Product Precautions, refer to the Operation Manual at SMC website.

| Model | | | ZSE30A (Vacuum pressure) | ZSE30AF (Compound pressure) | ISE30A (Positive pressure) |
|---|---|---|---|---|---|
| Rated pressure range | | | 0.0 to −101.0 kPa | −100.0 to 100.0 kPa | −0.100 to 1.000 MPa |
| Display/Set pressure range | | | 10.0 to −105.0 kPa | −105.0 to 105.0 kPa | −0.105 to 1.050 MPa |
| Withstand pressure | | | 500 kPa | 500 kPa | 1.5 MPa |
| Display/Minimum unit setting | | | 0.1 kPa | 0.1 kPa | 0.001 MPa |
| Applicable fluid | | | Air, Non-corrosive gas, Non-flammable gas | | |
| Power supply voltage | | | 12 to 24 VDC ±10%, Ripple (p-p) 10% or less (with power supply polarity protection) | | |
| Current consumption | | | 40 mA or less | | |
| Switch output | | | NPN or PNP open collector 1 output, NPN or PNP open collector 2 outputs | | |
| | Maximum load current | | 80 mA | | |
| | Maximum applied voltage | | 28 V (at NPN output) | | |
| | Residual voltage | | 1 V or less (with load current of 80 mA) | | |
| | Response time | | 2.5 ms or less (with anti-chattering function: 20, 100, 500, 1000, 2000 ms) | | |
| | Short circuit protection | | Yes | | |
| Repeatability | | | ±0.2% F.S. ±1 digit | | |
| Hysteresis | Hysteresis mode | | Variable (0 or above) Note 1) | | |
| | Window comparator mode | | | | |
| Analog output | Voltage output Note 2) | Output voltage (Rated pressure range) | 1 to 5V ±2.5% F.S. | | 0.6 to 5 V ±2.5% F.S. |
| | | Linearity | ±1% F.S. | | |
| | | Output impedance | Approx. 1 kΩ | | |
| | Current output Note 3) | Output current (Rated pressure range) | 4 to 20 mA ±2.5% F.S. | | 2.4 to 20 mA ±2.5% F.S. |
| | | Linearity | ±1% F.S. | | |
| | | Load impedance | Maximum load impedance: Power supply voltage 12 V: 300 Ω, Power supply voltage 24 V: 600 Ω  Minimum load impedance: 50 Ω | | |
| Display | | | 4-digit, 7-segment, 2-color LCD (Red/Green) | | |
| Display accuracy | | | ±2% F.S. ±1 digit (Ambient temperature of 25 ±3°C) | | |
| Indicator light | | | Lights up when switch output is turned ON. OUT1: Green, OUT2: Red | | |
| Environment | 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 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) | | |
| Lead wire Note 4) | | | Oilproof heavy-duty vinyl cable, 3 cores  ø3.5, 2 m  4 cores  Conductor area: 0.15 mm² (AWG26), Insulator O.D.: 1.0 mm | | |
| Standards | | | CE, UL/CSA (E216656), RoHS | | |

Note 1) If applied pressure fluctuates near the set value, set the hysteresis above the fluctuation range to prevent chattering.
Note 2) When analog voltage output is selected, analog current output cannot be used together.
Note 3) When analog current output is selected, analog voltage output cannot be used together.
Note 4) For details about wiring, refer to the Operation Manual that can be downloaded from SMC website (http://www.smcworld.com).

## Piping Specifications

| Model | | | 01 | N01 | C4H | C6H | N7H | C4L | C6L | N7L |
|---|---|---|---|---|---|---|---|---|---|---|
| Port size | | | R1/8  M5 x 0.8 | NPT1/8  M5 x 0.8 | — | — | — | — | — | — |
| | One-touch fitting, Straight type | | — | — | ø4 mm  ø5/32 inch | ø6 mm | ø1/4 inch | — | — | — |
| | One-touch fitting, Elbow type | | — | — | — | — | — | ø4 mm  ø5/32 inch | ø6 mm | ø1/4 inch |
| Wetted parts material | Sensor pressure receiving area | | Sensor pressure receiving area: Silicon | | | | | | | |
| | Piping port | | C3602 (electroless nickel plating)  O-ring: HNBR | PBT, POM, Stainless steel 304, C3604 (electroless nickel plating)  O-ring: NBR | | | | | | |
| Weight | Including lead wire with connector (3 cores, 2 m) | | 81 g | 70 g | 71 g | 73 g | 75 g | 73 g | 75 g | |
| | Including lead wire with connector (4 cores, 2 m) | | 85 g | 74 g | 75 g | 77 g | 79 g | 77 g | 79 g | |
| | Excluding lead wire with connector | | 43 g | 32 g | 33 g | 35 g | 37 g | 35 g | 37 g | |

## Option/Part No.

**When optional parts are required separately, use the following part numbers to place an order.**

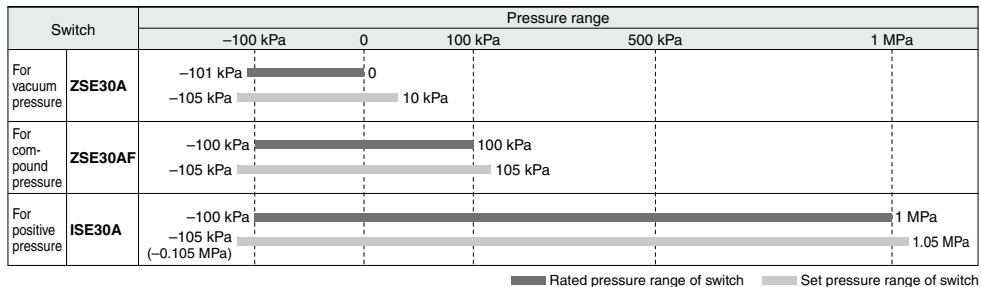| Part no. | Option | Note | Part no. | Option | Note |
|---|---|---|---|---|---|
| ZS-38-A1 | Bracket A | Mounting screw (with 2 pcs. of M3 x 5L) | ZS-38-4G | Lead wire with connector (with connector cover) | 4 cores, for 2 outputs, 2 m |
| ZS-38-A2 | Bracket B | Mounting screw (with 2 pcs. of M3 x 5L) | ZS-38-5L | Lead wire with a connector for copying | 3 cores, copy function, 1 m |
| ZS-38-A3 | Bracket C | Mounting screw (with 2 pcs. of M3 x 5L) | ZS-38-U | Lead wire unit with a connector for copying | Copy function (up to 10 slaves) |
| ZS-27-C | Panel mount adapter | Mounting screw (with 2 pcs. of M3 x 8L) | ZS-38-C4H | One-touch fittings ø4 mm straight | O-ring, one-touch clip included |
| ZS-27-D | Panel mount adapter + Front protection cover | Mounting screw (with 2 pcs. of M3 x 8L) | ZS-38-C6H | One-touch fittings ø6 mm straight | O-ring, one-touch clip included |
| ZS-27-01 | Front protection cover | | ZS-38-N7H | One-touch fittings ø1/4 inch straight | O-ring, one-touch clip included |
| ZS-38-3L | Lead wire with connector | 3 cores, for 1 output, 2 m | ZS-38-C4L | One-touch fittings ø4 mm elbow | O-ring, one-touch clip included |
| ZS-38-4L | Lead wire with connector | 4 cores, for 2 outputs, 2 m | ZS-38-C6L | One-touch fittings ø6 mm elbow | O-ring, one-touch clip included |
| ZS-38-3G | Lead wire with connector (with connector cover) | 3 cores, for 1 output, 2 m | ZS-38-N7L | One-touch fittings ø1/4 inch elbow | O-ring, one-touch clip included |

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## Set Pressure Range and Rated Pressure Range

**Set the pressure within the rated pressure range.**
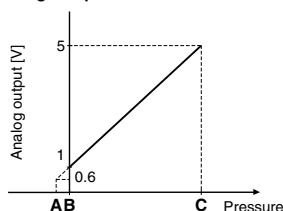The set pressure range is the range of pressure that is possible in setting.
The rated pressure range is the range of pressure that satisfies the specifications (accuracy, linearity, etc.) on the switch.
Although it is possible to set a value outside the rated pressure range, the specifications will not be guaranteed even if the value stays within the set pressure range.
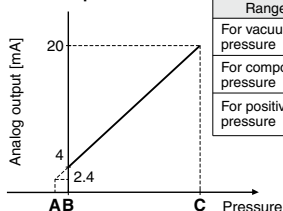
| Switch | | Pressure range | | | | |
|---|---|---|---|---|---|---|
| | | −100 kPa | 0 | 100 kPa | 500 kPa | 1 MPa |
| For vacuum pressure | ZSE30A | −101 kPa ▬▬ 0 −105 kPa ▬▬▬▬ 10 kPa | | | | |
| For compound pressure | ZSE30AF | −100 kPa ▬▬▬▬ 100 kPa −105 kPa ▬▬▬▬ 105 kPa | | | | |
| For positive pressure | ISE30A | −100 kPa ▬▬▬▬▬▬▬▬▬▬▬ 1 MPa −105 kPa (−0.105 MPa) ▬▬▬▬▬▬▬▬▬ 1.05 MPa | | | | |

▬ Rated pressure range of switch  ▬ Set pressure range of switch

## Analog Output

**Voltage output**

**Current output**



| Range | Rated pressure range | A | B | C |
|---|---|---|---|---|
| For vacuum pressure | 0.0 to −101.0 kPa | — | 0 | −101 kPa |
| For compound pressure | −100.0 to 100.0 kPa | — | −100 kPa | 100 kPa |
| For positive pressure | −0.100 to 1.000 MPa | −0.1 MPa | 0 | 1 MPa |

## Functions (Refer to pages 776 and 777 for details.)
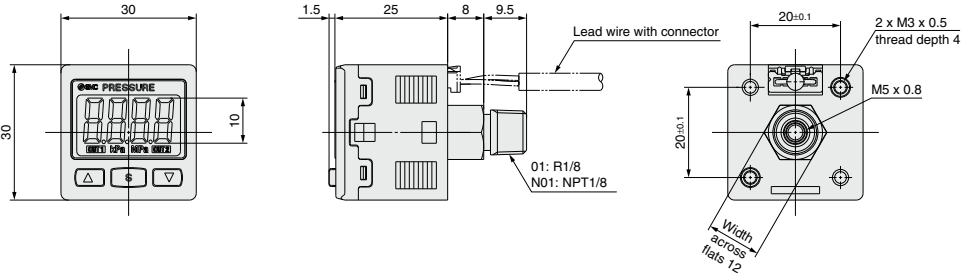
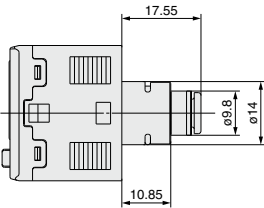| | |
|---|---|
| Copy function | Copies the settings of the master sensor to the slave sensors. |
| Auto-preset function | This function is to calculate a rough set-value automatically based on the on-going operation. |
| Display calibration function | Evens out deviations in the displayed value. |
| Peak display function | Can retain the maximum pressure value displayed during measurement. |
| Bottom display function | Can retain the minimum pressure value displayed during measurement. |
| Keylock function (Selectable secret code) | The key board can be locked to prevent any incorrect function of the operation switch. |
| Zero-clear function | The pressure display can be set at zero when the pressure is open to the atmosphere. |
| Anti-chattering function | Prevents possible malfunction due to sudden fluctuations in the primary pressure by adjusting the response time. |
| Unit display switching function | Can convert the display value. |
| Power-saving mode | Reduces power consumption. |
| Display resolution-switch function | Converts display resolution from the normal value of 1/1000 to 1/100. It reduces the monitor to flicker. |
| kPa ↔ MPa switch function | Converts the unit between kPa and MPa. |

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

# Series *ZSE30A(F)/ISE30A*

**Dimensions**

**Z/ISE30A(F) – ☐ – ☐ – ☐☐☐☐**

 • **Piping specifications**

**01** / **N01**



30
1.5  25  8  9.5
Lead wire with connector
30
10
01: R1/8
N01: NPT1/8
20±0.1
2 x M3 x 0.5 thread depth 4
M5 x 0.8
20±0.1
Width across flats 12

**C4H**
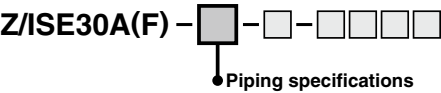
**One-touch fitting ⌀4 mm ⌀5/32 inch straight**

17.55
⌀9.8
⌀14
10.85

**C6H**

**One-touch fitting ⌀6 mm straight**

17.95
⌀10
⌀14
10.85

**N7H**
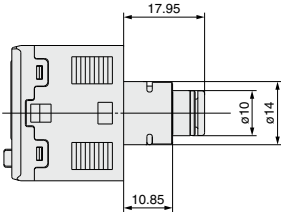
**One-touch fitting ⌀1/4 inch straight**

21.75
⌀10.3
⌀14
10.85

**C4L**
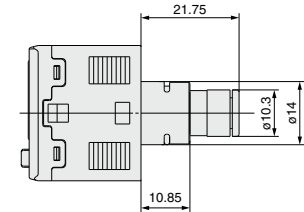
**One-touch fitting ⌀4 mm ⌀5/32 inch elbow**

20.7
15.6
⌀9.3
10.85

**C6L**
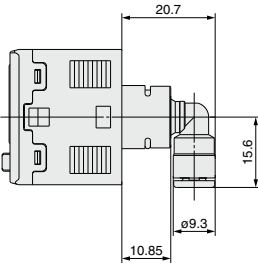
**One-touch fitting ⌀6 mm elbow**

22.85
16.1
⌀11.6
10.85

**N7L**
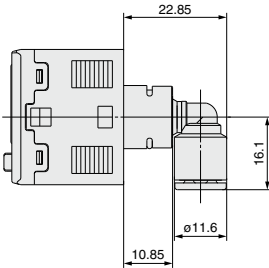
**One-touch fitting ⌀1/4 inch elbow**

23.45
16.1
⌀12
10.85

⬡SMC
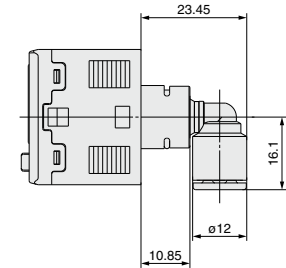
**With bracket**
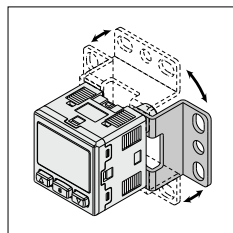**Z/ISE30A(F) – ☐ – ☐ – ☐☐ ☐ ☐**

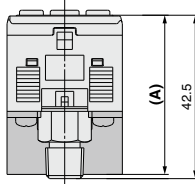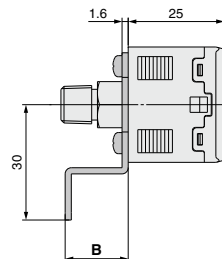● **Option 2**

**A1**

**Bracket A**
**(Option unit part no.: ZS-38-A1)**
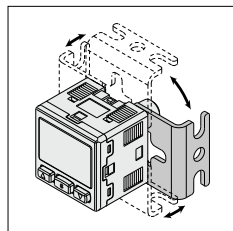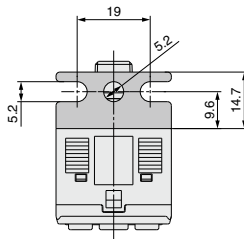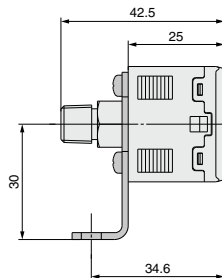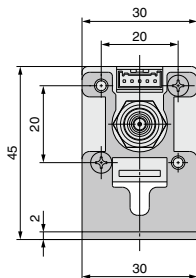
∗ Bracket configuration allows mounting in four orientations.

**A2**

**Bracket B**
**(Option unit part no.: ZS-38-A2)**

**A3**

**Bracket C**
**(Option unit part no.: ZS-38-A3)**

∗ Bracket configuration allows mounting in four orientations.

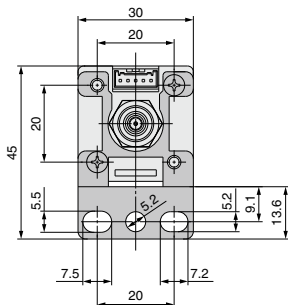|  | A | B |
|---|---|---|
| Bracket B | 41.4 | 16.4 |
| Bracket C | 53 | 28 |

∗ When using the bracket B or C, install it by taking the dimensions of the piping part into consideration.
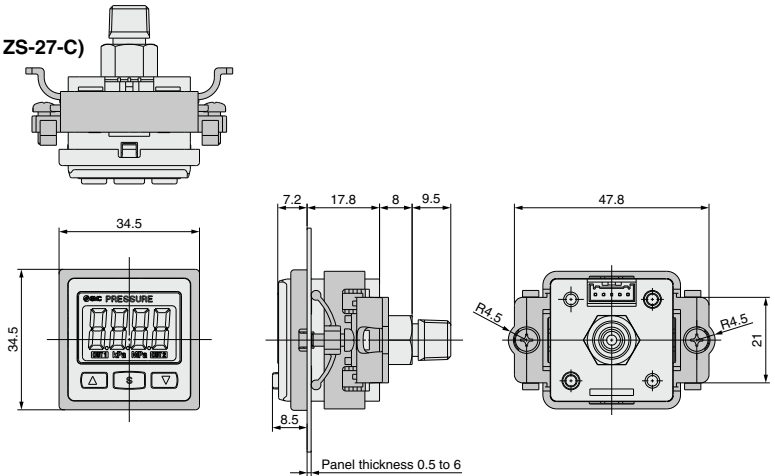
**SMC**

773

# *Series ZSE30A(F)/ISE30A*

## Dimensions

### Panel mount adapter

## Z/ISE30A(F) – ☐ – ☐ – ☐☐ ▮ ☐

● **Option 2**

### B

**Panel mount adapter**
**(Option unit part no.: ZS-27-C)**

34.5

34.5

8.5

7.2  17.8  8  9.5

Panel thickness 0.5 to 6

47.8

R4.5  R4.5  21

### D

**Panel mount adapter + Front protection cover**
**(Option unit part no.: ZS-27-D)**

42.4

33.5

33.5

11  17.8  8  9.5

Panel thickness 0.5 to 6
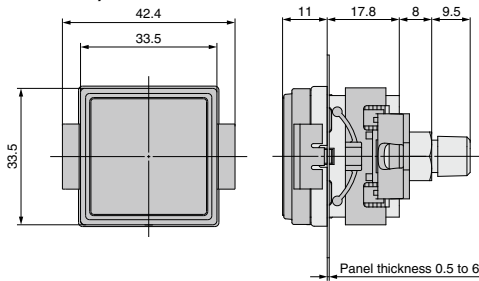
**Lead wire with connector**
**(Option unit part no.: ZS-38-3L)**

Brown DC (+)
Black OUT (1)
Blue DC (–)

2000
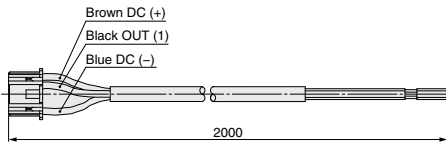
**(Option unit part no.: ZS-38-4L)**

Brown DC (+)
Black OUT (1)
White OUT (2)
Blue DC (–)

2000

774

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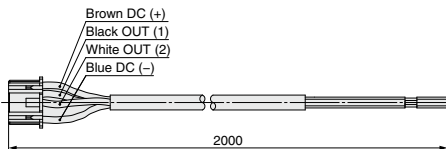
## Panel fitting dimensions

**1 pc. mounting**
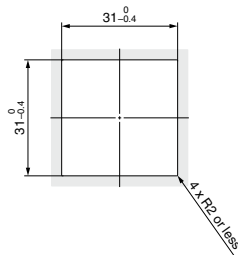
**Multiple (2 pcs. or more) horizontal mounting**



$31 \times n \text{ pcs.} + 3.5 \times (n \text{ pcs.} - 1)$

$31_{-0.4}^{0}$

$4 \times R2 \text{ or less}$
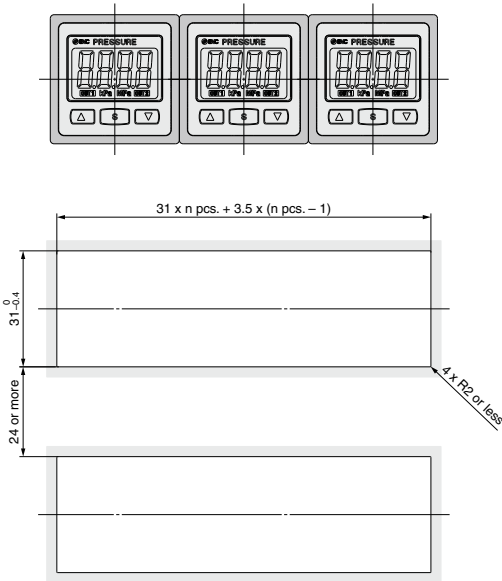
24 or more

**Multiple (2 pcs. or more) vertical mounting**



$31_{-0.4}^{0}$  24 or more

$31 \times n \text{ pcs.} + 3.5 \times (n \text{ pcs.} - 1)$

$4 \times R2 \text{ or less}$

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

## Function Details

### A  Copy function (F97)

The settings of the master sensor can be copied to the slave sensors, reducing setting labor and minimizing risk of mistakes in setting.
**Can copy to up to 10 switches simultaneously.**
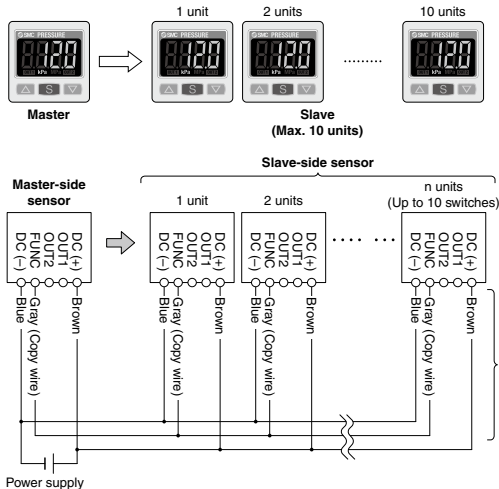**(Maximum transmission distance 4 m)**



**Master**

**Slave**
**(Max. 10 units)**

1) The sensors are connected by a dedicated lead wire (ZS-38-5L (for master and one slave) or ZS-38-U (for master and up to 10 slaves)). Copying is performed through a dedicated communication line.
2) Select the slave switch which is to be the master, and change it into a master using the buttons. (In the default setting, all switches are set as slaves.)
3) Press the S button of the master switch to start copying.



Power supply

**Wiring example when using ZS-38-U**



(DC+, DC−, and FUNC wires are connected among connectors.)
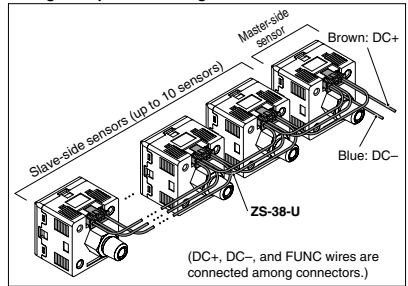
### B  Auto-preset function (F5)

Auto-preset function, when selected in the initial setting, calculates and stores the set-value from the measured pressure.
The optimum set-value is determined automatically by repeating vacuum and break with the target workpiece several times.
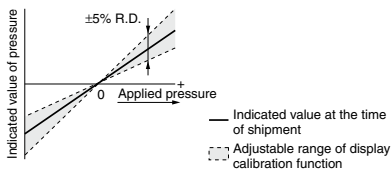
**Suction Verification**
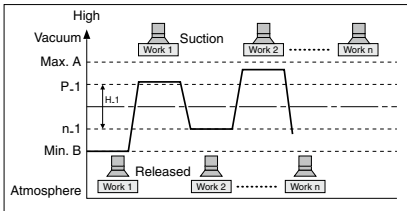


**Formula for Obtaining the Set-Value**

| P_1 or P_2 | H_1 or H_2 |
|---|---|
| $P\_1\ (P\_2) = A - (A\text{-}B)/4$ <br> $n\_1\ (n\_2) = B + (A\text{-}B)/4$ | $H\_1\ (H\_2) = |\ (A\text{-}B)/2|$ |

### C  Display calibration function (F6)

Fine adjustment of the indicated value of the pressure sensor can be made within the range of ±5% of the read value.
(The scattering of the indicated value can be eliminated.)



±5% R.D.

Indicated value of pressure

0  Applied pressure

—— Indicated value at the time of shipment
---- Adjustable range of display calibration function

Note) When the display calibration function is used, the set pressure value may change ±1 digit.

### D  Peak/Bottom value indication

This function constantly detects and updates the maximum (minimum) value and allows to hold the maximum (minimum) pressure value.
When the △ ▽ buttons are simultaneously pressed for 1 second or longer, while "holding", the held value will be reset.

### E  Keylock function

Prevents operation errors such as accidentally changing setting values.

### F  Zero-clear function

This function clears and resets the zero value on the display of measured pressure.
For the pressure switch with analog output, the analog output shifts according to the indication.The indicated value can be adjusted within ±7% F.S. of the pressure when ex-factory. (ZSE30AF (for compound pressure) ±3.5% F.S.)

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> **The F□ in ( ) shows the function code number. Refer to the Operation Manual for the details of operation procedures and function codes.**

## G Error indication function

| Error name | Error code | Description | Action |
|---|---|---|---|
| Overcurrent error | $Er \; I$ | Load current of 80 mA or more is applied to the switch output (OUT1). | Eliminate the cause of the over current by turning off the power supply, and then turn on it again. |
| | $Er \; 2$ | Load current of 80 mA or more is applied to the switch output (OUT2). | |
| Residual pressure error | $Er \; 3$ | During zero-clear operation, pressure over ±7% F.S. is applied. (ZSE30AF (compound) ±3.5% F.S.) After 1 second, the mode will reset to measurement mode. ±1% F.S. of the zero-clear range varies between individual products. | Perform zero-clear operation again after restoring the applied pressure to an atmospheric pressure condition. |
| Applied pressure error | $HHH$ | Supply pressure exceeds the maximum set pressure. | Reset applied pressure to a level within the set pressure range. |
| | $LLL$ | Supply pressure is below the minimum set pressure. | |
| System error | $Er \; 0$ $Er \; 4$ $Er \; 6$ $Er \; 7$ $Er \; 8$ $Er \; 9$ | Internal data error | Turn off the power supply and then turn on it again. If the failure cannot be solved, please contact SMC for investigation. |

If the failure cannot be solved after the above instructions are performed, please contact SMC for investigation.

ZSE30
ISE30

ZSE40
ISE40

ZSE10
ISE10

ISE70

ZSE80
ISE80

ZSE□
ISE□

ZSP

PS

ISA2

PSE

IS

ISG

ZSM1

## H Anti-chattering function (F3)

A large bore cylinder or ejector consumes a large volume of air in operation and may experience a temporary drop in the supply pressure. This function prevents detection of such temporary drops in the supply pressure as an error.

| Available response time settings |
|---|
| 20 ms, 100 ms, 500 ms, 1000 ms, 2000 ms |

<Principle>
This function averages pressure values measured during the response time set by the user and then compares the average pressure value with the pressure set point value to output the result on the switch.
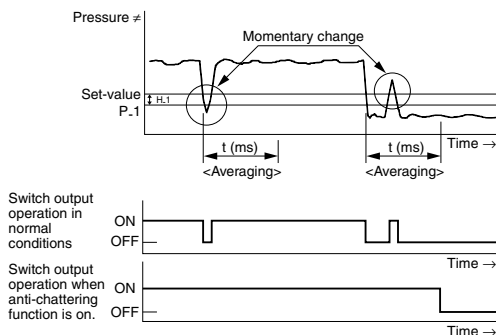


## I Display unit switching function (F0)

Display units can be switched with this function.

| Display unit | PA | | GF | bAr | PSi | inH | mmH |
|---|---|---|---|---|---|---|---|
| Min. unit setting | kPa | MPa∗ | kgf/cm² | bar | psi | inHg | mmHg |
| ZSE30A (Vacuum pressure) | 0.1 | 0.001 | 0.001 | 0.001 | 0.01 | 0.1 | 1 |
| ZSE30AF (Compound pressure) | 0.1 | 0.001 | 0.001 | 0.001 | 0.01 | 0.1 | 1 |
| ISE30A (Positive pressure) | 1 | 0.001 | 0.01 | 0.01 | 0.1 | | |

∗ The ZSE30A (vacuum pressure) and ZSE30AF (compound pressure) will have different setting and display resolution when the unit is set to MPa.

## J Power-saving mode (F7)

Power-saving mode can be selected.
It shifts to the power-saving mode without button operation for 30 seconds. It is set to the normal mode (Power-saving mode is OFF.) when ex-factory. (Decimal points and operation indicator light (only when the switch output is turned ON.) blink in the power-saving mode.)

## K Setting of secret code (F8)

Users can select whether a secret code must be entered to release key lock. At the time of shipment from the factory, it is set such that the secret code is not required.

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*Series* **ZSE30A(F)/ISE30A**
# Made to Order
Please contact SMC for detailed dimensions, specifications, and lead times.

Made to Order

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**1** **M12 4-pin Pre-wired Connector (Lead wire length 100 mm)** **X510**

## How to Order

**ZSE30A(F)/ISE30A** – ☐ – ☐ – ☐ **G** ☐ – **X510**

- **Piping specifications**∗
- **Output specifications**
  - **A**: NPN open collector 2 outputs
  - **B**: PNP open collector 2 outputs
- **Unit specifications**∗
- **Option**∗

42.5    100 +30 / 0    9.4

ø15

M12 4 pin connector

MADE IN JAPAN
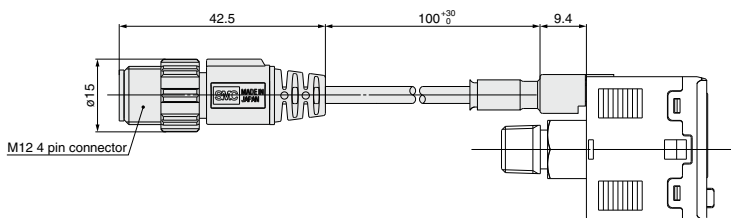
**Option cable**
**ZS-38-4GM12**

29.6

14

15.2    100 +30 / 0    42.5

ø15

**Connector pin numbers**

2 White    1 Brown

② ①
③ ④

3 Blue    4 Black
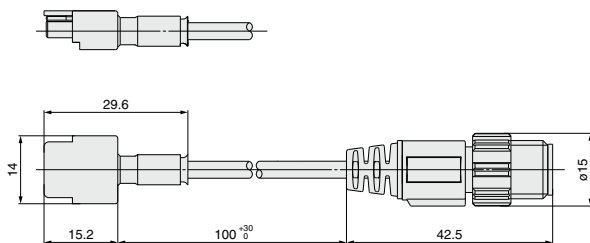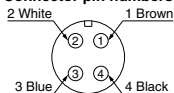
| Pin no. | Pin description |
|---------|-----------------|
| 1 | DC (+) |
| 2 | OUT (2) |
| 3 | DC (−) |
| 4 | OUT (1) |

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