



2-colour Display Type Digital Pressure Switch

Rated Pressure Series **ISE70/75/75H**

Metal Body Type
(Die-cast aluminum)

For General Fluids

10MPa (ISE75) · **15MPa** (ISE75H)

For Air

1MPa (ISE70)

2-colour digital IP67



2-colour Display (green and red)

- Selectable from four patterns

	ON	OFF
(1)	red	green
(2)	green	red
(3)	red	red
(4)	green	green

Easily identifiable abnormal readings

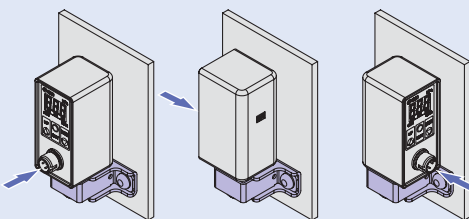


M12 Connector

- Lead wire with M12 connector (5m)
- Straight and right-angled connectors

With Bracket

- User-selectable mounting orientation



- Withstand pressure: Rated pressure x 3
- Model with initial display settings of PSI is also available as standard.
- Port size
Rc1/4, NPT1/4, G1/4(ISO1179)

Function

- Anti-chattering
- Display calibration
- Zero out
- Key lock
- Unit display switching

	For Air	For General Fluids	
	ISE70 (1MPa)	ISE75 (10MPa)	ISE75H (15MPa)
	Plain	Grey	Orange

2-colour Display Digital Pressure Switch/For Air Series *ISE70*



How to Order



1MPa

ISE70-02-43-M

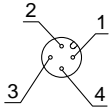
Piping

02	Rc1/4
N02	NPT1/4
F02	G1/4 (ISO1179) Note 1)

Note 1) G1/4: Applicable to ISO1179-1

Output

43	Fixed setting: NPN open collector 1 output (Pin no. 4) + PNP open collector 1 output (Pin no. 2)
65	PNP open collector 1 output (Pin no. 4)



Connector Pin Assignments

Output -43

1	Brown	DC (+)
2	White	OUT1 (PNP)
3	Blue	DC (-)
4	Black	OUT1 (NPN)

Output -65

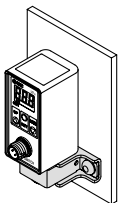
1	Brown	DC (+)
2	White	NC
3	Blue	DC (-)
4	Black	OUT1 (PNP)

Display unit

Nil	With unit display switching function
M	Fixed SI unit Note 1)
P	Pressure unit: PSI (Initial value) With unit display switching function

Note 1) Fixed unit: MPa

Option 2

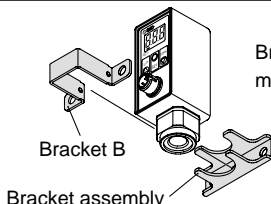
Nil	None
A	With bracket  Note) Mounting screws are not included.

Option 1

Nil	None
S	Lead wire with M12 connector (5m), straight
L	Lead wire with M12 connector (5m), right-angled

Optional Part No.

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

Option	Part No.	Note
Bracket	ZS-31-A	 <p>Bracket B and the bracket assembly make up one set. Note: Mounting screws are not included.</p>
Lead wire with M12 connector, straight	ZS-31-B	Lead wire length: 5m
Lead wire with M12 connector, right-angled	ZS-31-C	Lead wire length: 5m

Specifications

		ISE70
Rated pressure range		0 to 1MPa
Set pressure range		-0.1 to 1MPa
Proof pressure		1.5MPa
Set pressure resolution		0.01MPa
Fluid		Air, Inert gas, Non-flammable gas
Power supply voltage		12 to 24 VDC, Ripple (p-p) 10% or less (with power supply polarity protection)
Current consumption		55 mA or less (at no load)
Switch output		Output -43: Fixed setting; NPN open collector 1 output (Pin no. 4) + PNP open collector 1 output (Pin no. 2) ^{Note 1)} Output -65: PNP open collector 1 output (Pin no. 4) ^{Note 1)}
	Max. load current	80 mA
	Max. applied voltage	30 V (with NPN output)
	Residual voltage	1 V or less (with load current of 80 mA)
	Response time	2.5 ms (Response time selections with anti-chattering function: 20 ms, 160 ms, 640 ms, 1000 ms, 2000 ms)
	Short circuit protection	With short circuit protection
Repeatability		±0.5%F.S.
Hysteresis	Hysteresis mode	Adjustable (can be set from 0)
	Window comparator mode	
Display		3 digit, 7-segment indicator, 2-colour display (red and green) can be interlocked with the switch output, Sampling cycle: 5 times/s
Display accuracy		±2%F.S. ±1 digit or less (at 25°C ±3°C)
Indication light		Light up when output is ON (Green)
Functions		Anti-chattering function, Unit display switching function, Zero out function, Key lock function
Environmental resistance	Enclosure	IP67
	Fluid temperature range	0 to 50°C (with no freezing or condensation)
	Operating temperature range	Operating: 0 to 50°C, Stored: -10 to 60°C (with no freezing or condensation)
	Operating humidity range	Operating and stored: 35 to 85%RH (with no condensation)
	Withstand voltage	1000 VAC for 1 min. between live parts and enclosure
	Insulation resistance	50 MΩ or more between live parts and enclosure (at 500 VDC Mega)
	Vibration resistance	10 to 500 Hz, 1.5 mm or 98 m/s ² amplitude in X, Y, Z directions for 2 hours each
Impact resistance	980 m/s ² in X, Y, Z directions 3 times each (Non energized)	
Temperature characteristics (Based on 25°C: Operating temperature range)		±2%F.S. or less
Standard		Compliant with CE Marking and UL/CSA (UL508) standards
Wetted material		Fitting: C3602 (electroless nickel plated), Sensor port: PBT, Sensor pressure receiving area: silicon, O-ring: NBR
Port size		O2: Rc1/4, N02: NPT1/4, F02: G1/4 (ISO1179) ^{Note 2)}
Lead wire		Lead wire with M12 4-pin pre-wired connector (5 m)
Mass (Weight)		190 g (excluding the lead wire with M12 4-pin pre-wired connector)

Note 1) The NPN and PNP outputs function for a single set point.

Note 2) G1/4: Applicable to ISO1179-1

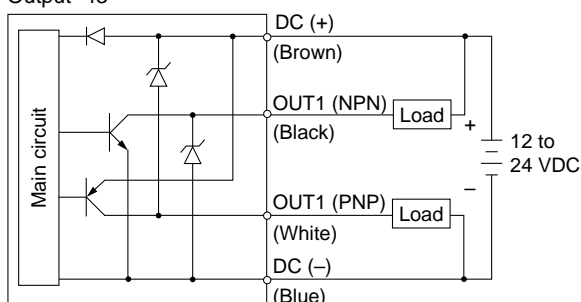
Internal Circuit and Wiring Examples

Fixed setting:

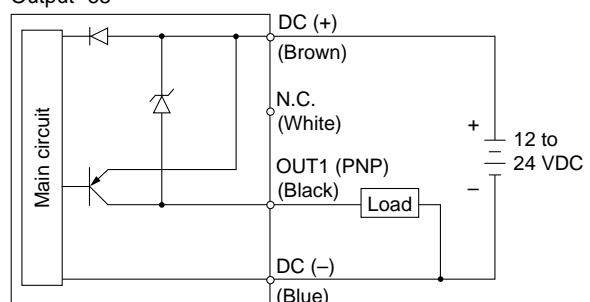
NPN open collector output + PNP open collector output
(the pressure set point for switching the output signal is common to both outputs.)
Maximum 30 V (NPN only), 80 mA, Residual voltage 1 V or less

See the operation manual for information on how to set and on handling precautions.

Output -43



Output -65

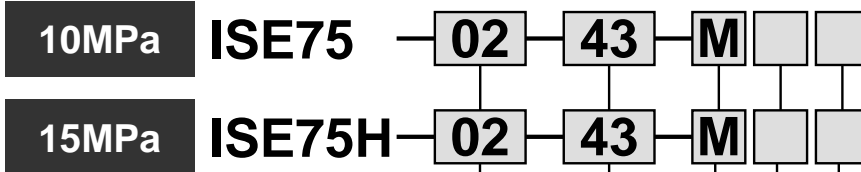


2-colour Display

Digital Pressure Switch/For General Fluids 

Series ISE75/75H

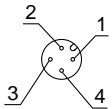
How to Order



Piping

02	Rc1/4
N02	NPT1/4
F02	G1/4 (ISO1179) <small>Note 1)</small>

Note 1) G1/4: Applicable to ISO1179-1



Connector Pin Assignments

Output -43

1	Brown	DC (+)
2	White	OUT1 (PNP)
3	Blue	DC (-)
4	Black	OUT1 (NPN)

Output -65

1	Brown	DC (+)
2	White	NC
3	Blue	DC (-)
4	Black	OUT1 (PNP)

Output

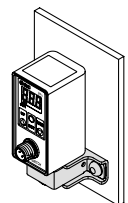
43	Fixed setting: NPN open collector 1 output (Pin no. 4) + PNP open collector 1 output (Pin no. 2)
65	PNP open collector 1 output (Pin no. 4)

Display unit

Nil	With unit display switching function
M	Fixed SI unit <small>Note 1)</small>
P	Pressure unit: PSI (Initial value) With unit display switching function

Note 1) Fixed unit: MPa

Option 2

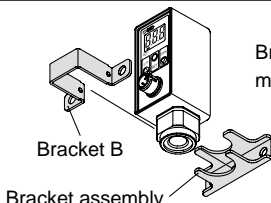
Nil	None
A	With bracket 

Option 1

Nil	None
S	Lead wire with M12 connector (5m), straight
L	Lead wire with M12 connector (5m), right-angled

Optional Part No.

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

Option	Part No.	Note
Bracket	ZS-31-A	 <p>Bracket B and the bracket assembly make up one set.</p>
Lead wire with M12 connector, straight	ZS-31-B	Lead wire length: 5m
Lead wire with M12 connector, right-angled	ZS-31-C	Lead wire length: 5m

Specifications

		ISE75	ISE75H
Rated pressure range		0 to 10MPa	0 to 15MPa
Set pressure range		0.4 to 10MPa	0.5 to 15MPa
Proof pressure		30MPa	45MPa
Set pressure resolution		0.1MPa	
Fluid		Fluid that will not corrode stainless steel SUS430 and SUS630	
Power supply voltage		12 to 24 VDC, Ripple (p-p) 10% or less (with power supply polarity protection)	
Current consumption		55 mA or less (at no load)	
Switch output		Output -43: Fixed setting; NPN open collector 1 output (Pin no. 4) + PNP open collector 1 output (Pin no. 2) ^{Note 1)} Output -65: PNP open collector 1 output (Pin no. 4) ^{Note 1)}	
	Max. load current	80 mA	
	Max. applied voltage	30 V (with NPN output)	
	Residual voltage	1 V or less (with load current of 80 mA)	
	Response time	2.5 ms (Response time selections with anti-chattering function: 20 ms, 160 ms, 640 ms, 1000 ms, 2000 ms)	
	Short circuit protection	With short circuit protection	
Repeatability		±0.5%F.S.	
Hysteresis	Hysteresis mode	Adjustable (can be set from 0)	
	Window comparator mode		
Display		3 digit, 7-segment indicator, 2-colour display (red and green) can be interlocked with the switch output, Sampling cycle: 5 times/s	
Display accuracy		±2%F.S. ±1 digit or less (at 25°C ±3°C)	
Indication light		Light up when output is ON (Green)	
Functions		Anti-chattering function, Unit display switching function, Zero out function, Key lock function	
Environmental resistance	Enclosure	IP67	
	Fluid temperature range	-5 to 80°C (with no freezing or condensation)	
	Operating temperature range	Operating: -5 to 50°C, Stored: -10 to 60°C (with no freezing or condensation)	
	Operating humidity range	Operating and stored: 35 to 85%RH (with no condensation)	
	Withstand voltage	250 VAC for 1 min. between live parts and enclosure	
	Insulation resistance	50 MΩ or more between live parts and enclosure (at 50 VDC Mega)	
	Vibration resistance	10 to 500 Hz, 1.5 mm or 98 m/s ² amplitude in X, Y, Z directions for 2 hours each	
Impact resistance	980 m/s ² in X, Y, Z directions 3 times each (Non energized)		
Temperature characteristics (Based on 25°C: Operating temperature range)		±3%F.S. or less	
Standard		Compliant with CE Marking and UL/CSA (UL508) standards	
Wetted material		Pressure receiving area: Stainless steel SUS630, Fittings: Stainless steel SUS430	
Port size		O2: Rc1/4, N02: NPT1/4, F02: G1/4 (ISO1179) ^{Note 2)}	
Lead wire		Lead wire with M12 4-pin pre-wired connector (5 m)	
Mass (Weight)		210 g (excluding the lead wire with M12 4-pin pre-wired connector)	

Note 1) The NPN and PNP outputs function for a single setpoint.

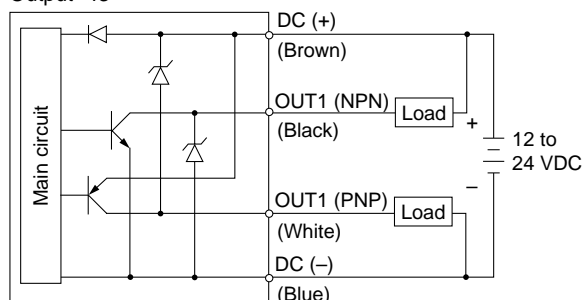
Note 2) G1/4: Applicable to ISO1179-1

Internal Circuit and Wiring Examples

Fixed setting:

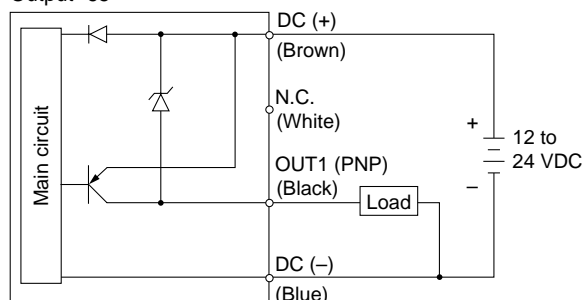
NPN open collector output + PNP open collector output
(the pressure set point for switching the output signal is common to both outputs)
Maximum 30 V (NPN only), 80 mA, Residual voltage 1 V or less

Output -43



See the operation manual for information on how to set and on handling precautions.

Output -65



Series ISE70/75/75H

Description

Indication light (Green)

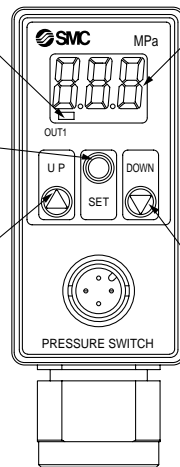
Displays the switch operation status.

SET button

Use this button to switch the mode and set the set value.

UP button

Use this button to change the mode or increase the ON/OFF set value. It also allows you to switch to the peak value display mode.



LCD display

Displays the current pressure condition, set mode and error code. The display mode can be selected from four options: fixed green single-colour reading, fixed red single-colour reading, green reading interlocked with output for switching to red reading, and red reading interlocked with output for switching to green reading.

DOWN button

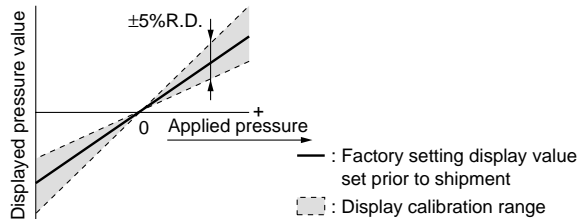
Use this button to change the mode or decrease the ON/OFF set value. It also allows you to switch to the bottom value display mode.

Functions

Display calibration function

This function eliminates slight differences in the output values and allows uniformity in the numbers displayed.

Displayed values of the pressure sensor can be calibrated to within $\pm 5\%$ of their readings.



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

Peak/Bottom hold function

This function constantly detects and updates the maximum and minimum pressure values and allows to hold the display value.

Key lock function

This function prevents incorrect operations such as changing the set value accidentally.

Zero out (Zero ADJ) function

The measured pressure reading can be adjusted to zero.

More specifically, the factory-set reading can be corrected to within $\pm 7\%$ F.S.

Unit display switching function

The reading unit can be selected.

Unit/Reading resolution	ISE70	ISE75/75H
Pa	0.01MPa	0.1MPa
kgf/cm ²	0.1	1
bar	0.1	1
psi	1	1 (x 10)

Anti-chattering function

A large bore cylinder or ejector consumes a large amount of air in operation and may experience a temporary drop in the primary pressure. This function prevents detection of such temporary drops in primary pressure as abnormal pressure.

Error function

Take the following corrective solutions when error occurs.

Error description	LCD display	Condition	Solution
Over-current error	Er 1	A load current greater than 80 mA is turned on through either or both of the switch outputs.	Shut off the power supply. After eliminating the output factor that caused the excess current, turn the power supply back on.
Residual pressure error	Er 3	A pressure level greater than $\pm 7\%$ F.S. has been applied during zero adjustment. The switch will automatically return to measuring mode in three seconds, however. Note that the range of zero adjustment differs by ± 1 digit due to switch-to-switch variations.	Bring the pressure back to atmospheric pressure and try using the zero out function.
Applied pressure error	HHH	Supply pressure exceeds the maximum set pressure.	Reduce/Increase supply pressure to within the set pressure range.
	LLL	Supply pressure is below the minimum set pressure.	
System error	Er 4	Internal data error	Shut off the power supply. Turn the power supply back on.
	Er b	Internal data error	
	Er 7	Internal data error	
	Er 8	Internal data error	

Note) If the switch will not recover to normal even after all of the above mentioned solutions have been applied, consult SMC for investigation.

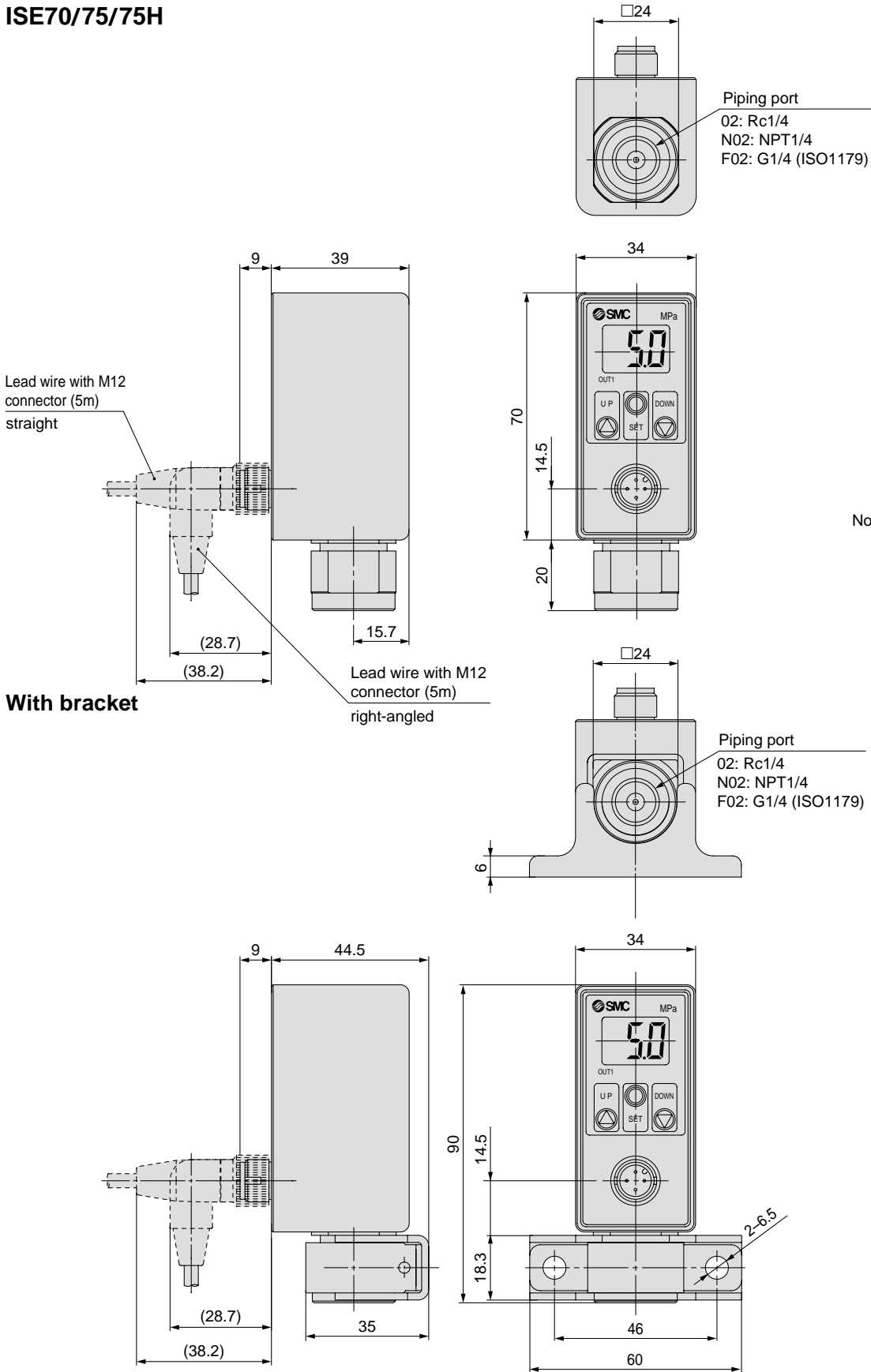
Response time selections: 20ms, 160ms, 640ms, 1000ms, 2000ms

Digital Pressure Switch Series ISE70/75/75H

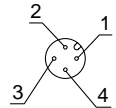
For Air/For General Fluids

Dimensions

ISE70/75/75H



Note) The connector faces down (toward the piping). Do not attempt to rotate the connector, as it is not rotatable.



Connector Pin Assignments

Output -43

1	Brown	DC (+)
2	White	OUT1 (PNP)
3	Blue	DC (-)
4	Black	OUT1 (NPN)

Output -65

1	Brown	DC (+)
2	White	NC
3	Blue	DC (-)
4	Black	OUT1 (PNP)



Series *ISE70/75/75H*

Safety Instructions

These safety instructions are intended to prevent a hazardous situation and/or equipment damage. These instructions indicate the level of potential hazard by a label of "**Caution**", "**Warning**", or "**Danger**". To ensure safety, be sure to observe ISO 4414 ^{Note 1)}, JIS B 8370 ^{Note 2)} and other safety practices.

⚠ Caution : Operator error could result in injury or equipment damage.

⚠ Warning : Operator error could result in serious injury or loss of life.

⚠ Danger : In extreme conditions, there is a possible result of serious injury or loss of life.

Note 1) ISO 4414: Pneumatic fluid power – General rules relating to systems

Note 2) JIS B 8370: Pneumatic system axion

⚠ Warning

1. The compatibility of pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications.

Since the products specified here are used in various operating conditions, their compatibility for the specific pneumatic system must be based on specifications or after analysis and/or tests to meet your specific requirements. The expected performance and safety assurance will be the responsibility of the person who has determined the compatibility of the system. This person should continuously review the suitability of all items specified, referring to the latest catalogue information with a view to giving due consideration to any possibility of equipment failure when configuring a system.

2. Only trained personnel should operate pneumatically operated machinery and equipment.

Compressed air can be dangerous if an operator is unfamiliar with it. Assembly, handling or repair of pneumatic systems should be performed by trained and experienced operators.

3. Do not service machinery/equipment or attempt to remove components until safety is confirmed.

1. Inspection and maintenance of machinery/equipment should only be performed once measures to prevent falling or runaway of the driver objects have been confirmed.
2. When equipment is to be removed, confirm the safety process as mentioned above. Cut the supply pressure for this equipment and exhaust all residual compressed air in the system.
3. Before machinery/equipment is restarted, take measures to prevent shooting-out of cylinder piston rod, etc.

4. Contact SMC if the product is to be used in any of the following conditions:

1. Conditions and environments beyond the given specifications, or if product is used outdoors.
2. Installation on equipment in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverages, recreation equipment, emergency stop circuits, clutch and brake circuit in press applications, or safety equipment.
3. An application which has the possibility of having negative effects on people, property, or animals, requiring special safety analysis.



Series ISE70/75/75H

Pressure Switch Precautions 1

Be sure to read before handling.

Design and Selection

⚠ Warning

1. Operate the switch only within the specified voltage.

Use of the switch outside the range of the specified voltage can cause not only malfunction and damage of the switch but also electrocution and fire.

2. Do not exceed the maximum allowable load specification.

A load exceeding the maximum load specification can cause damage to the switch or shorten its operating life span.

3. Do not use a load that generates surge voltage.

Although surge protection is installed in the circuit at the output side of the switch, damage may still occur if a surge is applied repeatedly. When a surge generating load such as a relay or solenoid is directly driven, use a type of switch with a built-in surge absorbing element.

4. Since the type of applicable fluid varies depending on the product, be sure to verify the specifications.

The switches do not have an explosion proof rating. To prevent a possible fire hazard, do not use with flammable gases or fluids.

5. Strictly adhere to the rated pressure range and the maximum withstand pressure.

Operating the switch under pressures exceeding the range may cause the switch to malfunction.

If surge pressures exceeding the maximum withstand pressure are likely to arise, take measures to prevent such surge pressures from being applied to the switch. Operating the switch under pressures exceeding the maximum operating pressure may destroy the switch.

Mounting

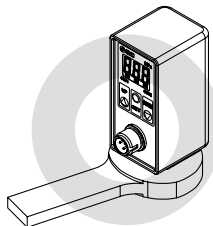
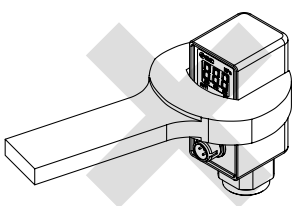
⚠ Warning

1. If the equipment is not operating properly, do not continue to use it.

Connect air and power after installation, repairs, or modifications, and verify proper installation. The switch should be checked for proper operation and possible leaks.

2. Apply wrench only to the metal part of the main housing when installing the pressure switch onto the system piping.

Do not apply a wrench to the body part as this may damage the switch.



Wiring

⚠ Warning

1. Verify the colour and terminal number when wiring.

Incorrect wiring can cause the switch to be damaged and malfunction. Verify the color and the terminal number in the instruction manual when wiring.

2. Avoid repeatedly bending or stretching the lead wire.

Repeatedly applying bending stress or stretching force to the lead wire will cause it to break. If you believe the lead wire is damaged and likely to cause malfunctions, replace it.

3. Confirm proper insulation of wiring.

Make sure that there is no faulty wiring insulation (contact with other circuits, ground fault, improper insulation between terminals, etc.). Damage may occur due to excess current flow into a switch.

Operating Environment

⚠ Warning

1. Never use in the presence of explosive gases.

The switches do not have an explosion proof rating. Never use in the presence of an explosive gas as this may cause a serious explosion.

Maintenance

⚠ Warning

1. Perform periodic inspections to ensure proper operation of the switch.

Unexpected malfunctions may cause possible danger.

2. Take precautions when using the switch for an interlock circuit.

When a pressure switch is used for an interlock circuit, devise a multiple interlock system to prevent trouble or malfunctioning. Verify the operation of the switch and interlock function on a regular basis.



Series ISE70/75/75H

Digital Pressure Switch Precautions 1

Be sure to read before handling.

Selection

⚠ Warning

1. Monitor the internal voltage drop of the switch.

When operating below a specified voltage, it is possible that the load may be ineffective even though the pressure switch function is normal. Therefore, the formula below should be satisfied after confirming the minimum operating voltage of the load.

$$\text{Supply voltage} - \text{Internal voltage drop of switch} > \text{Minimum operating voltage of load}$$

⚠ Caution

1. Data of the digital pressure switch will be stored even after the power is turned off.

Input data (set pressure, etc.) will be stored in EEPROM so that the data will not be lost after the pressure switch is turned off. (Data will be stored for up to 100,000 hours after the power is turned off.)

Mounting

⚠ Warning

1. Operation

Refer to the instruction manual for the operation of the digital pressure switch.

2. Pressure port

Do not introduce any wire or similar object to a pressure port as this may damage the pressure sensor and cause a malfunction.

Wiring

⚠ Warning

1. Do not wire in conjunction with power lines or high voltage lines.

Wire separately from power lines and high voltage lines, avoiding wiring in the same conduit with these lines. Control circuits including switches may malfunction due to noise from these other lines.

2. Do not allow loads to short circuit.

Although digital pressure switches indicate excess current error if loads are short circuited, all incorrect wiring connections cannot be protected. Take precautions to avoid incorrect wiring.

3. Connect a DC(–) wire (blue) as close as possible to the DC power supply GND terminal.

Connecting the power supply away from the GND terminal can cause malfunctions due to noise from devices that are connected to the GND terminal.

4. Do not attempt to insert or pull the pressure sensor or its connector when the power is on.

5. A cable with a right-angled connector is also available.

The right-angled connector faces down (toward the piping). Do not attempt to rotate the connector, as it is not rotatable.

Pressure Sources

⚠ Warning

1. Use the switch within the specified fluid and ambient temperature range.

Take measures to prevent moisture from freezing in circuits when below 5°C, since this may cause lead to a malfunction. The installation of an air dryer is recommended for eliminating condensate and moisture. Never use the switch in an environment where there are drastic temperature changes even when these temperatures are operated within the specified temperature range.

Operating Environment

⚠ Warning

1. Do not use in an area where surges are generated.

When there are units that generate a large amount of surge in the area around pressure switches (e.g., solenoid type lifters, high frequency induction furnaces, motors), this may cause deterioration or damage to the switches' internal circuitry. Avoid and protect against sources of surge generation and crossed lines.

Maintenance

⚠ Caution

1. Cleaning of the switch body

Wipe off dirt with a soft cloth. If dirt does not come off easily, use a neutral detergent diluted with water to dampen a soft cloth. Wipe the switch only after squeezing the excess water out of the dampened cloth. Then finish off by wiping with a dry cloth afterwards.



Series ISE70/75/75H Specific Product Precautions 1

Be sure to read before handling. Refer to pages 7 through 9 for safety instructions and pressure switch precautions.

Handling

⚠ Warning

1. Do not drop, bump, or apply excessive impacts (980m/s²) while handling. Although the body of the sensor may not be damaged, the internal parts of the sensor could be damaged and lead to a malfunction.
2. The tensile strength of the cord is 50N. Applying a greater pulling force on it can cause a malfunction. When handling, hold the body of the sensor — do not dangle it from the cord.
3. Do not exceed the screw-in torque of 40 N·m for ISE70 and 80 N·m for ISE75/75H when connecting the pipe to the switch. Exceeding these values may cause the switch to malfunction.
4. Do not use pressure sensors with corrosive and/poisonous or flammable gases or liquids.
5. When connecting the pipe to the switch, engage the wrench horizontally to the chamfered barrel of the fitting. Be careful not to apply excessive force to the switch's main unit.

Connection

⚠ Warning

1. Incorrect wiring can damage the switch and cause a malfunction or erroneous switch output.
2. Connections should be done while the power is turned off.
3. Wire separately from power lines and high voltage lines, avoiding wiring in the same conduit with these lines. Malfunctions may occur due to noise from these other lines.
4. If a commercial switching regulator is used, make sure that the F.G. terminal is grounded.

Operating Environment

⚠ Warning

1. Our pressure switches are CE marked; however, they are not equipped with surge protection against lightning. Lightning surge countermeasures should be applied directly to system components as necessary.
2. Our pressure switches do not have an explosion proof rating. Never use in the presence of an explosive gas as this may cause a serious explosion.

⚠ Caution

1. Do not use in an environment with spattering liquid of oil or solvent.

Pressure Sources

⚠ Warning

1. Regarding poisonous, corrosive or combustible gases

Do not use the switch for poisonous or corrosive gases. Also note that the switch is not explosion-proof.

2. Regarding use of the switch for fluids

Do not use the switch for any corrosive or flammable gas or fluid (ISE70 series).

Do not use the switch for any fluid capable of corroding SUS430 or SUS630 stainless steel; or for any flammable gas or liquid (ISE75/75H series).

(For information on the corrosiveness of fluids, contact the fluid manufacturers.)

Mounting

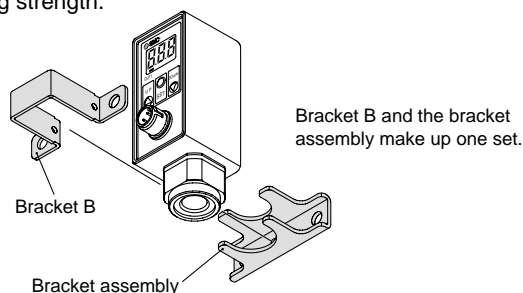
⚠ Caution

1. Connecting pipe to the switch

When connecting the pipe to the switch, apply a torque of 13.6 N·m or greater for the ISE70 series and a torque of 25 N·m or greater for the ISE75/75H series.

2. Bracket-mounting the switch

Interlock the neck of the switch's piping port between the bracket assembly and bracket B. Using two M6 screws, mount the switch onto a wall. If the panel thickness is less than 5 mm, use nuts or other alternative means to increase the mounting strength.





Series ISE70/75/75H Specific Product Precautions 2

Be sure to read before handling. Refer to pages 7 through 9 for safety instructions and pressure switch precautions.

Set pressure range and rated pressure range

⚠ Caution

1. 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 sensor.

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						
		-100kPa	0	0.4MPa	0.5MPa	1MPa	10MPa	15MPa
For 1MPa (For Air)	ISE70	-100kPa (-0.1MPa)	0	0.4MPa		1MPa		
For 10MPa (For General Fluids)	ISE75		0	0.4MPa		10MPa		
For 15MPa (For General Fluids)	ISE75H		0	0.5MPa		15MPa		

The ISE75/75H switch shows zero (0) when the pressure being applied goes below the lower limit of the set pressure range.

Rated pressure range of switch
 Set pressure range of switch

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