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Find the *SMC IS1000E-3N03Y30TE-X250* at our website: *Click HERE*

Mechanical Style Pressure Switch
Series IS1000

Long service life:
5 million cycles



IS1000-01 IS1000-01-X202

Specifications

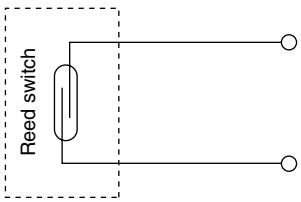
Model	IS1000-01
Fluid	Air/Inert gas
Proof pressure	1.0 MPa
Max. operating pressure	0.7 MPa
Regulating pressure range (at OFF point)	0.1 to 0.4 MPa
Hysteresis	0.08 MPa or less
Error of scale	±0.05 MPa
Repeatability	±0.05 MPa
Contacts	1a
Wiring specifications	Grommet, Lead wire length 0.5 m (Standard)
Fluid	Air
Ambient and fluid temperature	–5 to 60°C (No freezing)
Port size	R 1/8
Weight	74 g

Switch Characteristics

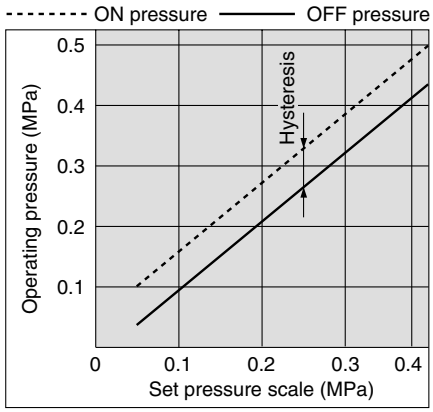
Max. contact capacity	AC 2 VA, 2 W DC		
Voltage	24 VAC/DC or less	48 VAC/DC	100 VAC/DC
Max. operating current	50 mA	40 mA	20 mA
Impact resistance	30 G		

Electrical Circuit

Up to 100 VAC/DC



Operating Pressure Range



How to Order

IS1000 – 01 S –

Port size

01	R 1/8
N01	NPT 1/8

Seal

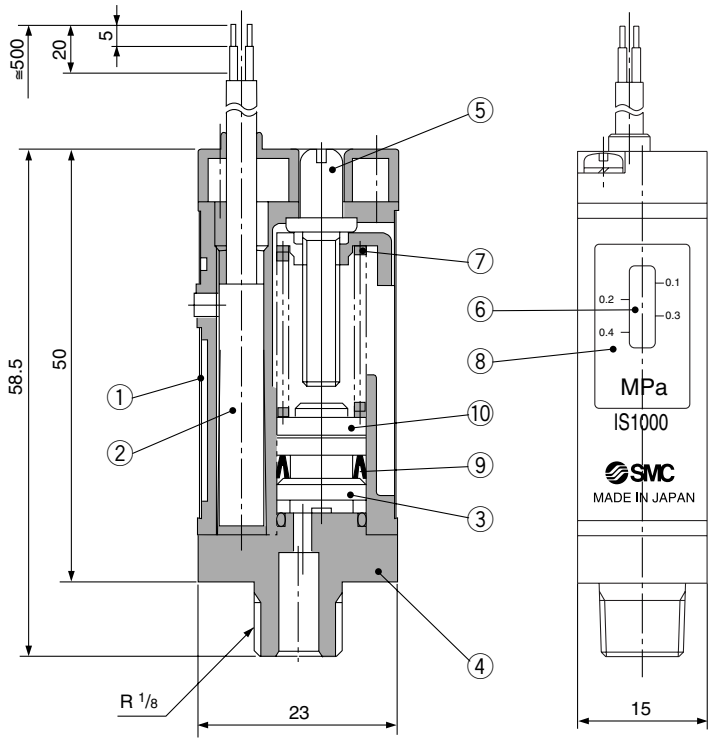
Nil	None
S	With seal

Option

X201	Lead wire length 3 m
X202	Regulating pressure range 0.1 to 0.6 MPa
X215	Lead wire length 3 m Regulating pressure range 0.1 to 0.6 MPa

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Construction



Component Parts

No.	Description	Material
①	Shield plate	Rolled steel plate
②	Switch assembly	—
③	Piston	Polyacetal
④	PT fittings	Zinc die-casted
⑤	Adjusting screw	Brass
⑥	Pointer	Brass
⑦	Spring	Stainless steel 304-WPB
⑧	Scale plate	Rigid vinyl chloride
⑨	Miniseal Y type	NBR
⑩	Magnet	Rare earth magnet

⚠ Precautions

Be sure to read before handling. Refer to pages 16-14-3 and 16-14-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 16-1-11 to 16-1-13 for Precautions on every series.

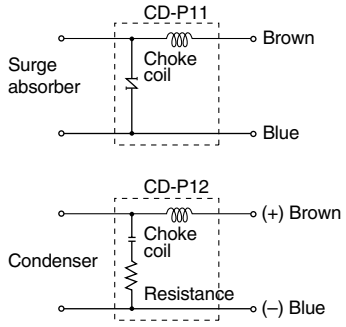
Wiring

⚠ Warning

1. Connect load before connecting with power source.
2. In the case of induction load or lead wire exceeding 5 m long, the following contact protection box should be used. It may lead to damage to a switch.

Part no.	Voltage	Lead wire length
CD-P11	100 VAC	Switch side: 0.5 m
CD-P12	24 VDC	Load side: 0.5 m

3. Internal circuit of contact protection box



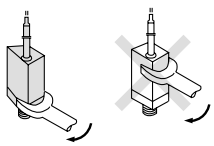
4. How to connect contact protection box
Connect the lead wires from the body and the contact protective box side indicated "SWITCH". Lead wire should be as short as possible, within 1 m.

5. Dimensions of lead wire
Enclosure: ø 3.4
Insulator: ø 1.1
Conductor: ø 0.64

Mounting/Piping

⚠ Warning

1. **When changing piping by hand, hold body.**
Electrical wire must not be subjected to excessive force.
It may cause a malfunction or damage.
2. **Do not drop nor apply excessive force.**
It may cause a malfunction or damage.
3. **Tighten IS1000-01 applying the spanner on the PT fitting part.**



4. **Mounting direction is available in either horizontal or perpendicular.**

Pressure Source

⚠ Warning

1. Do not use with corrosive gases or fluids.
2. Never use in an environment where flammable fluid or gas is used. Since this is not an explosion-proof construction, it may lead to an explosive disaster.
3. Avoid use in vacuum applications.
Switch may be imploded.

Pressure Setting

⚠ Warning

1. Scale of switching set display is the set value at the pressure drop.
2. When detecting ON-pressure signal, note that set pressure on scale plate plus ON-OFF differential (Hysteresis) will be ON-pressure signal.
3. Pressure display on the scale plate is just as a reference guide. For an accurate setting, measure it by pressure gauge.

Operating Environment

⚠ Warning

1. Avoid using a switch in a magnetic environment. It may cause a malfunction.
2. Do not use in such an environment, where water or oil is splashed. Since it is the open type construction, if water or oil make an ingress into the internal parts, the electric circuit will be corroded and may result in a malfunction or damage.
3. Avoid vibration. Vibration may cause malfunction or may cause setting to be incorrect.

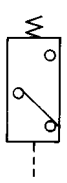
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Pressure Switch with Piping Adapter





JIS symbol

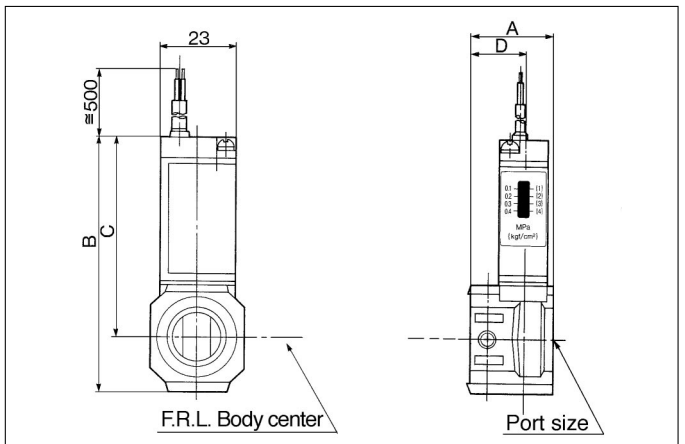


Specifications

Fluid	Air
Proof pressure	1.0MPa
Max. operating pressure	0.7MPa
Set pressure range (off)	0.1 to 0.4MPa
Differential	0.08MPa
Ambient and fluid temperature	5 to 60°C (No condensation)

Switch Characteristics

Contact point structure	1a
Max. contact point capacity	2V AC/2W DC
Voltage AC, DC	12V, 24V, 48V, 100V
Max. operating current	AC, 12V to 24V DC: 50mA AC, 48V DC: 40mA AC, 100V DC: 20mA



Model (1)	Port size	A	B	C	D	Applicable model
IS1000E-2□01Y	1/8	28	73	62	18.5	AC2000, AC2010, AC2020 AC2030, AC2040 AW2000
IS1000E-2□02Y	1/4					
IS1000E-2□03Y	3/8					
IS1000E-3□02Y	1/4	26	80	63	16.5	AC2500, AC2520, AC2530 AC3000, AC3010, AC3020 AC3030, AC3040 AW3000, AW3050
IS1000E-3□03Y	3/8					
IS1000E-3□04Y	1/2	40	80	63	17.5	
IS1000E-4□02Y	1/4	33	87	66	17.5	AC4000, AC4010, AC4020 AC4030, AC4040 AW4000, AW4050 (2)
IS1000E-4□03Y	3/8					
IS1000E-4□04Y	1/2					
IS1000E-4□06Y	3/4	50	87	66	17.5	

Note1) □ in the part number indicate a connecting thread. Use nothing for Rc(PT), N for NPT and F for G(PF).
Note2) Can NOT be mounted on "AC40□0-06" and "AW40□0-06".
∗With retainer, O ring and bolt.
∗∗Consult SMC when mounting the pressure switch on "AC40□0-06" and "AW40□0-06".

∗For more information, refer to p.3.0-0.

How to Order

IS1000E − 3 □ 03 YL □

Pressure switch with piping adapter

Body size

2	For AC2000
3	For AC2500, AC3000
4	For AC4000-02 to 04

Thread

—	Rc(PT)
N	NPT
F	G(PF)

Piping adapter port size

01	1/8
02	1/4
03	3/8
04	1/2
06	3/4

Attachment

—	Without attachment
Y	With attachment
YL	With attachment and L type bracket
YT	With attachment and T type bracket

Options

X201	Length of lead wire: 3m
X202	Setting pressure range: 0.1 to 0.6MPa
X250	Reverse mounting (Left side mounting style)

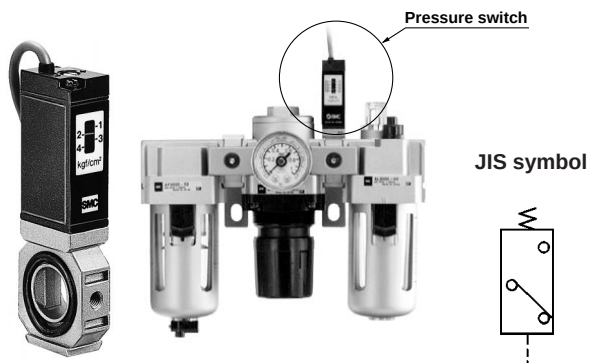
Attachments for IS1000E

Pressure switch applicable model No.	Y type standard	YL type with L type bracket	YT type with T type bracket
IS1000E-201 to 203	Y20E	Y20LE	Y20TE
IS1000E-302 to 304	Y30E	Y30LE	Y30TE
IS1000E-402 to 406	Y40E	Y40LE	Y40TE

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Pressure Switch: (S)

Compact pressure switch can be mounted easily.
Makes it easier to detect pressure in lines.



JIS symbol

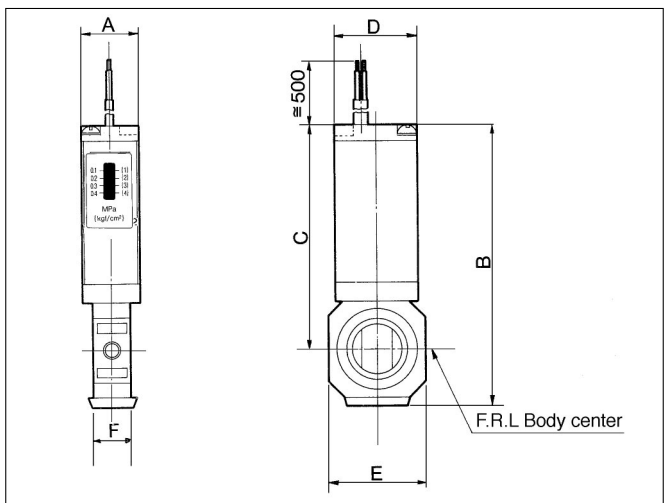
Specifications

Fluid	Air
Proof pressure	1.0MPa
Max. operating pressure	0.7MPa
Set pressure range (off)	0.1 to 0.4MPa
Differential	0.08MPa
Ambient and fluid temperature	5 to 60°C(No condensation)

Switch Characteristics

Contact point structure	1a
Max. contact point capacity	2V AC/2W DC
Voltage AC, DC	12V, 24V, 48V, 100V
Max. operating current	AC, 12V to 24V DC: 50mA AC, 48V DC: 40mA AC, 100V DC: 20mA

∗For more information, refer to SMC
Pressure switch catalog. (Catalog No.E824)



Model	A	B	C	D	E	F	Applicable model
IS1000M-2Y	15	73.5	62.6	23	28	10	**AC2000, AC2020, AC2030**
IS1000M-3Y	15	82	64.9	23	29	11	**AC2500, AC2520, AC2530 AC3000, AC3020, AC3030**
IS1000M-4Y	15	88.7	67.6	23	35	14	**AC4000, AC4020, AC4030**
IS1000M-5Y	15	91	68	23	44	14	**AC4000-06, AC4020-06 AC4030-06**
IS1000M-6Y	15	100	72.5	23	54	15	**AC5000, AC5500, AC6000 AC5020, AC5520, AC6020**

Caution on Assembling

Attachment for pressure switch can be installed at the IN/OUT side of AF, AR, AL, AFM and AFD. Mounting at the IN/OUT side of AW and upward handle ofAR is not possible.

How to Order

IS1000M – **4** **YT** – ☐

Pressure switch

Body size

2	For AC2000
3	For AC2500, AC3000
4	For AC4000-02 to 04
5	For AC4000-06
6	For AC5000, AC6000

Attachment

—	Without attachment
Y	With attachment
YL	With attachment and L type bracket
YT	With attachment and T type bracket

Options

X201	Length of lead wire: 3m
X202	Set pressure range: 0.1 to 0.6MPa

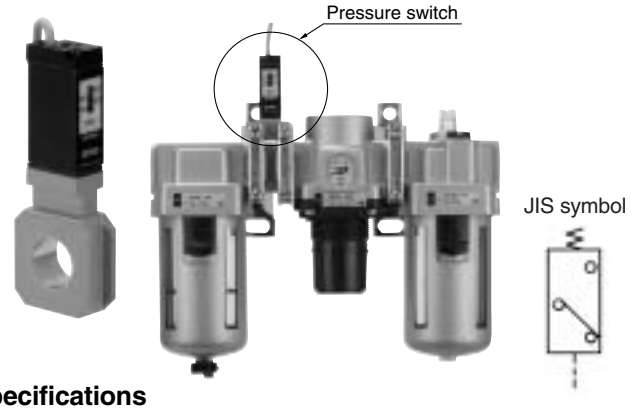
Attachments for IS1000M

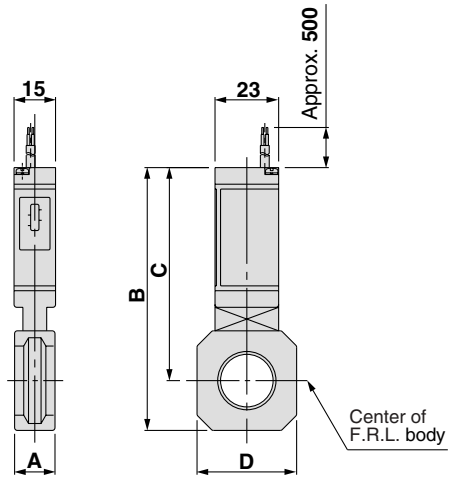
Pressure switch applicable model No.	Y type standard	YL type with L type bracket	YT type with T type bracket
IS1000M-2	Y20M	Y20LM	Y20TM
IS1000M-3	Y30M	Y30LM	Y30TM
IS1000M-4	Y40M	Y40LM	Y40TM
IS1000M-5	Y50M	Y50LM	Y50TM
IS1000M-6	Y60M	Y60LM	Y60TM

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Pressure Switch (S)

A compact integrated pressure switch can be easily installed and facilitates the pressure detection of the line.





Specifications

Fluid	Air
Proof pressure	1.0MPa
Maximum operating pressure	0.7MPa
Set pressure range (off)	0.1 to 0.4MPa
Differential	0.08MPa
Ambient and fluid temperature	–5 to 60°C (with no freezing)

Switch characteristics

Contact point configuration	1a
Maximum contact point capacity	2VA(AC), 2W(DC)
Operating voltage: AC, DC	100V or less
Maximum operating current	AC, DC12V to 24V: 50mA AC, DC48V: 40mA AC, DC100V: 20mA

Model	A	B	C	D	Applicable model
IS1000M-20	11	76	66	28	**AC20□**
IS1000M-30	13	86	72	30	**AC25□, AC30□**
IS1000M-40	15	95	77	36	**AC40□**
IS1000M-50	17	99	79	44	**AC40□-06**
IS1000M-60	22	92.5	68.5	53	**AC50□, AC55□, AC60□**

Note) Separate interfaces are required for modular unit.

How to Order

IS1000M - 30 □

Pressure switch

Body size

20	For AC20
30	For AC25, AC30
40	For AC40-02 to 04
50	For AC40-06
60	For AC50, AC55, AC60

Accessories

X201	Lead wire length: 3m
X202	Regulating pressure range: 0.1 to 0.6MPa
X207	MPa/PSI Dual scale
X215	Lead wire length: 3m; Regulating pressure range: 0.1 to 0.6MPa

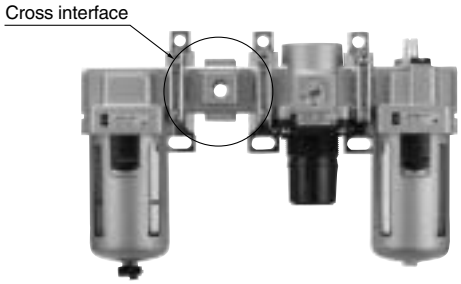
This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

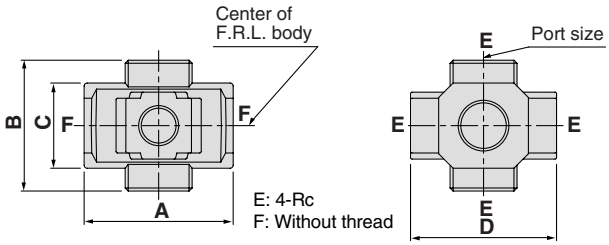
Cross Interface (C)
M5 x 0.8, 1/8, 1/4, 3/8, 1/2

Pipings are possible in all 4 directions.

IN/OUT ports are not machined for threads. Contact SMC if threaded (machined) ports are required.







Model	Port size	A	B	C	D	Applicable model
Y14-M5	M5	23	16	14	25	**AC10□**
Y24-□01	1/8	40	40	22	40	**AC20□**
Y24-□02	1/4					
Y34-□01	1/8	49	43	28	48	**AC25□, AC30□**
Y34-□02	1/4					
Y44-□02	1/4	60	48	36	54	**AC40□**
Y44-□03	3/8					
Y54-□03	3/8	72	62	40	62	**AC40□-06**
Y54-□04	1/2					

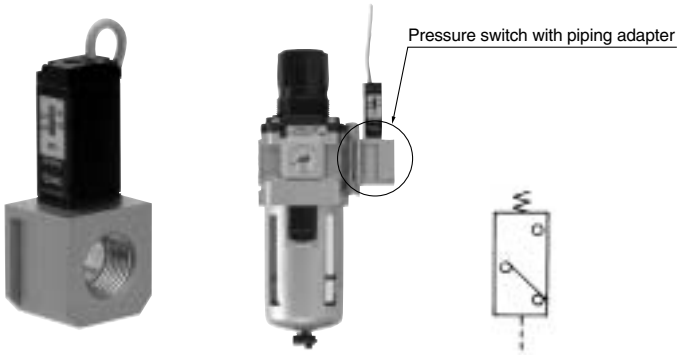
Notes) • □ in the model numbers indicates a thread type. No indication is necessary for Rc; however, indicate N for NPT, and F for G.
• If threaded ports are required, they are available as a special order. Contact SMC.

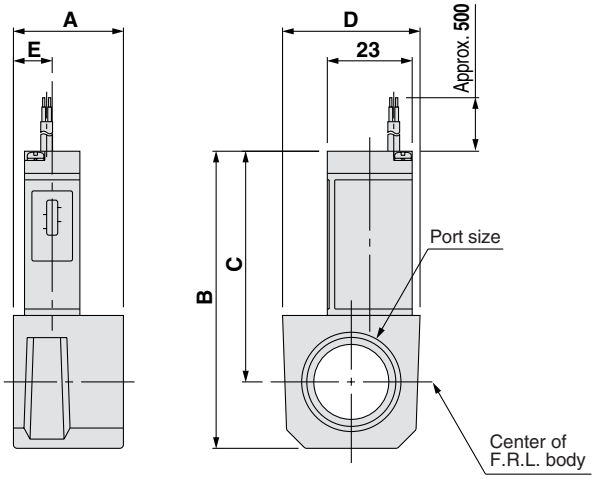
Cautions in Mounting

- When mounting a cross interface directly on the IN side of the lubricator, be sure to use a series AKM check valve between the lubricator and cross interface.
- Factory mounting of a cross interface on the AC model is available as a special order.

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Pressure Switch with Piping Adapter (P)





Specifications

Fluid	Air
Proof pressure	1.0MPa
Maximum operating pressure	0.7MPa
Set pressure range (when OFF)	0.1 to 0.4MPa
Differential	0.08MPa
Ambient and fluid temperature	–5 to 60°C (with no freezing)

Switch characteristics

Contact point configuration	1a
Maximum contact point capacity	2VA(AC), 2W(DC)
Operating voltage: AC, DC	100V or less
Max. operating current	12V to 24V AC, DC: 50mA 48V AC, DC: 40mA 100V AC, DC: 20mA

Model Note 1)	Port size	A	B	C	D	E	Applicable model
IS1000E-20□01	1/8	30	68	57	28	16	**AC20□** **AR20□, AW20□** **AWM20, AWD20**
IS1000E-20□02	1/4						
IS1000E-20□03	3/8						
IS1000E-30□02	1/4	32	74.5	60.5	30	13	**AC25□, AC30□** **AR25□, AR30□, AW30□** **AWM30, AWD30**
IS1000E-30□03	3/8						
IS1000E-30□04	1/2						
IS1000E-40□02	1/4	32	80.5	62.5	37	12.5	**AC40□** Note 2) **AR40□, AW40□** **AWM40, AWD40**
IS1000E-40□03	3/8						
IS1000E-40□04	1/2						
IS1000E-40□06	3/4						

Note 1) □ in the model numbers indicates a thread type. No indication is necessary for Rc; however, indicate N for NPT, and F for G.

Note 2) A pressure switch cannot be mounted on AC40□-06 and AW40□-06.

∗ Separate interfaces are required for modular unit.

∗∗ The pressure switch on AC40□-06 and above and AW40□-06 can be mounted by screwing IS1000-01 into the piping adapter E500-□06-X501 or E600-□06-X501 to E600-□06 to 10-X501 (with top-face thread Rc 1/8). Products with a premounted switch are available as a special order. Please contact SMC regarding their availability.

How to Order

IS1000E – 30 □ 03 – □

Pressure switch with piping adapter

Body size

20	For AC20
30	For AC25, AC30
40	For AC40-02 to 04

Thread type

Nil	Rc
N	NPT
F	G

Piping adapter port size

Symbol	Port size	Body size 20	30	40
01	1/8	●	—	—
02	1/4	●	●	●
03	3/8	●	●	●
04	1/2	—	●	●
06	3/4	—	—	●

Option

X201	Lead wire length: 3m
X202	Regulating pressure range: 0.1 to 0.6MPa
X207	MPa/PSI Dual scale
X215	Lead wire length: 3m; Regulating pressure range: 0.1 to 0.6MPa
X250	Opposite-side mounting (Left-side mounting type)
X251	Lead wire length: 3m; Opposite-side mounting (Left-side mounting type)
X252	Set pressure range: 0.1 to 0.6MPa; Opposite-side mounting (Left-side mounting type)
X253	Lead wire length: 3m; Regulating pressure range: 0.1 to 0.6MPa; Opposite-side mounting (Left-side mounting type)

This product is for overseas use only according to the new Measurement Law.
(The SI unit type is provided for use in Japan.)

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Pressure Switch with Piping Adaptor





Specifications

Fluid	Air
Proof pressure	145 psig (1.0 MPa)
Max. operating pressure	100 psig (0.7 MPa)
Setting range (off)	15~60 psig (0.1 ~ 0.4 MPa)
Differential pressure	Less than 12 psig (0.08 MPa)
Ambient and fluid temperature	40~140° F (5° ~ 60° C)

Characteristics

Type of actuation	1a (N.O.)
Switch capacity	AC2VA • DC2W
Operating voltage (AC,DC)	12V, 24V, 48V, 100V
Max. operating current	AC, DC12V~24V: 50mA AC, DC48V: 40mA AC, DC100V: 20mA
Response time	1.2ms

Model	Port size	A	B	C	D	E	Applicable model
NIS1000E-2N01Y	1/8	1.10 (28)	2.87 (73)	2.44 (62)	.73 (18.5)	1.10 (28)	**NAC2000• NAC2010 • NAC2020 NAC2030• NAC2040 NAW2000**
NIS1000E-2N02Y	1/4						
NIS1000E-2N03Y	3/8						
NIS1000E-3N02Y	1/4	1.02 (26)	3.15 (80)	2.48 (63)	.65 (16.5)	1.10 (28)	**NAC2500• NAC2520 • NAC2530 NAC3000• NAC3010 • NAC3020• NAC3030• NAC3040 NAW3000**
NIS1000E-3N03Y	3/8						
NIS1000E-3N04Y	1/2	1.02 (40)	3.15 (80)	2.48 (63)	.65 (17.5)	1.10 (28)	
NIS1000E-4N02Y	1/4	1.30 (33)	3.43 (87)	2.60 (66)	.65 (17.5)	1.14 (29)	**NAC4000• NAC4010 • NAC4020 NAC4030• NAC4040 NAW4000**
NIS1000E-4N03Y	3/8					1.38 (35)	
NIS1000E-4N04Y	1/2					1.73 (44)	
NIS1000E-4N06Y	3/4	1.97 (50)	3.43 (87)	2.60 (66)	.65 (17.5)	2.13 (54)	

How To Order

NIS1000E – 3 ☐ 03 YL – ☐

Pressure switch with piping adapter

Body size

2	NAC2000
3	NAC2500, NAC3000
4	NAC4000-02 ~ 04

Thread

—	Rc(PT)
N	NPT
F	G(PF)

Piping adapter port size

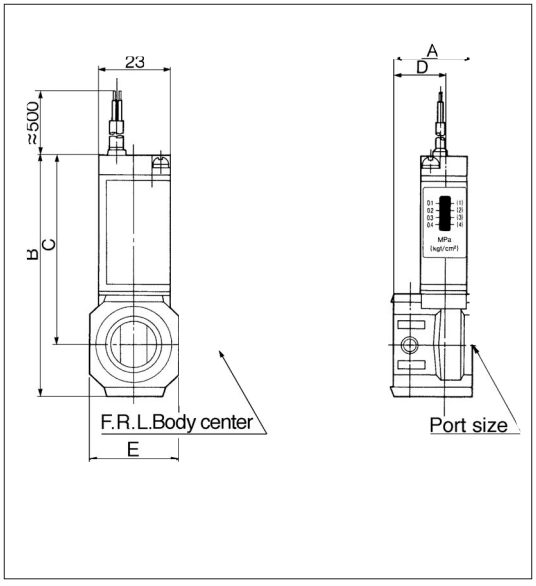
01	1/8
02	1/4
03	3/8
04	1/2
06	3/4

Attachment

—	Without attachment
Y	With attachment
YL	With attachment & L type bracket
YT	With attachment & T type bracket

Option

X201	Length of lead wire:3m
X202	Set pressure range 15~85 PSI (0.1 to 0.6Mpa)
X250	Reverse mounting (Left side mounting)



Attachments for IS1000

Parts No. applying pressure switch	Y type standard	YL type with L type bracket	YT type with T type bracket
NIS1000E-N01 ~ N03	Y20E	Y20LE	Y20TE
NIS1000E-N02 ~ N04	Y30E	Y30LE	Y30TE
NIS1000E-N02 ~ N06	Y40E	Y40LE	Y40TE

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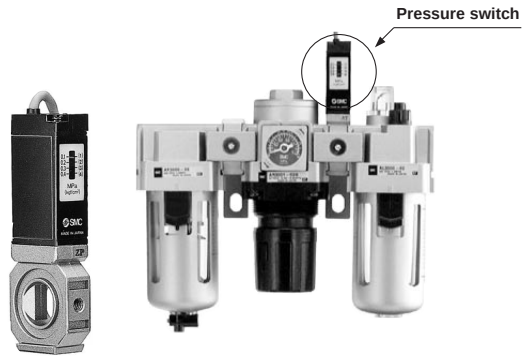
Pressure Switch

Specifications

Fluid	Air
Proof pressure	145 psig (1.0 MPa)
Max. operating pressure	100 psig (0.7 MPa)
Setting range (off)	15~60 psig (0.1 ~ 0.4 MPa)
Differential pressure	Less than 12 psig (0.08 MPa)
Ambient and fluid temperature	40~140° F (5° ~ 60° C)

Characteristics

Type of actuation	1a (N.O.)
Switch capacity	AC2VA • DC2W
Operating voltage (AC,DC)	12V, 24V, 48V, 100V
Max. operating current	AC, DC12V~24V: 50mA AC, DC48V: 40mA AC, DC100V: 20mA
Response time	1.2ms



Caution on assembling

The pressure switch can be mounted on both IN and OUT sides on NAF, NAR, NAL, NAFM and NAFD but cannot be mounted in this way on NVHS, NAW, or when the handle of NAR faces upwards.

How To Order

NIS1000M – 4 YT –

Pressure switch

Body size

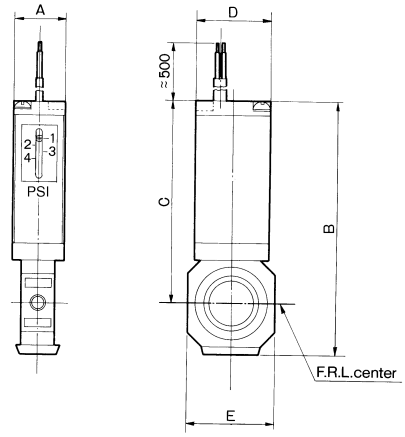
2	NAC2000
3	NAC2500, NAC3000
4	NAC4000-02 to 04
5	NAC4000-N06
6	NAC5000, NAC6000

Attachment

—	Without attachment
Y	With attachment
YL	With attachment and L type bracket
YT	With attachment and T type bracket

Option

X201	Length of lead wire:3m
X202	Set pressure range 15~85 PSI (0.1 to 0.6Mpa)



Attachments for IS1000

Part No. applying to pressure switch	Y type standard	YL type with L type bracket	YT type with T type bracket
NIS1000M-2	Y20M	Y20LM	Y20TM
NIS1000M-3	Y30M	Y30LM	Y30TM
NIS1000M-4	Y40M	Y40LM	Y40TM
NIS1000M-5	Y50M	Y50LM	Y50TM
NIS1000M-6	Y60M	Y60LM	Y60TM

Model	A	B	C	D	E	F	Applicable model
NIS1000M-2Y	.59 (15)	2.89 (73.5)	2.46 (62.6)	.91 (23)	1.10 (28)	.39 (10)	**NAC2000• NAC2020• NAC2030**
NIS1000M-3Y	.59 (15)	3.23 (82)	2.56 (64.9)	.91 (23)	1.14 (29)	.43 (11)	**NAC2500• NAC2520• NAC2530 NAC3000• NAC3020• NAC3030**
NIS1000M-4Y	.59 (15)	3.49 (88.7)	2.66 (67.6)	.91 (23)	1.38 (35)	.55 (14)	**NAC4000• NAC4020• NAC4030**
NIS1000M-5Y	.59 (15)	3.58 (91)	2.68 (68)	.91 (23)	1.73 (44)	.55 (14)	**NAC4000-N06• NAC4020-N06 NAC4030-N06**
NIS1000M-6Y	.59 (15)	3.94 (100)	2.85 (72.5)	.91 (23)	2.13 (54)	.59 (15)	**NAC5000• NAC5500• NAC6000 NAC5020• NAC5520• NAC6020**

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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 labels 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: General Rules for Pneumatic Equipment

⚠ 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 catalog 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 circuits 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.

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Common Precautions

Be sure to read before handling.
For detailed precautions on every series, refer to main text.

Selection

⚠ Warning

1. Confirm the specifications.

Products represented in this catalog are designed for use in compressed air appllications only (including vacuum), unless otherwise indicated.
Do not use the product outside their design parameters.
Please contact SMC when using the products in applications other than compressed air (including vacuum).

Mounting

⚠ Warning

1. Instruction manual

Install the products and operate them only after reading the instruction manual carefully and understanding its contents. Also keep the manual where it can be referred to as necessary.

2. Securing the space for maintenance

When installing the products, please allow access for maintenance.

3. Tightening torque

When installing the products, please follow the listed torque specifications.

Piping

⚠ Caution

1. Before piping

Make sure that all debris, cutting oil, dust, etc, are removed from the piping.

2. Wrapping of pipe tape

When screwing piping or fittings into ports, ensure that chips from the pipe threads or sealing material do not get inside the piping. Also, when the pipe tape is used, leave 1.5 to 2 thread ridges exposed at the end of the threads.

Air Supply

⚠ Warning

1. Operating fluid

Please consult with SMC when using the product in applications other than compressed air (including vacuum).
Regarding products for general fluid, please ask SMC about applicable fluids.

2. Install an air dryer, aftercooler, etc.

Excessive condensate in a compressed air system may cause valves and other pneumatic equipment to malfunction.
Installation of an air dryer, after cooler etc. is recommended.

3. Drain flushing

If condensate in the drain bowl is not emptied on a regular basis, the bowl will over flow and allow the condensate to enter the compressed air lines.
If the drain bowl is difficult to check and remove, it is recommended that a drain bowl with the auto-drain option be installed.
For compressed air quality, refer to “Air Preparation Equipment” catalog.

4. Use clean air

If the compressed air supply is contaminated with chemicals, cynthetic materials, corrosive gas, etc., it may lead to break down or malfunction.

Operating Environment

⚠ Warning

1. Do not use in environments where the product is directly exposed to corrosive gases, chemicals, salt water, water or steam.

2. Do not expose the product to direct sunlight for an extended period of time.

3. Do not use in a place subject to heavy vibrations and/or shocks.

4. Do not mount the product in locations where it is exposed to radiant heat.

Maintenance

⚠ Warning

1. Maintenance procedures are outlined in the operation manual.

Not following proper procedures could cause the product to malfunction and could lead to damage to the equipment or machine.

2. Maintenance work

If handled improperly, compressed air can be dangerous.
Assembly, handling and repair of pneumatic systems should be performed by qualified personnel only.

3. Drain flushing

Remove drainage from air filters regularly. (Refer to the specifications.)

4. Shut-down before maintenance

Before attempting any kind of maintenance make sure the supply pressure is shut of and all residual air pressure is released from the system to be worked on.

5. Start-up after maintenance and inspection

Apply operating pressure and power to the equipment and check for proper operation and possible air leaks. If operation is abnormal, please verify product set-up parameters.

6. Do not make any modifications to be product.

Do not take the product apart.

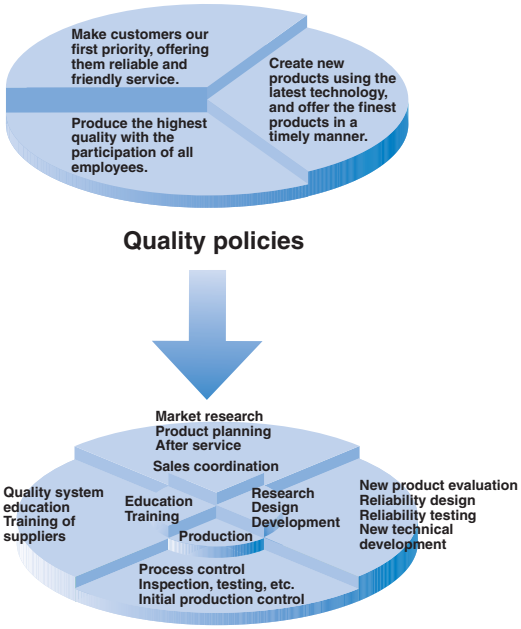
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Quality Assurance Information (ISO 9001, ISO 14001)

Reliable quality of products in the global market

To enable our customers throughout the world to use our products with even greater confidence, SMC has obtained certification for international standards “ISO 9001” and “ISO 14001”, and created a complete structure for quality assurance and environmental controls. SMC products pursue to meet its customers’ expectations while also considering company’s contribution in society.

SMC’s quality control system



Quality management system

ISO 9001

This is an international standard for quality control and quality assurance. SMC has obtained a large number of certifications in Japan and overseas, providing assurance to our customers throughout the world.





Environmental management system

ISO 14001

This is an international standard related to environmental management systems and environmental inspections. While promoting environmentally friendly automation technology, SMC is also making diligent efforts to preserve the environment.





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SMC Product Conforming to Inter

SMC products complying with EN/ISO, CSA/UL standards are supporting



CE Mark

The CE mark indicates that machines and components meet essential requirements of all the EC Directives applied.
It has been obligatory to apply CE marks indicating conformity with EC Directives when machines and components are exported to the member Nations of the EU.
Once “A manufacturer himself” declares a product to be safe by means of CE marking (declaration of conformity by manufacturer), free distribution inside the member Nations of the EU is permissible.

■ CE Mark

SMC provides CE marking to products to which EMC and Low Voltage Directives have been applied, in accordance with CETOP (European hydraulics and pneumatics committee) guide lines.

■ As of February 1998, the following 18 countries will be obliged to conform to CE mark legislation

Iceland, Ireland, United Kingdom, Italy, Austria, Netherlands, Greece, Liechtenstein, Sweden, Spain, Denmark, Germany, Norway, Finland, France, Belgium, Portugal, Luxembourg

■ EC Directives and Pneumatic Components

• Machinery Directive

The Machinery Directive contains essential health and safety requirements for machinery, as applied to industrial machines e.g. machine tools, injection molding machines and automatic machines. Pneumatic equipment is not specified in Machinery Directive. However, the use of SMC products that are certified as conforming to EN Standards, allows customers to simplify preparation work of the Technical Construction File required for a Declaration of Conformity.

• Electromagnetic Compatibility (EMC) Directive

The EMC Directive specifies electromagnetic compatibility. Equipment which may generate electromagnetic interference or whose function may be compromised by electromagnetic interference is required to be immune to electromagnetic affects (EMS/immunity) without emitting excessive electromagnetic affects (EMI/emission).

• Low Voltage Directive

This directive is applied to products, which operate above 50 VAC to 1000 VAC and 75 VDC to 1500 VDC operating voltage, and require electrical safety measures to be introduced.

• Simple Pressure Vessels Directive

This directive is applied to welded vessels whose maximum operating pressure (PS) and volume of vessel (V) exceed 50 bar/L. Such vessels require EC type examination and then CE marking.

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national Standards

you to comply with EC directives and CSA/UL standards.



■ CSA Standards & UL Standards

UL and CSA standards have been applied in North America (U.S.A. and Canada) symbolizing safety of electric products, and are defined to mainly prevent danger from electric shock or fire, resulting from trouble with electric products. Both UL and CSA standards are acknowledged in North America as the first class certifying body. They have a long experience and ability for issuing product safety certificate. Products approved by CSA or UL standards are accepted in most states and governments beyond question.
Since CSA is a test certifying body as the National Recognized Testing Laboratory (NRTL) within the jurisdiction of Occupational Safety and Health Administration (OSHA), SMC was tested for compliance with CSA Standards and UL Standards at the same time and was approved for compliance with the two Standards. The above CSA NRTL/C logo is described on a product label in order to indicate that the product is approved by CSA and UL Standards.

■ TSSA (MCCR) Registration Products

TSSA is the regulation in Ontario State, Canada. The products that the operating pressure is more than 5 psi (0.03 MPa) and the piping size is bigger than 1 inch. fall into the scope of TSSA regulation.

Products conforming to CE Standard

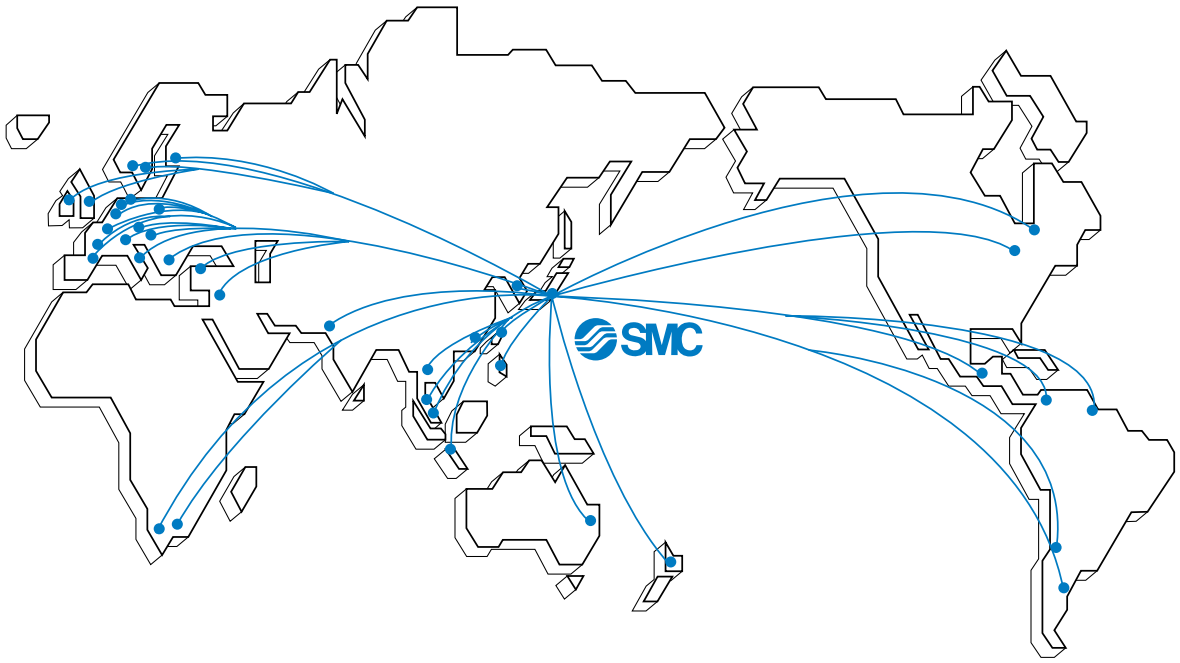
With CE symbol for simple visual recognition

In this catalog each accredited product series is indicated with a CE mark symbol. However, in some cases, every available models may not meet CE compliance. Please visit our web site for the latest selection of available models with CE mark.

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