Pressure Switch: Reed Switch Type

Series IS1000

For details about certified products conforming to international standards, visit us at www.smcworld.com.

Long service life: 5 million cycles

IS1000-01

Specifications

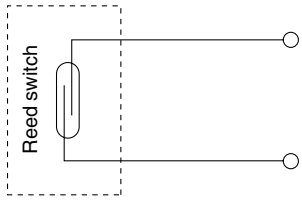
Model	IS1000-01
Fluid	Air/Inert gas
Proof pressure	1.0 MPa
Max. operating pressure	0.7 MPa
Regulating pressure range (at OFF point)	0.1 to 0.4 MPa
Hysteresis	0.08 MPa or less
Error of scale	±0.05 MPa
Repeatability	±0.05 MPa
Contacts	1a
Wiring specifications	Grommet, Lead wire length 0.5 m (Standard)
Enclosure	Equivalent to IP40
Ambient and fluid temperature	–5 to 60°C (No freezing)
Port size	R 1/8
Weight	74 g

Switch Characteristics

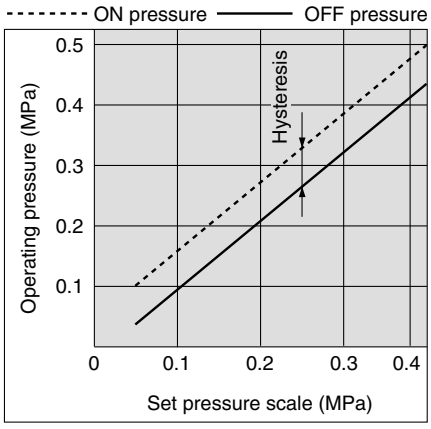
Max. contact capacity	AC 2 VA, 2 W DC		
Voltage	24 VAC/DC or less	48 VAC/DC	100 VAC/DC
Max. operating current	50 mA	40 mA	20 mA
Impact resistance	30G		

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

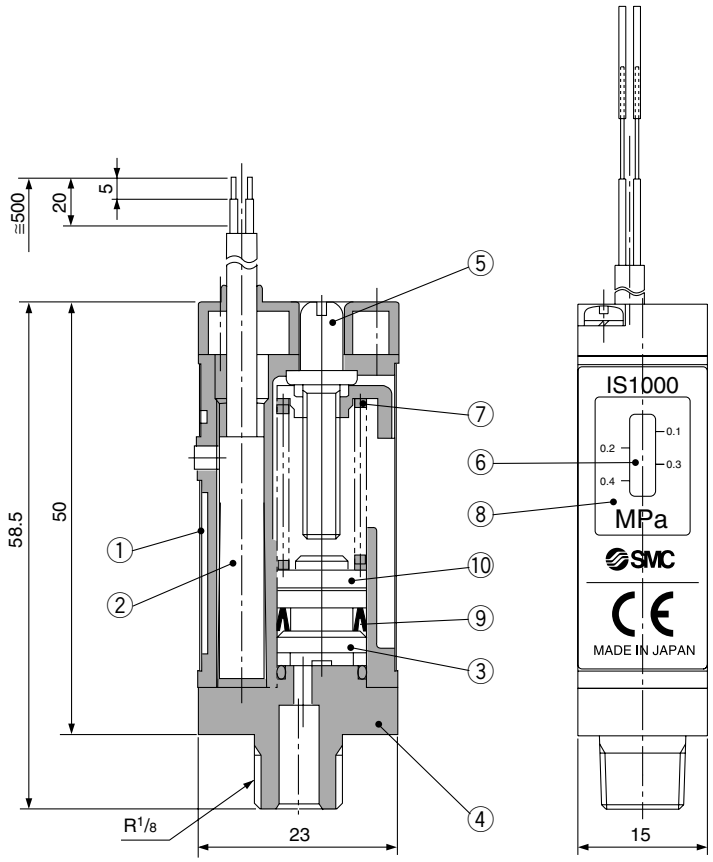
Pressure display with scale plate

Nil	MPa
P	Both MPa and psi Note)

Option

Nil	Lead wire length 0.5 m
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
X243	Lead wire length 5 m
X289	Lead wire length 5 m Regulating pressure range 0.1 to 0.6 MPa

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**	PC
9	**Miniseal Y type**	NBR
10	**Magnet**	—

⚠ Precautions

Be sure to read before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 687 to 691 for Pressure Switch Precautions.

Wiring

⚠Warning

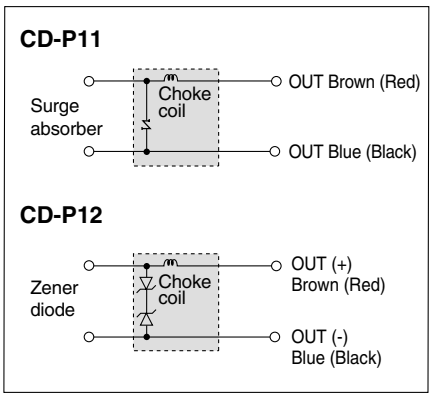
1. Connect load before connecting with power source.

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

Lead wire colors inside ( ) in the internal circuit of the contact protection box are those prior to conformity with IEC standards.



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

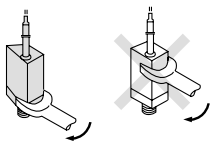
Mounting/Piping

⚠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. Turning it by applying a spanner on the main body may cause damage to the product.



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

Pressure Source

⚠Warning

1. Operating fluids are either air or inert gas exclusively. Never use liguids.

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

⚠Caution

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.