Resin Pilot Operated 2-Port Solenoid Valve

New

CE UKCA

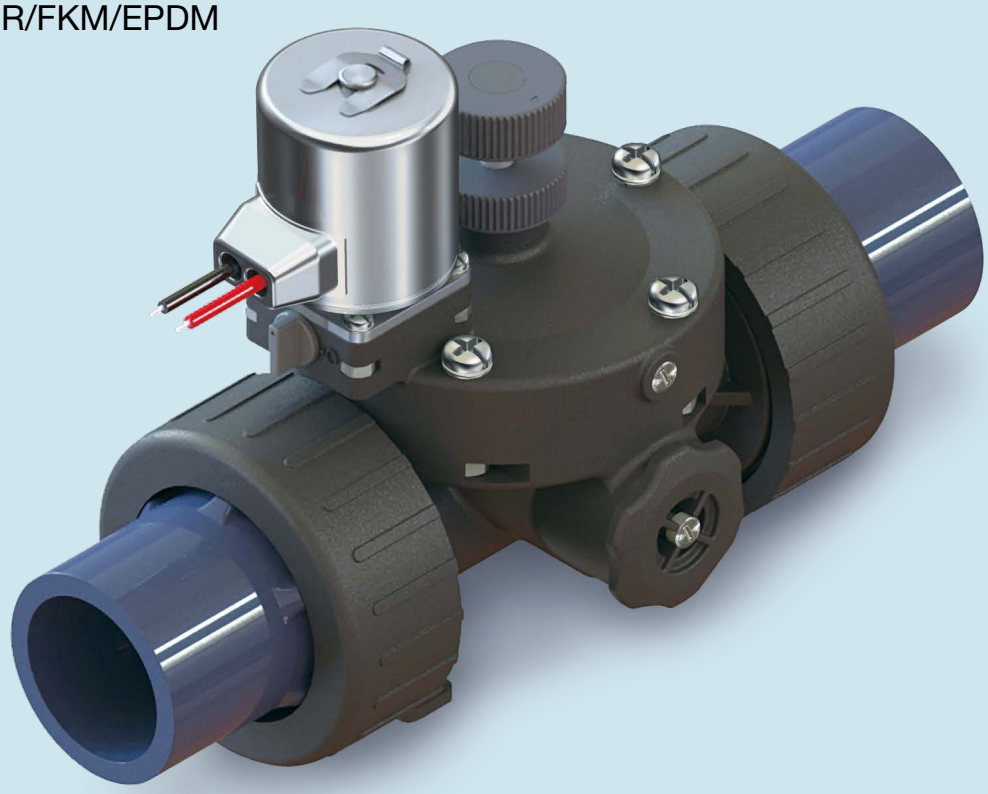
Refer to page 2 for details.

IP67 RoHS

- A water hammer relief feature
- Improved environmental resistance due to stainless steel coil cover [IP67 enclosure]
- The flow rate can be altered using the flow adjustment function.

Body material	Power consumption
High strength PA66	3 W

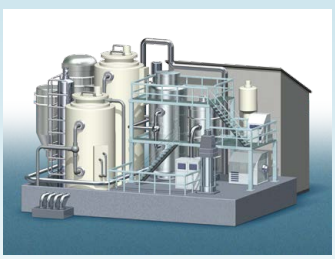
Seal material: NBR/FKM/EPDM



Application examples

Agriculture

Greenery systems



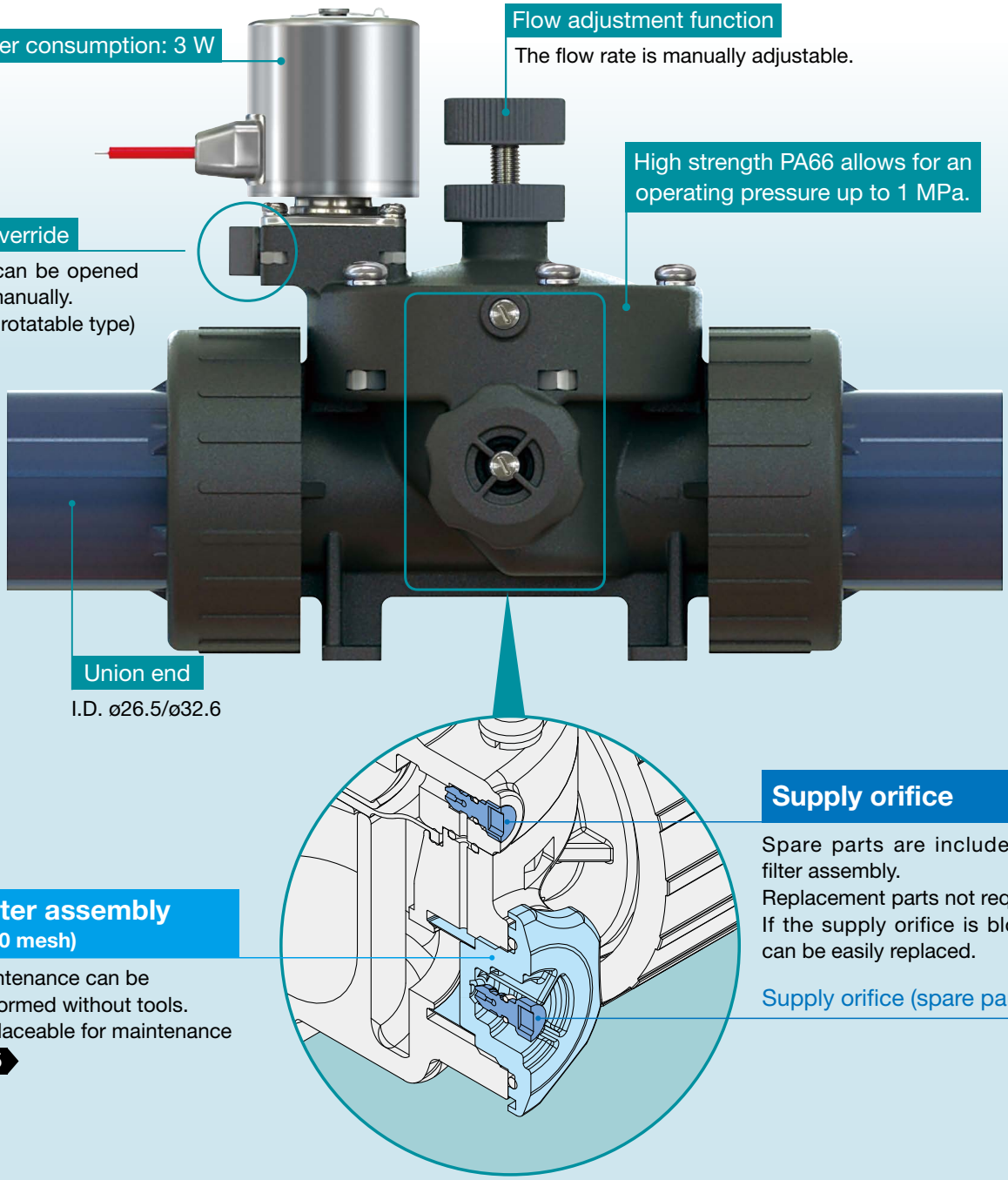
Water treatment

Water spraying

JSXN-X1

SMC

CAT.ES70-66A



Power consumption: 3 W

Flow adjustment function
The flow rate is manually adjustable.

High strength PA66 allows for an operating pressure up to 1 MPa.

Manual override
The valve can be opened or closed manually.
(90-degree rotatable type)

Union end
I.D. ø26.5/ø32.6

Supply orifice
Spare parts are included in the filter assembly.
Replacement parts not required.
If the supply orifice is blocked, it can be easily replaced.

Supply orifice (spare parts)

Filter assembly
(100 mesh)
Maintenance can be performed without tools.
Replaceable for maintenance
p. 5

Variations

Size	Valve type	Orifice diameter [mmø]	Port size		Seal material	Piping type
			Socket I.D. [mmø]	Thread		
50	N.C.	25	26.5	3/4	NBR FKM EPDM	Without union end and union nut Socket Thread
60			32.6	1		

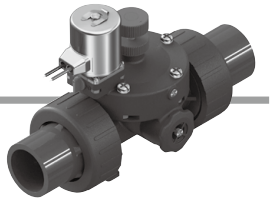
Resin Pilot Operated 2-Port Solenoid Valve

JSXN-X1

Availability varies depending on the voltage and electrical entry. See option ❽ below for details.

RoHS

IP67



How to Order

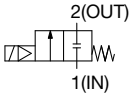
JSXN 5 1 – P N 06 S – 5 G – X1

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽

❶ Size

Symbol	Size
5	50
6	60

❷ Valve type

Symbol	Valve type
1	N.C. 

❸ Body material

Symbol	Body material
P	PA66

❹ Seal material

Symbol	Seal material
N	NBR
F	FKM
E	EPDM

❺ Orifice diameter and Port size

Symbol	Orifice diameter	Port size		Series	
	[mmø]	Socket type (I.D.)	Thread type (inch)	**50**	**60**
06	25	ø26.5	3/4	●	–
10		ø32.6	1	–	●

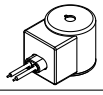
❻ Piping type

Symbol	Piping type		
Nil	Without union end and union nut		
S	Socket		
R	Thread	Rc	
N		NPT	
F		G	

❼ Rated voltage

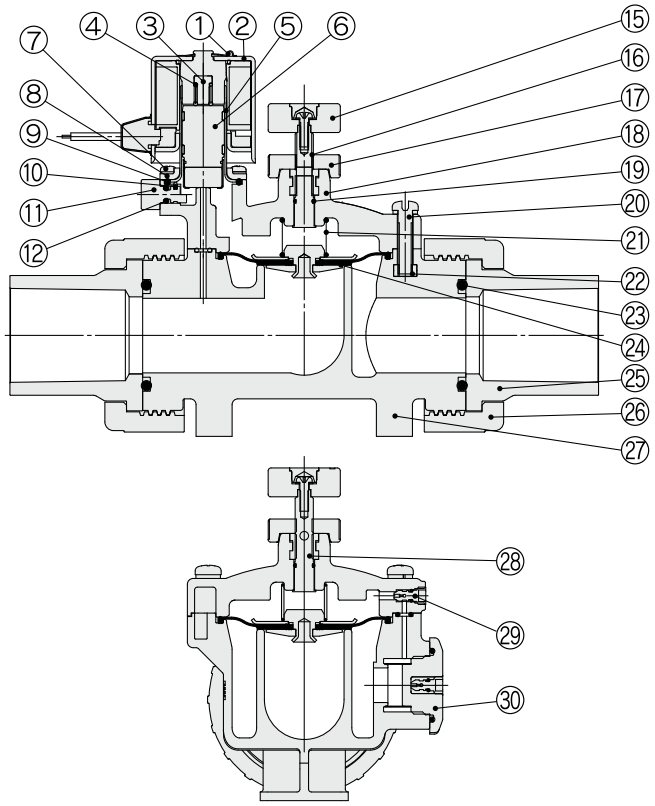
Symbol	Rated voltage
1	100 VAC
2	200 VAC
5	24 VDC
B	24 VAC

❽ Electrical entry

Symbol	Electrical entry		CE/UKCA-compliant
G	Grommet*1		24 VDC
GS	Grommet with PCB (With surge voltage suppressor)		100 VAC 24 VDC 24 VAC

*1 DC voltage only

Construction



Component Parts

No.	Description	Material
1	**Clip**∗1	Stainless steel
2	**Solenoid coil**∗1	Stainless steel, Cu, Resin
3	**Stopper**	PPS
4	**Spring**	Stainless steel
5	**Tube assembly**	Stainless steel
6	**Armature assembly**	Stainless steel, PPS, NBR (FKM, EPDM)
7	**Mounting screw**	Stainless steel
8	**Bonnet**	Stainless steel
9	**Gasket**	NBR (FKM, EPDM)
10	**Manual stopper**	Stainless steel
11	**Manual override**	PA66
12	**O-ring**	NBR (FKM, EPDM)
13	**Cap**	FKM
14	**Mounting screw**	Stainless steel
15	**Knob**	PPS
16	**Adjustment screw**	Stainless steel
17	**Lock nut**	PPS
18	**Bonnet**	PA66
19	**O-ring**	NBR (FKM, EPDM)
20	**Mounting screw**	Stainless steel
21	**Valve spring**	Stainless steel
22	**Nut**	Stainless steel
23	**O-ring**	NBR, FKM, EPDM
24	**Diaphragm assembly**	Stainless steel, NBR (FKM, EPDM)
25	**Union end**	Socket: PVC, Thread: Stainless steel
26	**Union nut**	PA66
27	**Body**	PA66
28	**Fixing pin**	POM
29	**Supply orifice assembly**	Stainless steel, NBR (FKM, EPDM)
30	**Filter assembly**∗1	PA66, NBR (FKM, EPDM)

∗1 Refer to page 5 for the replacement parts.

Common Specifications

Series			50	60
Valve specifications	**Body material**		PA66	
	Valve construction		Pilot operated diaphragm	
	Valve type		Normally closed (N.C.)	
	Fluid		Water, Diluted pesticides/Liquid fertilizer∗1	
	Fluid temperature		1 to 60°C (No freezing)	
	Withstand pressure		1.5 MPa	
	Max. system pressure		1 MPa	
	Operating pressure differential		0.02 to 1.0 MPa	
	Ambient temperature		–20 to 60°C	
	Port size	**Socket**	26.5 mmø	32.6 mmø
		Thread	3/4 inch	1 inch
	Orifice diameter		25 mmø	
	Flow rate characteristics	**Kv**	11.2	12.5
		Conversion Cv	13.0	14.5
	Valve leakage∗2		0.1 cc^3/min or less (with water pressure)	
	External leakage		0.1 cc^3/min or less (with water pressure)	
	Enclosure∗3		IP67 (IP65 for the DIN terminal)	
	Standards∗4		CE/UKCA	
	Operating environment		Location without the presence of corrosive gases or explosive gases	
	Seal material		NBR, FKM, EPDM	
	Weight		Socket: 730 g Thread: 1300 g	Socket: 750 g Thread: 1200 g
Coil specifications	**Rated voltage**	**AC**	24 V, 100 V, 200 V	
		DC	24 V	
	Allowable voltage fluctuation		±10% of the rated voltage	
	Allowable leakage voltage	**AC**	5% or less of the rated voltage	
		DC	2% or less of the rated voltage	
	Apparent power∗5, ∗6	**AC**	4.5 VA	
	Power consumption∗5	**DC**	3 W	

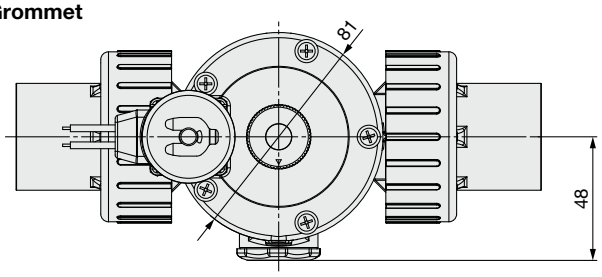
∗1 Fluids that will not corrode wetted parts
∗2 Valve leakage: The value at a differential pressure of 0.02 MPa or higher and an ambient temperature of 20°C
∗3 This product has an IP67 enclosure, but if water enters the product, it may result in malfunction or breakage. Therefore, take appropriate measures to avoid direct sunlight and prevent water from entering the product when using outdoors or in an environment where it is constantly exposed to water.
∗4 Compliance to standards varies depending on the model. For details, check the part number with each standard.
∗5 Power consumption/Apparent power: The value at an ambient temperature of 20°C and when the rated voltage is applied (Variation: ±10%)
∗6 There is no difference in the frequency and the inrush and energized apparent power, since a rectifying circuit is used in the AC.

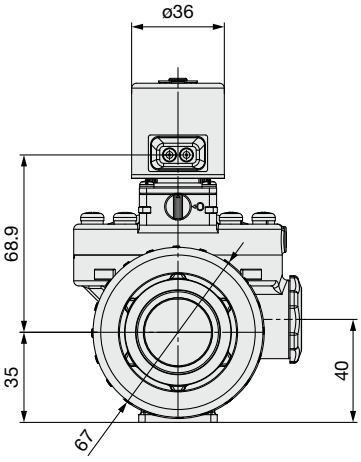
Be sure to read the "Specific Product Precautions" before handling the product.

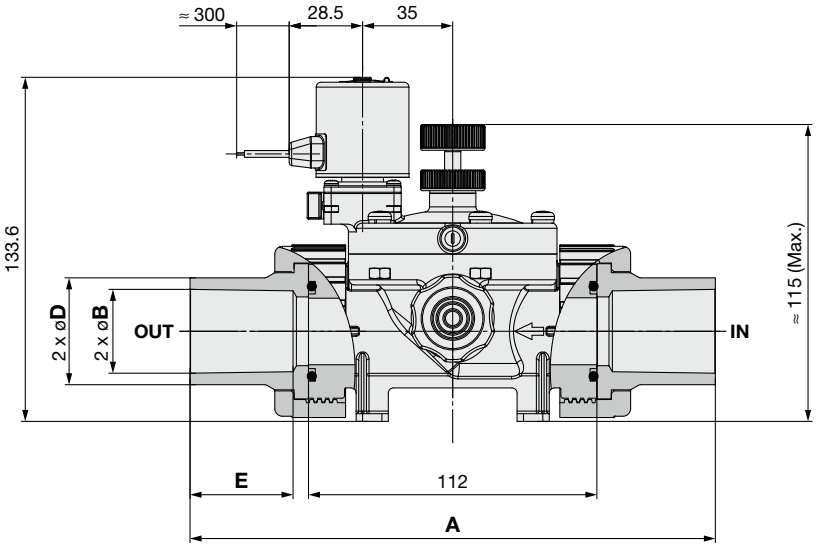
Dimensions

JSXN51, 61-P□□□-□□-X1

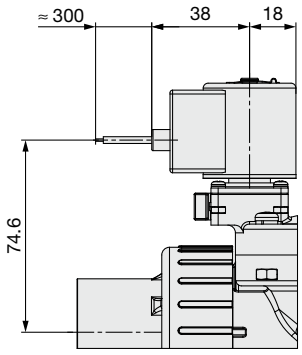
G: Grommet







GS: Grommet with PCB



Size	Port size	Piping type	A	B	D	E
50	20A	Socket	190	26.5	35.4	35
		Thread	174	3/4	45.5	—
60	25A	Socket	204	32.6	41.5	40
		Thread	174	1	45.5	—

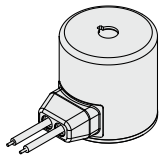
JSXN-X1
Replacement Parts

Replacement Parts

Solenoid coil assembly

JSXN□1-P□□□-□□-X1-KT1

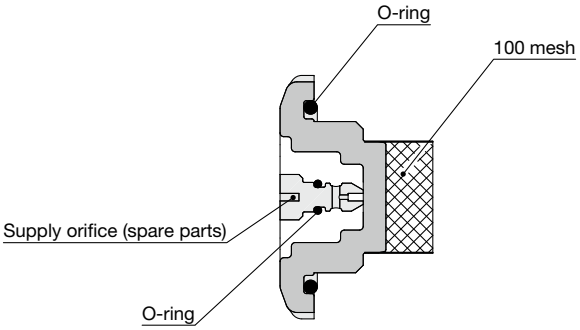
Enter the product number.



Filter assembly

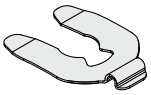
JSXN60-18A-□-X1

Symbol	Seal material
N	NBR
F	FKM
E	EPDM



Clip

VX021N-10S



⚠ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of **"Caution," "Warning"** or **"Danger."** They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)*1), and other safety regulations.

⚠ Danger : **Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

⚠ Warning: **Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

⚠ Caution: **Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

*1) ISO 4414: Pneumatic fluid power - General rules and safety requirements for systems and their components
ISO 4413: Hydraulic fluid power - General rules and safety requirements for systems and their components
IEC 60204-1: Safety of machinery - Electrical equipment of machines - Part 1: General requirements
ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1:Robots
etc.

⚠ Warning

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

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

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

1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. SMC products cannot be used beyond their specifications. They are not developed, designed, and manufactured to be used under the following conditions or environments. Use under such conditions or environments is not allowed.

1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Use for nuclear power, railways, aviation, space equipment, ships, vehicles, military application, equipment affecting human life, body, and property, combustion equipment, entertainment equipment, emergency shut-off circuits, press clutches, brake circuits, safety equipment, etc., and use for applications that do not conform to standard specifications such as catalogs and operation manuals.
3. Use for interlock circuits, except for use with double interlock such as installing a mechanical protection function in case of failure. Please periodically inspect the product to confirm that the product is operating properly.

⚠ Caution

SMC develops, designs, and manufactures products to be used for automatic control equipment, and provides them for peaceful use in manufacturing industries.
Use in non-manufacturing industries is not allowed.
Products SMC manufactures and sells cannot be used for the purpose of transactions or certification specified in the Measurement Act of each country. The new Measurement Act prohibits use of any unit other than SI units in Japan.

Limited warranty and Disclaimer/ Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".
Read and accept them before using the product.

Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.*2)
   Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided.
   This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

*2) **Suction cups (Vacuum pads) are excluded from this 1 year warranty.**
A suction cup (vacuum pad) is a consumable part, so it is warranted for a year after it is delivered.
Also, even within the warranty period, the wear of a product due to the use of the suction cup (vacuum pad) or failure due to the deterioration of rubber material are not allowed by the limited warranty.

Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

⚠ Safety Instructions	Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.

Specifications are subject to change without prior notice and any obligation on the part of the manufacturer.
© 2024 SMC Corporation All Rights Reserved