SMC

CE UKCA

RoHS

For High-Pressure Water

Pilot Operated 2-Port Solenoid Valve

Can be used at up to 10 MPa

An **IP67**[*1] **structure** with improved environmental resistance

*1 The DIN terminal is IP65.

JSXH-X2

P-E22-38

Orifice diameter [mmø]

12

Flow Rate Characteristics [Kv]

1.7 (Port size 3/8)
1.9 (Port size 1/2)

Power consumption

8 W

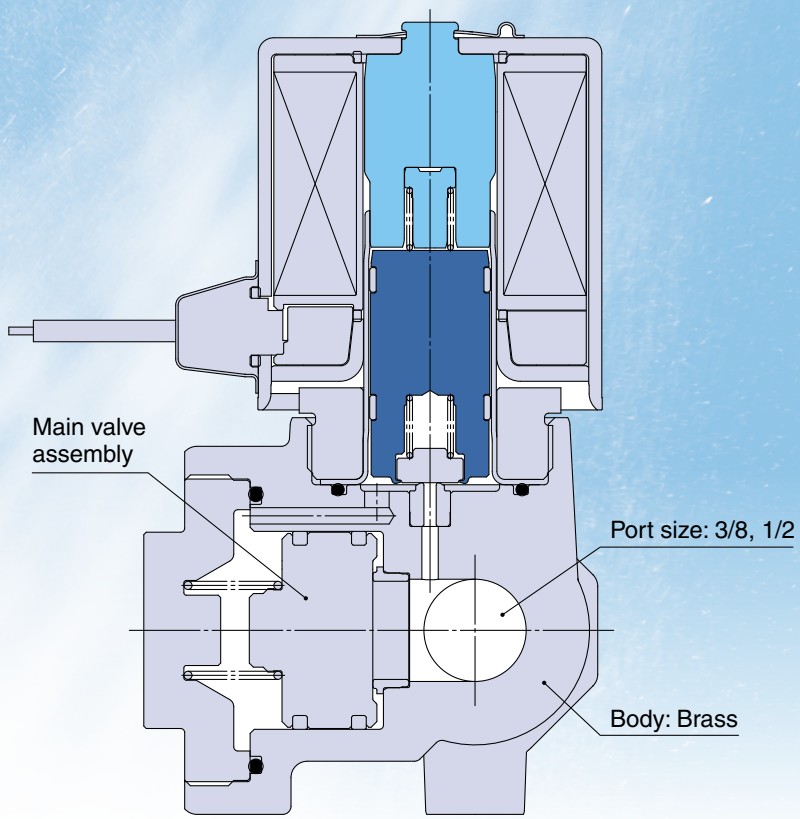
Weight

960 g (Port size: 3/8)
920 g (Port size: 1/2)

Easy maintenance

The coil can be replaced by simply removing the clip.

The main valve can be cleaned and replaced by simply removing the cover.



Electrical entry variations


DIN terminal


M12 connector

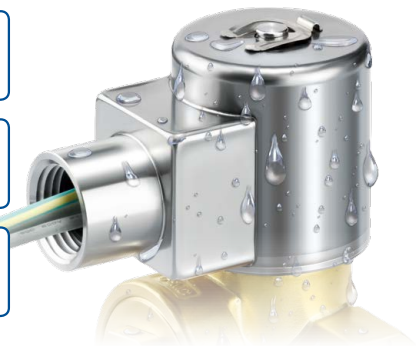

Grommet


Conduit

Improved environmental resistance

· Dustproof/waterproof IP67 structure
· With a stainless steel coil cover

Passed 1000 hours	**Accelerated weathering test** ISO 4892-3 (JIS K 7350-3) compliant
Passed 1000 hours	**Ozone-proof exposure test** ISO 1431 (JIS K 6259) compliant
Passed 960 hours	**Combined cycle test** ISO 14993 (JIS H 8502: 1999) compliant

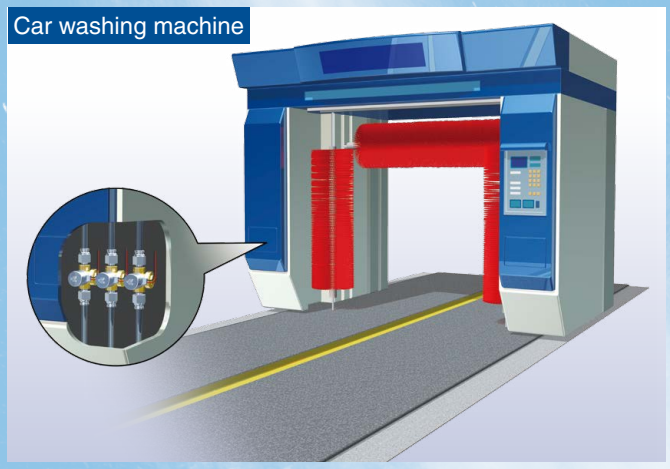


* Please contact your local sales representative for more details.

Application Examples

For high-pressure washing

Car washing machine



High-pressure cleaning equipment

For water spraying

Irrigation

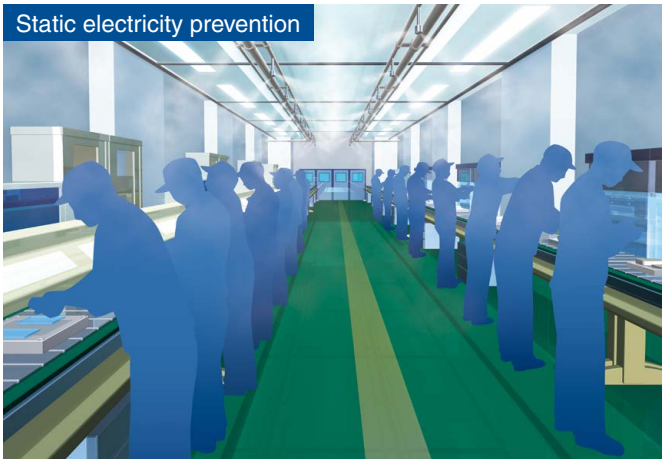
For misting

Dry fog

For misting

Mist cooling systems

Static electricity prevention

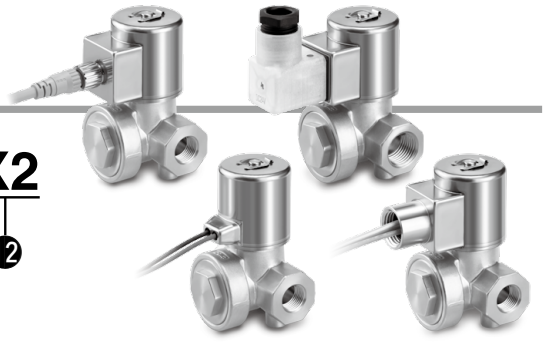


For High-Pressure Water Pilot Operated 2-Port Solenoid Valve

JSXH-X2

Differs depending on the voltage and electrical entry. For details, refer to table ⑩ below.

RoHS



How to Order

JSX H 3 1 P – C P 04 R – 5 G – A – X2

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾ ❿ ⓫ ⓬

❶ Series

Symbol	Series
H	High-pressure/ Pilot operated

❷ Size

Symbol	Size
3	30

❸ Valve type

Symbol	Valve type
1	N.C. 2(OUT) 1(IN)

❹ Main valve construction

Symbol	Main valve construction
P	Piston

❺ Body material

Symbol	Body material
C	Brass*1

*1 The orifice material is stainless steel.

❻ Seal material

Symbol	Seal material	
	Main valve	Pilot valve
P	PPS	PPS

❼ Port size and orifice diameter

Symbol	Port size	Orifice diameter [mmø]
03	3/8	12
04	1/2	

❽ Thread type

Symbol	Thread type
R	Rc
N	NPT
F	G

❾ Rated voltage

AC

Symbol	Rated voltage	Symbol	Rated voltage
1	100 VAC	4	220 VAC
2	200 VAC	7	240 VAC
3	120 (110) VAC	8	48 VAC
		B	24 VAC

DC

Symbol	Rated voltage
5	24 VDC
6	12 VDC

⓫ Option

Symbol	Option
Nil	None
A	Port facing the opposite direction

⓬ Pressure type

Symbol	Specifications
X2	Operating pressure: 0.1 to 10 MPa Fluid: Water

❿ Electrical entry

Symbol	Electrical entry		CE/UKCA-compliant
G	Grommet*2		24 VDC
			12 VDC
GS	Grommet with PCB (With surge voltage suppressor)		100 VAC
			24 VDC
			12 VDC
			48 VAC
			24 VAC
CS	Conduit (With surge voltage suppressor)		All voltages
DS	DIN terminal (With surge voltage suppressor)		All voltages
DZ	DIN terminal with light (With surge voltage suppressor)		All voltages
DN	Without DIN connector (With surge voltage suppressor)		All voltages
WN	M12 connector/Without connector cable (With surge voltage suppressor)*3		All voltages

*2 DC voltage only

*3 A cable for the M12 connector is not included with the product.

Specifications

	Size		30	
Valve specifications	**Valve construction**		Internal pilot type piston	
	Valve type		Normally closed (N.C.)	
	Fluid		Water	
	Fluid temperature		1 to 60°C (No freezing)	
	Ambient temperature		–20 to 60°C	
	Max. operating pressure		10.0 MPa	
	Operating pressure differential		0.1 to 10.0 MPa	
	Withstand pressure		15.0 MPa	
	Port size		3/8	1/2
	Orifice diameter		12 mmø	
	Flow rate characteristics	**Kv**	1.7	1.9
		Conversion Cv	2.0	2.2
	Leakage∗1	**Valve leakage**	30 cm^3/min or less	
		External leakage	0.1 cm^3/min or less	
	Mounting orientation		Unrestricted	
	Enclosure∗2		IP67 (IP65 for the DIN terminal)	
	Body material		Brass, Stainless steel	
	Seal material		PPS, NBR	
	Weight∗3	**3/8, Grommet**	960 g	
		1/2, Grommet	920 g	
Coil specifications	**Rated voltage**	**AC**	24 V, 48 V, 100 V, 110 V, 120 V, 200 V, 220 V, 230 V, 240 V	
		DC∗4	12 V, 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**	9.5 VA	
	Power consumption∗5	**DC**	8 W	
	Temperature rise∗7	**AC**	70°C	
		DC	65°C	

∗1 The value for water at a differential pressure of 0.1 MPa or higher and an ambient temperature of 20°C

∗2 This product has an IP67 enclosure, but if water enters the product, it may result in malfunction or breakage.
Therefore, take appropriate measures to prevent water from entering the product when using in an environment where it is constantly exposed to water.

∗3 Add 20 g for the grommet type with PCB, 70 g for the conduit type, 50 g for the DIN terminal type, and 15 g for the type without a DIN connector and the M12 connector type.

∗4 Only DC is available for the grommet type.

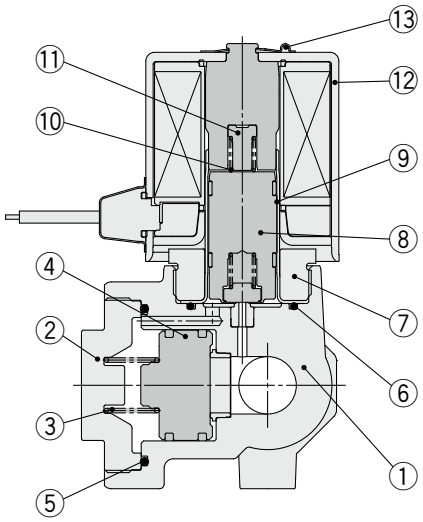
∗5 Power consumption/Apparent power: The value at an ambient temperature of 20°C and when the rated voltage is applied (Variation: ±10%)

∗6 There is no difference in the frequency and the inrush and energized apparent power, since a rectifying circuit is used in the AC.

∗7 Temperature rise: The value at an ambient temperature of 20°C and when the rated voltage is applied. Use this value as a reference as the actual value varies depending on the ambient environment.

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

Construction

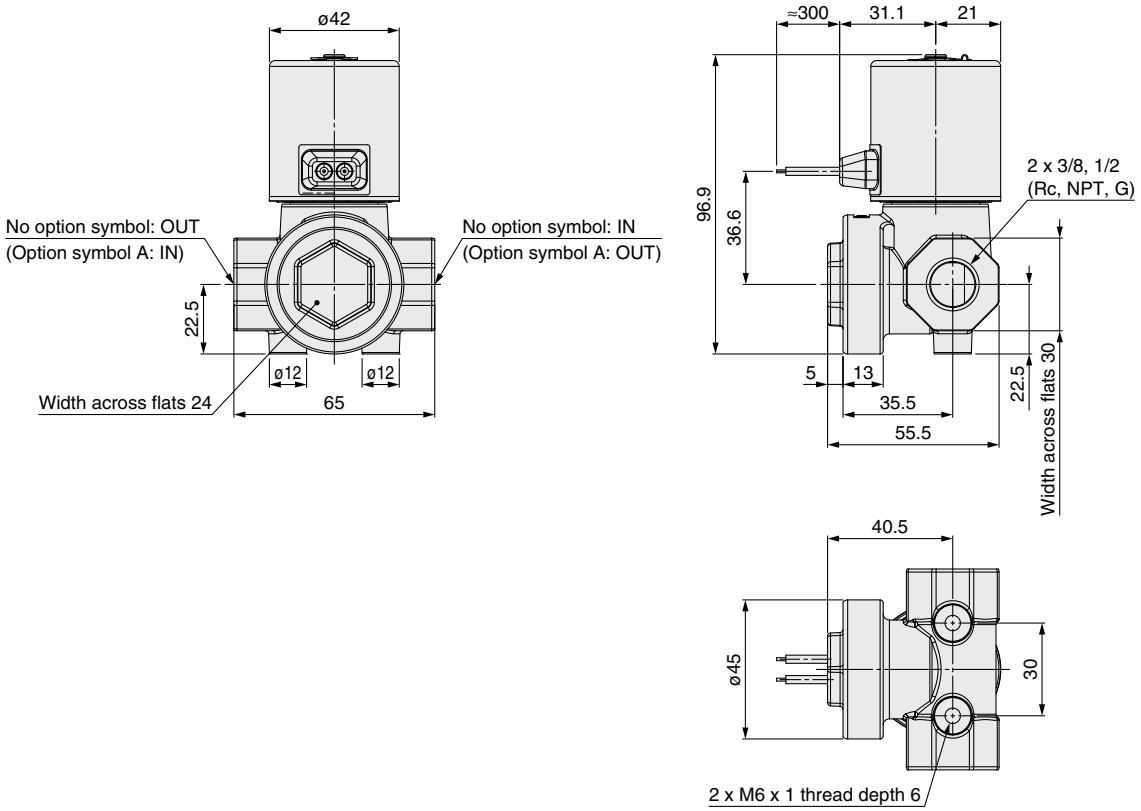


Component Parts

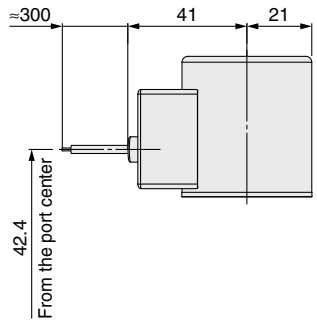
No.	Description	Material	Qty.	Note
1	**Body**	Brass, Stainless steel	1	
2	**Bonnet**	Brass	1	
3	**Spring**	Stainless steel 304	1	
4	**Main valve assembly**	PPS, POM, Stainless steel	1	
5	**O-ring**	NBR	1	
6	**O-ring**	NBR	1	
7	**Set nut**	Brass	1	
8	**Armature assembly**	Stainless steel, PPS, NBR	1	
9	**Tube assembly**	Stainless steel	1	High corrosion-resistant electromagnetic stainless steel + Stainless steel 305
10	**Spring**	Stainless steel 304	1	
11	**Stopper**	PPS	1	
12	**Solenoid coil assembly**	Stainless steel, Cu, Resin	1	High corrosion-resistant electromagnetic stainless steel
13	**Clip**	Stainless steel 304	1	

Dimensions

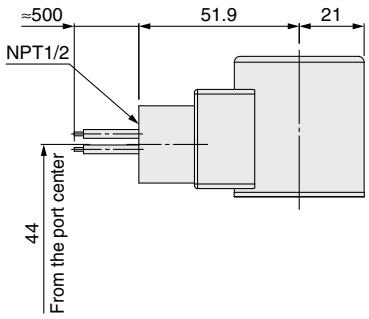
G: Grommet



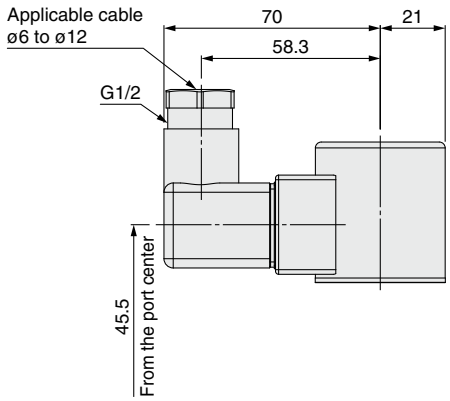
GS: Grommet with PCB



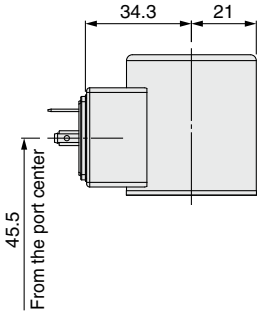
CS: Conduit



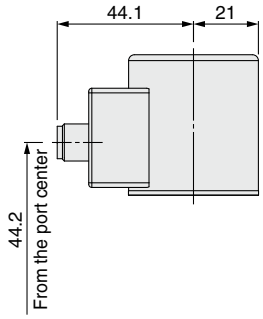
DS: DIN terminal
DZ: DIN terminal with light



DN: Without DIN connector



WN: M12 connector



JSXH-X2
Specific Product Precautions

Be sure to read this before handling the products. For safety instructions and 2-port solenoid valve for fluid control precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

Design

⚠ Warning

1. Water hammer

When an impact, such as water hammer, etc., caused by rapid pressure fluctuation is applied, the valve may be damaged, so be sure to install a water hammer relief device such as an accumulator.

2. Leakage when supplying fluid

Be aware that when the valve is closed, sudden pressure resulting from the startup of the fluid supply source may cause the valve to open momentarily and leakage to occur.

Fluid

⚠ Warning

1. Fluid selection

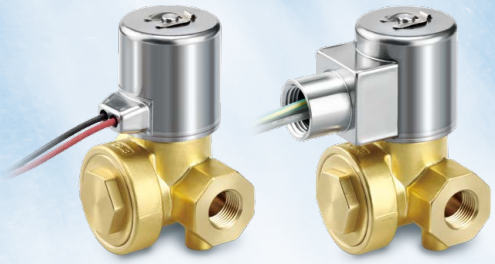
This product can only be used with water as the fluid. Do not use the product with the fluids shown below.

1) Fluids that are harmful to humans
2) Combustion-supporting or flammable fluids
3) Corrosive gases
4) Sea water, Saline solutions
5) Oils, Air

For High-Pressure Water

Pilot Operated 2-Port Solenoid Valve

JSXH-X2



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

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