



**For High-Pressure Water**

# Pilot Operated 2-Port Solenoid Valve

## Can be used at up to **10 MPa**

*For high-pressure washing*

*For water spraying*

*For misting*

An **IP67**<sup>\*1</sup> 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)

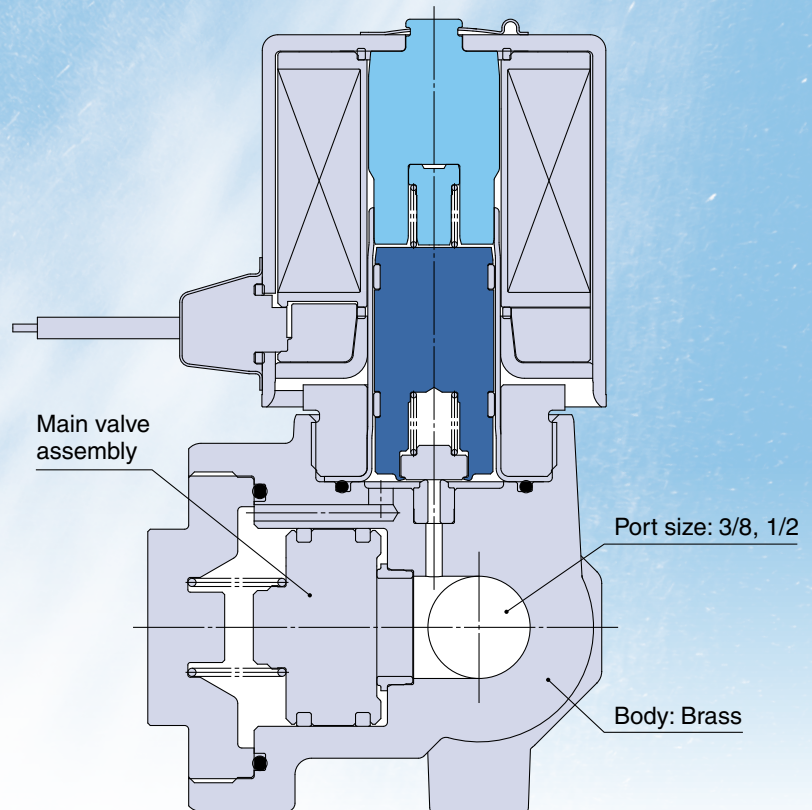
**920 g** (Port size: 1/2)

**Easy maintenance**

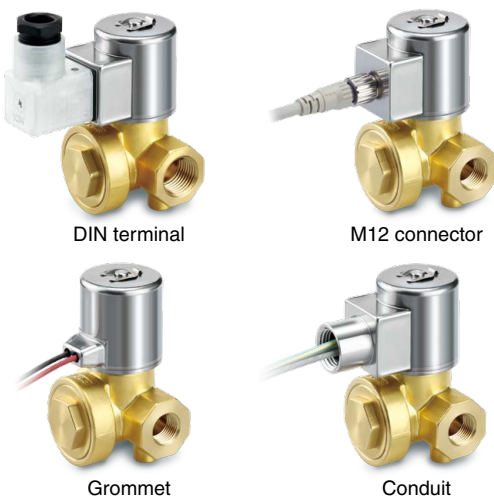
The coil can be replaced by simply removing the clip.



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



**Electrical entry variations**



**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

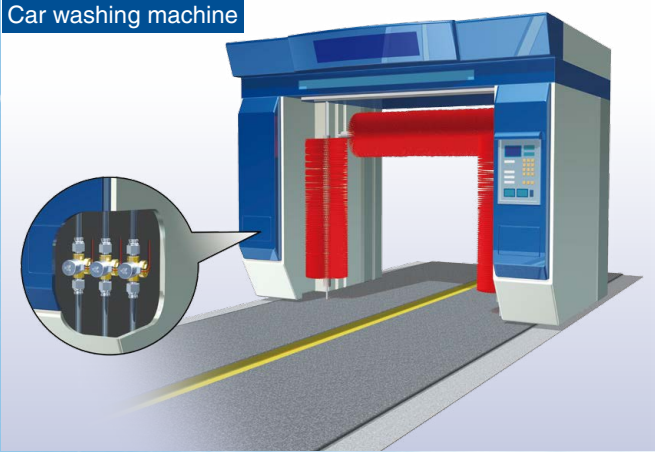
\* Please contact your local sales representative for more details.



## Application Examples

### For high-pressure washing

Car washing machine



High-pressure cleaning equipment



### For water spraying

Irrigation



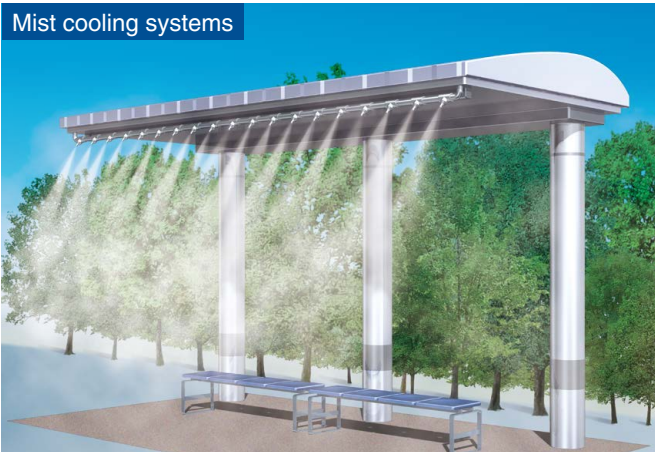
### For misting

Dry fog

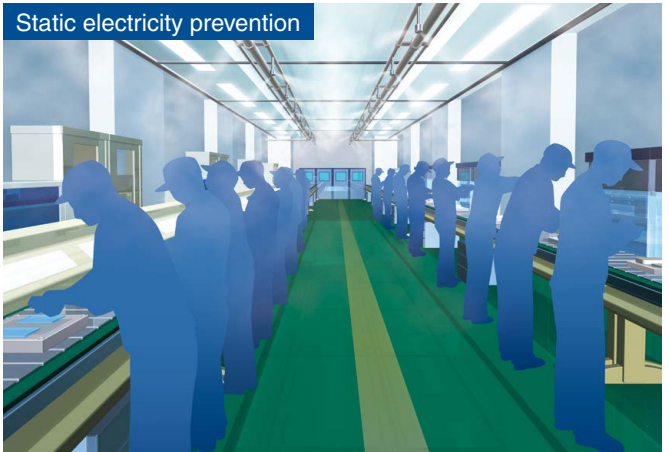


### For misting

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.



## How to Order

**JSXH31P-CP04R-5G-A-X2**

1
2
3
4
5
6
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11
12



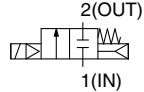
### 1 Series

Symbol	Series
<b>H</b>	High-pressure/ Pilot operated

### 2 Size

Symbol	Size
<b>3</b>	30

### 3 Valve type

Symbol	Valve type
<b>1</b>	N.C. 

### 4 Main valve construction

Symbol	Main valve construction
<b>P</b>	Piston

### 5 Body material

Symbol	Body material
<b>C</b>	Brass*1

\*1 The orifice material is stainless steel.

### 6 Seal material

Symbol	Seal material	
	Main valve	Pilot valve
<b>P</b>	PPS	PPS

### 7 Port size and orifice diameter

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

### 8 Thread type

Symbol	Thread type
<b>R</b>	Rc
<b>N</b>	NPT
<b>F</b>	G

### 9 Rated voltage

AC				DC	
Symbol	Rated voltage	Symbol	Rated voltage	Symbol	Rated voltage
<b>1</b>	100 VAC	<b>4</b>	220 VAC	<b>5</b>	24 VDC
<b>2</b>	200 VAC	<b>7</b>	240 VAC	<b>6</b>	12 VDC
<b>3</b>	120 (110) VAC	<b>8</b>	48 VAC		
		<b>B</b>	24 VAC		








### 11 Option

Symbol	Option
<b>Nil</b>	None
<b>A</b>	Port facing the opposite direction

### 12 Pressure type

Symbol	Specifications
<b>X2</b>	Operating pressure: 0.1 to 10 MPa Fluid: Water

### 10 Electrical entry

Symbol	Electrical entry	CE/UKCA-compliant
<b>G</b>	Grommet*2 	24 VDC
		12 VDC
<b>GS</b>	Grommet with PCB (With surge voltage suppressor) 	100 VAC
		24 VDC
		12 VDC
		48 VAC
<b>CS</b>	Conduit (With surge voltage suppressor) 	All voltages
		All voltages
<b>DS</b>	DIN terminal (With surge voltage suppressor) 	All voltages
		All voltages
<b>DZ</b>	DIN terminal with light (With surge voltage suppressor) 	All voltages
		All voltages
<b>DN</b>	Without DIN connector (With surge voltage suppressor) 	All voltages
		All voltages
<b>WN</b>	M12 connector/Without connector cable (With surge voltage suppressor)*3 	All voltages
		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 <sup>3</sup> /min or less	
		External leakage	0.1 cm <sup>3</sup> /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%)

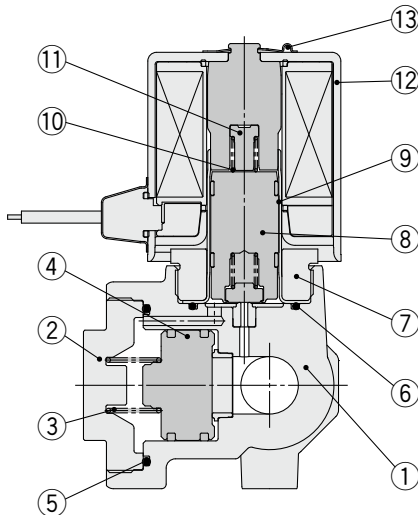
\*6 There is no difference in the frequency and the inrush and energized apparent power, since a rectifying circuit is used in the AC.

\*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



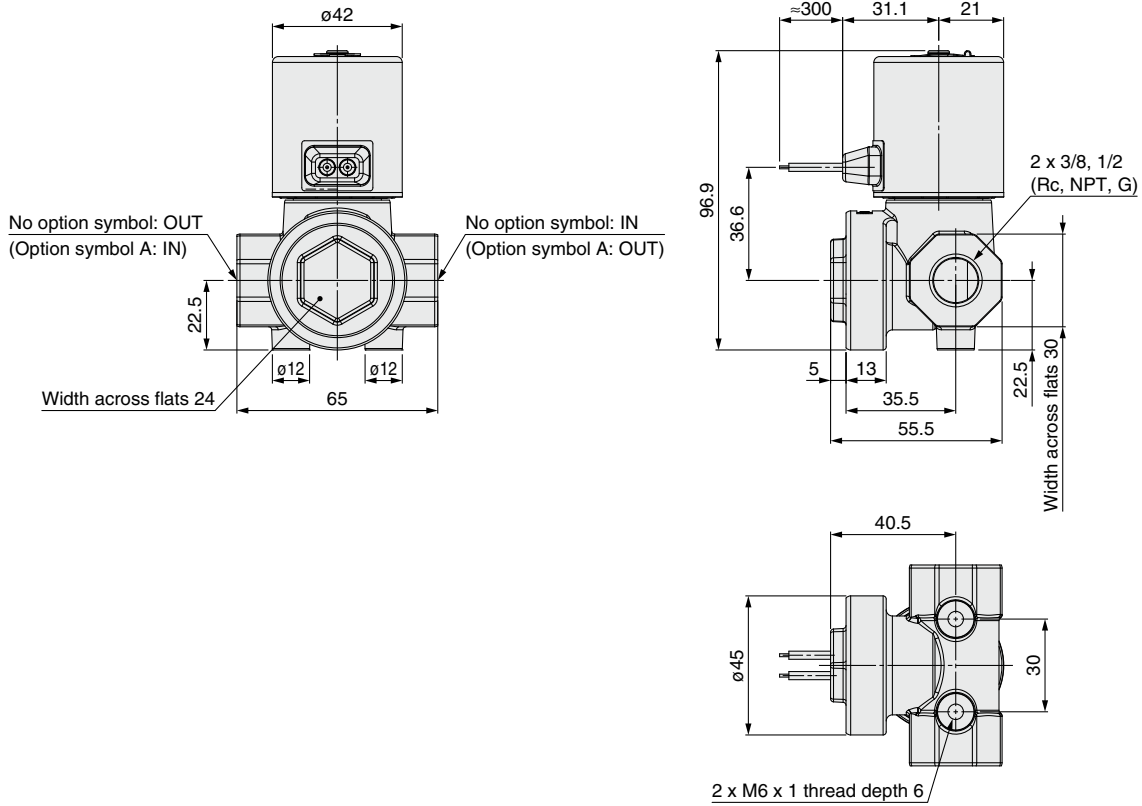
### Component Parts

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	

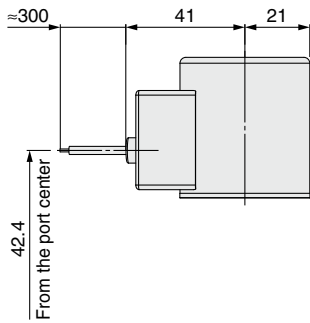
# JSXH-X2

## Dimensions

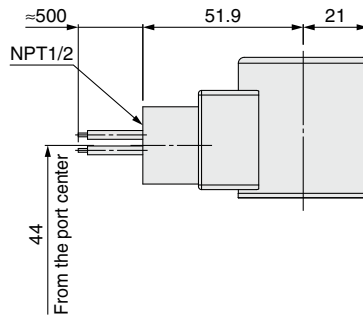
### G: Grommet



### GS: Grommet with PCB

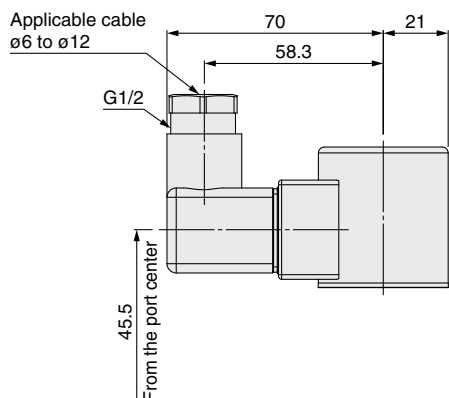


### CS: Conduit

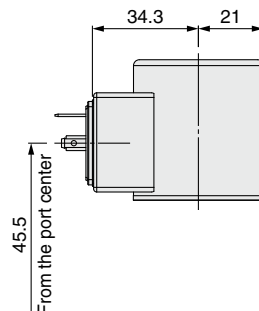


### DS: DIN terminal

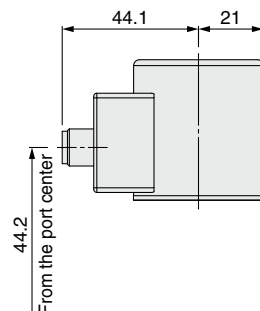
### DZ: DIN terminal with light



### 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

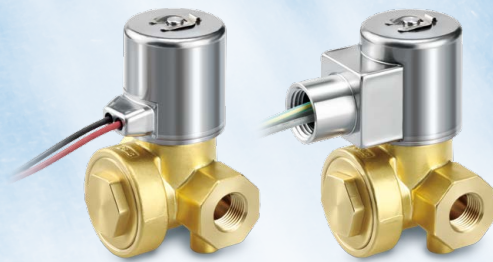
#### Warning

##### 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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