SMC

Expertise – Passion – Automation

Let it flow in a controlled manner

SMC 2-port valves

Two-port valves are key components in a wide range of fluid control systems

The main function of two-way valves is to control the flow of fluid, allowing it to pass through with little restriction or stop completely, making it easier to manage the amount of fluid flowing around a system. This has diverse applications, such as temperature control in heating and cooling systems, fluid management in irrigation systems, chemical handling in industrial processes, and much more. Any fluid application relies on the use of valves.

Two-port valves can have different designs and operating mechanisms. Their choice depends on the specific application needs and operating conditions. These valves are essential to ensure accurate and efficient control of fluids in a wide variety of situations, contributing to the reliability and efficiency of numerous processes and systems.

At SMC we know what we are talking about when it comes to fluid handling. Following, you can see SMC's wide range of products.

"All with the reliability and long service life you can expect from **SMC**."

Fluid

Select your fluid and we will show you the full range of solutions we have available.

Air, inert gas

Vacuum

Water

Heated water

Steam

Oil

High temperature oil

Coolant

Chemical liquids, pure water

Air (dust collector)

Air (high frequency)

High pressure air and water

Air, inert gas | Vacuum | Water | Heated water | Steam | Oil | High temperature oil | Coolant | Chemical liquids, pure water | Air (dust collector) | Air (high frequency) | High pressure air and water

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Proportional control valve
JSP Series

Direct operated 2-port solenoid valve
VX2 Series

Compact direct operated 2-port solenoid valve
VDW Series

Pilot operated 2-port solenoid valve
JSXD Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve
VXEZ Series

Angle seat valve air operated type
JSB Series

Air operated/External pilot solenoid valve
VNB Series

Air, inert gas


Vacuum

Water

Heated water

Steam

Oil

High temperature oil

Coolant

Chemical liquids, pure water

Air (dust collector)

Air (high frequency)

High pressure air and water

Direct operated 2-port solenoid valve
VX2 Series
⊕

Compact direct operated 2-port solenoid valve
VDW Series
⊕

Air operated/External pilot solenoid valve
VNB Series
⊕

Direct operated 2-port solenoid valve
JSX Series
⊕

Air, inert gas | Vacuum | **Water** | Heated water | Steam | Oil | High temperature oil | Coolant | Chemical liquids, pure water | Air (dust collector) | Air (high frequency) | High pressure air and water

Direct operated 2-port solenoid valve
JSX Series
⊕

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series
⊕

Proportional control valve
JSP Series
⊕

Direct operated 2-port solenoid valve
VX2 Series
⊕

Compact direct operated 2-port solenoid valve
VDW Series
⊕

Pilot operated 2-port solenoid valve
JSXD Series
⊕

Pilot operated 2-port solenoid valve for high pressure water
JSXH-X2 Series
⊕

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series
⊕

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve
VXEZ Series
⊕

Angle seat valve air operated type
JSB Series
⊕

Air operated/External pilot solenoid valve
VNB Series
⊕

High purity chemical liquid valve Air operated threaded type (SUS body)
LVA Series
⊕

Air, inert gas | Vacuum | Water | **Heated water** | Steam | Oil | High temperature oil | Coolant | Chemical liquids, pure water | Air (dust collector) | Air (high frequency) | High pressure air and water

Direct operated 2-port solenoid valve
VX2 Series

Zero differential pressure type
Pilot operated 2-port solenoid valve
VXZ Series

Air operated/External pilot solenoid valve
VNB Series

High purity chemical liquid valve
Air operated threaded type (SUS body)
LVA Series

Direct operated 2-port solenoid valve
JSX Series

Air, inert gas | Vacuum | Water | Heated water | **Steam** | Oil | High temperature oil | Coolant | Chemical liquids, pure water | Air (dust collector) | Air (high frequency) | High pressure air and water

Angle seat valve air operated type
JSB Series
⊕

Direct operated 2-port solenoid valve
VX2 Series
⊕

2-port valve for steam
VND Series
⊕

Direct operated 2-port solenoid valve
JSX Series
⊕

Air, inert gas | Vacuum | Water | Heated water | Steam | **Oil** | High temperature oil | Coolant | Chemical liquids, pure water | Air (dust collector) | Air (high frequency) | High pressure air and water

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Direct operated 2-port solenoid valve
VX2 Series

Pilot operated 2-port solenoid valve
JSXD Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve
VXEZ Series

Air operated/External pilot solenoid valve
VNB Series

Air, inert gas | Vacuum | Water | Heated water | Steam | Oil | **High temperature oil** | Coolant | Chemical liquids, pure water | Air (dust collector) | Air (high frequency) | High pressure air and water

Pilot operated 2-port solenoid valve
VXD Series

Zero differential pressure type
Pilot operated 2-port solenoid valve
VXZ Series

Air operated/External pilot solenoid valve
VNB Series

Air, inert gas | Vacuum | Water | Heated water | Steam | Oil | High temperature oil | **Coolant** | Chemical liquids, pure water | Air (dust collector) | Air (high frequency) | High pressure air and water

External pilot solenoid coolant valve
SGC Series

External pilot solenoid high-pressure coolant Valve
SGH Series

Air, inert gas | Vacuum | Water | Heated water | Steam | Oil | High temperature oil | Coolant | **Chemical liquids, pure water** | Air (dust collector) | Air (high frequency) | High pressure air and water

2/3-port solenoid valve for chemical liquids Isolated type
LVM Series
⊕

2/3-port solenoid valve Isolated type
LVMK Series
⊕

Pinch valve
LPV Series
⊕

Compact type high purity Air operated chemical liquid valve
LVD Series
⊕

High purity chemical liquid valve Air operated threaded type
LVA Series
⊕

High purity chemical valve Non-metallic exterior
LVQ Series
⊕

Air, inert gas

Vacuum

Water

Heated water

Steam

Oil

High temperature oil

Coolant

Chemical liquids, pure water


Air (dust collector)

Air (high frequency)

High pressure air and water

Pulse valve for dust collector
Solenoid valve type
JSXF Series

Pulse valve for dust collector
Air operated type
JSXFA Series

Air, inert gas | Vacuum | Water | Heated water | Steam | Oil | High temperature oil | Coolant | Chemical liquids, pure water | Air (dust collector) | **Air (high frequency)** | High pressure air and water

2-port high speed valve
SX10 Series
⊕

Pilot operated 2-port solenoid valve
VQ20/30 Series
⊕

Air, inert gas | Vacuum | Water | Heated water | Steam | Oil | High temperature oil | Coolant | Chemical liquids, pure water | Air (dust collector) | Air (high frequency) | **High pressure air and water**

5.0 MPa pilot operated 3-port solenoid valve
VCH410 Series

5.0 MPa pilot operated 2-port solenoid valve
VCH41/42 Series

Pilot operated 2-port solenoid valve for high pressure water
JSXH-X2 Series

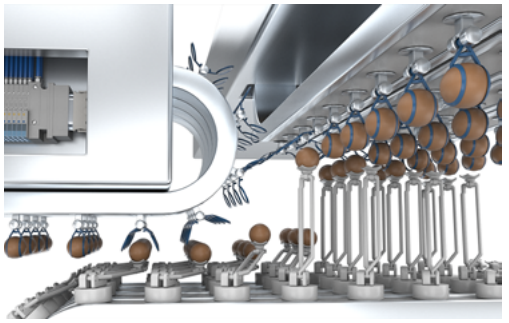
Direct operated 2-port solenoid valve
JSX Series

Industries

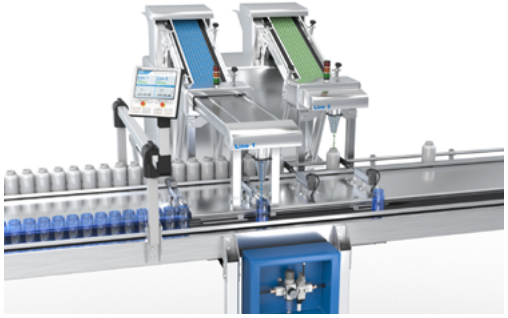
Find your industry and discover our offer.

Beverage

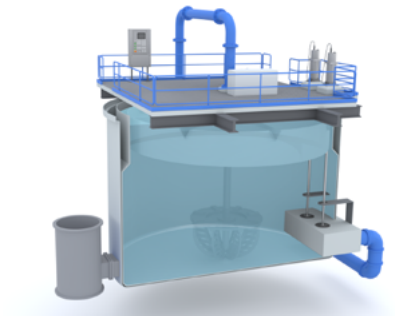
Medical equipment



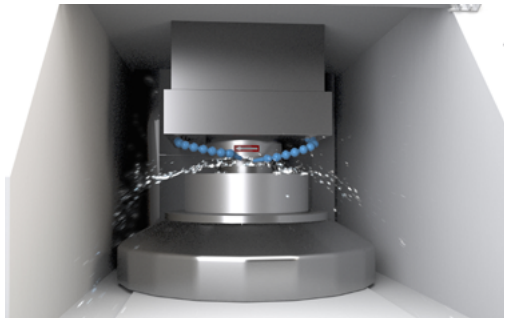
Food



Pharmaceutical manufacturing

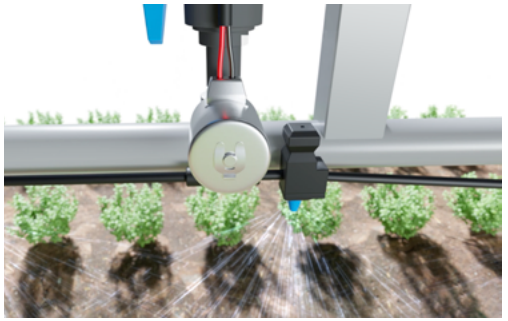


Water treatment



Machine tools

Cleaning systems



Agriculture

Medical equipment | Food | Pharmaceutical manufacturing | Water treatment | Machine tools | Cleaning systems | Agriculture

Beverage

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Direct operated 2-port solenoid valve
VX2 Series

Compact/Lightweight 2-port solenoid valve
VDW30/40-XF Series

Pilot operated 2-port solenoid valve
JSXD Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

5.0 MPa pilot operated 3-port solenoid valve
VCH410 Series

Pilot operated 2-port solenoid valve
VQ20/30 Series

Angle seat valve air operated type
JSB Series

2-port valve for steam
VND Series

Beverage

Food

Pharmaceutical manufacturing

Water treatment

Machine tools

Cleaning systems

Agriculture

Medical equipment

Direct operated 2-port solenoid valve
JSX Series
⊕

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series
⊕

Proportional control valve
JSP Series
⊕

Direct operated 2-port solenoid valve
VX2 Series
⊕

Compact direct operated 2-port solenoid valve
VDW Series
⊕

Pilot operated 2-port solenoid valve
JSXD Series
⊕

Angle seat valve air operated type
JSB Series
⊕

Air operated/External pilot solenoid valve
VNB Series
⊕

2/3-port solenoid valve for chemical liquids Isolated type
LVM Series
⊕

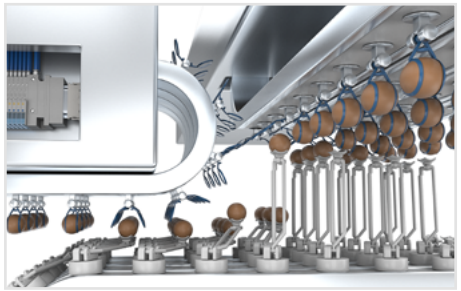
2/3-port solenoid valve Isolated type
LVMK Series
⊕

Pinch valve
LPV Series
⊕

High purity chemical liquid valve Air operated threaded type
LVA Series
⊕

Beverage

Medical equipment



Pharmaceutical manufacturing

Water treatment

Machine tools

Cleaning systems

Agriculture

Food

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Direct operated 2-port solenoid valve
VX2 Series

Pilot operated 2-port solenoid valve
JSXD Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

Pulse valve for dust collector Solenoid valve type
JSXF Series

Angle seat valve air operated type
JSB Series

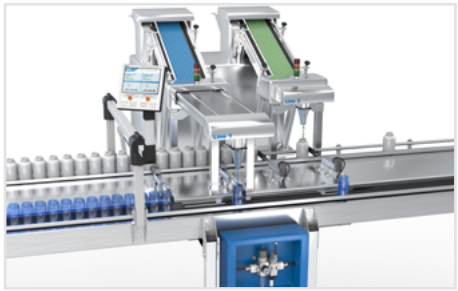
Air operated/External pilot solenoid valve
VNB Series

High purity chemical liquid valve Air operated threaded type (SUS body)
LVA Series

Beverage

Medical equipment

Food



Water treatment

Machine tools

Cleaning systems

Agriculture

Pharmaceutical manufacturing

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Direct operated 2-port solenoid valve
VX2 Series

Pilot operated 2-port solenoid valve
JSXD Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

Angle seat valve air operated type
JSB Series

2/3-port solenoid valve for chemical liquids Isolated type
LVM Series

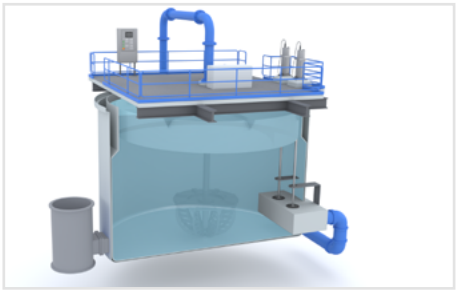
High purity chemical liquid valve Air operated threaded type
LVA Series

Beverage

Medical equipment

Food

Pharmaceutical manufacturing



Machine tools

Cleaning systems

Agriculture

Water treatment

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Direct operated 2-port solenoid valve
VX2 Series

Pilot operated 2-port solenoid valve
JSXD Series

Angle seat valve air operated type
JSB Series

Air operated/External pilot solenoid valve
VNB Series

High purity chemical liquid valve
Air operated threaded type (SUS body)
LVA Series

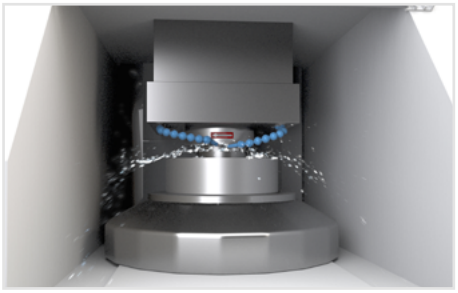
Beverage

Medical equipment

Food

Pharmaceutical manufacturing

Water treatment



Cleaning systems

Agriculture

Machine tools

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Direct operated 2-port solenoid valve
VX2 Series

Pilot operated 2-port solenoid valve
JSXD Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

5.0 MPa pilot operated 3-port solenoid valve
VCH410 Series

External pilot solenoid coolant valve
SGC Series

Air operated coolant valve
SGCA Series

Beverage

Medical equipment

Food

Pharmaceutical manufacturing

Water treatment

Machine tools

Agriculture

Cleaning systems

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Direct operated 2-port solenoid valve
VX2 Series

Angle seat valve air operated type
JSB Series

Pilot operated 2-port solenoid valve
JSXD Series

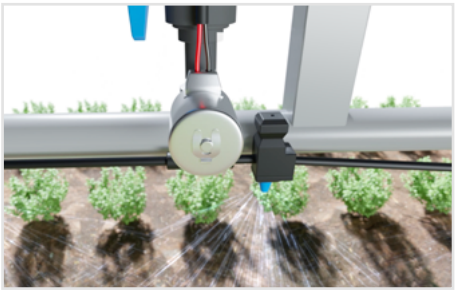
Pilot operated 2-port solenoid valve for high pressure water
JSXH-X2 Series

Air operated/External pilot solenoid valve
VNB Series

2-port valve for steam
VND Series

High purity chemical liquid valve
Air operated threaded type
LVA Series

Beverage | Medical equipment | Food | Pharmaceutical manufacturing | Water treatment | Machine tools | Cleaning systems



Agriculture

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Direct operated 2-port solenoid valve
VX2 Series

Pilot operated 2-port solenoid valve
JSXD Series

Pilot operated 2-port solenoid valve for high pressure water
JSXH-X2 Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

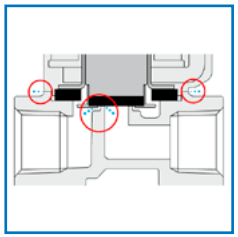
Pulse valve for dust collector Solenoid valve type
JSXF Series

High purity chemical liquid valve Air operated threaded type (SUS body)
LVA Series

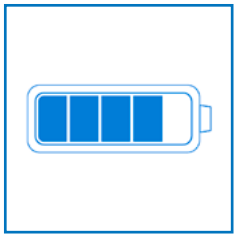
Features

Looking for solutions for special features? Click and you will see the solution.

Fast response/High frequency



Low leakage



Energy saving/Low wattage

Enclosure IP65 or higher (Dust-tight, water-jet-proof type)

Fast response/High frequency

Low leakage

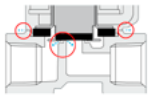
Energy saving/Low wattage

Enclosure IP65 or higher
(Dust-tight, water-jet-proof type)

2-port high speed valve
SX10 Series
⊕

Pilot operated 2-port solenoid valve
VQ20/30 Series
⊕

Fast response/High frequency



Low leakage

Energy saving/Low wattage

Enclosure IP65 or higher
(Dust-tight, water-jet-proof type)

Direct operated 2-port solenoid valve
VX2 Series

Compact direct operated 2-port solenoid valve
VDW Series

Air operated/External pilot solenoid valve
VNB Series

2/3-port solenoid valve for chemical liquids Isolated type
LVM Series

2/3-port solenoid valve Isolated type
LVMK Series

Fast response/High frequency

Low leakage

Energy saving/Low wattage

Enclosure IP65 or higher
(Dust-tight, water-jet-proof type)

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Compact direct operated 2-port solenoid valve
VDW Series

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve
VXEZ Series

2/3-port solenoid valve for chemical liquids Isolated type
LVM Series

Pinch valve
LPV Series

Fast response/High frequency

Low leakage

Energy saving/Low wattage

Enclosure IP65 or higher (Dust-tight, water-jet-proof type)

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Direct operated 2-port solenoid valve
VX2 Series

Compact direct operated 2-port solenoid valve
VDW Series

Pilot operated 2-port solenoid valve
JSXD Series

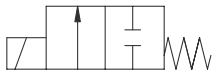
Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

Pulse valve for dust collector Solenoid valve type
JSXF Series

Valve construction

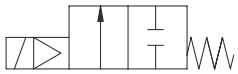
Every type of valve is available at your fingertips, click to discover more.

Solenoid operated



Direct operated

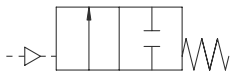
The construction of a direct-operated valve is relatively simple. The internal valve sealing element is directly connected to a plunger or armature. The armature moves when a voltage is applied to a solenoid coil. To generate enough force to create this movement consumes power. When the solenoid is not operated, the armature and sealing element is returned to it's original position by the force provided by a return spring.



Pilot operated

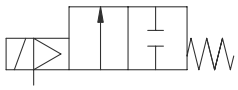
Pilot-operated or pilot assisted valves move the internal sealing element by using the power from a small solenoid with the pressure from the fluid supplied to the valve itself. The pilot valve is small and activated with a small force thus, consuming a small amount of power. However, when this pilot valve is operated, it opens a second element, which in turn uses fluid pressure to fully open the main valve controlling the flow of the fluid. The construction of a pilot operated valve is more complex than that of a direct-operated valve. The internal pilot valve is mounted within the valve body and uses pressure from the fluid supplied to valve inlet port.

Pneumatically operated



Air operated

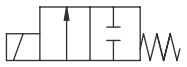
The construction of an air-piloted valve is similar to the direct-operated valve. Instead of using a solenoid and armature to move the position of the internal valve sealing element, it is moved directly by the air pressure supplied to the air pilot port. When the pilot supply is removed, the valve returns to its original position by a return spring.



External pilot solenoid

External pilot type solenoid valves work in a similar way to the pilot operated valve and the external feed is maintained continually. Operating the small solenoid opens a pilot which allows pressurised air to enter a chamber. The air pressure pushes on a diaphragm, which in turn actuates the valve's poppet which opens or closes the fluid flow path. Because the external pilot comes from an independent compressed air supply, the main valve can control the flow of different fluid.

Solenoid operated



Direct operated

Pilot operated

Pneumatically operated

Air operated

External pilot solenoid

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Direct operated 2-port solenoid valve
VX2 Series

Proportional control valve
JSP Series

Compact direct operated 2-port solenoid valve
VDW Series

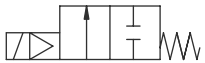
2/3-port solenoid valve for chemical liquids Isolated type
LVM Series

2/3-port solenoid valve Isolated type
LVMK Series

Pinch valve
LPV Series

Solenoid operated

Direct operated



Pilot operated

Pneumatically operated

Air operated

External pilot solenoid

Pilot operated 2-port solenoid valve
JSXD Series

Zero differential pressure type
Pilot operated 2-port solenoid valve
JSXZ Series

Pilot operated 2-port solenoid valve for high pressure water
JSXH-X2 Series

Pulse valve for dust collector Solenoid valve type
JSXF Series

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve
VXEZ Series

5.0 MPa pilot operated 2-port solenoid valve
VCH41/42 Series

5.0 MPa pilot operated 3-port solenoid valve
VCH410 Series

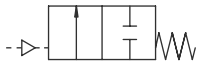
Pilot operated 2-port solenoid valve
VQ20/30 Series

Solenoid operated

Direct operated

Pilot operated

Pneumatically operated



Air operated

External pilot solenoid

Angle seat valve air operated type
JSB Series

Air operated/External pilot solenoid valve
VNB Series

2-port valve for steam
VND Series

Pulse valve for dust collector Air operated type
JSXFA Series

Air operated high-pressure coolant valve
SGHA Series

Air operated coolant valve
SGCA Series

Compact type high purity Air operated chemical liquid valve
LVD Series

High purity chemical liquid valve Air operated threaded type
LVA Series

High purity chemical valve
LVQ Series

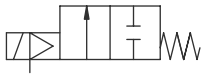
Solenoid operated

Direct operated

Pilot operated

Pneumatically operated

Air operated


External pilot solenoid

Air operated/External pilot solenoid valve
VNB Series

External pilot solenoid coolant valve
SGC Series

External pilot solenoid high-pressure coolant Valve
SGH Series

Body material

Select the material you want and we will show you all our range of products.

Aluminium | **Stainless steel** | **Brass/Bronze** | **Resin** | **Fluororesin**

Feature	Body material					
	Aluminium	Stainless steel	Brass	Resin	Cast iron	Fluororesin
Weight	Light	Medium	Medium	Light	Medium	Medium
Corrosion resistance	Bad	Excellent	Good	Good		Excellent
Durability	Good				Good	
Thermal conductivity		Good		Bad	Bad	Bad
Electrical conductivity						

Aluminium | Stainless steel | Brass/Bronze | Resin | Fluororesin

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

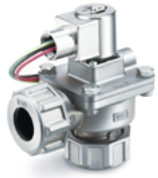
Direct operated 2-port solenoid valve
VX2 Series

Compact direct operated 2-port solenoid valve
VDW Series

Pilot operated 2-port solenoid valve
JSXD Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

5.0 MPa pilot operated 3-port solenoid valve
VCH410 Series



Pulse valve for dust collector Solenoid valve type
JSXF Series

Air operated/External pilot solenoid valve
VNB Series

Aluminium | **Stainless steel** | Brass/Bronze | Resin | Fluororesin

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Proportional control valve
JSP Series

Direct operated 2-port solenoid valve
VX2 Series

Compact direct operated 2-port solenoid valve
VDW Series

Pilot operated 2-port solenoid valve
JSXD Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve
VXEZ Series

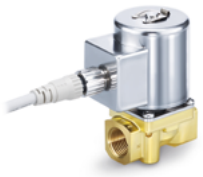
Angle seat valve air operated type
JSB Series

Air operated/External pilot solenoid valve
VNB Series

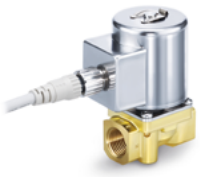
2-port valve for steam
VND Series

High purity chemical liquid valve Air operated threaded type (SUS body)
LVA Series

Aluminium | **Stainless steel** | **Brass/Bronze** | **Resin** | **Fluororesin**



Direct operated 2-port solenoid valve
JSX Series



High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Proportional control valve
JSP Series

Direct operated 2-port solenoid valve
VX2 Series

Compact direct operated 2-port solenoid valve
VDW Series

Pilot operated 2-port solenoid valve
JSXD Series

Pilot operated 2-port solenoid valve for high pressure water
JSXH-X2 Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve
VXEZ Series

5.0 MPa pilot operated 2-port solenoid valve
VCH41/42 Series

Air operated/External pilot solenoid valve
VNB Series

Aluminium | **Stainless steel** | **Brass/Bronze** | **Resin** | **Fluororesin**

Direct operated 2-port solenoid valve
VX2 Series

Compact direct operated 2-port solenoid valve
VDW Series

Compact/Lightweight 2-port solenoid valve
VDW30/40-XF Series

Pilot operated 2-port solenoid valve
VXD Series

Zero differential pressure type
Pilot operated 2-port solenoid valve
VXZ Series

Pilot operated 2-port solenoid valve
VQ20/30 Series

2/3-port solenoid valve for chemical liquids
Isolated type
LVM Series

2/3-port solenoid valve
Isolated type
LVMK Series

Pinch valve
LPV Series

Aluminium | Stainless steel | Brass/Bronze | Resin | **Fluororesin**

Compact type high purity Air operated chemical liquid valve
LVD Series

High purity chemical liquid valve Air operated threaded type
LVA Series

High purity chemical liquid valve Air operated integrated fitting type
LVC Series

High purity chemical valve Air operated insert bushing integrated fitting type
LVQ Series

Seal material

We offer you all the sealing materials you need, just choose what you need.

FKM | **NBR** | **EPDM** | **PTFE** | **Fluororesin**

Feature	Seal material				
	FKM	NBR	EPDM	PTFE	FLuororesin
Corrosion resistance	High	Good	Good	Excellent	Excellent
Wear resistance					
Temperature resistance					
Elasticity				Good	Good
Durability					
Typical applications	Corrosive, abrasive or high temperature fluids	Non-corrosive, non-abrasive fluids	Non-corrosive, non-abrasive fluids at low to moderate temperatures	Corrosive, abrasive, high temperature or radioactive fluids	Corrosive, abrasive, high temperature or radioactive fluids

FKM | NBR | EPDM | PTFE | Fluororesin

Direct operated 2-port solenoid valve
JSX Series
⊕

Direct operated 2-port solenoid valve
VX2 Series
⊕

Zero differential pressure type
Pilot operated 2-port solenoid valve
JSXZ Series
⊕

External pilot solenoid coolant valve
SGC Series
⊕

2/3-port solenoid valve
Isolated type
LVMK Series
⊕

High flow/power saving type
Direct operated 2-port solenoid valve
JSXU Series
⊕

Compact direct operated 2-port solenoid valve
VDW Series
⊕

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve
VXEZ Series
⊕

External pilot solenoid high-pressure coolant Valve
SGH Series
⊕

Proportional control valve
JSP Series
⊕

Pilot operated 2-port solenoid valve
JSXD Series
⊕

Air operated/External pilot solenoid valve
VNB Series
⊕

2/3-port solenoid valve for chemical liquids
Isolated type
LVM Series
⊕

FKM | **NBR** | EPDM | PTFE | Fluororesin

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

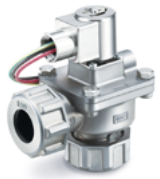
Direct operated 2-port solenoid valve
VX2 Series

Compact direct operated 2-port solenoid valve
VDW Series

Pilot operated 2-port solenoid valve
JSXD Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve
VXEZ Series



Pulse valve for dust collector Solenoid valve type
JSXF Series

Air operated/External pilot solenoid valve
VNB Series

External pilot solenoid high-pressure coolant Valve
SGH Series

External pilot solenoid coolant valve
SGC Series

Pilot operated 2-port solenoid valve
VQ20/30 Series

FKM | **NBR** | **EPDM** | **PTFE** | **Fluororesin**

Direct operated 2-port solenoid valve
JSX Series

High flow/power saving type Direct operated 2-port solenoid valve
JSXU Series

Pilot operated 2-port solenoid valve
JSXD Series

Pilot operated 2-port solenoid valve
VXD Series

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve
VXEZ Series

2/3-port solenoid valve for chemical liquids Isolated type
LVM Series

2/3-port solenoid valve Isolated type
LVMK Series

FKM | **NBR** | **EPDM** | **PTFE** | **Fluororesin**

Compact type high purity Air operated chemical liquid valve
LVD Series

High purity chemical liquid valve Air operated threaded type
LVA Series

High purity chemical liquid valve Air operated integrated fitting type
LVC Series

High purity chemical valve
LVQ Series

2-port valve for steam
VND Series

FKM | NBR | EPDM | PTFE | **Fluororesin**

Angle seat valve air operated type
JSB Series

Selected part numbers

Direct operated 2-port solenoid valve
JSX Series

- Applicable fluid: air, vacuum, water, heated water, steam, oil
- Flow rate up to 25 l/min (water)
- Orifice diameter: 1.6 to 7.1 mm
- Port size: 1/8” to 3/8”
- Body material: stainless steel, brass, aluminium
- Seal material: NBR, FKM, EPDM.

Part number	Fluid	Valve type	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body/Seal material	Max. operating pressure differential [MPa]	Electrical entry	Voltage
JSX11-SF101F-5DS	Air Water Oil	N.C.	0.08	0.07	1.6	G1/8	Stainless steel/ FKM	0.9	DIN terminal (with surge voltage suppressor)	24 VDC
JSX21-SF302F-5DS			0.35	0.3	3.2	G1/4		0.7		
JSX21-SF403F-5DS			0.52	0.45	4	G3/8		0.3		
JSX31-SF502F-5DS			0.73	0.63	5.6	G1/4		0.5		
JSX31-SF703F-5DS			0.88	0.76	7.1	G3/8		0.2		
JSX31S-SF502F-5CS	Steam Heated water		0.73	0.63	5.6	G1/4		1.0	Conduit (with surge voltage suppressor)	
JSX31S-SF703F-5CS			0.88	0.76	7.1	G3/8		0.5		
JSX31H-SF303F-5DS	Air		0.33	—	3.2	G3/8		3.0	DIN terminal (with surge voltage suppressor)	
JSX11V-SF101F-5DS-D	Vacuum		0.08		1.6	G1/8		0.1[1]		
JSX21V-SF302F-5DS-D			0.35		3.2	G1/4				
JSX21V-SF403F-5DS-D			0.52		4.0	G3/8				
JSX31V-SF502F-5DS-D			0.73		5.6	G1/4				
JSX31V-SF703F-5DS-D			0.88		7.1	G3/8				
JSX11-CN101F-5DS	Air Water		0.08	0.07	1.6	G1/8	Brass/NBR	0.9		
JSX21-CN302F-5DS			0.35	0.3	3.2	G1/4		0.7		
JSX21-CN403F-5DS			0.52	0.45	4	G3/8		0.3		
JSX31-CN502F-5DS			0.73	0.63	5.6	G1/4		0.5		
JSX31-CN703F-5DS			0.88	0.76	7.1	G3/8		0.2		
JSX31S-CF502F-5CS	Steam Heated water		0.73	0.63	5.6	G1/4		1.0	Conduit (with surge voltage suppressor)	
JSX31S-CF703F-5CS			0.88	0.76	7.1	G3/8		0.5		
JSX31H-CF303F-5DS	Air		0.33	—	3.2	G3/8		3.0	DIN terminal (with surge voltage suppressor)	

1) Used with vacuum: 0.1 Pa·abs to atmospheric pressure.

High flow/power saving type Direct operated 2-port solenoid valve

JSXU Series

⊕

- Applicable fluid: air, water, oil
- Flow rate up to 25 l/min (water)
- Orifice diameter: 2.4 to 7.1 mm
- Port size: 1/8” to 3/8”
- Body material: stainless steel, brass
- Seal material: NBR, FKM, EPDM.

Part number	Valve type	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body/Seal material	Max. operating pressure differential [MPa]	Electrical entry	Voltage
JSX11U-SF201F-5DS	N.C.	0.15	0.13	2.4	G1/8	Stainless steel/ FKM	0.9	DIN terminal (with surge voltage suppressor)	24 VDC
JSX21U-SF403F-5DS		0.52	0.45	4	G3/8		1.0		
JSX31U-SF703F-5DS		0.88	0.76	7.1	G3/8		0.8		
JSX11U-CN201F-5DS		0.15	0.13	2.4	G1/8	Brass/NBR	0.9		
JSX21U-CN403F-5DS		0.52	0.45	4	G3/8		1.0		
JSX31U-CN703F-5DS		0.88	0.76	7.1	G3/8		0.8		

Proportional control valve

JSP Series

⊕

- Applicable fluid: air, water
- Flow rate up to 3 l/min (water)
- Orifice diameter: 1.4 to 3.2 mm
- Port size: 1/8” to 3/8”
- Body material: brass, stainless steel
- Seal material: FKM.

Part number	Body type	Port size	Orifice diameter [mm]	Max. operating pressure differential [MPa]	Rated current/Rated voltage
JSP11-■F101F-5□	Body ported	G1/8	Ø 1.4	0.35	200 mA/24 VDC
JSP11-■F201F-5□			Ø 2.3		
JSP21-■F202F-5□		G1/4	Ø 2.0	0.40	260 mA/24 VDC
JSP21-■F203F-5□		G3/8			
JSP21-■F302F-5□		G1/4	Ø 3.2		
JSP21-■F303F-5□		G3/8			
JSP13-■F100-5□	Base mounted	—	Ø 1.4	0.35	200 mA/24 VDC
JSP13-■F200-5□			Ø 2.3		
JSP23-■F200-5□			Ø 2.0	0.40	260 mA/24 VDC
JSP23-■F300-5□			Ø 3.2		

□ Electrical entry: G: grommet; DS: DIN terminal.
■ Body material: S: stainless steel; C: brass.

Direct operated 2-port solenoid valve
VX2 Series

- Applicable fluid: air, water, medium vacuum, oil, steam, heated water
- Flow rate up to 2.21 (Cv)
- Orifice diameter: 2 to 10 mm
- Port size: 1/8” to 1/2”; Ø 3.2 to Ø 6
- Body material: stainless steel, brass, resin, aluminium
- Seal material: NBR, FKM.

Part number	Fluid	Valve type	Max. operating pressure differential [MPa]	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body/Seal material	Voltage	Electrical entry
VX210HG	Air	N.C.	1.0	0.23	0.20	2	Ø 6 mm	PBT resin/ NBR	24 VDC	DIN terminal (with surge voltage suppressor)
VX210JG			0.6	0.35	0.30	3				
VX210MG			0.6	0.41	0.35		Ø 8 mm			
VX220HG			1.0	0.47	0.40	4				
VX230HG				0.70	0.60	5	Ø 10 mm			
VX212AGAXB	Water		1.0	0.23	0.20	2	G1/8	Brass/NBR		
VX212EGAXB			0.6	0.42	0.36	3	G1/4			
VX222AGAXB			1.0	0.63	0.54	4				
VX232DGAXB				0.75	0.64	5	G3/8			
VX214FGAXB	Vacuum (oil free)		0.2 [1]	0.62	0.53	5	G1/4	Brass/FKM		
VX224EGAXB			0.15 [1]	1.08	0.93	7	G3/8			
VX234GGA			0.1 [1]	2.21	1.90	10	G1/2			

1) Pressurised port 1. Used with vacuum: 0.1 Pa·abs to atmospheric pressure.
2) For other voltages replace G by L (230 VAC) or Z1V (24 VAC) in threat numbers above.

Compact direct operated 2-port solenoid valve
VDW Series

- Applicable fluid: air, water, medium vacuum
- Flow rate up to 0.30 (Cv)
- Orifice diameter: 1 to 3.2 mm
- Port size: M5 to 1/8”; Ø 3.2 to Ø 6
- Body material: stainless steel, brass, resin, aluminium
- Seal material: NBR, FKM.

Part number	Fluid	Valve type	Max. operating pressure differential [MPa]	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body/Seal material	Voltage	Electrical entry
VDW10AA	Air	N.C.	0.9	0.04	0.03	1	M5	PPS resin/ NBR	24 VDC	Grommet [2]
VDW10EA							Ø 4 mm			
VDW20DA			0.7	0.07	0.06	1.6				
VDW20GA							Ø 6 mm			
VDW12GA	Water		0.9	0.04	0.03	1	M5	Brass/NBR		
VDW12HA			0.4	0.07	0.06	1.6	M5			
VDW22NAA			0.7				G1/8			
VDW22PAA			0.4	0.18	0.15	2.3				
VDW14HA	Vacuum (oil free)		0.4 [1]	0.07	0.06	1.6	M5	Brass/FKM		
VDW24WAA			0.2 [1]	0.30	0.26	3.2	G1/8	SUS/FKM (oil free)		

1) Pressurised port 1. Used with vacuum: 0.1 Pa·abs to atmospheric pressure.
2) Standard lead wire length: 300 mm.

Compact/Lightweight 2-port solenoid valve
VDW30/40-XF Series

- Applicable fluid: air, water, heated water, Low vacuum (133 Pa·abs)
- Flow rate up to 1.10 (Cv)
- Orifice diameter: 1 to 6 mm
- Port size: Ø 4 to Ø 10;P7 to P10
- Body material: PPS
- Seal material: NBR, FKM, EPDM.

Part number	Valve type	Cv (water)	Max. operating pressure differential [MPa]	Port size One-touch fitting Ø [mm]	Body/Seal material	Voltage	Electrical entry
			Pressure port 1				
VDW31-5G-1-C4-XF	N.C.	0.04	0.6	4	PPS/NBR	24 VDC	Grommet [1]
VDW31-5G-3-C6-XF		0.28	0.1	6			
VDW41-5GE-4-C8-XF		0.61	0.1 (with power-saving circuit)	8			
VDW31-6G-1-C4-XF		0.04	0.6	4		12 VDC	
VDW31-6G-3-C6-XF		0.28	0.1	6			
VDW41-6GE-4-C8-XF		0.61	0.1 (with power-saving circuit)	8			

1) Standard lead wire length: 300 mm.

2-port high speed valve
SX10 Series

- Applicable fluid: air
- Flow rate up to 150 l/min.

Quick disconnect type part number	Screw mount type part number [1]	Flow rate [l/min] (at 24 VDC, 0.25 MPa)	Min. operating pressure differential [MPa]	Max. operating pressure differential [Mpa] (at 24 VDC)	Power consumption [W]	Max. operating frequency [Hz] (at 24 VDC, 0.25 MPa)	Lead wire (grommet) length [mm]
SX12F-AH	**SX11F-AH**	50	0.15	0.7	80	1200	500
SX12F-BH	**SX11F-BH**				40	1000	
SX12F-CH	**SX11F-CH**				10	550	
SX12F-DH	**SX11F-DH**			0.6	4	350	
SX12F-EH	**SX11F-EH**	100		0.7	80	650	
SX12F-FH	**SX11F-FH**				40	550	
SX12F-GH	**SX11F-GH**			0.6	10	300	
SX12F-HH	**SX11F-HH**			0.4	4	200	
SX12F-JH	**SX11F-JH**	150		0.7	80	600	
SX12F-KH	**SX11F-KH**				40	500	
SX12F-LH	**SX11F-LH**			0.4	10	250	
SX12F-MH	**SX11F-MH**			0.25	4	150	

1) Two mounting screws (M3 x 0.5) and a gasket are included (packaged together).
2) For other lead wire lengths replace H by G (300 mm) or J (1000 mm) in threat numbers above.

Pilot operated 2-port solenoid valve
JSXD Series

- Applicable fluid: air, water, oil
- Flow rate up to 49 (Cv)
- Orifice diameter: 10 to 50 mm
- Port size: 1/4” to 2”
- Body material: stainless steel, brass, bronze, aluminium
- Seal material: NBR, FKM, EPDM.

Part number	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body/Seal material	Max. operating pressure differential [MPa]	Electrical entry	Voltage
JSXD3□-CN02F-5DS	1.9	1.6	10	G1/4	Brass/NBR	1 (N.C.) 0.7 (N.O.)	DIN terminal (with surge voltage suppressor)	24 VDC
JSXD3□-CN03F-5DS	2.4	2.0		G3/8				
JSXD3□-SF02F-5DS				G1/4	Stainless steel/FKM			
JSXD3□-SF03F-5DS				G3/8				
JSXD4□-CN04F-5DS	5.5	4.6	15	G1/2	Brass/NBR			
JSXD4□-SF04F-5DS					Stainless steel/FKM			
JSXD5□-CN06F-5DS	9.5	8.2	20	G3/4	Brass/NBR			
JSXD5□-SF06F-5DS					Stainless steel/FKM			
JSXD6□-CN10F-5DS	13.0	11.0	25	G1	Brass/NBR			
JSXD6□-SF10F-5DS					Stainless steel/FKM			
JSXD7□-BN12F-5DS	23.0	19.6	35	G1 1/4	Bronze/NBR			
JSXD8□-BN14F-5DS	31.0	26.4	40	G1 1/2		1 (N.C.) 0.6 (N.O.)		
JSXD9□-BN20F-5DS	49.0	42.8	50	G2				

□ Valve type: 1: N.C.; 2: N.O.

Zero differential pressure type Pilot operated 2-port solenoid valve
JSXZ Series

- Applicable fluid: air, water, oil
- Flow rate up to 10.2 (Cv)
- Orifice diameter: 10 to 25 mm
- Port size: 1/4” to 1”
- Body material: stainless steel, brass, aluminium
- Seal material: NBR, FKM, EPDM.

Part number	Valve type	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body/Seal material	Max. operating pressure differential [MPa]	Electrical entry	Voltage
JSXZ31-SF02F-5DS	N.C.	1.9	1.6	10	G1/4	Stainless steel/FKM	1.0	DIN terminal (with surge voltage suppressor)	24 VDC
JSXZ31-SF03F-5DS		2.4	2.0		G3/8				
JSXZ31-CN02F-5DS		1.9	1.6		G1/4	Brass/NBR			
JSXZ31-CN03F-5DS		2.4	2.0		G3/8				
JSXZ41-SF04F-5DS		5.3	4.6	15	G1/2	Stainless steel/FKM			
JSXZ41-CN04F-5DS						Brass/NBR			
JSXZ51-SF06F-5DS		9.2	7.8	20	G3/4	Stainless steel/FKM			
JSXZ51-CN06F-5DS						Brass/NBR			
JSXZ61-SF10F-5DS		10.2	8.7	25	1	Stainless steel/FKM			
JSXZ61-CN10F-5DS						Brass/NBR			

Pilot operated 2-port solenoid valve for high pressure water
JSXH-X2 Series

⊕

- Applicable fluid: water
- Flow rate up to 1.9 (Kv)
- Orifice diameter: 12 mm
- Port size: 3/8” to 1/2”
- Body material: brass
- Seal material: PPS.

Part number	Cv	Port size	Orifice diameter [mm]	Max. operating pressure differential [MPa]	Voltage
JSXH31P-CP03F-5□-X2	2	G3/8	12	10	24 VDC
JSXH31P-CP04F-5□-X2	2.2	G1/2			
JSXH31P-CP03F- J□-X2	2	G3/8			230 VAC
JSXH31P-CP04F- J□-X2	2.2	G1/2			

□ Electrical entry: WN: M12 connector; DS: DIN terminal.

Pilot operated 2-port solenoid valve
VXD Series

⊕

- Applicable fluid: air, water, oil, heated water, high temperature oil
- Flow rate up to 13 (Cv)
- Orifice diameter: 10 to 25 mm
- Port size: 1/4” to 1”, Ø 10 to Ø 12
- Body material: stainless steel, resin, brass, aluminium
- Seal material: NBR, FKM, EPDM.

Part number	Fluid	Valve type	Min. operating pressure differential [MPa]	Max. operating pressure differential [MPa]	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body/Seal material	Voltage	Electrical entry
VXD230DG	Air	N.C.	0.02	0.7	1.3	1.12	10	Ø 10 mm	PBT resin/ NBR	24 VDC	DIN terminal (with surge voltage suppressor)
VXD230FG					1.5	1.29		Ø 12 mm			
VXD232AGA	Water			0.5	1.9	1.64		G1/4	Brass/NBR		
VXD242GGA				1.0	4.5	3.89	15	G3/8			
VXD242HGA					5.5	4.76		G1/2			
VXD252LGA					9.5	8.22	20	G3/4			
VXD262NGA					13.0	11.25	25	G1			

For other voltages replace G by L (230 VAC) or Z1V (24 VAC) in threat numbers above.

Energy saving type, zero differential pressure type, pilot operated, 2-port solenoid valve

VXEZ Series

⊕

- Applicable fluid: air, water, oil
- Flow rate up to 9.5 (Cv)
- Orifice diameter: 10 to 25 mm
- Port size: 1/4” to 1”
- Body material: stainless steel, brass
- Seal material: NBR, FKM, EPDM.

Part number	Valve type	Max. operating pressure differential [MPa] 1)	Cv	Kv [m³/h]	Port size	Body/Seal material	Rated voltage + electrical entry
VXEZ2230-02F-5DO1	N.C.	0.7	1.9	1.64	G1/4	Brass/NBR	24 VDC, for DIN terminal (without connector, with gasket), with built-in surge voltage suppressor circuit
VXEZ2230-03F-5DO1			2.40	2.07	G3/8		
VXEZ2240-04F-5DO1			5.3	4.58	G1/2		
VXEZ2350-06F-5DO1		1.0	9.2	7.96	G3/4		
VXEZ2360-10F-5DO1			12	10.38	G1		

1) Values for water.

Zero differential pressure type Pilot operated 2-port solenoid valve

VXZ Series

⊕

- Applicable fluid: air, water, oil, heated water, high temperature oil
- Flow rate up to 10.2 (Cv)
- Orifice diameter: 10 to 25 mm
- Port size: 1/4” to 1”, Ø 10 to Ø 12
- Body material: stainless steel, resin, brass, aluminium
- Seal material: NBR, FKM, EPDM.

Part number	Fluid	Valve type	Min. operating pressure differential [MPa]	Max. operating pressure differential [MPa]	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body/Seal material	Voltage	Electrical entry
VXZ230CG	Air	N.C.	0	0.7	1.7	1.47	10	Ø 10 mm	PBT resin/ NBR	24 VDC	DIN terminal (with surge voltage suppressor)
VXZ230EG					2.0	1.73		Ø 12 mm			
VXZ232AGA	Water				1.9	1.64		G1/4	Brass/NBR		
VXZ232BGA					2.4	2.08		G3/8			
VXZ242FGA					5.3	4.58	15	G1/2			
VXZ252HGA				1.0	9.2	7.96	20	G3/4			
VXZ262KGA					10.2	8.82	25	G1			

For other voltages replace G by L (230 VAC) or Z1V (24 VAC) in threat numbers above.

External pilot solenoid high-pressure coolant valve

SGH Series

- Applicable fluid: coolant
- Flow rate up to 3.6 (Cv)
- Orifice diameter: 7.5 to 13.2 mm
- Port size: 3/8” to 1”
- Body material: cast iron
- Seal material: NBR, FKM.

Part number	Valve type	Kv [m³/h]		Operating pressure range [MPa]	Port size	Body/Seal material	Voltage	Electrical entry
		1 → 2	1 → 3					
SGH121A-70G10Y-5D	2/2 N.C.	1.54	—	0 to 7	G3/8	Cast iron/NBR	24 VDC	DIN terminal
SGH221A-70G15Y-5D		2.32			G1/2			
SGH321A-70G20Y-5D		4.03			G3/4			
SGH421A-70G25Y-5D		5.58			G1			
SGH130A-30G10Y-5D	3/2	1.8	1.97	0 to 3	G3/8			
SGH230A-30G15Y-5D		1.97	2.57		G1/2			
SGH330A-30G20Y-5D		3.26	3.26		G3/4			
SGH430A-30G25Y-5D		4.8	4.98		G1			
SGH130A-70G10Y-5D		0.94	0.86	0 to 7	G3/8			
SGH230A-70G15Y-5D		1.63	1.72		G1/2			
SGH330A-70G20Y-5D		2.83	2.32		G3/4			
SGH430A-70G25Y-5D		3.69	3		G1			

External pilot solenoid coolant valve

SGC Series

- Applicable fluid: coolant
- Flow rate up to 70 (Cv)
- Orifice diameter: 15 to 51 mm
- Port size: 3/8” to 2”
- Body material: cast iron
- Seal material: NBR, FKM.

Part number	Valve type	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body/Seal material	Voltage	Electrical entry	Pilot valve
SGC221A-10G15Y-5D	N.C.	4.1	0 to 1	G1/2	Cast iron/NBR	24 VDC	DIN terminal	0.35 W type (V116)
SGC321A-10G20Y-5D		6.1		G3/4				
SGC421A-10G25Y-5D		9.4		G1				
SGC521A-10G32Y-5D		17.1		G1 1/4				
SGC621A-10G40Y-5D		25.7		G1 1/2				
SGC721A-10G50Y-5D		41.1		G2				
SGC521A-10G32H-5D		17.1		G1 1/4				1.8 W type (VO307)
SGC621A-10G40H-5D		25.7		G1 1/2				
SGC721A-10G50H-5D		41.1		G2				

Pilot operated 2-port solenoid valve
VQ20/30 Series

⊕

- Applicable fluid: air/inert gas
- Flow rate up to 0.81 (Cv)
- Port size: Ø 6 to Ø 12
- Body material: resin
- Seal material: NBR.

Part number	Valve type	Cv	Max. operating pressure differential [MPa]	Min. operating pressure differential [MPa]	Tube connection Ø [mm]	Body/Seal material	Voltage	Electrical entry
VQ21A1-5YO-C6-Q	N.C.	0.33	0.6	0.01	6	Resin/NBR	24 VDC	DIN terminal without connector
VQ21A1-5YO-C8-Q		0.39			8			
VQ31A1-5YO-C10-Q		0.80	0.5		10			
VQ31A1-5YO-C12-Q		0.81			12			

5.0 MPa pilot operated 2-port solenoid valve
VCH41/42 Series

⊕

- Applicable fluid: air
- Flow rate up to 5.8 (Cv)
- Orifice diameter: 16 to 17.5 mm
- Port size: 3/4” to 1”
- Body material: brass
- Seal material: polyurethane elastomer.

Part number	Valve type	Cv	Operating pressure range [MPa]	Port size	Body/Seal material	Voltage	Electrical entry
VCH41-5D-06G-Q	N.C.	4.5	0.5 to 5.0	G3/4	Brass/Polyurethane elastomer	24 VDC	DIN terminal
VCH41-5D-10G-Q				G1			
VCH42-5D-06G-Q	N.O.	5.8		G3/4			
VCH42-5D-10G-Q				G1			

5.0 MPa pilot operated 3-port solenoid valve
VCH410 Series

⊕

Part number	Valve type	Cv	Operating pressure range [MPa]	Port size	Body/Seal material	Voltage	Electrical entry
VCH410-5D-04G-Q	N.C.	1→2: 5.3 2→3: 5.8 1→2: 5.8 2→3: 6.3	0.5 to 5.0	G1/2	Aluminium/Polyurethane elastomer	24 VDC	DIN terminal
VCH410-5D-06G-Q				G3/4			
VCH410-5D-10G-Q				G1			

- Applicable fluid: air
- Flow rate up to 6.3 (Cv)
- Orifice diameter: 18 mm
- Port size: 1/2” to 1”
- Body material: aluminium + hard anodised
- Seal material: polyurethane elastomer.

Angle seat valve air operated type
JSB Series

⊕

Part number	Valve type	Cv	Kv [m³/h]	Max. operating pressure [MPa]	Port size	Body/Seal material
JSB11-ST10AF-2S	N.C.	5.0	4.3	1.0	G3/8	Stainless steel/ Fluororesin
JSB21-ST15AF-2S		8.0	6.9		G1/2	
JSB31-ST20AF-3S		16.0	13.8		G3/4	
JSB41-ST25AF-4S		29.1	25.2		G1	
JSB51-ST32AF-5S		41.3	35.7		G1 1/4	
JSB61-ST40AF-6S		59.5	51.5		G1 1/2	
JSB71-ST50AF-7S		87.5	75.7		G2	

- Applicable fluid: air, water, steam
- Flow rate up to 87.5 (Cv)
- Port size: 3/8” to 2”
- Body material: stainless steel
- Seal material: fluororesin.

2-port valve for steam
VND Series

- Applicable fluid: steam
- Flow rate up to 43304.50 Nl/min
- Orifice diameter: 7 to 50 mm
- Port size: 1/8” to 2”
- Body material: stainless steel, bronze
- Seal material: PTFE.

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body/Seal material
EVND104D-F8A-L	N.C.	982	0.86	0 to 0.97	G1/4	Bronze/TFE
EVND200D-F15A-L		4908	4.32		G1/2	
EVND300D-F20A-L		7852	6.45		G3/4	
EVND400D-F25A-L		11778	10.32		G1	
EVND500D-F32A-L		17667	15.36		G1 1/4	
EVND600D-F40A-L		27482	24.00		G1 1/2	
EVND700D-F50A-L		43305	36.96		G2	
EVND104DS-F8A-L		982	0.86		G1/4	Stainless steel/TFE
EVND200DS-F15A-L		4908	4.32		G1/2	
EVND300DS-F20A-L		7852	6.45		G3/4	
EVND400DS-F25A-L		11778	10.32		G1	
EVND500DS-F32A-L		17667	15.36		G1 1/4	
EVND600DS-F40A-L		27482	24.00		G1 1/2	
EVND700DS-F50A-L		43305	36.96		G2	

Air operated/External pilot solenoid valve
VNB Series

- Applicable fluid: air, water, medium vacuum
- Flow rate up to 0.30 (Cv)
- Orifice diameter: 1 to 3.2 mm
- Port size: M5 to 1/8”; Ø 3.2 to Ø 6
- Body material: stainless steel, brass, resin, aluminium
- Seal material: NBR, FKM.

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body/Seal material
EVNB104A-F8A	N.C.	982	0.94	Low vacuum to 1.0	G1/4	Bronze/NBR
EVNB104A-F10A		1276	0.94		G3/8	
EVNB204A-F15A		2945	2.23		G1/2	
EVNB304A-F20A		4908	4.63		G3/4	
EVNB404A-F25A		6871	6.01		G1	
EVNB604A-F40A		10797	16.30		G1 1/2	
EVNB704A-F50A		18649	24.88		G2	
EVNB201A-F10A		28464	3.43	Low vacuum to 0.5	G3/8	
EVNB201A-F15A		4908	4.12		G1/2	
EVNB301A-F20A		7852	6.35		G3/4	
EVNB401A-F25A		11778	10.30		G1	
EVNB601A-F40A		27482	24.02		G1 1/2	
EVNB701A-F50A		42204	36.89		G2	

Air operated coolant valve
SGCA Series

⊕

- Applicable fluid: coolant
- Flow rate up to 70 (Cv)
- Orifice diameter: 15 to 51 mm
- Port size: 3/8” to 2”
- Body material: cast iron
- Seal material: NBR, FKM.

Part number	Valve type	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body/Seal material
SGCA221A-10G10	N.C.	3	0 to 1	G3/8	Cast iron/NBR
SGCA221A-10G15		4.1		G1/2	
SGCA321A-10G20		6.1		G3/4	
SGCA421A-10G25		9.4		G1	
SGCA521A-10G32		17.1		G1 1/4	
SGCA621A-10G40		25.7		G1 1/2	
SGCA721A-10G50		41.1		G2	

Air operated high-pressure coolant valve
SGHA Series

⊕

- Applicable fluid: coolant
- Flow rate up to 3.6 (Cv)
- Orifice diameter: 7.5 to 13.2 mm
- Port size: 3/8” to 1”
- Body material: cast iron
- Seal material: NBR, FKM.

Part number	Valve type	Kv [m³/h]		Operating pressure range [MPa]	Port size	Body/Seal material
		1 → 2	1 → 3			
SGHA121A-70G10	2/2 N.C.	1.54	—	0 to 7	G3/8	Cast iron/NBR
SGHA221A-70G15		2.32			G1/2	
SGHA321A-70G20		4.03			G3/4	
SGHA421A-70G25		5.58			G1	
SGHA130A-30G10	3/2	1.8	1.97	0 to 3	G3/8	
SGHA230A-30G15		1.97	2.57		G1/2	
SGHA330A-30G20		3.26	3.26		G3/4	
SGHA430A-30G25		4.8	4.98		G1	
SGHA130A-70G10		0.94	0.86	0 to 7	G3/8	
SGHA230A-70G15		1.63	1.72		G1/2	
SGHA330A-70G20		2.83	2.32		G3/4	
SGHA430A-70G25		3.69	3		G1	

Pulse valve for dust collector Solenoid valve type
JSXF Series

⊕

- Applicable fluid: air
- Orifice diameter: 32 to 55 mm
- Port size: 3/4” to 2”
- Body material: ADC
- Seal material: NBR.

Part number [1)]	Piping	Port size	Orifice diameter [mm]	Max. operating pressure differential [MPa]	Tank size [inch]
JSXFE-06F-5□B	Compression fitting type	G3/4	Ø 32	0.9	—
JSXFE-10F-5□B		G1	Ø 40		
JSXFE-14F-5□B		G1 1/2	Ø 50		
JSXFF-06F-5□B	Direct piping type	G3/4	Ø 32		
JSXFF-10F-5□B		G1	Ø 40		
JSXFF-14F-5□B		G1 1/2	Ø 50		
JSXFH4-06F■-5□B	Immersion type	G3/4	Ø 32		4
JSXFH5-06F■-5□B					5
JSXFH5-10F■-5□B		G1	Ø 40		
JSXFH6-10F■-□B					6
JSXFH6-14F■-5□B		G1 1/2	Ø 45		
JSXFH8-14F■-5□B					8
JSXFH8-20F■-5□B		G2	Ø 55		
JSXFH10-20F■-5□B					10

□ Electrical entry: DS: DIN terminal; WN: M12 connector.
■ Length: 3: short; 4: long.

Pulse valve for dust collector Air operated type
JSXFA Series

⊕

- Applicable fluid: air
- Orifice diameter: 32 to 55 mm
- Port size: 3/4” to 2”
- Body material: ADC
- Seal material: NBR.

Part number	Piping	Port size	Orifice diameter [mm]	Pilot port size	Max. operating pressure differential [MPa]	Tank size [inch]
□JSXFAE-06F-B	Compression fitting type	G3/4	Ø 32	G1/4	0.9	—
□JSXFAE-10F-B		G1	Ø 40			
□JSXFAE-14F-B		G1 1/2	Ø 50			
□JSXFAF-06F-B	Direct piping type	G3/4	Ø 32			
□JSXFAF-10F-B		G1	Ø 40			
□JSXFAF-14F-B		G1 1/2	Ø 50			
□JSXFAE-06F-B-1	Compression fitting type	G3/4	Ø 32	G1/8		
□JSXFAE-10F-B-1		G1	Ø 40			
□JSXFAE-14F-B-1		G1 1/2	Ø 50			
□JSXFAF-06F-B-1	Direct piping type	G3/4	Ø 32			
□JSXFAF-10F-B-1		G1	Ø 40			
□JSXFAF-14F-B-1		G1 1/2	Ø 50			
JSXFAH6-10F3-B	Immersion type	G1 (25A)	Ø 40	G1/4		6
JSXFAH6-10F4-B						
JSXFAH6-10F3-B-1				G1/8		
JSXFAH6-10F4-B-1						

□ Add prefix 55- for ATEX compliant type.

2/3-port solenoid valve for chemical liquids Isolated type
LVM Series

- Applicable fluid: chemical liquid
- Orifice diameter: 0.8 to 2 mm
- Body material: PEEK
- Seal material: EPDM, FKM, or Kalrez®.

Part number	Valve type	Cv factor	Operating pressure range	Orifice diameter [mm]	Volume of valve chamber [µL]	Body type	Body/Diaphragm material	Voltage
LVM11-5B-Q	2/2 N.C.	0.04	0 to 0.25 MPa	1.5	11	Body ported (M5 x 0.8)	PEEK/FKM	24 VDC
LVM10R1-5B-Q		0.03	-75 kPa to 0.25 MPa	1.4	20	Body ported (Tubing type)		
LVM10R3-5B-Q						Base mounted		
LVM10R6-5B-Q					28			
LVM105R-5B-Q	3 universal				20			

2/3-port solenoid valve Isolated type
LVMK Series

- Applicable fluid: chemical liquid
- Orifice diameter: 2 mm
- Body material: PPS
- Seal material: EPDM, FKM.

Part number	Valve type	Cv factor	Operating pressure range	Orifice diameter [mm]	Body type	Piping direction	Body/Diaphragm material	Voltage
LVMK23-5K	2/2 N.C.	0.065	-90 kPa to 0,2 MPa	2	Base mounted	—	PPS/FKM	24 VDC
LVMK23-5J							PPS/EPDM	
LVMK205-5J	3 universal						PPS/FKM	
LVMK205-5K					Body ported	Bottom ported	PPS/EPDM	
LVMK202-5J							PPS/FKM	
LVMK202-5K						Side ported		
LVMK207-5K							PPS/FKM	
LVMK207-5J							PPS/EPDM	

Pinch valve
LPV Series

- Applicable fluid: gas and liquid applicable to the tube
- Tubing size: Ø 3 to Ø 6 mm
- Body material: PBT.

Part number	Valve type	Operating pressure range [MPa]	Tubing size O.D. x I.D.	Voltage	Electrical entry, lead wire length
LPV21-5K-T3	2-port N.C.	0 to 0.2	Ø 3 x Ø 1	24 VDC	Plug connector, 300 mm
LPV21-5K-T4			Ø 4 x Ø 2		
LPV21-5K-T6			Ø 6 x Ø 4		
LPV22-5K-T3	2-port N.O.		Ø 3 x Ø 1		
LPV22-5K-T4			Ø 4 x Ø 2		
LPV22-5K-T6			Ø 6 x Ø 4		
LPV23-5K-T3	3-port (N.C. on one side, N.O. on one side)		Ø 3 x Ø 1		
LPV23-5K-T4			Ø 4 x Ø 2		

Compact type high purity Air operated chemical liquid valve
LVD Series

- Applicable fluid: chemical liquid
- Orifice diameter: 2 to 22 mm
- Tubing O.D.: metric 3 to 25; inch 1/8” to 1”
- Body material: PFA
- Seal material: PTFE
- Actuator section: PVDF.

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Tubing O.D. [mm]	Body/Diaphragm material
LVD10-S03	N.C.	88	0.07	0 to 0.5	3	PFA/PTFE
LVD10-S04					4	
LVD20-S06		344	0.30		6	
LVD30-S10		1276	1.12	0 to 0.3	10	
LVD40-S12		1865	1.63		12	
LVD50-S19		4908	4.20		19	

High purity chemical liquid valve Air operated threaded type
LVA Series

⊕

- Applicable fluid: chemical liquid
- Orifice diameter: 2 to 22 mm
- Port size: 1/8” to 1”
- Body material: PPS, PFA, stainless steel
- Seal material: NBR, EPDM, PTFE
- Actuator section: PPS, PVDF.

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body/Diaphragm material
LVA10-01F-A	N.C.	69	0.06	0 to 0.5	G1/8	Stainless steel/PTFE
LVA20-02F-A		344	0.30		G1/4	
LVA30-03F-A		1669	1.46		G3/8	
LVA40-04F-A		3239	2.84		G1/2	
LVA50-06F-A		5889	5.16	0 to 0.4	G3/4	
LVA60-10F-A		7852	6.88		G1	
LVA10-01F-B		69	0.06	0 to 0.5	G1/8	PPS/PTFE
LVA20-02F-B		344	0.30		G1/4	
LVA30-03F-B		1669	1.46		G3/8	
LVA40-04F-B		3239	2.84		G1/2	
LVA50-06F-B		5889	5.16	0 to 0.4	G3/4	

High purity chemical liquid valve Air operated integrated fitting type
LVC Series

⊕

- Applicable fluid: chemical liquid
- Orifice diameter: 4 to 22 mm
- Tubing O.D.: metric 3 to 25; inch 1/8” to 1”
- Body material: PFA
- Seal material: PTFE
- Actuator section: PPS, PVDF.

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Tubing O.D. [mm]	Body/Diaphragm material
LVC20-S06	N.C.	344	0.30	0 to 0.5	6	PFA/PTFE
LVC30-S10		1669	1.46		10	
LVC40-S12		2454	2.15		12	
LVC50-S19		5889	5.16	0 to 0.4	19	
LVC60-S25		7852	6.88		25	

High purity chemical valve
LVQ Series

⊕

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range	Tubing O.D. [mm]	Body/Diaphragm material
LVQ20-S06	N.C.	344	0.30	-98 kPa to 0.5 MPa	6	PFA/PTFE
LVQ30-S10		1276	1.12		10	
LVQ40-S12		1865	1.63		12	
LVQ50-S19		4908	4.30	-98 kPa to 0.4 MPa	19	
LVQ60-S25		7852	6.88		25	

- Applicable fluid: chemical liquid
- Orifice diameter: 4 to 22 mm
- Tubing O.D.: metric 3 to 25; inch 1/8” to 1”
- Body material: PFA
- Seal material: PTFE
- Actuator section: PVDF.

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