Process valves

Process valves
Page 472

Process valves

Direct operated 2 port solenoid valve for general use
VX2 Series p. 472

2 port solenoid valve with built-in y-strainer
VXK Series p. 473

Pilot operated 2 port solenoid valve
VXD Series p. 473

Zero differential pressure type pilot operated 2 port solenoid valve
VXZ Series p. 474

Zero differential pressure type pilot operated 2 port solenoid valve for steam
VXS Series p. 475

Angle seat valve Air operated type
VXB Series p. 476

2 port solenoid valve energy saving type
VXE Series p. 477

2 port solenoid valve for high pressure, pilot operated diaphragm type
VXH Series p. 477

2 port solenoid valve Air operated valve for dust collector
VXFA/VXF Series p. 478

3 port solenoid valve directly operated poppet
VX3 Series p. 478

2 port valve, air operated
VXA2 Series p. 479

3 port valve, air operated
VXA3 Series p. 479

2/3 port solenoid valve High pressure operation range: 0.5 to 5.0 Mpa
VCH41/42/410 Series p. 480

Check valve High pressure operation range: 0.05 to 5.0 MPa
VCHC40 Series p. 480

Compact direct operated 2 port solenoid valve
VDW10/20 Series p. 481

3 port solenoid valve directly operated poppet
VDW200/300 Series p. 481

Compact and lightweight 2 port solenoid valve
VDW30/40-XF Series p. 482

2 port solenoid valve specific pilot operated for dry air
VQ20/30 Series p. 482

High speed 2 port valve
SX10 Series p. 483

Compact proportional solenoid valve Flow rate smoothly controlled by electric current adjustment
PVQ Series p. 483

Compact direct operated 2/3 port solenoid valve for chemicals liquids
LVM Series p. 484

2/3 port media separated valve
LVMK Series p. 484

2 port valve air operated for air and air-hydro circuit control
VNA Series p. 485

2 port valve air operated for general use
VNB Series p. 485

Coolant valve
SGC/SGCA Series p. 486

High pressure coolant valve
SGH/SGHA Series p. 487

2 port valve air operated for steam

VND Series p. 488

2 port air operated, high purity chemical valve integral fitting type

LVC Series p. 488

2 port air operated, high purity chemical valve threaded type

LVA Series p. 489

2 port manually operated high purity chemical valve

LVH Series p. 489

2 port air operated, high purity chemical valve compact type

LVD Series p. 490

2 port air operated high purity chemical valve. Non-metallic exterior

LVQ Series p. 490

Our highlighted product for you

Direct operated 2 port solenoid valve for general use

VX2 Series

For more details go to page 472

Air | Medium vacuum | Water | Oil | Steam ∗ Can be used with heated water

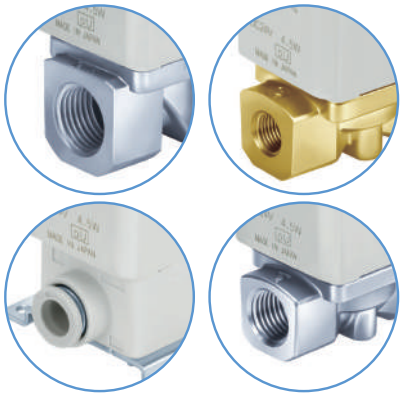
- **Large flow rate**
  Flow rate: 20 % more flow∗ (Size 1)
- **Compact**
  Height: 10 % smaller∗ (Size 1)
- **Lightweight**
  Weight: 30 % lighter∗ (Size 1, aluminium body)
- **Flame resistance UL94V-0 conformed**
- **IP65 degree of protection**
  Electrical entry “Faston” type terminal is IP40
- **Low noise construction**
  Metal noise reduced by the rubber bumper
- **Improved armature durability**
- **Power consumption**
  DC / Class B, N.C. valve:
  - 4.5 W (size 1)
  - 7 W (size 2)
  - 10.5 W (size 3).

∗ Comparison with SMC conventional model.

A more complete solution for medium flow demands

Body material
Air
- Aluminium, resin

Water / oil / medium vacuum / steam
- C37 (brass), stainless steel.



Piping variations

Thread piping, (G1/8 to G1/2)

One-touch fitting (Ø 6 to Ø 12 mm)

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

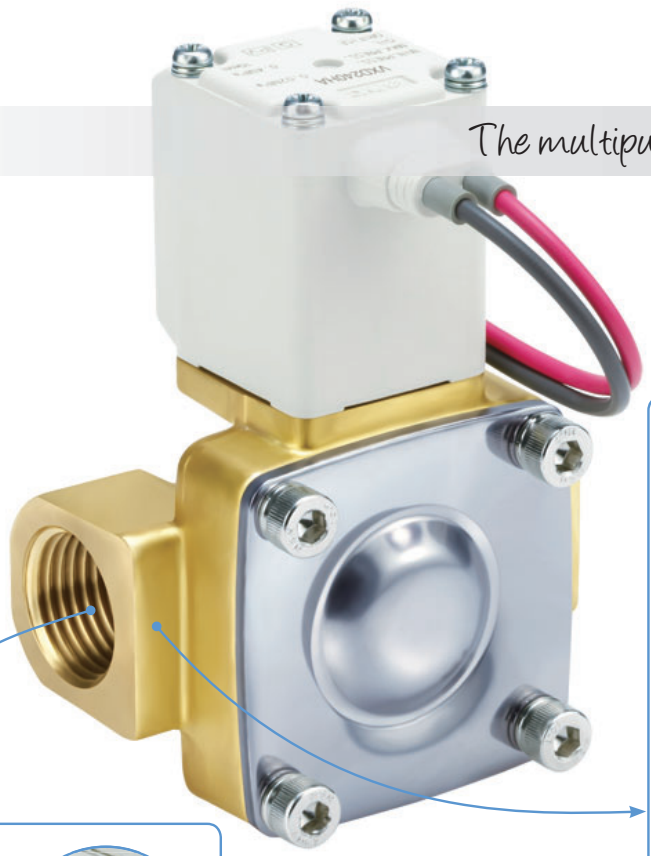
Pilot operated 2 port solenoid valve

VXD Series

For more details go to page 473

Air | Water | Oil | Heated water (99 °C) | High temperature oil (99 °C)

The multipurpose compact fluid valve



Body material

Air
- Aluminium (VXD2$^{3}_{A}$)
- Resin (VXD2$^{3}_{A}$)
- (C37) brass
- Stainless steel (VXD2$^{4}_{B}$ to 2$^{6}_{D}$)

Water / oil / heated water / high temperature oil
- (C37) Brass
- Stainless steel (VXD2$^{3}_{A}$ to 2$^{6}_{D}$)

Piping variations

Thread piping (G1/4 to G1) | One-touch fitting (Ø 10 to Ø 12 mm)

Compact
Height: approx. 7 % smaller* (7 mm) (VXD24)

Lightweight
Weight: 20 % lighter* (90 g) (VXD23 resin body)

Flame resistance UL94V-0 conformed

* Comparison with SMC conventional model.

IP65 degree of protection
Electrical entry "Faston" type terminal is IP40

Low noise construction
Impact noise reduced by the rubber buffer

Improved armature durability

Power consumption
- 4.5 W (VXD23 to 25)
- 7 W (VXD26).

Our highlighted product for you

Zero differential pressure type pilot operated 2 port solenoid valve

VXZ Series

For more details go to page 474

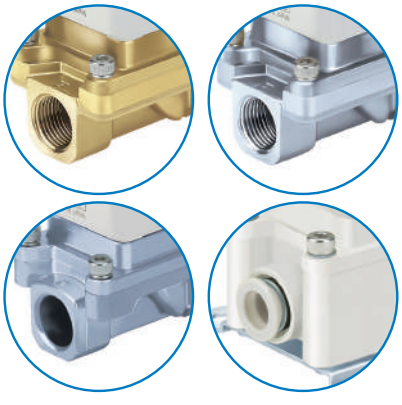
- **Compact**
  Height: approx. 4 % smaller* (4 mm)
  (VXZ24, C37 (brass) body)
- **Lightweight**
  Weight: 27 % lighter* (150 g)
  (VXZ23, resin body)
- **Can be used at 0 m hydraulic head!**
  Min. operating pressure differential: 0 MPa
- **Flame resistance UL94V-0 conformed**
- **IP65 degree of protection**
  Electrical entry “Faston” type terminal is IP40
- **Low noise construction**
  Impact noise reduced by the rubber buffer
- **Improved armature durability**

* Comparison with SMC conventional model.

When the application requires zero differential pressure

Body material
Air
- Aluminium, resin. (VXZ2$^{3}_{A}$)

Water / oil / air / heated water / high temperature oil
- C37 (Brass), stainless steel.



Piping variations

Thread piping (G1/4 to G1)

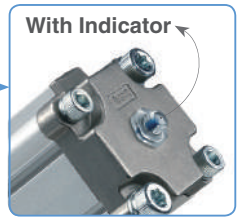
One-touch fitting (Ø 10 to Ø 12 mm)

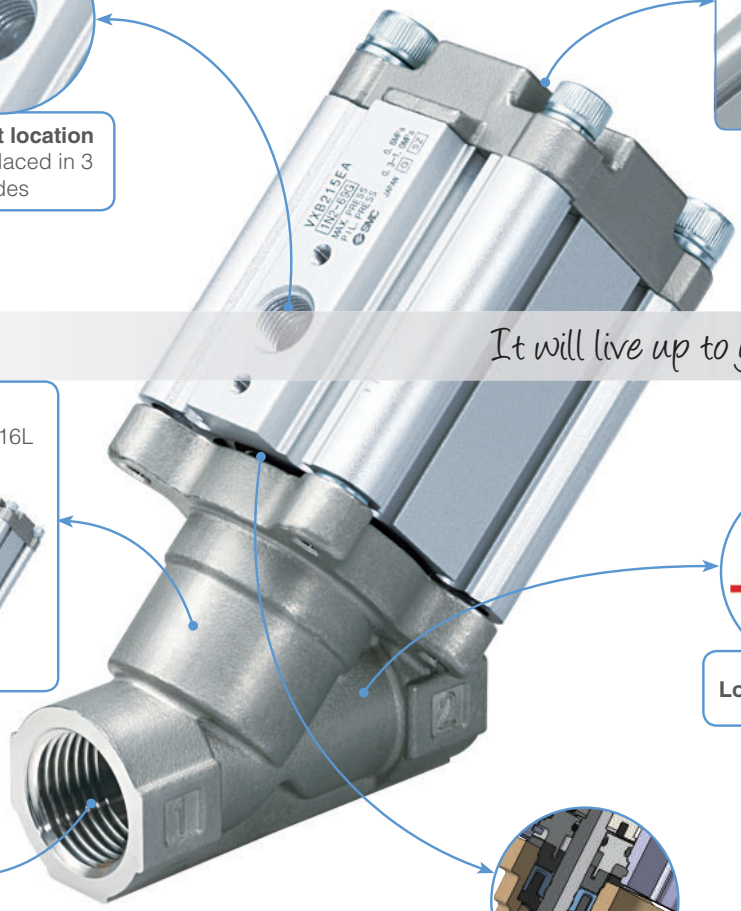
For more product options and details please refer to the specific catalogues in our website: www.smc.eu

Angle seat valve
Air operated type
VXB Series

For more details go to page 476

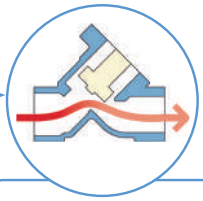
Pilot port location
Can be placed in 3 of its 4 sides





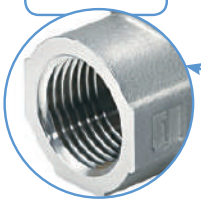
It will live up to your expectations

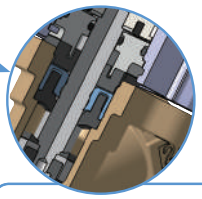
Body material
Bronze, stainless steel 316L equivalent



Low pressure loss

Port size:
3/8, 1/2, 3/4





Special construction:
- A **protective seal** prevents foreign particles from getting inside when the valve is open
- A **resin scraper** functions during the main valve stroke as a guide and prevents foreign particles from getting in
- **Squeeze seal** with scraper function added to shut off fluid leakage
- A **guide bushing** gives smooth shaft movement, prevents misalignment and lengthens the squeeze seal life.

Long service life:
- Air: 5 million cycles
- Steam: 3 million cycles

High sealing, minimal leakage:
- Minimal internal air leakage: **10 cm³/min or less** (Significantly better tightness than any PTFE sealed valve)
- High sealing thanks to a rubber seal made of a **special FKM**

Insulated adapter type
- Available for high temperature fluids.

Our highlighted product for you

Compact direct operated 2 port solenoid valve
VDW Series

For more details go to page 481

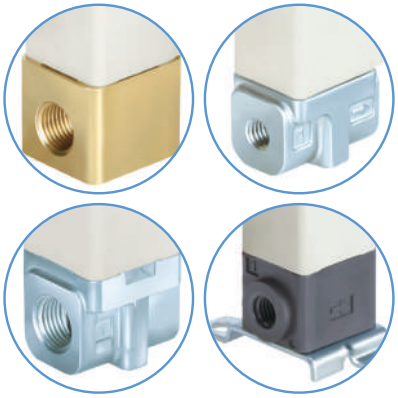
Air | Medium vacuum | Water

A basic, compact and light solution

Body material
Air
- Aluminium, resin (PPS)

Medium vacuum
- Brass, stainless steel

Water
- Resin (PPS), brass, stainless steel.



Piping variations

Thread piping (M5 to G1/8)

One-touch fitting (Ø 4 to Ø 6 mm)

- **Flame resistance UL94V-0 conformed**
- **IP65 degree of protection**
- **Seal material**
  - NBR (Air, water)
  - FKM (Medium vacuum)
- **Low noise construction**
  Metal noise reduced by the rubber damper
- **Improved armature durability**
- **Power consumption**
  - 2.5 W (Size 1)
  - 3 W (Size 2).

Lightweight

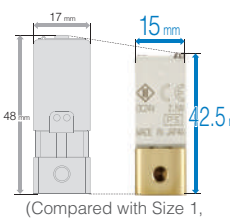
100g → 80g

Conventional Brass body (Size 2)

New Aluminium / Resin (PPS) body (Size 2)

Compact

Conventional model **New**



(Compared with Size 1, Brass / Stainless steel body)

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

2 port valve air operated for general use

VNB Series

For more details go to page 485

Air | Water | Oil | Heated water (99 °C) | High temperature oil (99 °C) | Low vacuum

Many variations

Normally closed, normally open and C.O. (double acting) are available

Port sizes

From G1/8 to G2

Robust poppet construction

- Much more robust and reliable than solenoids
- The best option for treating viscous fluids or slightly dirty such as soluble oils
- Capable of retaining reverse pressure

A wide variety of fluids

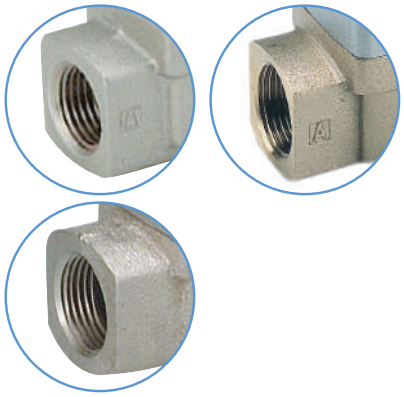
Proper selection with body and sealing materials permits application with a wide variety of fluids such as air, water, oil, gas and vacuum

Seal material

NBR, FKM, EPR.

Body material

Copper alloy, stainless steel, aluminium



The cylinder operated by external pilot air

The most versatile solution for large flow

Process valves

Our highlighted product for you

Direct operated 2 port solenoid valve for general use

VX2 Series

- Range of two port valves for air, medium vacuum and fluids
- Body materials: Aluminium, resin, brass and stainless steel
- Piping variations: Thread and one-touch fitting
- Low power consumption & low-noise construction
- N.C., N.O. options
- Oil free option available
- Fluid temperature up to 60 °C (high temperature version available)
- Ambient temperature -20 to 60 °C.

Fluid	Part number	Valve type	Max. operating pressure differential [MPa]	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body / seal material	Voltage	Electrical entry
Air	**VX210HG** ●	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	Ø 6 mm			
	VX210MG ●		0.6	0.41	0.35	3	Ø 8 mm			
	VX220HG ●		1.0	0.47	0.40	4	Ø 8 mm			
	VX230HG ●		1.0	0.70	0.60	5	Ø 10 mm			
Water	**VX212AGAXB** ●		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	G1/4			
	VX232DGAXB ●		1.0	0.75	0.64	5	G3/8			
Vacuum (oil free)	**VX214FGAXB** ●		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			
DI water / gas	**VX212HGKXB** ●		1.0	0.23	0.20	2	G1/8	SUS / FKM (Oil free)		
	VX212MGKXB ●		0.6	0.42	0.36	3	G1/4			
	VX222HGKXB ●		1.0	0.63	0.54	4	G1/4			
	VX232LGKXB ●		1.0	0.75	0.64	5	G3/8			

1) Pressurized 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 the part numbers above.

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

2 port solenoid valve with built-in y-strainer

VXK Series

- For air, water, oil, steam
- Space saving and reduced piping labour
- Built-in Y-strainer, 100 mesh, stainless steel
- The element can be replaced without removing piping
- N.C. / N.O. options
- Low noise construction
- Enclosure: IP65.

Part number	Valve type	Cv [Nl/min]	Kv [m³/h]	Max. operating pressure differential [MPa]	Orifice diameter [mm]	Port size	Body / seal material	Voltage	Electrical entry
VXK2110-01F-5DO1 ●	N.C.	0.17	0.15	1.5	2	G1/8	Brass / NBR	24 VDC	DIN terminal (without connector with gasket)
VXK2110-01F-JDOR1 ●								230 VAC [1]	
VXK2120-01F-5DO1 ●		0.33	0.28	0.5	3			24 VDC	
VXK2120-01F-JDOR1 ●								230 VAC [1]	
VXK2220-02F-5DO1 ●		0.33	0.28	1.5		G1/4		24 VDC	
VXK2220-02F-JDOR1 ●								230 VAC [1]	
VXK2230-02F-5DO1 ●		0.61	0.54	0.35	4.5			24 VDC	
VXK2230-02F-JDOR1 ●								230 VAC [1]	
VXK2320-03F-5DO1 ●		0.33	0.28	0.3	3	G3/8		24 VDC	
VXK2320-03F-JDOR1 ●								230 VAC [1]	
VXK2330-03F-5DO1 ●		0.61	0.54	0.9	4.5			24 VDC	
VXK2330-03F-JDOR1 ●								230 VAC [1]	

1) With built-in full wave rectifier.

Our highlighted product for you

Pilot operated 2 port solenoid valve

VXD Series

- Body materials: aluminium, resin, brass and stainless steel
- Piping variations: thread and one-touch fitting
- Low-noise construction
- N.C., N.O. options
- Oil free option available
- Fluid temperature up to 60 °C (high temperature version available)
- Ambient temperature -20 to 60 °C.

Fluid	Part number	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
Air	**VXD230DG** ●	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 ●			0.7	1.5	1.29	10	Ø 12 mm			
Water	**VXD232AGA** ●			0.5	1.9	1.63	10	G1/4	Brass / NBR		
	VXD242GGA ●			1.0	4.5	3.86	15	G3/8			
	VXD242HGA ●			1.0	5.5	4.72	15	G1/2			
	VXD252LGA ●			1.0	9.5	8.15	20	G3/4			
	VXD262NGA ●			1.0	13.0	11.15	25	G1			
DI Water / gas	**VXD232DGK** ●			0.5	1.9	1.63	10	G1/4	SUS / FKM (oil free)		
	VXD242JGK ●			1.0	4.5	3.86	15	G3/8			
	VXD242KGK ●			1.0	5.5	4.72	15	G1/2			
	VXD252MGK ●			1.0	9.5	8.15	20	G3/4			
	VXD262PGK ●			1.0	13.0	11.15	25	G1			

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

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
Stocked items and product information could be subject to change without prior notice.

Our highlighted product for you

Zero differential pressure type pilot operated 2 port solenoid valve

VXZ Series

- Body materials: Aluminium, resin, brass and stainless steel
- Piping variations: Thread and one-touch fitting
- Low-noise construction
- N.C., N.O. options
- Oil free option available
- Fluid temperature up to 60 °C (high temperature version available)
- Ambient temperature -20 to 60 °C.

Fluid	Part number	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
Air	**VXZ230CG** ●	N.C.	0	0.7	1.7	1.46	10	Ø 10 mm	PBT resin / NBR	24 VDC	DIN terminal (with surge voltage suppressor)
	VXZ230EG ●			0.7	2.0	1.72	10	Ø 12 mm			
Water	**VXZ232AGA** ●			0.7	1.9	1.63	10	G1/4	Brass / NBR		
	VXZ232BGA ●			0.7	2.4	2.06	10	G3/8			
	VXZ242FGA ●			0.7	5.3	4.55	15	G1/2			
	VXZ252HGA ●			1.0	9.2	7.89	20	G3/4			
	VXZ262KGA ●			1.0	10.2	8.75	25	G1			
DI Water / gas	**VXZ232CGK** ●			0.7	1.9	1.63	10	G1/4	SUS / FKM (oil free)		
	VXZ232DGK ●			0.7	2.4	2.06	10	G3/8			
	VXZ242GGK ●			0.7	5.3	4.55	15	G1/2			
	VXZ252JGK ●			1.0	9.2	7.89	20	G3/4			
	VXZ262LGK ●			1.0	10.2	8.75	25	G1			

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

Zero differential pressure type pilot operated 2 port solenoid valve for steam

VXS Series

- Body materials: Brass and stainless steel
- Low-noise construction
- N.C. options
- Oil free option available
- Fluids: Steam and heated water
- Fluid temperature up to 183 °C (heated water: 99 °C)
- Ambient temperature -20 to 60 °C.

Fluid	Part number	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
Steam and heated water	**VXS235AGA** ●	N.C.	0	1.0	2.4	2.1	10	G1/4	Brass / FKM	24 VDC	DIN terminal (With surge voltage suppresor)
	VXS235BGA ●				2.8	2.4	10	G3/8			
	VXS245FGA ●				5.3	4.6	15	G1/2			
	VXS255HGA ●				9.2	7.9	20	G3/4			
	VXS265KGA ●				12	10.4	25	G1			
	VXS235CGA ●				2.4	2.1	10	G1/4	SUS / FKM		
	VXS235DGA ●				2.8	2.4	10	G3/8			
	VXS245GGA ●				5.3	4.6	15	G1/2			
	VXS255JGA ●				9.2	7.9	20	G3/4			
	VXS265LGA ●				12	10.4	25	G1			

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

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
Stocked items and product information could be subject to change without prior notice.

Our highlighted product for you

Angle seat valve
Air operated type
VXB Series

- Low pressure loss due to angle seat structure
- Reduced leakage with rubber seal
- Long service life: 3 million cycles (steam), 5 million cycles (air)
- Low leakage: 10 cm^3/min or less
- Space saving: Height 100 mm
- Body material: Stainless steel 316L equivalent, bronze.

Fluid	Part number	Valve type	Max. operating pressure differential [MPa]	Cv	Kv [m^3/h]	Orifice diameter [mm]	Port size	Body / seal material
Steam, water and air	**VXB215AA□** ●	N.C.	1.0	3.5	3	11	G3/8	Brass / FKM
	VXB215BA□ ●		0.6	5.4	4.6	14	G1/2	
	VXB215CA□ ●		0.4	7.6	6.5	18	G3/4	
	VXB215DA□ ●		1.0	3.5	3	11	G3/8	SUS / FKM
	VXB215EA□ ●		0.6	5.4	4.6	14	G1/2	
	VXB215FA□ ●		0.4	7.6	6.5	18	G3/4	
	VXB215AHA□ ●		1.6	3.5	3	11	G3/8	Brass / FKM
	VXB215BHA□ ●		1.2	5.4	4.6	14	G1/2	
	VXB215CHA□ ●		0.6	7.6	6.5	18	G3/4	
	VXB215DHA□ ●		1.6	3.5	3	11	G3/8	SUS / FKM
	VXB215EHA□ ●		1.2	5.4	4.6	14	G1/2	
	VXB215FHA□ ●		0.6	7.6	6.5	18	G3/4	

□: Insert “L” if indicator option is required.

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

2 port solenoid valve energy saving type
VXE Series

- Energy saving type of the VX2, VXD2 and VXZ2 2 port solenoid valve series (replaceable coil)
- Power consumption when holding reduced to 1/3
- Coil heat reduction
- For various fluids and variety of sizes
- Applicable voltages: 24 and 12 VDC.

Part number	Valve type	Max. operating pressure differential [MPa][1)]	Cv	Kv [m³/h]	Port size	Body / seal material	Rated voltage + electrical entry
VXE2 Series Direct operated type							
VXE2110-01F-5DO1 ●	N.C.	1.5	0.18	0.15	G1/8	Brass / NBR	24 VDC, for DIN terminal (without connector, with gasket), with built-in surge voltage supressor circuit
VXE2120-02F-5DO1 ●		0.5	0.33	0.28	G1/4		
VXE2330-02F-5DO1 ●		0.9	0.61	0.52			
VXE2230-03F-5DO1 ●		0.35	0.61	0.52	G3/8		
VXE2330-03F-5DO1 ●		0.9	0.61	0.52			
VXE2360-04F-5DO1 ●		0.07	2.20	1.86	G1/2		
VXED2 Series Pilot operated type							
VXED2130-02F-5DO1 ●	N.C.	0.5	1.9	1.63	G1/4	Brass / NBR	24 VDC, for DIN terminal (without connector, with gasket), with built-in surge voltage supressor circuit
VXED2140-03F-5DO1 ●		1.0	4.5	3.86	G3/8		
VXED2140-04F-5DO1 ●			5.5	4.71	G1/2		
VXED2150-06F-5DO1 ●			9.5	8.14	G3/4		
VXED2260-10F-5DO1 ●			13	11.14	G1		
VXEZ2 Series Zero differential pressure pilot operated type							
VXEZ2230-02F-5DO1 ●	N.C.	0.7	1.9	1.63	G1/4	Brass / NBR	24 VDC, for DIN terminal (without connector, with gasket), with built-in surge voltage supressor circuit
VXEZ2230-03F-5DO1 ●			2.40	2.06	G3/8		
VXEZ2240-04F-5DO1 ●			5.3	4.54	G1/2		
VXEZ2350-06F-5DO1 ●		1.0	9.2	7.88	G3/4		
VXEZ2360-10F-5DO1 ●		1.0	12	10.28	G1		

1) Values for water

2 port solenoid valve for high pressure
Pilot operated diaphragm type
VXH Series

- High pressure applications (2 MPa)
- Body material: Brass
- Seal material: NBR
- Other voltages available (AC).

These models are suitable for air, water, steam and oil (1.5 MPa)

Part number	Valve type	Cv	Kv [m³/h]	Min. operating pressure differential [MPa]	Max. operating pressure differential [MPa]	Port size	Body / seal material	Voltage	Electrical entry
VXH2230-02-4D-Q	2 N.C.	2.0	1.64	0.05	2.0	Rc1/4	Brass / NBR	220 VAC	DIN Terminal
VXH2230-03-4D-Q		2.3	2.07			Rc3/8			
VXH2230-04-4D-Q		2.3	2.07			Rc1/2			

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
Stocked items and product information could be subject to change without prior notice.

2 port solenoid valve
Air operated valve for dust collector
VXF/VXFA Series

- Wide range of piping options: direct piping, flange, flange mounting and through hole mounting
- Port sizes from 3/4" to 4" and orifices from 22 to 100 mm
- Quick discharge of the bags - large orifice sizes and large discharge flow rates
- High speed response - double diaphragm structure
- Low minimum operating pressure: 0.03 MPa (sizes 21 to 23) and 0.1 MPa (sizes 24 to 28)
- Controller for operation with VXF valves available
- Applicable for high temperature up to 100 °C.

Part number	Valve type	Max. operating pressure differential [MPa]	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body / Diaphragm assembly material	Fluid temperature	Voltage	Electrical entry
Solenoid valve type										
VXF21AAGA	N.C.	0.7	9.5	8.14	22	G3/4	Aluminium / NBR POM	Max. 60 °C	24 VDC	DIN terminal (With surge voltage suppressor)
VXF22AAGA			18	15.43	28	G1				
VXF23AAGA			45	38.57	44	G1 1/2				
VXF24AAGA			64	54.85	53	G2				
VXF25AAGA			100	85.70	70	G2 1/2				
VXF26AAGA			155	132.84	80	G3				

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

Air operated type								
VXFA21AAA	N.C.	0.7	9.5	8.14	22	G3/4	Aluminium / NBR POM	Max. 60 °C
VXFA22AAA			18	15.43	28	G1		
VXFA23AAA			45	38.57	44	G1 1/2		
VXFA24AAA			64	54.85	53	G2		
VXFA25AAA			100	85.70	70	G2 1/2		
VXFA26AAA			155	132.84	80	G3		

3 port solenoid valve directly operated poppet
VX3 Series

- Low power consumption
- Enclosure IP65
- Low-noise construction
- Good maintenance performance
- Can be mounted on manifold
- Body materials: brass or stainless steel
- Seal materials: NBR, FKM, EPDM or PTFE
- Other voltages available (AC, DC).

These models are suitable for water, oil, low vacuum and air [1)]

Part number	Valve type	Cv	Kv [m³/h]	Max. operating pressure differential [MPa]	Port size	Body / Seal material	Voltage	Electrical entry
VX3114-01F-5D1 ●	C.O.	0.08	0.07	0.7	G1/8	Brass / NBR	24 VDC	DIN Terminal
VX3114-02F-5D1		0.08	0.07	0.7	G1/4			
VX3224-02F-5D1 ●		0.19	0.16	0.7				
VX3324-02F-5D1		0.19	0.16	1				
VX3334-03F-5D1		0.33	0.28	0.6	G3/8			
VX3114V-01F-5D1		0.08	0.07	0.7	G1/8	Brass / FKM (non-leak)		
VX3124V-01F-5D1		0.16	0.14	0.4				
VX3234V-02F-5D1		0.33	0.28	0.3	G1/4			
VX3344V-02F-5D1		0.5	0.43	0.3				
VX3344V-03F-5D1		0.5	0.43	0.3	G3/8			

1) For steam and medium vacuum applications, please select the suitable materials from the catalogue.
C.O.: Bi-directional normally open that can also be used normally closed.

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

2 port valve, air operated
VXA2 Series

- For high viscosity fluids (500 cSt)
- Easy to disassemble and reassemble in a short time
- Direction of pilot port can be easily changed
- Body material: brass or stainless steel
- Seal material: NBR, EPDM or FKM.

These models are suitable for air, inert gas, low vacuum and water [1)]

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Max. operating presure differential [MPa]	Port size	Body / Seal material
VXA2120-01F-1 ●	2 N.C.	135	0.28	1	G1/8	Brass / NBR
VXA2130-01F-1		250	0.54	0.5		
VXA2230-02F-1 ●		250	0.54	1	G1/4	
VXA2240-02F-1 ●		450	0.93	0.6		
VXA2240-03F-1 ●		450	0.93	0.6	G3/8	
VXA2120V-01F-1 ●		135	0.28	1	G1/8	Brass / FKM (non-leak)
VXA2130V-02F-1 ●		250	0.54	0.5		
VXA2230V-01F-1		250	0.54	1	G1/4	
VXA2240V-02F-1 ●		450	0.93	0.6		
VXA2240V-03F-1		450	0.93	0.6	G3/8	

1) For oil and medium vacuum applications, please select the suitable materials from the catalogue.

3 port valve, air operated
VXA3 Series

- For high viscosity fluids (500 cSt)
- Easy to disassemble and reassemble in a short time
- Free take off direction pilot port
- Body material: Brass or stainless steel
- Seal material: NBR, EPDM or FKM.

These models are suitable for air, inert gas, low vacuum and water [1)]

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Max. operating pressure differential [MPa]	Port size	Body / seal material
VXA3114-01F ●	3 C.O.	75	0.07	1	G1/8	Brass / NBR
VXA3124-01F		148	0.14	0.5		
VXA3134-02F		196	0.29	0.3	G1/4	
VXA3234-02F		271	0.32	0.6		
VXA3244-03F		383	0.43	0.3	G3/8	
VXA3114V-01F		75	0.07	1	G1/8	Brass / FKM (non-leak)
VXA3124V-01F		148	0.14	0.5		
VXA3134V-02F		196	0.29	0.3	G1/4	
VXA3234V-02F		271	0.32	0.6		
VXA3244V-03F		383	0.43	0.3	G3/8	

1) For oil and medium vacuum applications, please select the suitable materials from the catalogue.
C.O.: Bi-directional normally open that can also be used normally closed.

2/3 port solenoid valve
High pressure operation range: 0.5 to 5.0 Mpa
VCH41/42/410 Series

- Energy saving: Low power consumption
- Enclosure splash proof (equivalent to IP65)
- Body material: Brass / aluminium
- Seal material: Polyurethane elastomer
- Other voltages available (AC, DC)
- Thread type: Conforming to ISO 1179-1 on the pneumatic / hydraulic G thread.

These models are suitable for air and inert gas

Part number	Valve type	Q [Nl/min]	Operating pressure range [MPa]	Port size	Body / Seal material	Voltage	Electrical entry
VCH41-5D-06G-Q ●	2 N.C.	3821	0.5 to 5.0	G3/4	Brass / Polyurethane elastomer	24 VDC	DIN Terminal
VCH41-5D-10G-Q				G1			
VCH42-5D-06G-Q ●	2 N.O.			G3/4			
VCH42-5D-10G-Q				G1			

Part number	Valve type	Q [Nl/min]	Operating pressure range [MPa]	Port size	Body / Seal material	Voltage	Electrical entry
VCH410-5D-04G-Q	3 N.C.	1→2: 4961 2→3: 5457 1→2: 5819 2→3: 6348	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			

Check valve
High pressure operation range: 0.05 to 5.0 MPa
VCHC40 Series

- Body material: Brass
- Seal material: Polyurethane elastomer
- Thread type: Conforming to ISO 1179-1 on the pneumatic / hydraulic G thread.

These models are suitable for air and inert gas

Part number	Symbol	Q [Nl/min]	Operating pressure range [MPa]	Port size	Body / seal material
VCHC40-06G ●		6525	0.05 to 5.0	G3/4	Brass / polyurethane elastomer
VCHC40-10G				G1	

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

Our highlighted product for you

Compact direct operated 2 port solenoid valve

VDW10/20 Series

- Ultra compact 2 port valves for air, vacuum and fluids
- Body materials: Aluminium, resin, brass and stainless steel
- Piping variations: Thread and one-touch fitting
- Low weight
- IP65 enclosure
- Oil free option available
- Fluid temperature 1 to 50 °C (for water)
- Ambient temperature -10 to 50 °C.

Fluid	Part number	Valve type	Max. operating pressure differential [MPa]	Cv	Kv [m³/h]	Orifice diameter [mm]	Port size	Body / seal material	Voltage	Electrical entry
Air	**VDW10AA** ●	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	Ø 4 mm			
	VDW20GA ●						Ø 6 mm			
Water	**VDW12GA** ●		0.9	0.04	0.03	1	M5	Brass / NBR		
	VDW12HA ●		0.4	0.07	0.06	1.6	M5			
	VDW22NAA ●		0.7	0.07	0.06	1.6	G1/8			
	VDW22PAA ●		0.4	0.18	0.15	2.3	G1/8			
Vacuum (oil free)	**VDW14HA** ●		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)		
DI water / gas	**VDW22UAM** ●		0.7	0.07	0.06	1.6	G1/8			
	VDW22VAM ●		0.4	0.18	0.15	2.3	G1/8			

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

3 port solenoid valve directly operated poppet

VDW200/300 Series

- Compact and lightweight
- Improved durability
- Highly compact valve owing to its mold coil design
- Built-in rectifier for the AC specification
- Body material: Brass or stainless steel
- Seal material: NBR or FKM
- Other voltages available (AC, DC).

These models are suitable for water, deionised water (industry use), air and low vacuum

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Max. operating pressure differential [MPa]	Port size	Body / seal material	Voltage	Electrical entry
VDW250-5G-1-M5-Q ●	3 C.O.	16	0.03	0.9	M5	Brass / NBR	24 VDC	Grommet [1]
VDW250-5G-2-01F-Q ●		33	0.07	0.7	G1/8			
VDW350-5G-2-01F-Q ●		66	0.14	0.8				
VDW350-5G-3-02F-Q ●		115	0.24	0.4	G1/4			
VDW250-5G-1-M5-H-Q ●		16	0.03	0.9	M5	SUS / FKM		
VDW250-5G-2-01F-H-Q ●		33	0.07	0.7	G1/8			
VDW350-5G-2-01F-H-Q ●		66	0.14	0.8				
VDW350-5G-3-01F-H-Q ●		115	0.24	0.4				

1) Standard lead wire lenght: 300 mm
C.O.: Bi-directional normally open that can also be used normally closed.

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
Stocked items and product information could be subject to change without prior notice.

Compact / lightweight 2 port solenoid valve

VDW30/40-XF Series

- For air, water
- Compact / Lightweight resin body (PPS)
  Weight: 120 g (VDW30-XF)
- Power consumption:
  - 3 W (Standard)
  - 0.5 W (With power-saving circuit)
- Piping labour reduced:
  - One-touch fitting body
  - Quick fastener body
- Enclosure: IP65.

Part number	Valve type	Cv	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	2/2 N.C.	0.09	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		0.09	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 lenght: 300 mm.

2 port solenoid valve specific pilot operated for dry air

VQ20/30 Series

- High frequency operation
- Compact and lightweight
- Long operating life
- Easy piping with one-touch fittings
- Enclosure IP65
- Single and manifold body type options available
- Full wave rectifier and power-saving circuit options available
- Body material: Resin (PBT)
- Seal material: NBR
- Other voltages available (AC, DC).

These models are suitable for dry air, air and inert gas

Part number	Valve type	Q [Nl/min]	Max. operating pressure differential [MPa]	Min. operating pressure differential [MPa]	Tube connection Ø [mm]	Body / seal material	Voltage	Electrical entry
VQ21A1-5YO-C6-Q ●	2 N.C.	393	0.6	0.01	6	Resin / NBR	24 VDC	DIN terminal without connector
VQ21A1-5YO-C8-Q ●		491			8			
VQ31A1-5YO-C10-Q ●		785	0.5		10			
VQ31A1-5YO-C12-Q ●		981			12			

High speed 2 port valve
SX10 Series

- High speed response times: ON at 0.45 ms, OFF at 0.4 ms
- High frequency rates: Up to 1200 Hz
- Long life service: More than 5000 million cycles
- Filter attached.

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** ●			0.7	40	1000	
SX12F-CH ●	**SX11F-CH** ●			0.7	10	550	
SX12F-DH ●	**SX11F-DH** ●			0.6	4	350	
SX12F-EH ●	**SX11F-EH** ●	100		0.7	80	650	
SX12F-FH ●	**SX11F-FH** ●			0.7	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** ●			0.7	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 the part numbers above.

Compact proportional solenoid valve Flow rate smoothly controlled by electric current adjustment
PVQ Series

- Compact format
- Service life of 25 million cycles (based on SMC test conditions)
- Low leakage
- Operation noise during opening / closing of the valve reduced
- Base mounted and body ported configurations
- Body material: Brass or stainless steel (only PVQ30)
- Seal material: FKM
- Other voltages available (DC).

These models are suitable for air and inert gas. Vacuum applications possible

Part number	Valve type	Flow rate [Nl/min]	Max. operating pressure differential [MPa]	Port size	Body type	Body / Seal material	Voltage	Electrical entry
PVQ13-5L-03-M5-A ●	2 N.C.	0 to 5	0.7	M5	Base mounted	Brass / FKM	24 VDC	L Plug Connector
PVQ13-5L-04-M5-A ●		0 to 6	0.45					
PVQ13-5L-06-M5-A ●			0.2					
PVQ13-5L-08-M5-A ●		0 to 5	0.1					
PVQ31-5G-16-01F ●		0 to 100	0.7	G1/8	Body ported			Grommet [1]
PVQ31-5G-23-01F			0.35					
PVQ31-5G-40-01F ●		0 to 75	0.12					
PVQ33-5G-16-01F ●		0 to 100	0.7		Base mounted			
PVQ33-5G-23-01F ●			0.35					
PVQ33-5G-40-01F ●		0 to 75	0.12					

1) Standard lead wire length: 300 mm.

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
Stocked items and product information could be subject to change without prior notice.

Compact direct operated 2/3 port solenoid valve for chemicals liquids

LVM Series

- Direct operated diaphragm type valve
- Valve chamber volume up to 20 µl or less
- Compactness (width: 13 mm) and lightweight (30 g or less)
- Energy saving: Low power consumption (1 ~ 1.5 W)
- Body ported and base mounted valve options
- Wetted parts material: PEEK or PFA. EPDM, FKM, or FFKM.

Suitable for air, water, pure water, diluent, cleaning solvent

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

2/3 port media separated valve

LVMK Series

- Fluid separation structure
- 2 models: Base mounted and body ported
- Low particle generation
- Oil free and metal free
- Minimal dead space
- Flow rate adjustment not required for 3 port valve.

Suitable for air, water, deionized water, diluent, cleaning fluid

Part number	Valve type	Cv factor	Operating pressure range [MPa]	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 mm	Base mounted	—	PPS / FKM	24 VDC
LVMK23-5J							PPS / EPDM	
LVMK205-5J	3 Universal							
LVMK205-5K							PPS / FKM	
LVMK202-5J					Body ported	Bottom ported	PPS / EPDM	
LVMK202-5K							PPS / FKM	
LVMK207-5K						Side ported		
LVMK207-5J							PPS / EPDM	

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

2 port valve air operated for air and air-hydro circuit control

VNA Series

- The balanced poppet permits normal and reverse flow
- Operation from 0 MPa is possible
- Body material: Aluminium
- Seal material: NBR, EPR or FKM.

These models are suitable for compressed air, air-hydro circuit control

(Ar, He, N_2, CO_2, turbine oil, Freon® 11, 113, 114 and hydraulic fluids up to 99 °C)

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body / seal material
VNA101A-F6A	2 N.C.	687	0.62	0 to 1.0	G1/8	Aluminium / NBR
VNA101A-F8A ●		1276	1.10		G1/4	
VNA101A-F10A ●		1963	1.68		G3/8	
VNA201A-F10A		3730	3.36			
VNA201A-F15A ●		4908	4.32		G1/2	
VNA301A-F20A ●		7852	6.45		G3/4	
VNA401A-F25A		11778	10.32		G1	
VNA501A-F32A		17667	15.36		G1 1/4	
VNA601A-F40A		27482	24.00		G1 1/2	
VNA701A-F50A ●		42204	36.96		G2	

Our highlighted product for you

2 port valve air operated for general use

VNB Series

- A wide variety of suitable fluids, due to body and seal options
- Robust poppet construction
- N.C., N.O., C.O. options
- External pilot solenoid option
- Fluid temperature up to 60 °C (high temperature version available)
- Ambient temperature -5 to 60 °C.

Part number	Valve Type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body / seal material
EVNB104A-F8A ●	2 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	

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
Stocked items and product information could be subject to change without prior notice.

Coolant valve
SGC/SGCA Series

- Coolant valve suitable for cutting oils and coolants for machines
- 0.5, 1 and 1.6 MPa operating pressure ranges available
- Extended service life up to 5 million cycles due to enhanced construction
- With auto switches to verify if the valve is open or closed (SGC2, 3, 4 only)
- Body material: Cast iron
- Seal material: NBR or FKM
- Other voltages available (AC, DC)
- SGC5, 6 and 7 series available.

External pilot solenoid

Part number	Valve type	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body / seal material	Voltage	Electrical entry	Pilot valve
SGC221A-10G15Y-5D	2 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				

Air operated

Part number	Valve type	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body / seal material
SGCA221A-10G10	2 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	

Applicable auto-switches

Part number	Electrical entry	Special function	Wiring (output)
D-M9PL	3 m wire with grommet	—	3-wire (PNP)
D-M9PSAPC	0,5 m with M8 connector	—	3-wire (PNP)
D-M9BAL	3 m wire with grommet	Water resistant (2-colour display)	2-wire

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

High pressure coolant valve
SGH/SGHA Series

SGH SGHA

- For high speed grinding or continuous drilling operations
- Coolant valve for high pressure coolant that is ideal for lubrication, metal chips blowing and cooling
- Service life: 3 million cycles
- Power consumption: 0.35 W (24 VDC)
- N.C. / N.O. options
- Water hammer: Reduced by 20 % (compared to existing model, 2-port VNH series)
- 3-port dual pressure type is standardised
- Seal material: NBR or FKM
- Enclosure: IP65.

External pilot solenoid

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			

Air operated

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	

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
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2 port valve air operated for steam

VND Series

- PTFE seal for steam related applications
- With operation confirmation indicator
- Body material: Bronze or stainless steel
- Seal material: PTFE.

These models are suitable for steam up to 180 °C

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body / Seal material
EVND104D-F8A-L ●	2 N.C.	982	0.86	0 to 0.97	G1/4	Bronze / PTFE
EVND200D-F15A-L ●		4930	4.32		G1/2	
EVND300D-F20A-L ●		7361	6.45		G3/4	
EVND400D-F25A-L ●		11778	10.32		G1	
EVND500D-F32A-L ●		17530	15.36		G1 1/4	
EVND600D-F40A-L ●		27391	24.00		G1 1/2	
EVND700D-F50A-L ●		42182	36.96		G2	

2 port air operated, high purity chemical valve integral fitting type

LVC Series (Clean wet series)

- Integral fitting construction: Hyper Fitting® series used
- Minimal internal dead volume
- Piston damper to minimise particle generation
- PTFE diaphragm to prevent micro-bubble generation
- New PFA body provides outstanding corrosion resistance
- Excellent back-pressure resistance and service life
- 3 port valve version available
- Wetted parts material: PFA (body), PTFE (diaphragm)
- Also available with flow rate adjustment, bypass and suck back function.

Compatible with high purity chemicals and deionised water (semiconductor industry)

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Tubing O.D. [mm]	Body / diaphragm material
LVC20-S06 ●	2 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	

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

2 port air operated, high purity chemical valve threaded type

LVA Series (Clean wet series)

- Minimal internal dead volume
- Piston damper to minimise particle generation
- PTFE diaphragm to prevent micro-bubble generation
- New PFA body provides outstanding corrosion resistance
- Excellent back-pressure resistance and service life
- 3 port valve version available
- Wetted parts material: PFA, stainless steel or PPS (body), NBR, EPR or PTFE (diaphragm)
- Also available with flow rate adjustment and valve position indicator.

Compatible with high purity chemicals and deionised water (semiconductor industry)

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Port size	Body / diaphragm material
LVA10-01F-A	2 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	

2 port manually operated high purity chemical valve

LVH Series (Clean wet series)

- Locking and non-locking types available
- Integral fitting type / threaded type
- Wide range of valve variations available
- Wetted parts materials: PFA, stainless steel, or PPS (body); PTFE (diaphragm).

Compatible with high purity chemicals and deionised water (semiconductor industry)

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Tubing O.D. [mm]	Body / diaphragm material
LVH20-S06	2 N.C.	344	0.30	0 to 0.5	6	PFA / PTFE
LVH30-S10		1669	1.46		10	
LVH40-S12		2454	2.15		12	

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
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2 port air operated, high purity chemical valve compact type

LVD Series (Clean wet series)

- Compact valve: Dimension across inlet / outlet ports reduced by up to 25 %
- Minimal internal dead volume
- Integral fitting construction: Hyper Fitting® Series
- Piston damper to minimise particle generation
- Piping from 4 directions possible
- Wide range of valve variations available
- Wetted parts materials: PFA / PTFE
- Also available with flow rate adjustment, bypass and suck back function.

Compatible with high purity chemicals and deionised water (semiconductor industry)

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range [MPa]	Tubing O.D. [mm]	Body / diaphragm material
LVD10-S03	2 N.C.	88	0.08	0 to 0.5	3	PFA / PTFE
LVD10-S04 ●		88	0.08		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	4.30		19	

2 port air operated high purity chemical valve Non-metallic exterior

LVQ Series (Clean wet series)

- Non-metallic construction without metal screws
- New PFA body, PTFE diaphragm and PVDF actuator section
- Minimal internal dead volume
- Integral fitting construction: Hyper Fitting® Series
- Piston damper to minimise particle generation
- Piping from 8 directions possible
- Space saving: reduction in dimensions
- Wetted parts materials: PFA / PTFE
- Also available with flow rate adjustment, bypass, valve position indicator and suck back function.

Compatible with high purity chemicals and deionised water (semiconductor industry)

Part number	Valve type	Q [Nl/min]	Kv [m³/h]	Operating pressure range	Tubing O.D. [mm]	Body / diaphragm material
LVQ20-S06	2 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	