

Pilot Operated 4/5 Port Solenoid Valves

4 Port Solenoid Valve/Cassette Type Manifold **SJ2000/3000**

Rubber seal

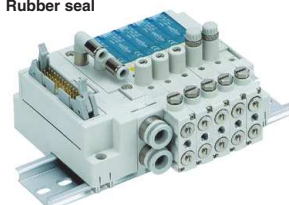


- Low-profile cassette type with baseless structure
- Takes up minimal space with a body width of 7.5 mm (SJ2000) or 10 mm (SJ3000)
- The SJ2000 and the SJ3000 can be combined.
- The multi-pin connector makes it easy to add or subtract stations or to exchange valves.
- One side solenoid
- 4 position, dual 3 port specifications are available.
- Manifold type no.: SS5J2, SS5J3

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 3/5 (A/B → E)				
	C [dm³/(s·bar)]	b	Cv		
SJ2000	0.36	0.13	0.08	ø20	0.55 (Standard) 0.23 (With power saving circuit)
SJ3000	0.56	0.11	0.12	ø25	0.4 (Standard) 0.15 (With power saving circuit)

Vacuum Release Valve with Restrictor **SJ3A6**

Rubber seal



- 2 built-in spool valves
- Vacuum adsorption and release can be controlled with a single valve.
- Width 10 mm (Same size as the SJ3000 series)
- With a restrictor that can adjust the flow rate of the release air
- Built-in replaceable filter on both vacuum and release sides
- Can be combined with the 4 port solenoid valve SJ2000/3000. (Made to Order)
- Manifold type no.: SS3J3

5 Port Solenoid Valve/Plug-in Type **SY3000/5000/7000**

Metal seal
Rubber seal

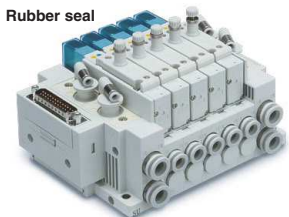


- Due to the flow increase, the valve size can be reduced!
Saves energy and space
- Power consumption: 0.1 W (With power saving circuit)/0.35 W (Standard)
- Service life: 200 million cycles (Metal seal)/70 million cycles (Rubber seal)
- Plug-in sub-plate has been newly added!
- Plug-in metal base (IP40)/Plug-in connector connecting base (IP67)
- Manifold type no.: SS5Y3, SS5Y5, SS5Y7

Series	Flow rate characteristics		Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)			
	C [dm³/(s·bar)]	b		
SY3000	1.6	0.19	ø50	0.35 (Standard) 0.1 (With power saving circuit)
SY5000	3.6	0.17	ø63	
SY7000	5.9	0.20	ø80	

Vacuum Release Valve with Restrictor **SY³₅A□R**

Rubber seal



- Vacuum adsorption and release can be controlled with a single valve.
- With a restrictor that can adjust the flow rate of the release air
- Can be mounted on the same manifold valve with the standard valve
- * When the individual EXH spacer is used

Pilot Operated 4/5 Port Solenoid Valves

5 Port Solenoid Valve SY3000/5000/7000/9000

Rubber seal



- The combined mounting of a 3 port valve and a 5 port valve is possible.
- Power consumption: 0.1 W (With power saving circuit)
- A wide variety of manifold options are available, such as the aluminum body manifold, DIN rail, and stacking type manifold.
- Manifold type no.: SS5Y3, SS5Y5, SS5Y7, SS5Y9

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
SY3000	1.1	0.30	0.26	ø40	0.35 (Standard) 0.1 (With power saving circuit)
SY5000	2.8	0.29	0.66	ø63	
SY7000	4.5	0.27	1.1	ø80	
SY9000	10	0.29	2.5	ø100	

5 Port Solenoid Valve/Plug-in Type S0700

Rubber seal

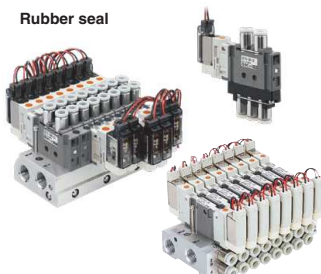


- A variety of common wiring methods are available.
- Slim, compact plug-in manifold: Required installation space reduced by 45%*, Height reduced by 20 mm*
- * Compared with plug-in manifold stacking base
- 4 position, dual 3 port valve
- Manifold type no.: SS0751, SS0750

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	1 → 4/2 (P → A/B)				
	C [dm³/(s·bar)]	b	Cv		
S0700	0.39	0.39	0.11	ø25	0.35

5 Port Solenoid Valve/Plug Lead Type S0700

Rubber seal



- Valve width: 7.4 mm
- Driveable cylinders: Up to ø32 (Body ported)
- Power consumption: 0.35 W
- Weight: 39 g (Body ported)

Series	Flow rate characteristics		Applicable cylinder size	Power consumption [W]
	1 → 4/2 (P → A/B)			
	C [dm³/(s·bar)]	Cv		
SS0752 Body ported	0.62	0.18	ø32	0.35
SS0755 Base mounted	0.39	0.11	ø25	0.35

5 Port Solenoid Valve SV1000/2000/3000/4000

Rubber seal



- It is possible to easily add stations to the manifold valve or change specifications.
- One side solenoid
- 4 position, dual 3 port specifications are available.
- Manifold type no.: SS5V1, SS5V2, SS5V3, SS5V4

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → E)				
	C [dm³/(s·bar)]	b	Cv		
SV1000	1.1	0.35	0.28	ø40	0.6
SV2000	2.4	0.18	0.48	ø63	0.6
SV3000	4.3	0.21	0.93	ø80	0.6
SV4000	7.0	0.18	1.6	ø100	0.6

Pilot Operated 4/5 Port Solenoid Valves

4/5 Port Solenoid Valve SYJ3000/5000/7000

Rubber seal



- The combined mounting of a 3 port valve and a 5 port valve is possible.
- Power consumption: 0.1 W (With power saving circuit)
- Manifold type no.: SS5YJ3, SS5YJ5, SS5YJ7

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
SYJ3000	0.46	0.35	0.12	ø25	0.35 (Standard) 0.1 (With power saving circuit)
SYJ5000	0.83	0.32	0.21	ø40	
SYJ7000	2.9	0.35	0.74	ø50	

5 Port Solenoid Valve/Cassette Type Manifold SZ3000

Rubber seal



- The cassette type allows for easy valve exchange.
- Valve has an attached switch for safe maintenance.
- The low-profile cassette type with baseless structure takes up less space.
- Manifold type no.: SS5Z3

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 3 (A/B → R)				
	C [dm³/(s·bar)]	b	Cv		
SZ3000	0.77	0.19	0.19	ø32	0.6

5 Port Solenoid Valve SX3000/5000/7000

Rubber seal



- One side solenoid
- No exhaust mist, No exhaust noise of pilot valve (Common exhaust for main and pilot valve)
- Manifold type no.: SS5X3, SS5X5, SS5X7

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
SX3000	1.1	0.30	0.26	ø40	0.6
SX5000	2.8	0.29	0.66	ø63	0.6
SX7000	4.5	0.27	1.1	ø80	0.6

4/5 Port Solenoid Valve VZ1000/3000/5000

Rubber seal



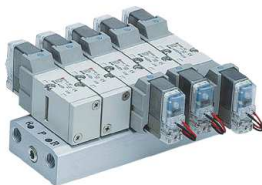
- Rubber seal main valve construction
- Manifold type no.: VV5Z3, VV5Z5

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
VZ1000	Effective area: 0.9 mm²	Effective area: 0.9 mm²	Effective area: 0.9 mm²	ø20	1.8
VZ3000	0.83	0.32	0.21	ø40	1.8
VZ5000	2.9	0.35	0.94	ø63	1.8

Pilot Operated 4/5 Port Solenoid Valves

5 Port Solenoid Valve VF1000/3000/5000

Rubber seal



- Built-in full-wave rectifier (AC)
- Built-in strainer in the pilot valve
- Manifold type no.: VV5F1, VV5F3, VV5F5

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
VF1000	0.53	0.28	0.13	ø40	1.55 (Standard) 0.55 (With power saving circuit)
VF3000	3.1	0.32	0.75	ø80	0.4 (Low wattage specification)
VF5000	10.0	0.49	2.9	ø125	1.55 (Standard) 0.55 (With power saving circuit)

Large Size 5 Port Solenoid Valve VP4□50/4□70

Rubber seal



- For driving large cylinders
- Manifold type no.: VVP45, VVP46

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
VP4□50	21	0.28	5.6	ø140	12
VP4□70	Effective area: 300 mm²			ø300	12

5 Port Solenoid Valve VQ1000/2000

Metal seal
Rubber seal

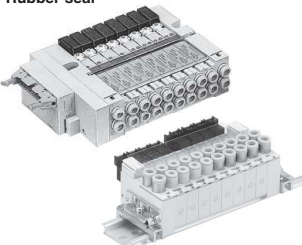


- Space-saving design with one side solenoid and fittings all positioned on one side, allowing free three-directional mounting
- No screws and one clamp structure for reduced recombination labor
- A variety of option parts (Back pressure check valve, Dual flow fitting, etc.) are available.
- A variety of common wiring methods are available.
- 4 position, dual 3 port valve
- Manifold type no.: VV5Q11, VV5Q21

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	2/4 → 3/5 (A/B → R1/R2)				
	C [dm³/(s·bar)]	b	Cv		
VQ1000	1.0	0.30	0.25	ø40	0.4 (Standard)
VQ2000	3.2	0.30	0.80	ø63	0.4 (Standard)

5 Port Solenoid Valve/Body Ported, Plug-in/Plug Lead VQ0000/1000/2000

Metal seal
Rubber seal



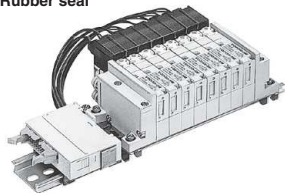
- One side solenoid
- A space-saving flip type and a cassette type which can increase or decrease stations are available.
- Valves can be changed without entirely disassembling the manifold.
- A variety of option parts (Individual SUP spacer, Block valve, etc.) are available.
- A variety of common wiring methods are available.
- Manifold type no.: VV5Q13, VV5Q04, VV5Q14, VV5Q24, VV5Q17

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → R1/R2)				
	C [dm³/(s·bar)]	b	Cv		
VQ0000	0.59	0.19	0.14	ø25	1.0 0.5 (Low wattage type)
VQ1000	1.0	0.21	0.25	ø40	1.0 0.5 (Low wattage type)
VQ2000	2.7	0.25	0.62	ø63	1.0 0.5 (Low wattage type)

Pilot Operated 4/5 Port Solenoid Valves

5 Port Solenoid Valve/Base Mounted, Plug Lead VQ

Metal seal
Rubber seal

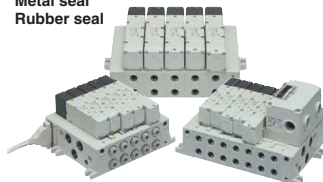


- Space-saving design with one side solenoid and fittings all positioned on one side, allowing free three-directional mounting
- No screws and one clamp structure for reduced recombination labor
- A variety of option parts (Back pressure check valve, Dual flow fitting, etc.) are available.
- A variety of common wiring methods are available.
- 4 position, dual 3 port valve
- Manifold type no.: VV5Q05, VV5Q12

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	2/4 → 3/5 (A/B → R1/R2)				
	C [dm³/(s·bar)]	b	Cv		
VQ0000	0.53	0.22	0.13	ø25	1.0 0.5 (Low wattage type)
VQ1000	1.0	0.30	0.25	ø40	1.0 0.5 (Low wattage type)

5 Port Solenoid Valve VQ4000/5000

Metal seal
Rubber seal



- Compact with a large flow capacity
Installation volume: 42% reduction, Installation area: 26% reduction
VQ4000: Can drive cylinders up to ø160
VQ5000: Can drive cylinders up to ø180
- Power saving: Power consumption of 0.4 W (Low wattage type)
- Long service life: 100 million cycles (According to SMC life test conditions)

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
VQ4000	7.3	0.38	2.0	ø160	1.0 0.4 (Low wattage type)
VQ5000	17	0.31	4.7	ø180	1.0 0.4 (Low wattage type)

5 Port Solenoid Valve VQ4000

Metal seal
Rubber seal



- Compatible with dust-tight/water-jet-proof types (Equivalent to IP65)
- A variety of common wiring methods are available.
- Compatible with a wide variety of manifold options and control units
- Manifold type no.: VV5Q41, VV5Q45

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
VQ4000	7.3	0.38	2.0	ø100	1.0 0.5 (Low wattage type)

5 Port Solenoid Valve VQ5000

Metal seal
Rubber seal



- Compatible with dust-tight/water-jet-proof types (Equivalent to IP65)
- A variety of common wiring methods are available.
- Manifold type no.: VV5Q51, VV5Q55

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	2/4 → 3/5 (A/B → R1/R2)				
	C [dm³/(s·bar)]	b	Cv		
VQ5000	17	0.31	4.7	ø160	1.0 0.5 (Low wattage type)

Pilot Operated 4/5 Port Solenoid Valves

5 Port Solenoid Valve **VQC1000/2000**

Metal seal
Rubber seal

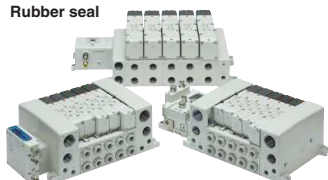


- Enclosure IP67 compliant
- Flexible adaptation, such as the adding of stations and changing of specifications, is made possible with the use of a multi-pin connector manifold.
- Space-saving design with one side solenoid and fittings all positioned on one side, allowing free mounting
- No screws and one clamp structure for reduced recombination labor
- A variety of common wiring methods are available.
- 4 position, dual 3 port valve
- Manifold type no.: VV5QC11, VV5QC21

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → R1/R2)				
	C [dm³/(s·bar)]	b	Cv		
VQC1000	1.0	0.30	0.25	ø40	0.4 W (Standard)
VQC2000	3.2	0.30	0.80	ø63	0.4 W (Standard)

5 Port Solenoid Valve **VQC4000/5000**

Metal seal
Rubber seal



- Compact with a large flow capacity
VQC4000: Can drive cylinders up to ø160
VQC5000: Can drive cylinders up to ø180
- An extensive range of protocols are available.
- Power saving: Power consumption of 0.4 W (Low wattage type)
- Long service life: 100 million cycles (According to SMC life test conditions)
- Enclosure IP67 compliant

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
VQC4000	7.3	0.38	2.0	ø160	1.0 0.4 (Low wattage type)
VQC5000	17	0.31	4.7	ø180	1.0 0.4 (Low wattage type)

5 Port Solenoid Valve **VQC4000**

Metal seal
Rubber seal



- Enclosure IP67 compliant
- Flexible adaptation, such as the adding of stations and changing of specifications, is made possible with the use of a multi-pin connector manifold.
- Space-saving design with one side solenoid and fittings all positioned on one side, allowing free mounting
- A variety of common wiring methods are available.
- Manifold type no.: VV5QC41

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	2/4 → 3/5 (A/B → R1/R2)				
	C [dm³/(s·bar)]	b	Cv		
VQC4000	7.3	0.38	2.0	ø100	1.0 0.5 (Low wattage type)

5 Port Solenoid Valve **VQZ1000/2000/3000**

Metal seal
Rubber seal



- The combined mounting of a 3 port valve and a 5 port valve on a manifold valve is possible.
- Can be mounted on an aluminum body manifold or a DIN rail
- Manifold type no.: VV5QZ12, VV5QZ15, VV5QZ22, VV5QZ25, VV5QZ32, VV5QZ35

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
VQZ1000	1.3	0.24	0.32	ø63	0.35 (Standard) 0.9 (High pressure type, High speed response type)
VQZ2000	2.3	0.29	0.53	ø80	
VQZ3000	4.6	0.26	1.2	ø100	

Pilot Operated 4/5 Port Solenoid Valves

5 Port Solenoid Valve **SQ1000/2000**

Metal seal
Rubber seal



- Power saving: Power consumption of 0.4 W (Standard)
- Easy to add or decrease the number of valve stations
- Easy valve maintenance, mountable with one screw
- Easy replacement of clip type One-touch fittings
- Connector entry direction can be changed with a single push.
- 4 position, dual 3 port valve
- Built-in back pressure check valve (Option)
- Manifold type no.: SS5Q13, SS5Q14, SS5Q23, SS5Q24

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → R1/R2)				
	C [dm³/(s·bar)]	b	Cv		
SQ1000	0.8	0.20	0.19	ø32	0.4 W (Standard)
SQ2000	3.1	0.18	0.71	ø63	0.95 W (High pressure type)

5 Port Solenoid Valve **VZS2000/3000**

Metal seal



- Metal seal main valve construction
- Flexible to increase and decrease manifold stations (Stacking type manifold base)
- A wide variety of connection variations are available.
- Manifold type no.: VV5ZS2, VV5ZS3

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → R1/R2)				
	C [dm³/(s·bar)]	b	Cv		
VZS2000	1.4	0.19	0.33	ø40	1.8
VZS3000	2.4	0.09	0.53	ø63	1.8

5 Port Solenoid Valve **VFS1000/2000/3000/4000/5000/6000**

Metal seal



- Metal seal main valve construction
- Extensive size variations are available.
- For driving medium and large cylinders
- A wide variety of manifold options are available.
- Compatible with control units (VFS2000/3000/4000, Base mounted type)
- Manifold type no.: VV5FS1, VV5FS2, VV5FS3, VV5FS4, VV5FS5

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → R1/R2)				
	C [dm³/(s·bar)]	b	Cv		
VFS1000	1.8	0.19	0.40	ø50	1.8
VFS2000	3.5	0.32	0.85	ø63	1.8
VFS3000	6.8	0.12	1.6	ø80	1.8
VFS4000	12	0.22	3.1	ø140	1.8
VFS5000	20	0.13	4.7	ø160	1.8
VFS6000	38	0.10	9.0	ø200	1.8

Pilot Operated 4/5 Port Solenoid Valves

5 Port Solenoid Valve **VFR2000/3000/4000/5000/6000**

Rubber seal



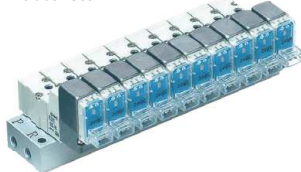
- Rubber seal main valve construction
- Extensive size variations are available.
- For driving medium and large cylinders
- Manifold type no.: VV5FR2, VV5FR3, VV5FR4, VV5FR5

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
VFR2000	3.0	0.27	0.7	ø63	1.8
VFR3000	8.7	0.38	2.2	ø100	1.8
VFR4000	14	0.3	3.8	ø125	1.8
VFR5000	25	0.21	6.2	ø140	1.8
VFR6000	41	0.17	9.7	ø200	1.8

Pilot Operated 3 Port Solenoid Valves

3 Port Solenoid Valve **SYJ300/500/700**

Rubber seal



- Power consumption: 0.1 W (With power saving circuit)
- Manifold type no.: SS5YJ3, SS5YJ5, SS5YJ7

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 3 (A → R)				
	C [dm³/(s·bar)]	b	Cv		
SYJ300	0.36	0.31	0.089	0.35 (Standard) 0.1 (With power saving circuit)	–100 kPa
SYJ500	1.2	0.48	0.34		–100 kPa
SYJ700	2.7	0.34	0.69		–100 kPa

3 Port Solenoid Valve **VQZ100/200/300**

Metal seal
Rubber seal



- The external pilot specification can be used for vacuum applications.
- Can be mounted on an aluminum body manifold or a DIN rail
- Manifold type no.: VV3QZ12, VV3QZ15, VV3QZ22, VV3QZ25, VV3QZ32, VV3QZ35

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 3 (A → R)				
	C [dm³/(s·bar)]	b	Cv		
VQZ100	0.56	0.30	0.14	0.35 (Standard) 0.9 (High pressure type, High speed response type)	–100 kPa
VQZ200	1.7	0.36	0.45		–100 kPa
VQZ300	3.0	0.33	0.72		–100 kPa

3 Port Solenoid Valve **VZ100/300/500**

Rubber seal



- Can be used for vacuum applications (VZ100, VZ300R, VZ500R)
- Exhausting equipment for the pilot valve is not required. (Common exhaust type: VZ300M/500M)
- Can be used as either a selector or divider valve (External pilot type: VZ300R/500R)
- Manifold type no.: VV3Z1, VV4Z1, VV3Z3, VV3Z5

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 3 (A → P)				
	C [dm³/(s·bar)]	b	Cv		
VZ100	0.19	0.071	0.042	1.8	–100 kPa
VZ300	1.2	0.48	0.34	1.8	–100 kPa
VZ500	2.7	0.34	0.69	1.8	–100 kPa

Pilot Operated 3 Port Solenoid Valves

3 Port Solenoid Valve **VZ200/400**

Metal seal



- The plug connector allows for one-touch wiring.
- Can take measures against pilot exhaust (Common exhaust)
- Manifold type no.: VV3Z2, VV3Z4

Series	Flow rate characteristics			Power consumption [W]
	2 → 3 (A → R)			
	C [dm³/(s·bar)]	b	Cv	
VZ200	0.85	0.35	0.22	1.8
VZ400	2.2	0.11	0.49	1.8

3 Port Solenoid Valve/Pilot Operated Poppet Type **VP300/500/700**

Rubber seal



- Built-in full-wave rectifier (AC)
- Longer life expectancy: 50 million cycles or more
- Built-in strainer in the pilot valve
- The external pilot type can be used for vacuum applications.
- Manifold type no.: VV3P3, VV3P5, VV3P7

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 3 (A → P)				
	C [dm³/(s·bar)]	b	Cv		
VP300	4.2	0.23	1.0	1.55 (Standard) 0.55 (With power saving circuit)	–100 kPa
VP500	8.9	0.20	2.1	0.4 (Low wattage specification)	
VP700	15.3	0.22	3.7	1.55 (Standard) 0.55 (With power saving circuit)	–100 kPa

3 Port Solenoid Valve/Pilot Operated Poppet Type **VG342**

Rubber seal



- Low power consumption
- No lubrication required
- Can be used under vacuum or low pressure
- Easy conversion to N.C., N.O., or external pilot
- Can be used as either a selector or divider valve (External pilot type)

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 3 (A → P)				
	C [dm³/(s·bar)]	b	Cv		
VG342	38	0.32	9.8	4 (Standard) 1.8 (Energy-saving type) 1.8 (Continuous duty type)	−101.2 kPa

Large Size 3 Port Solenoid Valve **VP3145/3165/3185**

Rubber seal



- Large flow capacity, small exhaust resistance
- Easy conversion to N.C. or N.O.

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 3 (OUT → EXH)				
	C [dm³/(s·bar)]	b	Cv		
VP3145	26	0.35	7.0	12	−101.2 kPa
VP3165	Effective area: 330 mm²			12	−101.2 kPa
VP3185	Effective area: 670 mm²			12	−101.2 kPa

Pilot Operated 3 Port Solenoid Valves

ISO13849-1 Certified: 3 Port Solenoid Valve/Residual Pressure Release Valve with Detection of Main Valve Position **VP/VG**

Rubber seal



- Safety standard ISO13849-1 certified (Corresponding to category 2 to 4)
- With detection of main valve position
- It is possible to construct a redundant system easily.
- Highly reliable construction
- Safety limit switch can be selected
- With soft start-up function (-X555)

Series	Category	Flow rate characteristics		
		2 → 3 (A → R)		
		C [dm³/(s·bar)]	b	Cv
Residual pressure release valve VP542-X536	2	8.9	0.20	2.1
Residual pressure release valve VP742-X536	2	15.3	0.22	3.7
Dual residual pressure release valve VP544-X538	3, 4	6.7	0.10	1.3
Dual residual pressure release valve VP744-X538	3, 4	9.7	0.08	2.1
Dual residual pressure release valve with soft start-up function VP544-X555	3, 4	6.7	0.10	1.3
Dual residual pressure release valve with soft start-up function VP744-X555	3, 4	9.7	0.08	2.1
Dual residual pressure release valve VG342-X87	3, 4	28.6	0.03	5.6

Direct Operated 3/4/5 Port Solenoid Valves

3 Port Solenoid Valve/Unit Manifold Valve **VV061**

Rubber seal



- Valve, base plate, base, and fitting in one compact unit
- Innovative unit manifold
- Equipped with a 6 mm wide valve, V060 series

Series	Type	Flow rate characteristics	Power consumption [W]	For use in vacuum applications
		2 → 3 (A → R)		
		C [dm³/(s·bar)]		
VV061	Standard	Effective area: 0.11 mm²	0.55 (Standard)	-100 kPa
	High flow	Effective area: 0.21 mm²	0.23 (With power saving circuit)	

3 Port Solenoid Valve/Highly Integrated Unit Manifold **VV100**

Rubber seal



- Compact manifold with two 3-port valves on 1 station
- Connector (For plug-in connection)
- Individually wired valves can be added.

Series	Flow rate characteristics		Power consumption [W]	For use in vacuum applications
	2a/2b → 3 (E)			
	C [dm³/(s·bar)]	b		
VV100	0.05	0.29	0.4 (Standard) 0.15 (With power saving circuit)	–100 kPa

Direct Operated 3/4/5 Port Solenoid Valves

3 Port Solenoid Valve V100

Rubber seal



- Power consumption: 0.1 W (With power saving circuit)
- Manifold type no.: VV100-S41

Series	Type	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
		2 → 3				
		C [dm³/(s·bar)]	b	Cv		
V100	Standard	0.037	0.11	0.008	0.35 (Standard) 0.1 (With power saving circuit)	–100 kPa
V100	High flow	0.076	0.07	0.016	1	–100 kPa

3 Port Solenoid Valve SY100

Rubber seal

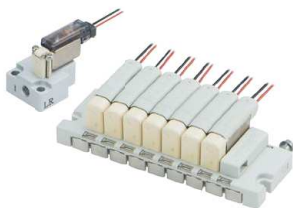


- Copper-free
- Manifold type no.: SS3Y1

Series	Type	Effective area	Power consumption [W]	For use in vacuum applications
SY100	Standard	0.14 mm ²	0.5	–100 kPa
	High flow	0.22 mm ²		

3 Port Solenoid Valve S070

Rubber seal



- 7 mm wide compact solenoid valve manifold
- Weight of valve alone: 5 g
- Single unit specifications, base mounted manifolds, and body ported manifolds can be selected.
- Manifold type no.: SS073

Series	Flow rate characteristics			Power consumption [W]	Max. operating pressure
	C [dm ³ /(s·bar)]	b	Cv		
S070	0.042	0.27	0.011	0.5	0.5 MPa
	0.060	0.28	0.016	0.5	0.3 MPa
	0.042	0.27	0.011	0.35	0.3 MPa
	0.060	0.28	0.016	0.35	0.1 MPa
	0.021	0.27	0.006	0.1 (With power saving circuit)	0.3 MPa
	0.042	0.28	0.011	0.1 (With power saving circuit)	0.1 MPa

3 Port Solenoid Valve VQ100

Metal seal

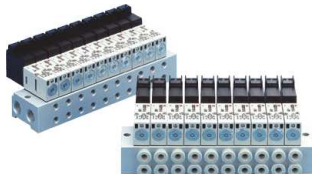


- High speed, stable response
- Copper-free
- A wide variety of wiring methods are available.
- Can be used for vacuum applications
- Manifold type no.: VV3Q11, VV3Q12

Series	Type	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
		2 → 3 (2 → 1)				
		C [dm³/(s·bar)]	b	Cv		
VQ100	Standard	0.083	0.28	0.021	1.0	–100 kPa
	High flow	0.14	0.25	0.036	0.5 (Low wattage type)	

4 Port Solenoid Valve/Direct Operated Poppet Type VQD1000

Rubber seal



- Since the main valve has no sliding seals, a non-oil specification (Made to Order) is available. There is also no exhaust to the atmosphere.
- High speed, with stable response times
- Can be used for vacuum applications
- Manifold type no.: VV4QD12, VV4QD15

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	4/2 → 5/3 (A/B → EA/EB)				
	C [dm³/(s·bar)]	b	Cv		
VQD1000	0.27	0.28	0.07	ø25	2.0

Direct Operated 3/4/5 Port Solenoid Valves

Vacuum/Release Unit **VQD1000-V**

Rubber seal



- Applicable to 0603 chips
- Response speed: 13 msec (at time of 500 mm*) / 18.5 msec (at time of 1000 mm*)
- Smooth workpiece removal, with no overshoot
- The timing adjustment of switchback between vacuum and positive pressure is not required.
- A throttle circuit for release air is not required.
- Suction filter: ZFC050 (Made to Order)

* Distance from the unit to the work area

3 Port Solenoid Valve/Direct Operated Poppet Type **VK300**

Rubber seal



- Universal porting
- Can be combined on the VK3000 manifold
- Can be used for vacuum applications
- Manifold type no.: VV3K3

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 3 (A → R)				
	C [dm³/(s·bar)]	b	Cv		
VK300	0.80	0.27	0.19	4	−101.2 kPa

3 Port Solenoid Valve/Direct Operated Poppet Type **VKF300**

Rubber seal



- Universal porting
- Can be used for vacuum applications
- Manifold type no.: VV3KF3

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 3 (A → R)				
	C [dm³/(s·bar)]	b	Cv		
VKF300	0.59	0.31	0.14	4.0	−101.2 kPa

5 Port Solenoid Valve/Direct Operated Poppet Type **VK3000**

Rubber seal



- Low power consumption (2 W DC, Low wattage type)
- Can be used with a pressure of 0 MPa or more
- The combined mounting of the VK300 is possible.
- Manifold type no.: VV3K3

Series	Flow rate characteristics			Power consumption [W]
	4/2 → 5/3 (A/B → R1/R2)			
	C [dm³/(s·bar)]	b	Cv	
VK3000	0.54	0.12	0.12	4.0

3 Port Solenoid Valve/Direct Operated Poppet Type **VT307**

Rubber seal



- Energy-saving type: 1.8 W
- A single valve with various valve functions (Universal porting type)
- Low concentration ozone resistant
- Rubber seal material: HNBR for main valve
- Mounting dimensions are interchangeable with the current product.
- Manifold type no.: VV307

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 3 (A → R)				
	C [dm³/(s·bar)]	b	Cv		
VT307	0.71	0.25	0.17	4 (Standard) 1.8 (Enerav-saving type)	−101.2 kPa

Direct Operated 3/4/5 Port Solenoid Valves

3 Port Solenoid Valve/Direct Operated Poppet Type VT317/325

Rubber seal



- Direct operated solenoid valve
- Universal porting
- Can be used for vacuum applications
- Manifold type no.: VV317, VVT340, VVT341

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 3 (A → R)				
	C [dm³/(s·bar)]	b	Cv		
VT317	2.6	0.34	0.67	6.0	−101.2 kPa
VT325	6.1	0.37	1.6	12	−101.2 kPa

3 Port Solenoid Valve VT315

Rubber seal



- Universal porting
- Can be used for vacuum applications
- Manifold type no.: VVT320, VVT321

Series	Flow rate characteristics			Power consumption [W]	For use in vacuum applications
	2 → 1 (A → P)				
	C [dm³/(s·bar)]	b	Cv		
VT315	1.7	0.36	0.45	6 to 7	–100 kPa

5 Port Direct Operated Solenoid Valve VS4□10

Metal seal



- Direct operated solenoid valve
- Can be used with a pressure of 0 MPa or more
- Metal seal main valve construction
- Manifold type no.: VVS410, VVS411

Series	Flow rate characteristics			Applicable cylinder size	Power consumption [W]
	A/B → EA/EB				
	C [dm³/(s·bar)]	b	Cv		
VS4□10	3.9	0.35	1.0	ø80	5.5

3 Port Direct Operated Solenoid Valve VS3115/3110/3135/3145

Metal seal



- Direct operated solenoid valve
- Metal seal main valve construction
- Can be used with a pressure of 0 MPa or more
- Multiple pressure supply is possible.
- Manifold type no.: VVS310, VVS311

Series	Flow rate characteristics			Power consumption [W]
	A → E			
	C [dm³/(s·bar)]	b	Cv	
VS3115	3.6	0.34	0.88	5.5
VS3110	3.6	0.18	0.82	5.5
VS3135	9.0	0.3	2.4	13.2
VS3145	15	0.46	4.5	24.0