3 Port Direct Operated Solenoid Valve

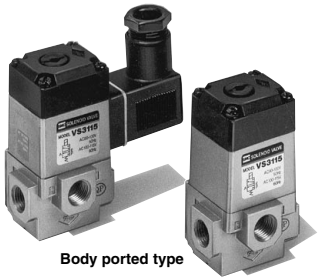
Series VS3115/3110

Metal Seal

Multiple pressure supply is possible with balanced spool sleeve.

Any given port can accept high or low pressure supply without affecting the system life or operation.

No-lubrication and dry-air operation possible.



Body ported type

With sub-plate

Standard Specifications

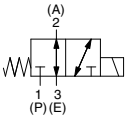
Fluid			Air/Inert gas	
Operating pressure range			0 to 1.0 MPa	
Proof pressure			1.5 MPa	
Ambient and fluid temperature			–20 to 60°C (No freezing)	
Response time (1)			10 ms or less (AC), 45 ms or less (DC)	
Max. operating frequency (2)			1,500 c.p.m. (AC), 180 c.p.m. (DC)	
Manual override			Non-locking	
Lubrication			Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)	
Enclosure			Dustproof [Degrees of protection 0] (4)	
Impact/Vibration resistance (m/s²)			150/50 (5)	
Electrical entry			Grommet, DIN terminal	
Coil rated voltage		**Standard**	100, 200 VAC, 50/60 Hz; 24 VDC	
		Option	220, 110, 48, and 24 VAC (50/60 Hz) 100, 48, and 12 VDC	
Allowable voltage fluctuation			–15 to +10% of rated voltage	
Coil insulation type			Class B or equivalent (130°C) (6)	
Apparent power (VA) (Power consumption (W))	**AC**	**Inrush**	50 Hz	51
			60 Hz	45
		Holding	50 Hz	17 (5.3)
			60 Hz	11 (2.9)
Power consumption (W)	**DC**		5.5	
Accessory (Option)			Bracket (AXT338-11)/For body ported type	
			Indicator light	
			Manual override	

Note 1) Based on JIS B 8375-1981. (at 0.5 MPa, without surge voltage suppressor)
Note 2) Minimum operating frequency is once in 30 days. (Based on JIS B 8375.)
Note 3) "Note 1)" and "Note 2)" are with controlled clean air.
Note 4) Based on JIS C 0920.
Note 5) Impact resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)
Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)
Note 6) Based on JIS C 4003.

Flow Characteristics/Weight

Body type	Valve model	Port size Rc	Flow characteristics						Weight (kg)	
			P → A			A → E				
			C [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv	AC	DC
Body ported	**VS3115-01**□□	1/8	3.3	0.36	0.86	2.5	0.39	0.66	0.34	0.46
	VS3115-02□□	1/4	3.8	0.19	0.86	3.6	0.34	0.88	0.34	0.46
With sub-plate	**VS3110-02**□□	1/4	4.0	0.12	0.93	3.2	0.31	0.76	0.40	0.52
	VS3110-03□□	3/8	4.0	0.15	0.94	3.6	0.18	0.82	0.40	0.52
For manifold use	**VS3114-00**□□	Without sub-plate							0.32	0.44

Symbol



⚠ Caution

Be sure to read before handling. Refer to front matter 53 for Safety Instructions and pages 3 to 8 for 3/4/5 Port Solenoid Valve Precautions.

How to Calculate the Flow Rate

For obtaining the flow rate, refer to front matters 42 to 45.

How to Order

VS311 [5] – [01] [5] [D] [ ] [L] – [ ]

Piping type

0	With sub-plate
4	Without sub-plate (For Manifold)
5	Body ported

Port size

	Size	Body ported	Sub-plate
01	1/8	○	—
02	1/4	○	○
03	3/8	—	○

Coil rated voltage

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC

For other rated voltages, please consult with SMC.

Mounting

Nil	Without bracket
B	With bracket (Only Body ported type)

Electrical entry

G	Grommet
D	DIN terminal

Accessory (Option)

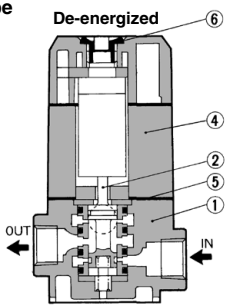
L	With indicator light (Not available for DC, grommet type)
P	Manual override (With lock)

Thread type

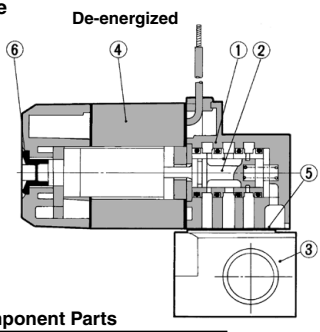
Nil	Rc
N	NPT
T	NPTF
F	G

Construction

Body ported type



With sub-plate



Component Parts

No.	Description	Material
1	Body	Aluminum die-casted
2	Spool/Sleeve	Stainless steel
3	Sub-plate	Aluminum die-casted

Replacement Parts

No.	Description	Material	Part no.			
			VS3115-□G	VS3115-□D	VS3110-□G	VS3110-□D
4	Solenoid capsule assembly	AC	SCA006-□	SCD001-□	SCA006-□	SCAD001-□
		DC	SCA001-□	SCD001-□	SCA001-□	SCAD001-□
5	Gasket	NBR	AXT333-14		AXT338-15	
6	Plug for cap	Resin	AXT333-16			

□: Enter the operating voltage.
(100 VAC: 01, 200 VAC: 02, 110 VAC: 03, 220 VAC: 04, 24 VDC: 52)

Sub-plate Assembly Part No.: VS3110-S-$^{02}_{03}$

∗ Mounting bolts and gaskets are not attached.

Part No. for Mounting Bolt and Gasket

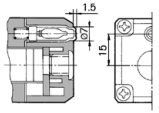
BG-VS3010

Accessory (Option)

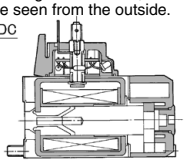
Indicator light

When solenoid is energized, indicator light illuminates, thus the electrical state of the solenoid can be seen from the outside.

AC



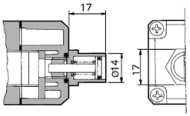
DC



Note) There is polarity of (1) +, (2) –.

Manual override

Remove the rubber plug on the top of the solenoid cap to mount the manual override. Push the override with a screwdriver to the required stroke and the valve will shift. Turn to the right or left at 90 degrees to lock it. Turn it back 90 degrees to unlock. Be sure to unlock the override before energizing the valve electrically.

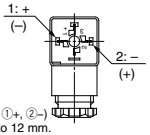


Description	Part no.	
	AC	DC
Manual override (With lock)	PB0111-3 (PB0111)	PB0111-1
Manual override (Non-locking)	PB0101	PB0101-1

( ): With indicator light

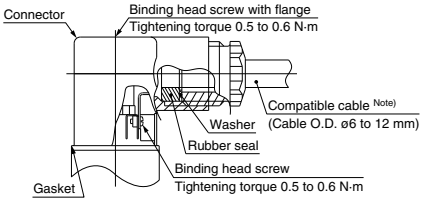
DIN terminal

Since internal connections are as shown below for the DIN terminal, make connections to the power supply accordingly.



Terminal no.	1	2
DIN terminal	+ (–)	– (+)

∗ There is no polarity. (DC type with indicator light has polarity. ①+, ②–)
· Use compatible heavy duty cords with cable O.D. of ø6 to 12 mm.
· Use the tightening torques below for each section.

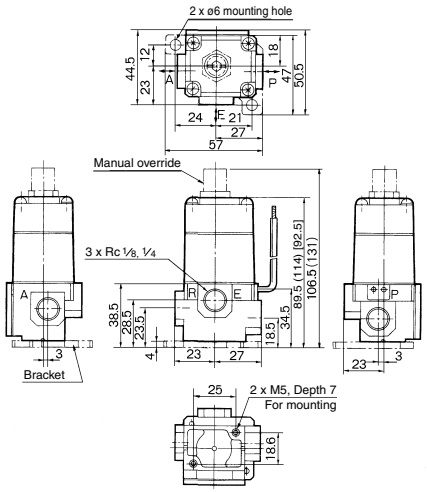


Note) For an outside cable diameter of ø9 to 12 mm, remove the internal parts of the rubber seal before using.

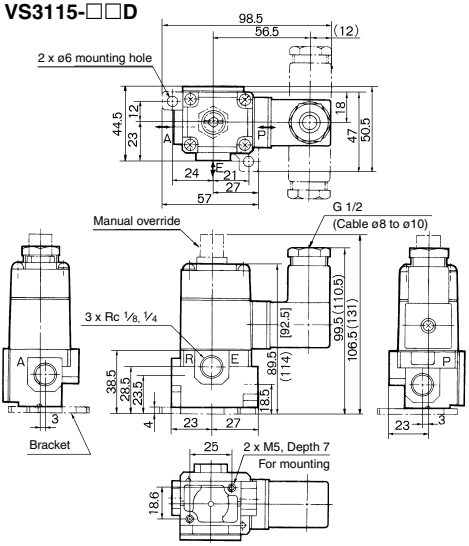
Dimensions

Body ported type

VS3115-□□G



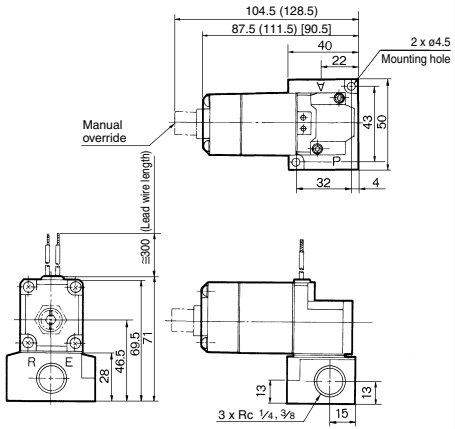
VS3115-□□D



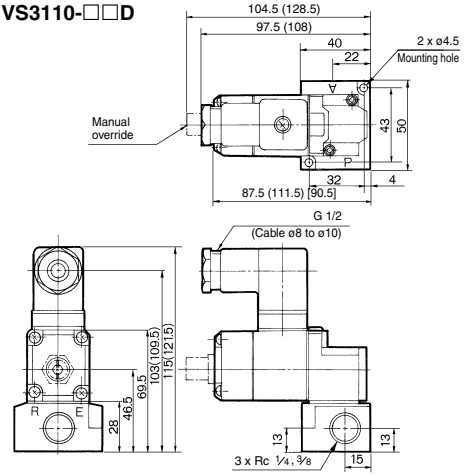
( ): DC
[ ]: AC, with indicator light

With sub-plate

VS3110-□□G

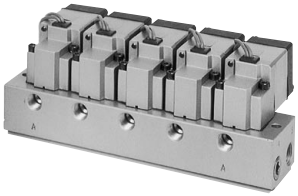


VS3110-□□D



( ): DC
[ ]: AC, with indicator light

Series VS3115/3110
Manifold Specifications



Specifications

Manifold type				B mount			
Max. number of stations				10 stations			
Exhaust type	Port location/Port size			Port direction			Applicable valve model
	P	**A**	**E**	**P**	**A**	**E**	
Common	Base 3/8	Base 1/4	Base 3/8	Side	Side	Side	VS3114-00□□
				Side	Bottom	Side	
Accessory	Blanking plate (With gaskets and screw)			AXT338-17A			

How to order manifold

VVS31 0 – 05 1 – □

	P	A	E
0	Side	Side	Side
1	Side	Bottom	Side

Valve stations

⋮	⋮
05	5 stations
⋮	⋮
10	10 stations

EXH port type

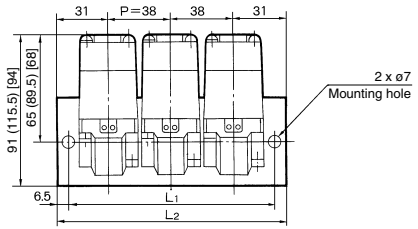
1	Common EXH

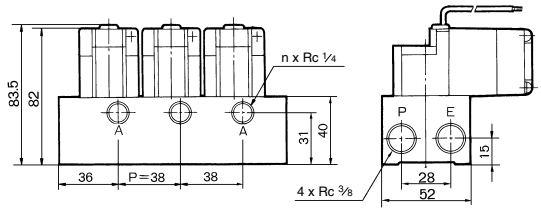
Thread type

Nil	Rc
N*	NPT
T*	NPTF
F*	Parallel thread

* Option

Dimensions





( ): DC
[ ]: AC, with indicator light

L \ n	2	3	4	5	6	7	8	9	10
L1	87	125	163	201	239	277	315	353	391
L2	100	138	176	214	252	290	328	366	404

L1 = 38n + 11, L2 = 38n + 24 n: Station
Formula for manifold weight M = 0.16n + 0.1 (kg)

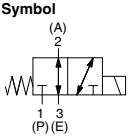
3 Port Direct Operated Solenoid Valve

Series VS3135/3145

Metal Seal

Terminal type

Symbol



⚠Caution

Be sure to read before handling. Refer to front matter 53 for Safety Instructions and pages 3 to 8 for 3/4/5 Port Solenoid Valve Precautions.

How to Calculate the Flow Rate

For obtaining the flow rate, refer to front matters 42 to 45.

Specifications

Fluid		Air/Inert gas
Proof pressure		1.5 MPa
Operating pressure range		0 to 1.0 MPa
Ambient and fluid temperature (°C) (1)		–20 to 60
Lubrication (2)		Not required
Manual override		Option (Non-locking type available)
Electrical entry		Grommet, Conduit terminal, Dripproof conduit terminal
Coil rated voltage	**AC**	100, 200 V 50/60 Hz
	DC	24 V
Allowable voltage fluctuation		–15 to +10% of rated voltage
Coil insulation type		Class B or equivalent (130°C) (3)
Impact/Vibration resistance (m/s²)		150/50 (4)

Note 1) If it is low temperature, dry air should be used. (No freezing)
Note 2) Use turbine oil Class 1 (ISO VG32), if lubricated.
Note 3) Based on JIS C 4003.
Note 4) Impact resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)
Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)

Model

Valve model			VS3135						VS3145					
			P → A			A → E			P → A			A → E		
			C [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv
Flow characteristics		1/4	6.1	0.3	1.5	6.1	0.4	1.6	—	—	—	—	—	—
		3/8	7.2	0.2	1.8	7.3	0.2	1.8	—	—	—	—	—	—
		1/2	9.0	0.2	2.3	9.0	0.3	2.4	18	0.27	4.8	16	0.34	4.1
		3/4	—	—	—	—	—	—	20	0.21	5.1	15	0.46	4.5
Response time (1) (ms)	AC		30 or less						30 or less					
	DC		60 or less						80 or less					
Max. operating frequency (c.p.m.) (2)	AC		300 or less						180 or less					
	DC		180 or less						180 or less					
Weight (kg)	AC		0.8						1.6					
	DC		1.1						2.4					
Apparent power (VA)	AC	Inrush	50 Hz	100					300					
			60 Hz	90					360					
		Holding	50 Hz	20					50					
			60 Hz	14					60					
Power consumption (W)	DC		13.2						24					

Note 1) Based on JIS B 8375-1981. (at 0.5 MPa, without surge voltage suppressor)
Note 2) Min. operating frequency is once in 30 days. (Based on JIS B 8375.)
Note 3) "Note 1)" and "Note 2)" are with controlled clean air.

How to Order

VS31 [3] 5 – [02] [1] [ ] [ ] – [ ]

Body size

3	3/8 Standard
4	1/2 Standard

Port size

	Size	3135	3145
02	1/4	○	—
03	3/8	○	○
04	1/2	○	○
06	3/4	—	○

Coil rated voltage

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC

For other rated voltages, please consult with SMC.

Option

Nil	None
P	Manual override (With lock)

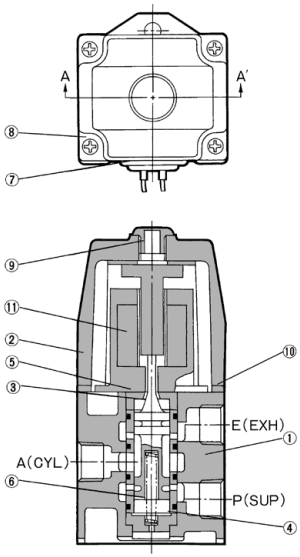
Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

Electrical entry

Nil	Grommet	**WTL**	Dripproof conduit terminal, With light
T	Conduit terminal	**WTLZ**	Dripproof conduit terminal, With light/surge voltage suppressor (With AXT307-1-□)
TL	Conduit terminal, With light	**WTB**	Dripproof conduit terminal (Metallic fittings compliant with standards used.)
TZ	Conduit terminal, With surge voltage suppressor (With AXT307-1-□)	**WTBL**	Dripproof conduit terminal (Metallic fittings compliant with standards used.), With light
TLZ	Conduit terminal, With light/surge voltage suppressor (With AXT307-1-□)	**WTBZ**	Dripproof conduit terminal (Metallic fittings compliant with standards used.), With surge voltage suppressor (With AXT307-1-□)
WT	Dripproof conduit terminal	**WTBLZ**	Dripproof conduit terminal (Metallic fittings compliant with standards used.), With light/surge voltage suppressor (With AXT307-1-□)
WTZ	Dripproof conduit terminal, With surge voltage suppressor (With AXT307-1-□)		

Construction



A-A' cross section

Component Parts

No.	Description	Material
1	**Body**	Aluminum die-casted
2	**Solenoid cover**	Aluminum die-casted
3	**Spool/Sleeve**	Stainless steel

⑪ Solenoid Coil Assembly Part No.

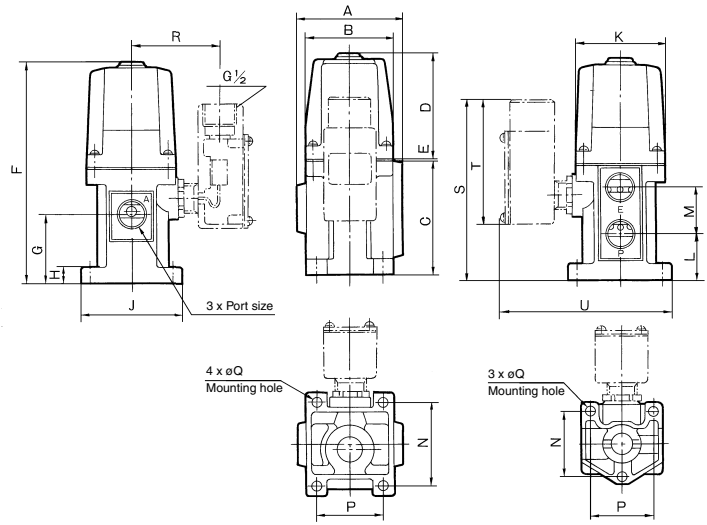
Electrical entry	Voltage	Part no.	
		VS3135	**VS3145**
Grommet	100 VAC	A01-01	A12-01
	200 VAC	A01-02	A12-02
	24 VDC	VS4000-A07-52	A08-52
Conduit terminal	100 VAC	A01-01-63	A12-01-63
	200 VAC	A01-02-63	A12-02-63
	24 VDC	VS4000-A07-52	A08-52-63

Replacement Parts

No.	Description	Material	Part no.	
			VS3135	**VS3145**
4	**Cap**	Resin	—	—
5	**Bushing**	Resin	XT013-13-2	XT021-12
6	**Spring**	Steel wire	—	—
7	**Rubber plug for wire**	NBR	XT010-20	XT010-20
8	**Round head combination screw**	Steel wire	XT010-21[#1]	XT010-21[#1]
9	**Plug for cover**	NBR	XT041-1	XT041-1
10	**Gasket**	NBR	XT013-31-2	NXT030-8

Dimensions

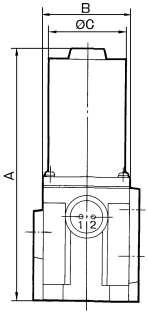
VS3135/3145



VS3135

Model	Port size Rc	A	B	C	D	E	F	G	H	J	K	L	M	N	P	øQ	Terminal dimensions R	S	T	U
VS3135-02 **VS3135-03** **VS3135-04**	¼, ⅜, ½	64	64	65	70	1	136	35	9	64	54	19	32	50	50	7	60	120	96	118
VS3145-04 **VS3145-06**	½, ¾	82	68	88	92	1	181	53	12	81	70	35	36	66	52	9	66	140	96	133

DC



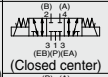
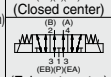
Model	Port size Rc	A	B	øC
VS3135-02 **VS3135-03** **VS3135-04**	¼, ⅜, ½	129	64	50.8
VS3145-04 **VS3145-06**	½, ¾	196	68	60.5

5 Port Direct Operated Solenoid Valve

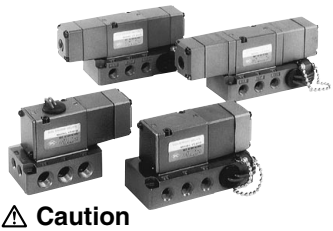
Series VS4□10

Metal Seal

Model

Number of positions	Symbol	Model	Port size Rc (Nominal size)	Flow characteristics						Max. (1) operating cycle (cpm)		Response (2) time (ms)		Weight (3) (kg)	
				P → A/B			A/B → EA/EB								
				C [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv	AC	DC	AC	DC	AC	DC
2 (Single)		VS4110-01	1/8 (6A)	3.2	0.42	0.86	3.2	0.37	0.80	1,200	180	13 or less	45 or less	0.7	0.82
		VS4110-02	1/4 (8A)	4.0	0.17	0.91	3.4	0.47	0.89						
		VS4110-03	3/8 (10A)	4.1	0.19	0.96	3.9	0.35	1.00						
2 (Double)		VS4210-01	1/8 (6A)	3.2	0.42	0.86	3.2	0.37	0.80	1,200	180	13 or less	40 or less	0.9	1.14
		VS4210-02	1/4 (8A)	4.0	0.17	0.91	3.4	0.47	0.89						
		VS4210-03	3/8 (10A)	4.1	0.19	0.96	3.9	0.35	1.00						
3 (3 position)	 (Closed center)	VS4310-01	1/8 (6A)	3.1	0.37	0.80	3.2	0.35	0.82	360	180	15 or less	45 or less	0.98	1.22
		VS4310-02	1/4 (8A)	3.8	0.23	0.89	3.6	0.33	0.89						
		VS4310-03	3/8 (10A)	4.2	0.23	1.00	3.8	0.32	0.99						
	 (Exhaust center)	VS4410-01	1/8 (6A)	3.1	0.28	0.77	3.0	0.28	0.75	360	180	15 or less	45 or less	0.98	1.22
		VS4410-02	1/4 (8A)	3.9	0.22	0.94	3.5	0.27	0.84						
		VS4410-03	3/8 (10A)	4.0	0.26	1.00	3.7	0.32	0.94						

Note 1) Min. operating frequency is once every 30 days. (Based on JIS B 8375.)
Note 2) Based on JIS B 8375-1981. (At the pressure of 0.5 MPa, without surge suppressor)
Note 3) Electrical entry: From sub-plate
Note 4) "Note 1)" and "Note 2)" are with controlled clean air.



⚠ Caution

Be sure to read before handling. Refer to front matter 53 for Safety Instructions and pages 3 to 8 for 3/4/5 Port Solenoid Valve Precautions.

How to Calculate the Flow Rate

For obtaining the flow rate, refer to front matters 42 to 45.

Standard Specifications

Fluid		Air/Inert gas
Operating pressure range		0 to 1.0 MPa
Ambient and fluid temperature		–20 to 60°C*
Manual override		Possible
Electrical entry		Grommet, Conduit, DIN terminal, Conduit terminal
Lubrication	**Non-lube**	Usable with non-lude
	Lubrication	Use turbine oil Class 1 (ISO VG32), if lubricated.
Impact/Vibration resistance (m/s²)		150/50 Note)
Manifold		Possible

* Use dry air (Dew point: –20°C or less). If using a lubricant, be sure to use a lubricant for low temperatures.
Note) Impact resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)
Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)

Solenoid Specifications

Coil rated voltage	100, 200 VAC, 50/60 Hz; 24 VDC
Allowable voltage fluctuation	–15 to +10% of rated voltage
Coil insulation type	Class B or equivalent (130°C) Note)

Note) Based on JIS C 4003

How to Order

VS4 [1] 1 [0] – [02] [1] [C] [ ] – [ ]

Symbol

1	Single
2	Double
3	Closed center
4	Exhaust center

Piping

0	Side ported (Sub-plate)
1	Bottom ported (Sub-plate)
4	Without sub-plate

Port size

00	Without sub-plate
01	1/8
02	1/4
03	3/8 (Bottom ported cannot be selected.)

Coil rated voltage

1	100 VAC (50/60Hz)
2	200 VAC (50/60Hz)
3	110 VAC (50/60Hz)
4	220 VAC (50/60Hz)
5	24 VDC

For other rated voltages, please consult with SMC.

Electrical entry

U	Grommet	TZ	Conduit terminal, With surge voltage suppressor (With AXT307-1-□)
UL	Grommet, With light (AC only)	TLZ	Conduit terminal, With light/surge voltage suppressor (With AXT307-1-□, AC only)
C	Conduit	D	DIN terminal
CL	Conduit, With light (AC only)	DL	DIN terminal, With light
T	Conduit terminal	DZ	DIN terminal, With surge voltage suppressor
TL	Conduit terminal, With light (AC only)	DLZ	DIN terminal, With light/surge voltage suppressor

Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

Option

Nil	None
P	Manual override (With lock)
R	With speed controller unit

Apparent Power (Power Consumption)

Apparent power (VA) (Power consumption (W))	AC	Inrush	50Hz	51 VA (64 VA ∗)
			60Hz	45 VA (55 VA ∗)
		Holding	50Hz	17 VA (5.3/5.5 W)
			60Hz	11 VA (2.9/3.2 W)
Power consumption (W)	DC			5.5

∗ In the case of 3 position type.

Option Specifications

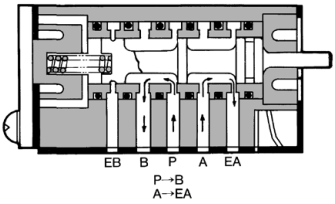
- Bottom ported (Sub-plate)
- Coil rated voltage (110/220 VAC, 12/100 VDC)

Enclosure (Based on JIS C 0920)

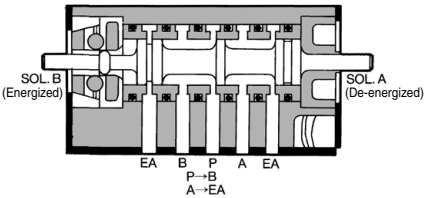
Electrical entry	Grommet (Sub-plate/Valve body)	Conduit	DIN terminal	Conduit terminal
Dustproof	Standard	Standard	Standard	Standard
Dripproof	———	Option	Option	Option

Construction Principle

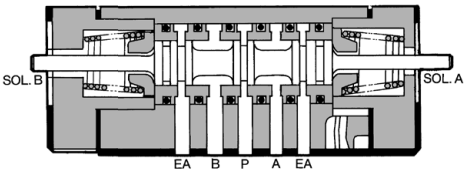
VS4110



VS4210



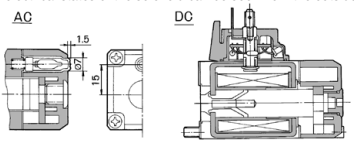
VS4310 (Closed center)



Accessory (Option)

1. Indicator light (AC)

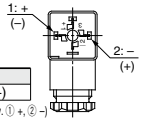
When solenoid gets energized, indicator light illuminates, thus electrical states of the solenoid can be seen from the outside.



Note) There is polarity of (1) +, (2) –.

DIN terminal

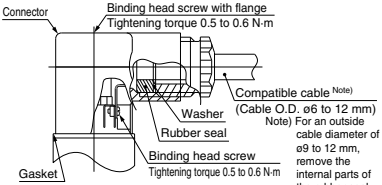
Since internal connections are as shown below for the DIN terminal, make connections to the power supply accordingly.



Terminal no.	1	2
DIN terminal	+(–)	–(+)

∗ There is no polarity. (DC type with indicator light has polarity. ① +, ② –)

- Use compatible heavy duty cords with cable O.D. of ø6 to 12 mm.
- Use the tightening torques below for each section.



Note) For an outside cable diameter of ø9 to 12 mm, remove the internal parts of the rubber seal before using.

With rubber plug	Manual override		Applicable model
	Non-locking	With lock	
SC0003-□	SC0004B-□	SC0004A-□	VS4110 VS4210
SC0013-□	SC0014B-□	SC0014A-□	VS4310 VS4410

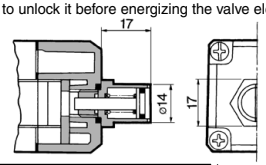
∗ Indicate the voltage to be used. (100 VAC: 01, 200 VAC: 02)

2. Manual override

Remove rubber plug at the top of the solenoid cap to install manual override. Push the override with a screwdriver to the required stroke and the valve will shift. With the override in the same position, turn it to the right or left 90° and it will lock. Turn it back 90° to unlock.

⚠ Caution

Be sure to unlock it before energizing the valve electrically.

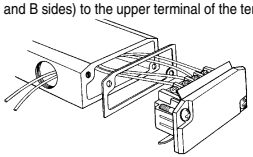


Description		Part no.	Applicable model
Manual override (With lock)	AC	PB0111	VS4110 VS4310 VS4410
	DC	PB0111-1	
Manual override (Non-locking)	AC	PB0101	VS4210
	DC	PB0101-1	

In the case of a 2 position double solenoid valve, use a non-locking manual override because it has a locking function in the main valve.

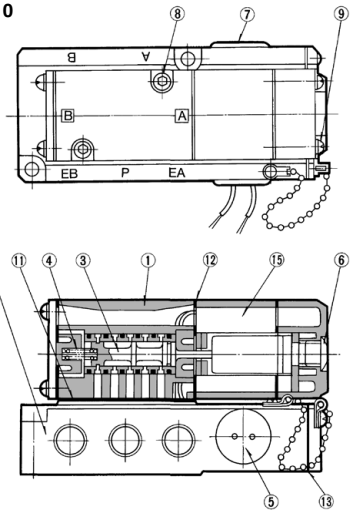
3. Terminal wiring

- Lead wire from the solenoid is connected to the lower terminal of the terminal block under the junction cover of sub-plate. Connect the lead wire of the power supply corresponding to the solenoid (single solenoid: A side/double solenoid: both A and B sides) to the upper terminal of the terminal block.

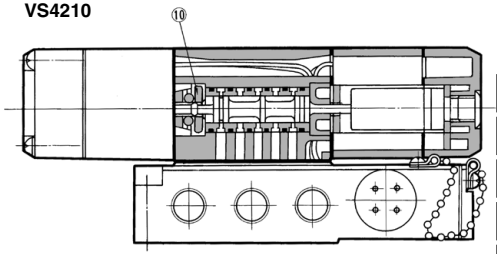


Construction

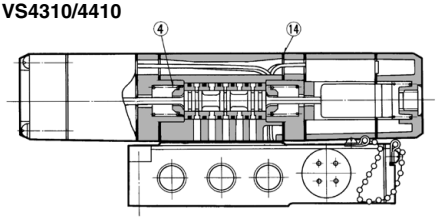
VS4110



VS4210



VS4310/4410



Sub-plate Assembly Part No.

Electrical entry	Part no.
C: Conduit	VS4010-CS-01/02/03
T: Conduit terminal	VS4010-TS-01/02/03
U: Grommet, D: DIN terminal	VS4010-S-01/02/03

∗ Mounting bolt and gasket are not included.

Part No. for Mounting Bolt and Gasket

BG-VS4010

Component Parts

No.	Description	Material
1	**Body**	Aluminum die-casted
2	**Sub-plate**	Aluminum die-casted
3	**Spool/Sleeve**	Stainless steel
4	**Spring**	Piano wire
5	**Rubber plug for wire**	NBR
6	**Plug for cap**	NBR
7	**Rubber plug**	NBR
8	**Mounting bolt**	Carbon steel
9	**Mounting screw**	Carbon steel
10	**Detent assembly**	
11	**Gasket**	NBR
12	**Gasket**	NBR
13	**Gasket**	NBR
14	**Gasket**	NBR

⑮ Solenoid Capsule Assembly (With rubber plug)

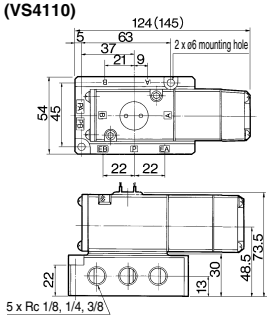
	Specifications		Part no.	
			VS4110/4210	**VS4310/4410**
Standard	Grommet/Conduit Conduit terminal		SCA001-□	SCA011-□
	DIN terminal		SCAD001-□	SCAD011-□
Option	With indicator light Grommet/Conduit Conduit terminal	AC	SCA003-□	SCA013-□
	With indicator light DIN terminal	AC DC	SCAD003-□	SCAD013-□

∗ Indicate the used voltage.(100 VAC: 01, 200 VAC: 02, 110 VAC: 03, 220 VAC: 04, 24 VDC: 52)

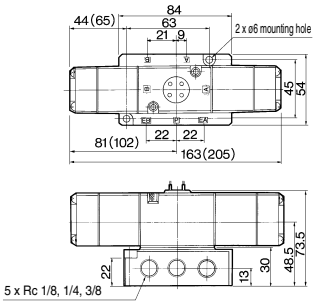
Dimensions

Grommet

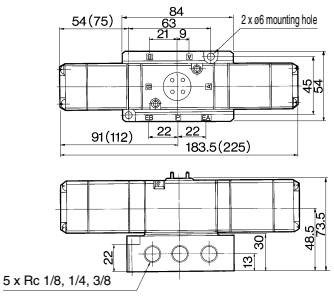
(VS4110)



(VS4210)

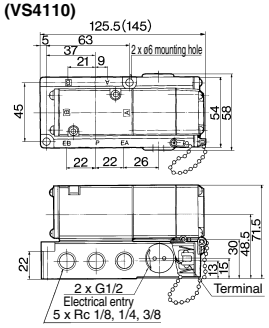


(VS4310/4410)

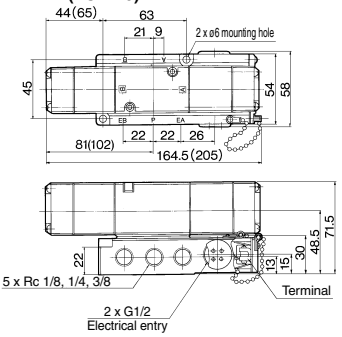


Conduit
Conduit terminal

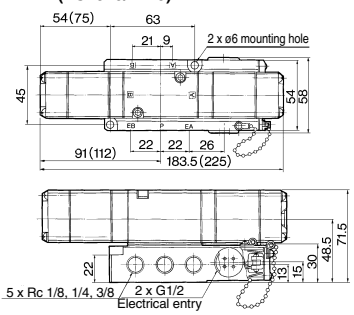
(VS4110)



(VS4210)

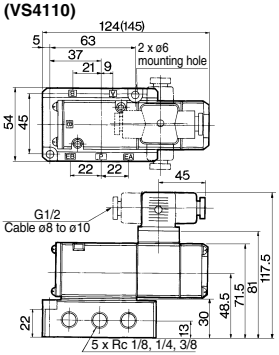


(VS4310/4410)

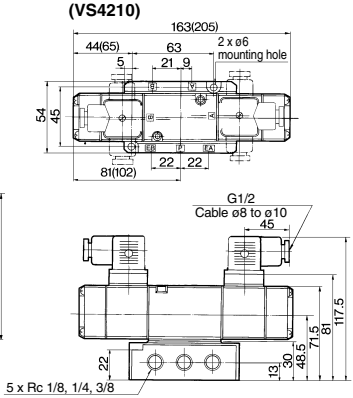


DIN terminal

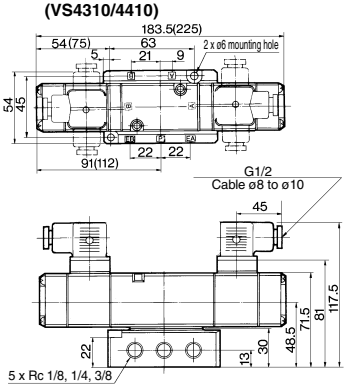
(VS4110)



(VS4210)

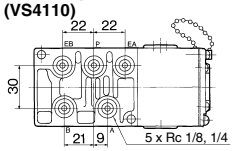


(VS4310/4410)

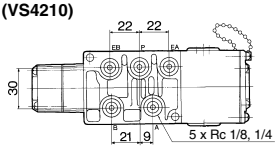


Bottom ported

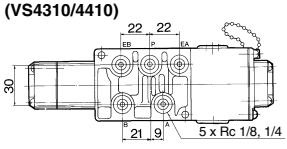
(VS4110)



(VS4210)

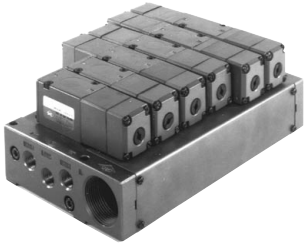


(VS4310/4410)

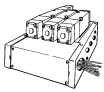


( ): DC

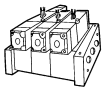
Series VVS410
Manifold Specifications



Conduit



Grommet



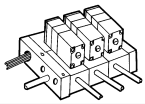
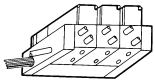
Conduit terminal

Specifications

Applicable valve	VS4110/4210/4310/4410
Valve stations	Max. 10 stations (Standard)
Accessory	With terminal ∗ With interface regulator ∗ With stop valve/With flow controls

∗ Option

Standard Piping Specifications

Type	Configuration	Port size Rc			Conduit ∗ port size G
		P	A, B	EA, EB	
Common EXH		1/4 , 3/8 (Side)	1/8 , 1/4 (Side)	1/4 , 3/8 (Side)	1, 1 1/4
Individual EXH		1/4 , 3/8 (Side)	1/8 , 1/4 (Side)	1/8 , 1/4 (Bottom)	

∗ Optional piping: Individual SUP and different pressure SUP. But it will be the bottom porting specifications.
Note) Each port size will be a big size for standard. When the small size is desired, indicate separately.

How to Order

VVS41 0 – 05 SC 1 T – □ – □

Series VS4□10 Manifold

Porting specifications

Symbol	P	A,B	EA,EB
0	Side	Side	Side
1	Side	Bottom	Side
9	Other		

Stations

02	2stations
⋮	⋮
10	10stations

Electrical entry

Symbol	Electrical entry position
SC	Manifold
SU	Valve body

Symbol (passage)

Symbol	SUP	EXH
1	Common (side)	Common (side)
2	Common (side)	Individual (bottom)
3	Individual (bottom)	Common (side)
4	Individual (bottom)	Individual (bottom)
5	Dissimilar pressure	Common (side)
6	Dissimilar pressure	Individual (bottom)

Accessory

Nil	None
T∗	With terminal block

∗ Only SC type applicable.

Option (spacer)

Nil	None
S	With stop valve
R	With throttle valve

Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

⚠ Precautions

Be sure to read before handling. Refer to front matter 53 for Safety Instructions and pages 3 to 8 for 3/4/5 Port Solenoid Valve Precautions.

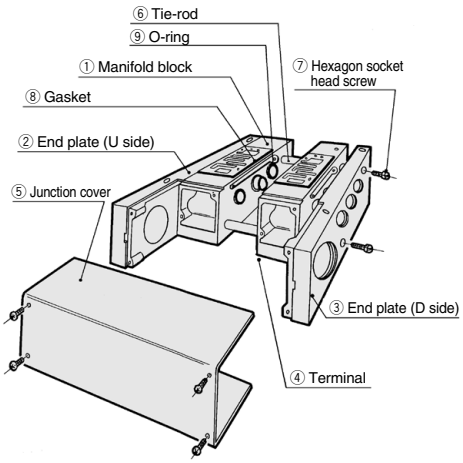
Mounting

⚠ Caution

1. SUP port and EXH port are positioned on both sides of manifold block. Air can be supplied from either side; however, the unused port must be plugged in this case. When operating 6 or more valve stations within a manifold at the same time, take SUP air pressure from both sides and open EXH port to the atmosphere.

2. When manifolding an exhaust center 3 position valve, use the individual EXH style manifold. (Back pressure may cause actuator to malfunction.)

Construction



• Replacement Parts: Sub-assembly

No.	Description	Assembly part no.	Electrical entry
1	Manifold block assembly	AXT336-1A-1 $^{01}_{02}$	Type SC (T only)
		AXT336-1A-2 $^{01}_{02}$	Type SU
		AXT336-1A-3 $^{01}_{02}$	Type SC
2	End plate (U side) assembly	AXT336-2A-1- $^{02}_{03}$	Type SC
		AXT336-2A-2- $^{02}_{03}$	Type SU
3	End plate (D side) assembly	AXT336-3A-1- $^{02}_{03}$	Type SC
		AXT336-3A-2- $^{02}_{03}$	Type SU
4	Terminal assembly	AXT622-5A	
5	Junction cover assembly	AXT336-4A- Stations	
6	Tie-rod	AXT336-5- Stations	

• Replacement Parts

No.	Description	Material	Part no.
7	Hexagon socket head screw	Carbon steel	M6 x 25
8	Gasket	NBR	AXT335-12-3
9	O-ring	NBR	AS568-015

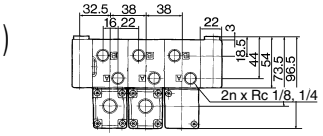
• Manifold Optional Parts Assembly

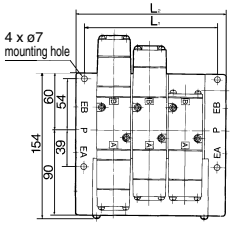
Option	Part no.
Blanking plate	AXT336-7A
Throttle valve spacer	AXT392A
Stop valve spacer	AXT395A
Interface regulator	ARB110-00- $^{1\ (P\ port\ regulation)}_{2\ (A/B\ port\ regulation)}$
Block disk	AXT336-6
Rubber plug	AXT336-9

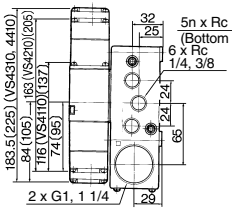
Dimensions

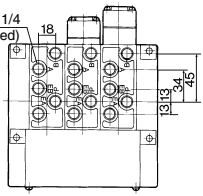
Type SC

(Electrical entry position: Manifold block)







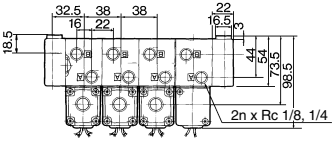


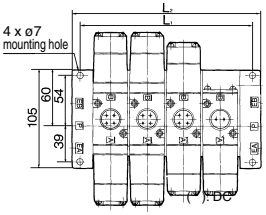
Formula/Stations	2	3	4	5	6	7
L_1 = 38n + 27	103	141	179	217	255	293
L_2 = 38n + 44	120	158	196	234	272	310

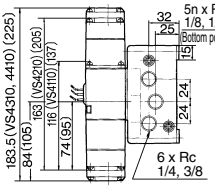
Formula for manifold weight M = 0.405n + 0.49 (kg)

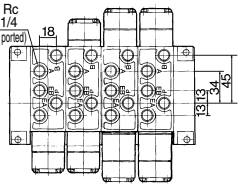
Type SU

(Electrical entry position: Valve body)









Formula/Stations	2	3	4	5	6	7
L_1 = 38n + 27	103	141	179	217	255	293
L_2 = 38n + 44	120	158	196	234	272	310

Formula for manifold weight M = 0.325n + 0.39 (kg)

( ): DC