

CVE2/CVSE2 CVE3/CVSE3

(Coolant valve)

Air operated 2, 3 port valve (coolant control)

Overview

This is a reliable 2, 3 port coolant valve with cylinder drive method.

This valve for tool machine cutting oil or coolant control incorporates a metal seal to prevent the entry of cutting chips, abrasive grains and foreign debris, and ensures highly reliable control.

The air operated type and solenoid valve mounted type are available. These can be used in precise machines.

Features

High corrosion resistant materials

Cast iron body, and stainless steel metal seal used in valve seat. NBR or FKM packing seal can be selected. Materials optimum for coolant are used.

Certain operation

Certain operation is enabled with external pilot air operated cylinder.

Water hammer prevented

(Only 2 port valve)

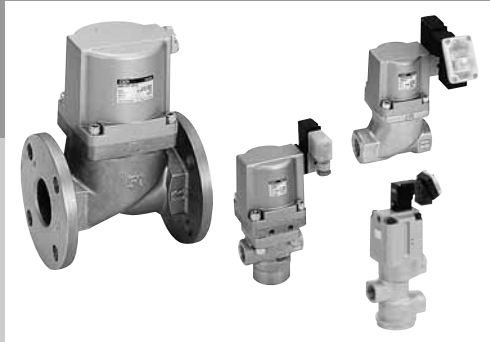
Resistant to foreign matter

A metal seal is used.

Usable in flammable environment.

(Air operated type)

■ For coolant



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⚠ Always read the precautions in the Introduction and page 702 before starting use.

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/
AD

APK/
ADK

For
dry air

Explosion
proof

HVB/
HVL

SAB/
SVB

NP/NAP/
NVP

CHB/G

MXB/G

Other G.P.
systems

PD/FAD/
PJ

**CVE/
CVSE**

CPE/
CPD






Medical
analysis

Custom
order

Coolant valve
Air operated 2, 3 port valve

Series variation

Air operated 2, 3 port valve (coolant control) (Coolant valve)

No. of port	Category		Model	Working pressure range MPa	Connection				
					Rc3/8	Rc1/2			
2 port		Low pressure	Air operated type	CVE2-***-05	0 to 0.5	●	●		
			Solenoid valve mounted type	CVSE2-***-05		●	●		
		Low pressure	Air operated type	CVE2-***-10	0 to 1.0	●	●		
			Solenoid valve mounted type	CVSE2-***-10		●	●		
		Medium pressure	Air operated type	CVE2-***-16	0 to 1.6	●	●		
			Solenoid valve mounted type	CVSE2-***-16		●	●		
		Medium pressure	Air operated type	CVE2-***-30	0 to 3.0	●	●		
			Solenoid valve mounted type	CVSE2-***-30		●	●		
		High pressure	Air operated type	CVE2-***-70	0 to 7.0	●	●		
			Solenoid valve mounted type	CVSE2-***-70		●	●		
	3 port		Low pressure	Air operated type	CV3E-***-03	0 to 0.3			
				Solenoid valve mounted type	CVS3E-***-03				
		Medium pressure	Air operated type	CVE3-***-35	0 to 3.5	●	●		
			Solenoid valve mounted type	CVSE3-***-35		●	●		
		High pressure	Air operated type	CVE3-***-70	0 to 7.0	●	●		
			Solenoid valve mounted type	CVSE3-***-70		●	●		

	Port size										Page
	Rc3/4	Rc1	Rc1 1/4	32 flange	Rc1 1/2	40 flange	Rc2	50 flange	65 flange	80 flange	
	●	●	●	●	●	●	●	●	●	●	708
	●	●	●	●	●	●	●	●	●	●	708
	●	●	●	●	●	●	●	●	●	●	708
	●	●	●	●	●	●	●	●	●	●	708
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	●	●									718
	●	●									718
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	●	●									726
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	●	●									744
	●	●									744
	●	●	●		●		●				732
	●	●	●		●		●				732
	●	●									732
	●	●									732

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/
ADAPK/
ADKFor
dry airExplosion
proofHVB/
HVLSAB/
SVBNP/NAP/
NVP

CHB/G

MXB/G

Other G.P.
systemsPD/FAD/
PJCVE/
CVSECPE/
CPDMedical
analysisCustom
orderCoolant valve
Air operated 2, 3 port valve



Safety precautions

Always read this section before starting use.

Air operated 2, 3 port valve (coolant valve) (CVE/CVSE)

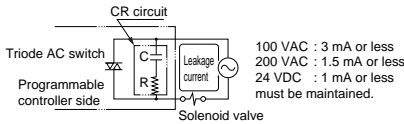
Design & Selection

1. Safety designing

⚠ CAUTION

■ Leakage current from other fluid control components

When operating the solenoid valve with a programmable controller, etc., check that the output leakage current from the programmable controller is within the following specifications. Failure to observe this could lead to malfunctions.



2. Working fluid

⚠ WARNING

■ Working fluid

The compatibility has not been evaluated with all coolants. Particularly, if coolant contains high levels of chlorine or sulfur, materials used at wetted parts could be adversely affected. Confirm the compatibility when making a selection. Non-corrosive fluids refer to fluids that do not affect or are not affected when they contact the valve's wetted part materials.

Wetted part materials: cast iron (nickel plating), stainless steel, nitrile rubber or fluoro rubber, and epoxy resin adhesive.

■ External pilot air

(1) Drainage measures - Compressed air contains high levels of drainage (water, oxidized oil, tar, foreign matter) that can significantly reduce the reliability of pneumatic components. As measures against drain, improve air quality by dehumidifying with an after cooler or dryer, removing foreign matter with a filter, and removing tar with a tar removal filter, etc.

- (2) Pre-lubrication - This series is pre-lubricated, so no lubricator is required. However, once lubrication has been started, it must be continued so that the lubricant is not used up. For lubrication, use the turbine oil Class 1 ISO VG32 (#90) or equivalent.
- (3) Filter - Install a filter with a 5 μ m or less filter element.

3. Working environment

⚠ WARNING

■ CVSE Series cannot be used in an explosive gas atmosphere. When using in an explosive gas atmosphere, change to the CVE Series, and provide a separate explosion proof solenoid valve on the pilot air circuit.

■ If there are high levels of dust in the area, install a downward-facing silencer or elbow joint on the exhaust port so that dust does not enter.

■ When using in a place where water splashes on the valve, take appropriate measures to protect it.

4. How to use

⚠ CAUTION

■ Pilot air pressure

Use pilot air pressure in accordance with the specifications.

Installation & Adjustment

1. Piping

⚠ CAUTION

■ Do not pipe using the solenoid valve section. There is a risk of damage. (For solenoid valve mounted type)

■ When piping the CVE or CVSE Series, pay attention to the supply ports on the unit and pilot operation sides.

Model no.	Unit side supply port	Pilot operation side supply port
CVE2	IN	X
CVE22		Y
CVSE2/CVSE22		P
CVE3		Y
CVSE3		P

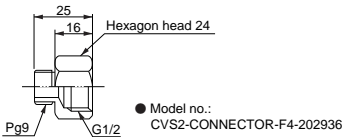
Note: Pipe the unit side supply port so that the arrow on the body matches the fluid flow direction. If supplied in reverse, internal components could be damaged when the valve operates.

2. Wiring

⚠ CAUTION

■ Wiring of solenoid valve mounted type

- (1) Refer to connections in pages 54 to 55 in the Introduction when wiring to a DIN terminal box or T type terminal box.
- (2) The size of the screw for the junction box outlets of the DIN terminal box can be changed from Pg9 to G1/2 using the optional connector below.



- (3) Coil direction can be changed 180°. To reverse the electrical connection direction, rotate only the coil. Do not lose internal parts when removing the coil.

During Use & Maintenance

1. Maintenance & inspection

⚠ CAUTION

■ Pilot air pressure

Use pilot air pressure in accordance with the specifications.

■ If water hammer occurs when a 3 port coolant valve for medium/high pressure operates, reduce the noise as follows.

- (1) Install a metering valve on the valve IN side, then adjust the metering valve to reach the required flow.
If these countermeasures fail, contact CKD.

2. Assembling & disassembling

⚠ WARNING

■ A spring is used in the cylinder cover. When disassembling this type, the spring could pop out and cause injuries, so take care.

The NC (normally closed) type 2 port valve has a snap ring to prevent the spring from popping out. Do not remove the snap ring.

HNB/G
USB/G
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AP/ AD
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For dry air
Explosion proof
HVB/ HVL
SAB/ SVB
NP/NAP/ NVP
CHB/G
MXB/G
Other G.P. systems
PD/FAD/ PJ
CVE/ CVSE
CPE/ CPD
Medical analysis
Custom order

Coolant valve
Air operated 2, 3 port valve

@

Assembling pilot solenoid valve (for solenoid valve mounted type)

If the pilot solenoid valve has been disassembled, assemble it as follows.

(1) Coil side

- Disassembling
Loosen the cross headed pan head machine screw, and lift up the coil assembly.
- The outer spring, plunger assembly and O ring can be removed.
- Reassembling
Set the parts in the sequence of the O ring, plunger assembly, outer spring and coil assembly.
- Tighten the cross headed pan head machine screw with a torque of 0.7 to 1.1 N·m.

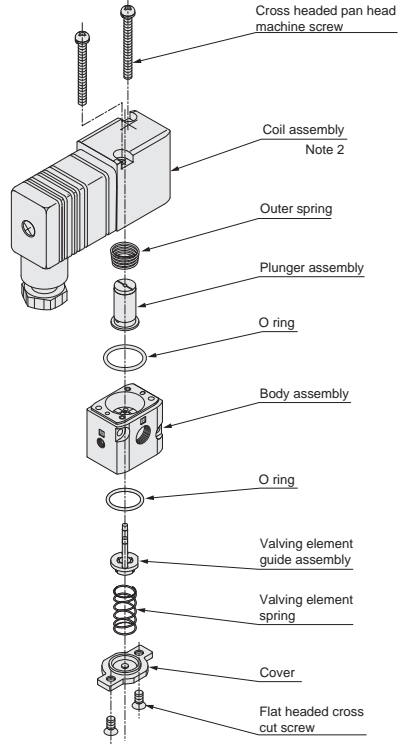
(2) Cover side

- Disassembling
Loosen the flat headed cross cut screw, and remove the cover.
- The valving element spring, valving element guide assembly and O ring can be removed.
- Reassembling
Set the parts in the sequence of the O ring, valving element guide assembly, valving element spring and cover.
- Tighten the flat headed cross cut screw with a torque of 0.7 to 1.1 N·m.

Note 1: Do not lose the components such as springs during disassembly.

Note 2: The coil assembly direction can be changed 180°. Loosen the cross headed pan head machine screw to change the direction.

Note 3: Turbine oil is applied to the plunger as a lubricant.



Model no. of pilot solenoid valve (actuator assembly kit) for CVSE

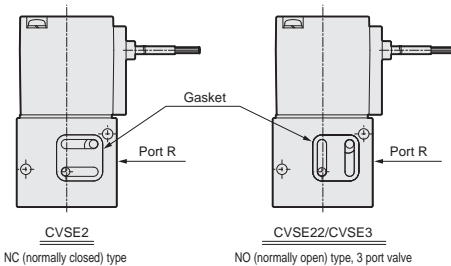
CVSE2-ACTUATOR-0 - **Rated voltage**

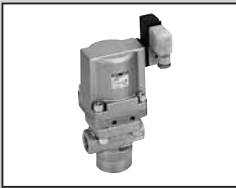
Note 1: Indicate the coil option symbol in field *1.

Note 2: Consult with your CKD Sales Representative about the solenoid valve (actuator assembly kit) for CVS3E.

Gasket direction (for solenoid valve mounted type)

The gasket has an orientation. Check the orientation when reassembling.





Air operated 3 port valve for medium/high pressure
(coolant valve)

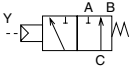
CVSE3-35/70 Series CVE3-35/70 Series

- Directional type (C port pressurization only)
- Medium pressure 3.5 MPa: Port size: Rc3/8 to Rc2
- High pressure 7.0 MPa: Port size: Rc3/8 to Rc1

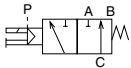
CE Refer to page 17 in the
Ending for details.

JIS symbol

- CVE3
(air operated type)



- CVE33
(solenoid valve mounted type)



Common specifications

Item	Standard specifications
Actuation	Directional type (port C pressurization only)
Working fluid	Coolant, other non-corrosive fluids (*1)
Fluid viscosity mm ² /s	500 or less
Working pressure range MPa	0 to 7.0 (refer to working pressure range in individual specifications.)
Fluid temperature °C	-10 to 60 (no freezing)
Ambient temperature °C	-10 to 60
Valve seat leakage cm ³ /min.	20 or less (water)
Mounting attitude	Free
Pilot air pressure MPa	0.25 to 0.5

*1: Fluids that do not affect cast iron (nickel plating), stainless steel, nitrile rubber or fluoro rubber

Electric specifications

Rated voltage (*2)	100 VAC (50/60 Hz), 110 VAC (60 Hz); 200 VAC (50/60 Hz), 220 VAC (60 Hz); 24 VDC	
Apparent power (VA)	Holding	3.6 (50 Hz), 2.8 (60 Hz)
	Starting	11 (50 Hz), 9 (60 Hz)
Power consumption (W)	AC	1.9 (50 Hz), 1.5 (60 Hz)
	DC	2.0
Heat proof class	B	
Protective structure	DIN terminal box (Pg9)	IPX5
(IEC standards 529)	T type terminal box (G1/2)	IPX5

*2: Allowable voltage range must be within ±10% of the rated voltage.

Individual specifications for 3.5 MPa and for 7.0 MPa

Item Model no.	Port size	Orifice (mm)		Cv flow factor		Pilot port size	Working pressure range (MPa)	Withstanding pressure (water) (MPa)	Weight (kg)	
		NC side	NO side	NC side	NO side				CVE3	CVSE3
CVE3/CVSE3-10A-35	Rc3/8	5.8 or equiv.	4.5	1.3	1	Rc1/8	0 to 3.5	7	1.0	1.1
CVE3/CVSE3-15A-35	Rc1/2	7.1 or equiv.	6	2.2	1.8				1.6	1.7
CVE3/CVSE3-20A-35	Rc3/4	8.9 or equiv.	8	3.6	3				2.7	2.8
CVE3/CVSE3-25A-35	Rc1	13.2 or equiv.	9	6	3.8				4.3	4.4
CVE3/CVSE3-32A-35	Rc1 1/4	22 or equiv.	20	23	18.5				13.8	13.9
CVE3/CVSE3-40A-35	Rc1 1/2	22 or equiv.	20	23	17		13.5	13.6		
CVE3/CVSE3-50A-35	Rc2	28.5 or equiv.	26	31	27		22.7	22.8		
CVE3/CVSE3-10A-70	Rc3/8	5.8 or equiv.	4.5	1.3	1		0 to 7.0	14	1.4	1.5
CVE3/CVSE3-15A-70	Rc1/2	7.1 or equiv.	6	2.2	1.8				2.4	2.5
CVE3/CVSE3-20A-70	Rc3/4	8.9 or equiv.	8	3.6	3				3.9	3.9
CVE3/CVSE3-25A-70	Rc1	10.7 or equiv.	9	4.9	3.8	6.1			6.1	

How to order

- Air operated type

CVE3 - **20A** - **70** - **0** **B**

- Solenoid valve mounted type

CVSE3 - **15A** - **35** - **0** **2G** **S** - **1**

A Port size

F Assembly
*5 direction

Model no.	
Air operated type (3 port)	CVE3
Solenoid valve mounted type (3 port)	CVSE3

B Working pressure range

C Body/sealant combination

D Coil

E Other options
*1/*2
*3/*4

G Voltage

<Example of model number>

CVSE3-15A-35-02GS-1

Model no.: CVSE3 : Solenoid valve mounted type (3 port)

A Port size : Rc1/2

B Working pressure range : 0 to 3.5 MPa

C Body/sealant combination

: Body - cast iron (plating), sealant - nitrile rubber

D Coil : DIN terminal box (Pg9)

E Other options : Surge suppressor

F Assembly direction : No options

G Voltage : 100 VAC (50/60 Hz), 110 VAC (60 Hz)

*1: The mounting plate (**E** B) is enclosed with the product and available only for port size 10A, 15A, 20A or 25A.

*2: Indicate SB in **E** to select both surge suppressor and mounting plate.

*3: The surge suppressor is mounted in the terminal box.

*4: A manual override (non-locking) is provided as standard for the solenoid valve mounted type.

*5: An optional assembly direction cannot be selected for the air operated type and port size 32A to 50A.

*6: Clockwise rotation angles are shown as viewed from above with IN port facing right.

F Assembly direction

CVSE3 (solenoid valve mounted type) *6

Symbol	Blank (standard)	X	Y	Z	R
Direction	Without rotation	Cylinder cover 90° rotation	Cylinder cover 180° rotation	Cylinder cover 270° rotation	Coil reverse rotation
Arrangement					

		Model no.			
		CVE3		CVSE3	
Symbol	Descriptions	Medium pressure (3.5 MPa)	High pressure (7.0 MPa)	Medium pressure (3.5 MPa)	High pressure (7.0 MPa)

A Port size		Medium pressure (3.5 MPa)	High pressure (7.0 MPa)	Medium pressure (3.5 MPa)	High pressure (7.0 MPa)
10A	Rc3/8	●	●	●	●
15A	Rc1/2	●	●	●	●
20A	Rc3/4	●	●	●	●
25A	Rc1	●	●	●	●
32A	Rc1 1/4	●		●	
40A	Rc1 1/2	●		●	
50A	Rc2	●		●	

B Working pressure range		Medium pressure (3.5 MPa)	High pressure (7.0 MPa)	Medium pressure (3.5 MPa)	High pressure (7.0 MPa)
35	0 to 3.5 MPa	●		●	
70	0 to 7.0 MPa		●		●

C Body/sealant combination		Body		Sealant	
0	Standard	Cast iron (plating)	Nitrile rubber	●	●
B	Option	Cast iron (plating)	Fluoro rubber	●	●

D Coil		Medium pressure (3.5 MPa)	High pressure (7.0 MPa)	Medium pressure (3.5 MPa)	High pressure (7.0 MPa)
2G	DIN terminal box (Pg9)			●	●
2H	DIN terminal box + light (Pg9)			●	●
3T	T type terminal box (G1/2)			●	●
3R	T type terminal box + light (G1/2)			●	●

E Other options		Medium pressure (3.5 MPa)	High pressure (7.0 MPa)	Medium pressure (3.5 MPa)	High pressure (7.0 MPa)
Blank	No options	●	●	●	●
S	Surge suppressor			●	●
B	Mounting plate	●	●	●	●

F Assembly direction		Medium pressure (3.5 MPa)	High pressure (7.0 MPa)	Medium pressure (3.5 MPa)	High pressure (7.0 MPa)
Blank	No options	●	●	●	●
X	Cylinder cover 90° rotation			●	●
Y	Cylinder cover 180° rotation			●	●
Z	Cylinder cover 270° rotation			●	●
R	Coil 180° reverse rotation (solenoid valve mounted type)			●	●

G Voltage		Medium pressure (3.5 MPa)	High pressure (7.0 MPa)	Medium pressure (3.5 MPa)	High pressure (7.0 MPa)
1	100 VAC (50/60 Hz) 110 VAC (60 Hz)			●	●
2	200 VAC (50/60 Hz) 220 VAC (60 Hz)			●	●
3	24 VDC			●	●

Refer to the following diagram for the layout drawing.

HNB/G

USB/G

FAB/G

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FVB

FWB/G

FHB

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For dry air

Explosion proof

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Other G.P. systems

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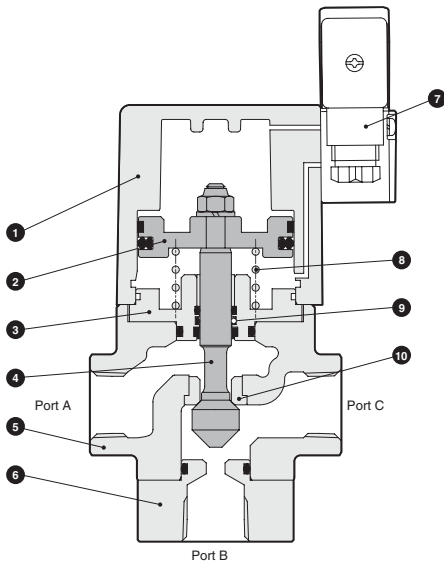
Coolant valve for medium/high pressure

Air operated 3 port valve

CVSE3-35/70 Series

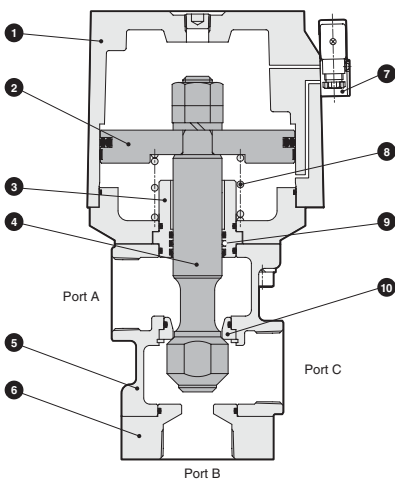
Internal structure and parts list

● CVSE3-10A to 25A-35



No.	Parts name	Material	
1	Cylinder cover	ADC12	Aluminum die casting
2	Piston	A2017	Aluminum
3	Adaptor	SUS303	Stainless steel
4	Valve stem	SUS420J2	Stainless steel
5	Body	FCD450	Cast iron (plating)
6	NO body	SUS303	Stainless steel
7	Pilot solenoid valve	-	-
8	Spring	SWP	Piano wire
9	Rod packing seal	NBR (FKM)	Nitrile rubber (fluoro rubber)
10	NC valve seat	SUS303	Stainless steel

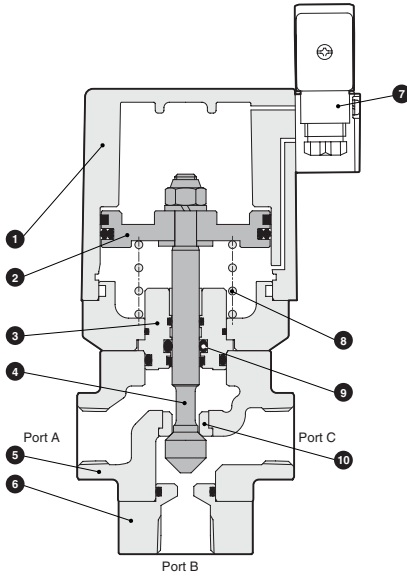
● CVSE3-32A/40A/50A-35



No.	Parts name	Material	
1	Cylinder cover	AC7A	Aluminum casting
2	Piston	A2017	Aluminum
3	Adaptor	SUS303	Stainless steel
4	Valve stem	SUS420J2	Stainless steel
5	Body	FCD450	Cast iron (plating)
6	NO body	SUS303	Stainless steel
7	Pilot solenoid valve	-	-
8	Spring	SWP	Piano wire
9	Rod packing seal	NBR (FKM)	Nitrile rubber (fluoro rubber)
10	NC valve seat	SUS303	Stainless steel

Internal structure and parts list

● CVSE3-10A to 25A-70



No.	Parts name	Material	
1	Cylinder cover	ADC12	Aluminum die casting
2	Piston	A2017	Aluminum
3	Adaptor	SUS303	Stainless steel
4	Valve stem	SUS420J2	Stainless steel
5	Body	FCD450	Cast iron (plating)
6	NO body	SUS303	Stainless steel
7	Pilot solenoid valve	-	-
8	Spring	SWP	Piano wire
9	Rod packing seal	NBR (FKM)	Nitrile rubber (fluoro rubber)
10	NC valve seat	SUS303	Stainless steel

HNB/G

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Other G.P.
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PD/FAD/
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**CV/
CVSE**

CPE/
CPD

Medical
analysis

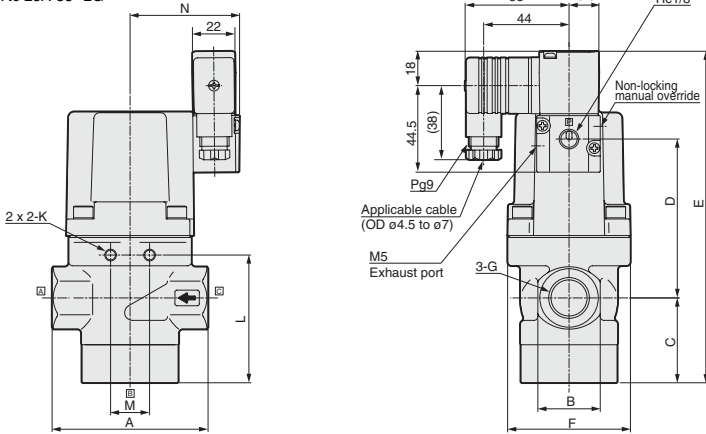
Custom
order

Coolant valve for medium/high pressure
Air operated 3 port valve

CVSE3-35/70 Series

Dimensions

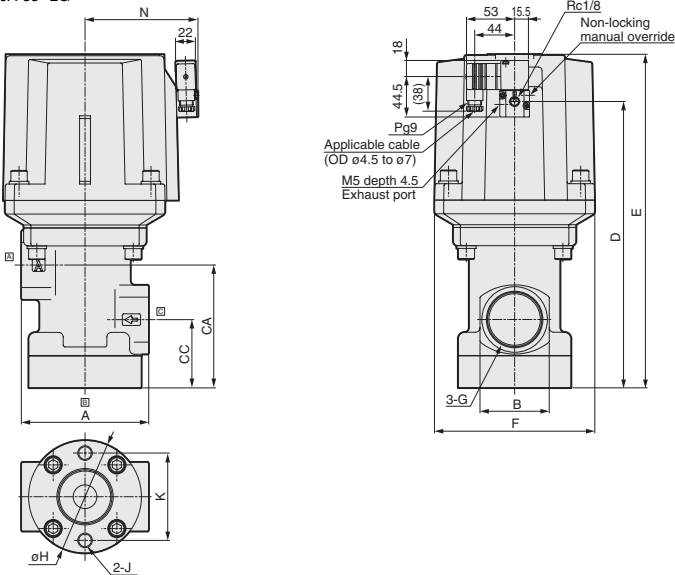
- DIN terminal box (Pg9)
CVSE3-10A to 25A-35-*2G



* Shown without optional assembly direction.

Model no.	A	B	C	D	E	F	G	K	L	M	N
CVSE3-10A-35-*2G	60	28	35.5	69	149.5	53	Rc3/8	M6 thread length 9	59	20	53
CVSE3-15A-35-*2G	80	32	43.5	81.5	170	63	Rc1/2	M6 thread length 9	65.5	20	57.5
CVSE3-20A-35-*2G	90	40	52	102	199	77	Rc3/4	M8 thread length 10	79.5	25	64.5
CVSE3-25A-35-*2G	110	48	61	122.5	228.5	95	Rc1	M8 thread length 10	91	25	72.5

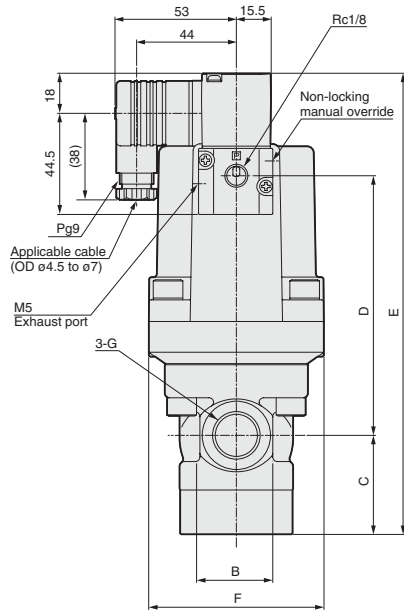
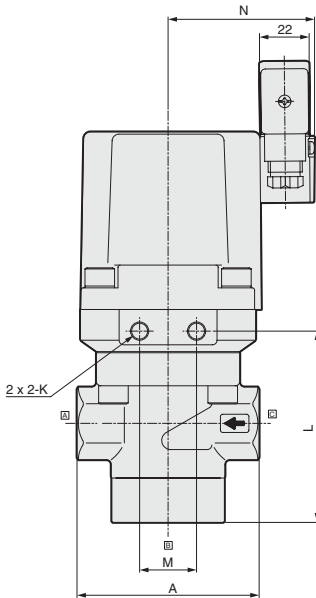
- DIN terminal box (Pg9)
CVSE3-32A/40A/50A-35-*2G



Model no.	A	B	CA	CC	D	E	F	G	H	J	K	N
CVSE3-32A-35-*2G	120	61	118	63	264.5	309.5	145	Rc1 1/4	ø109	M12 depth 30	90	103
CVSE3-40A-35-*2G	120	61	118	63	264.5	309.5	145	Rc1 1/2	ø109	M12 depth 30	90	103
CVSE3-50A-35-*2G	140	76	135	75	314	366	176	Rc2	ø124	M16 depth 35	96	123

Dimensions

- DIN terminal box (Pg9)
CVSE3-10A to 25A-70-2G



* Shown without optional assembly direction.

Model no.	A	B	C	D	E	F	G	K	L	M	N
CVSE3-10A-70-2G	60	28	35.5	92.5	173	63	Rc3/8	M8 thread length 9	73.5	20	57.5
CVSE3-15A-70-2G	80	32	43.5	114	202.5	77	Rc1/2	M8 thread length 10	84	25	64.5
CVSE3-20A-70-2G	90	40	52	136.5	233.5	95	Rc3/4	M8 thread length 10	97.5	25	72.5
CVSE3-25A-70-2G	110	48	61	149.5	255.5	113	Rc1	M12 thread length 14	110	45	82.5

Optional dimensions

Refer to page 742 for details on coil options and mounting plates.

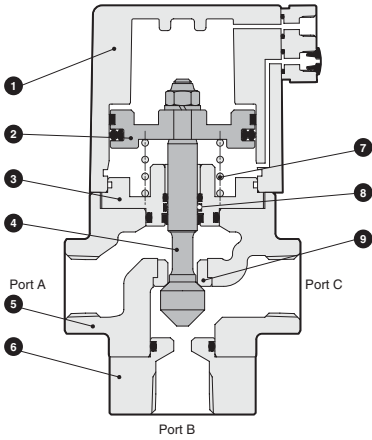
- HNB/G
- USB/G
- FAB/G
- FGB/G
- FVB
- FWB/G
- FHB
- FLB
- AB
- AG
- AP/
AD
- APK/
ADK
- For
dry air
- Explosion
proof
- HVB/
HVL
- SAB/
SVB
- NP/NAP/
NVP
- CHB/G
- MXB/G
- Other G.P.
systems
- PD/FAD/
PJ
- CVE/
CVSE
- CPE/
CPD
- Medical
analysis
- Custom
order

Coolant valve for medium/high pressure
Air operated 3 port valve

CVE3-35/70 Series

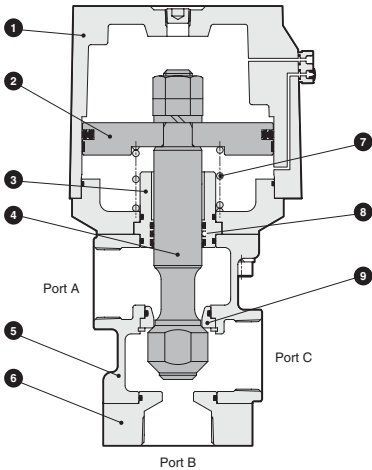
Internal structure and parts list

● CVE3-10A to 25A-35



No.	Parts name	Material	
1	Cylinder cover	ADC12	Aluminum die casting
2	Piston	A2017	Aluminum
3	Adaptor	SUS303	Stainless steel
4	Valve stem	SUS420J2	Stainless steel
5	Body	FCD450	Cast iron (plating)
6	NO body	SUS303	Stainless steel
7	Spring	SWP	Piano wire
8	Rod packing seal	NBR (FKM)	Nitrile rubber (fluoro rubber)
9	NC valve seat	SUS303	Stainless steel

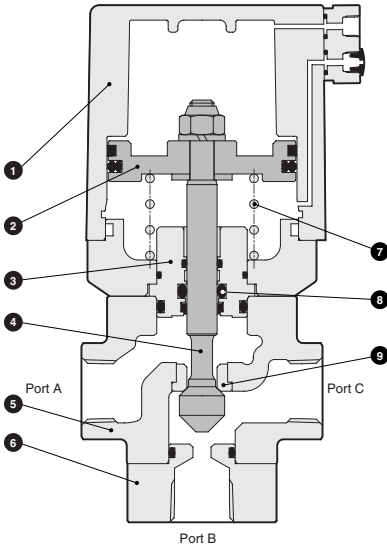
● CVE3-32A/40A/50A-35



No.	Parts name	Material	
1	Cylinder cover	AC7A	Aluminum casting
2	Piston	A2017	Aluminum
3	Adaptor	SUS303	Stainless steel
4	Valve stem	SUS420J2	Stainless steel
5	Body	FCD450	Cast iron
6	NO body	SUS303	Stainless steel
7	Spring	SWP	Piano wire
8	Rod packing seal	NBR (FKM)	Nitrile rubber (fluoro rubber)
9	NC valve seat	SUS303	Stainless steel

Internal structure and parts list

● CVE3-10A to 25A-70



No.	Parts name	Material	
1	Cylinder cover	ADC12	Aluminum die casting
2	Piston	A2017	Aluminum
3	Adaptor	SUS303	Stainless steel
4	Valve stem	SUS420J2	Stainless steel
5	Body	FCD450	Cast iron
6	NO body	SUS303	Stainless steel
7	Spring	SWP	Piano wire
8	Rod packing seal	NBR (FKM)	Nitrile rubber (fluoro rubber)
9	NC valve seat	SUS303	Stainless steel

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/
AD

APK/
ADK

For
dry air

Explosion
proof

HVB/
HVL

SAB/
SVB

NP/NAP/
NVP

CHB/G

MXB/G

Other G.P.
systems

PD/FAD/
PJ

CVE/
CVSE

CPE/
CPD

Medical
analysis

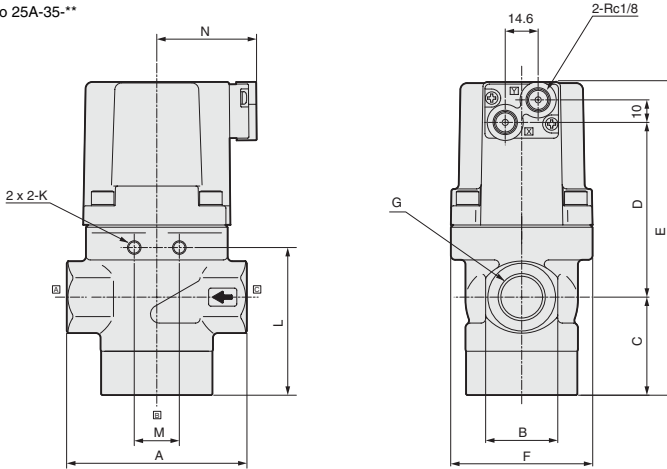
Custom
order

Coolant valve for medium/high pressure
Air operated 3 port valve

CVE3-35/70 Series

Dimensions

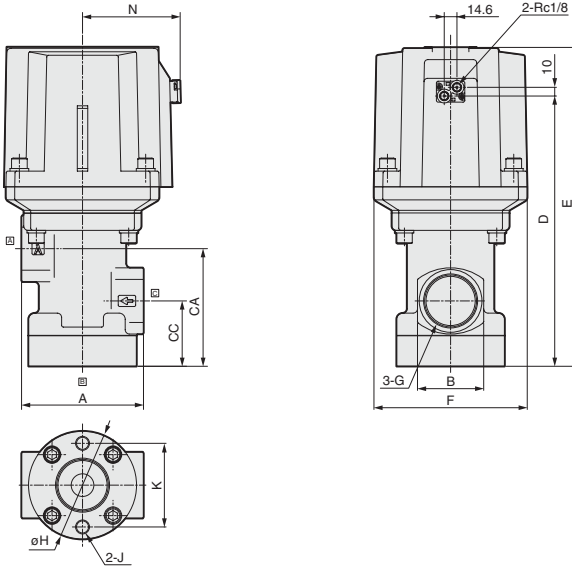
● CVE3-10A to 25A-35-**



* The flow path becomes $\square C \rightarrow \square A$ when port Y is pressurized.

Model no.	A	B	C	D	E	F	G	K	L	M	N
CVE3-10A-35-*	60	28	35.5	65	118.5	53	Rc3/8	M6 thread length 9	59	20	41.5
CVE3-15A-35-*	80	32	43.5	77.5	139	63	Rc1/2	M6 thread length 9	65.5	20	46
CVE3-20A-35-*	90	40	52	98	168	77	Rc3/4	M8 thread length 10	79.5	25	53
CVE3-25A-35-*	110	48	61	118.5	197.5	95	Rc1	M8 thread length 10	91	25	61

● CVE3-32A/40A/50A-35-**

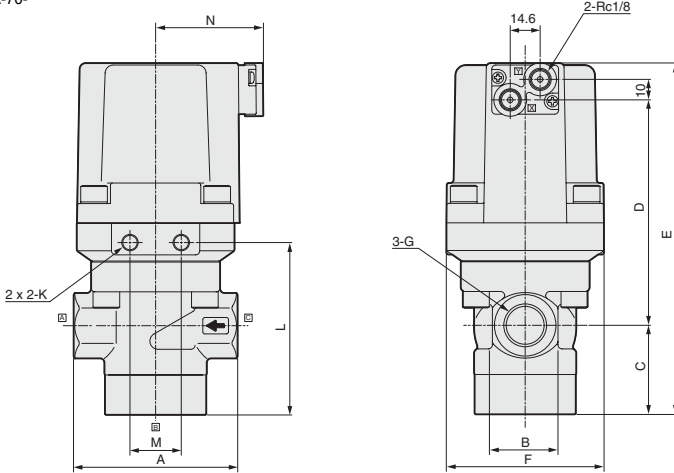


* The flow path becomes $\square C \rightarrow \square A$ when port Y is pressurized.

Model no.	A	B	CA	CC	D	E	F	G	H	J	K	N
CVE3-32A-35-*	120	61	118	63	260.5	301	145	Rc1 1/4	$\phi 109$	M12 depth 30	90	91
CVE3-40A-35-*	120	61	118	63	260.5	301	145	Rc1 1/2	$\phi 109$	M12 depth 30	90	91
CVE3-50A-35-*	140	76	135	75	310	366	176	Rc2	$\phi 124$	M16 depth 35	96	111

Dimensions

● CVE3-10A to 25A-70-**



* The flow path becomes $\square \rightarrow \square$ when port Y is pressurized.

Model no.	A	B	C	D	E	F	G	K	L	M	N
CVE3-10A-70-*	60	28	35.5	88.5	142	63	Rc3/8	M6 thread length 9	73.5	20	46
CVE3-15A-70-*	80	32	43.5	110	171.5	77	Rc1/2	M8 thread length 10	84	25	53
CVE3-20A-70-*	90	40	52	132.5	202.5	95	Rc3/4	M8 thread length 10	97.5	25	61
CVE3-25A-70-*	110	48	61	145.5	224.5	113	Rc1	M12 thread length 14	110	45	71

Optional dimensions

Refer to page 742 for mounting plates.

HNB/G
 USB/G
 FAB/G
 FGB/G
 FVB
 FWB/G
 FHB
 FLB
 AB
 AG
 AP/
 AD
 APK/
 ADK
 For
 dry air
 Explosion
 proof
 HVB/
 HVL
 SAB/
 SVB
 NP/NAP/
 NVP
 CHB/G
 MXB/G
 Other G.P.
 systems
 PD/FAD/
 PJ
**CVE/
 CVSE**
 CPE/
 CPD
 Medical
 analysis
 Custom
 order

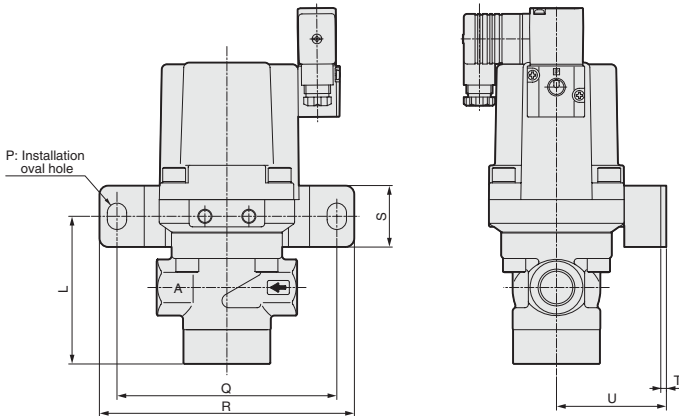
Coolant valve for medium/high pressure
 Air operated 3 port valve

CVE3/CVSE3-35/70 Series

Optional dimensions

● Mounting plate

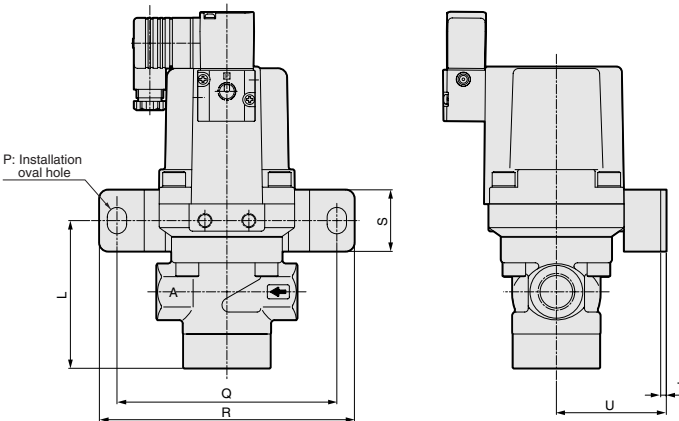
CVE3/CVSE3-10A to 25A-35/70-****B**/**B-R**/**B-Y**



* Figure shows **B**.

● Mounting plate

CVE3/CVSE3-10A to 25A-35/70-****B-X**/**B-Z**



* Figure shows **B-X**.

Model no.	L	P	Q	R	S	T	U
CV*E3-10A-35*B	59	9 x 12	85	100	25	3.2	40
CV*E3-15A-35*B	65.5	9 x 12	85	100	25	3.2	45
CV*E3-20A-35*B	79.5	11 x 15	125	145	35	3.2	62.5
CV*E3-25A-35*B	91	11 x 15	125	145	35	3.2	71.5
CV*E3-10A-70*B	73.5	9 x 12	85	100	25	3.2	45
CV*E3-15A-70*B	84	11 x 15	125	145	35	3.2	62.5
CV*E3-20A-70*B	97.5	11 x 15	125	145	35	3.2	71.5
CV*E3-25A-70*B	110	14 x 20	160	190	40	4	84

● T type terminal box (G1/2)

T type terminal box with light (G1/2)

CVSE3-*-35/70-**3T**
3R

Refer to page 731 for optional dimensions.

CVE/CVSE Series

Electronic Catalog file list

Air operated 2, 3 port valve (coolant control) (coolant valve)

Air operated 2 port valve for low pressure (pages 714 to 716)

Electronic Catalog file list is applied to "CAD DATA 2006".

Model no.	DXF		MICRO CADAM
	Folder name	Filename	Filename (GROUP: CAD, USER: STDLIB)
CVE2/22-10A-5/10	CVE2	cve2_22_10a_5_10	CKD-CVE2/22-10A-5/10
CVE2/22-15A-5/10		cve2_22_15a_5_10	CKD-CVE2/22-15A-5/10
CVE2/22-20A-5/10		cve2_22_20a_5_10	CKD-CVE2/22-20A-5/10
CVE2/22-25A-5/10		cve2_22_25a_5_10	CKD-CVE2/22-25A-5/10
CVE2/22-32A-5/10		cve2_22_32a_5_10	CKD-CVE2/22-32A-5/10
CVE2/22-32F-5/10		cve2_22_32f_5_10	CKD-CVE2/22-32F-5/10
CVE2/22-40A-5/10		cve2_22_40a_5_10	CKD-CVE2/22-40A-5/10
CVE2/22-40F-5/10		cve2_22_40f_5_10	CKD-CVE2/22-40F-5/10
CVE2/22-50A-5/10		cve2_22_50a_5_10	CKD-CVE2/22-50A-5/10
CVE2/22-50F-5/10		cve2_22_50f_5_10	CKD-CVE2/22-50F-5/10
CVE2/22-65F-5/10		cve2_22_65f_5_10	CKD-CVE2/22-65F-5/10
CVE2/22-80F-5/10		cve2_22_80f_5_10	CKD-CVE2/22-80F-5/10
Option and accessory (mounting plate)		cve2_f	CKD-CVE2-F

2 port valve for low pressure with solenoid valve (pages 712, 713, 716)

Electronic Catalog file list is applied to "CAD DATA 2006".

Model no.	DXF		MICRO CADAM
	Folder name	Filename	Filename (GROUP: CAD, USER: STDLIB)
CVSE2/22-10A-5/10	CVSE2	cvse2_22_10a_5_10	CKD-CVSE2/22-10A-5/10
CVSE2/22-15A-5/10		cvse2_22_15a_5_10	CKD-CVSE2/22-15A-5/10
CVSE2/22-20A-5/10		cvse2_22_20a_5_10	CKD-CVSE2/22-20A-5/10
CVSE2/22-25A-5/10		cvse2_22_25a_5_10	CKD-CVSE2/22-25A-5/10
CVSE2/22-32A-5/10		cvse2_22_32a_5_10	CKD-CVSE2/22-32A-5/10
CVSE2/22-32F-5/10		cvse2_22_32f_5_10	CKD-CVSE2/22-32F-5/10
CVSE2/22-40A-5/10		cvse2_22_40a_5_10	CKD-CVSE2/22-40A-5/10
CVSE2/22-40F-5/10		cvse2_22_40f_5_10	CKD-CVSE2/22-40F-5/10
CVSE2/22-50A-5/10		cvse2_22_50a_5_10	CKD-CVSE2/22-50A-5/10
CVSE2/22-50F-5/10		cvse2_22_50f_5_10	CKD-CVSE2/22-50F-5/10
CVSE2/22-65F-5/10		cvse2_22_65f_5_10	CKD-CVSE2/22-65F-5/10
CVSE2/22-80F-5/10		cvse2_22_80f_5_10	CKD-CVSE2/22-80F-5/10
Option and accessory (T type terminal box, mounting plate)		cvse2_f	CKD-CVSE2-F

Air operated 3 port valve (coolant control) (coolant valve)

3 port valve for low pressure (page 745)

Electronic Catalog file list is applied to "CAD DATA 2006".

Model no.	DXF		MICRO CADAM
	Folder name	Filename	Filename (GROUP: CAD, USER: STDLIB)
CV3E-20A-3	CV3E	cv3e_20a_3	CKD-CV3E-20A-3
CV3E-25A-3		cv3e_25a_3	CKD-CV3E-25A-3
CVS3E-20A-3		cvs3e_20a_3	CKD-CVS3E-20A-3
CVS3E-25A-3		cvs3e_25a_3	CKD-CVS3E-25A-3
Option and accessory (T type terminal box, mounting plate)		cv_e_f	CKD-CV*E-F
Accessory (T type terminal box, T type terminal box + light)		cvs2_f	CKD-CVS2-F

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/
AD

APK/
ADK

For
dry air

Explosion
proof

HVB/
HVL

SAB/
SVB

NP/NAP/
NVP

CHB/G

MXB/G

Other G.P.
systems

PD/FAD/
PJ

**CVE/
CVSE**

CPE/
CPD

Medical
analysis

Custom
order

Coolant valve
Air operated 2, 3 port valve