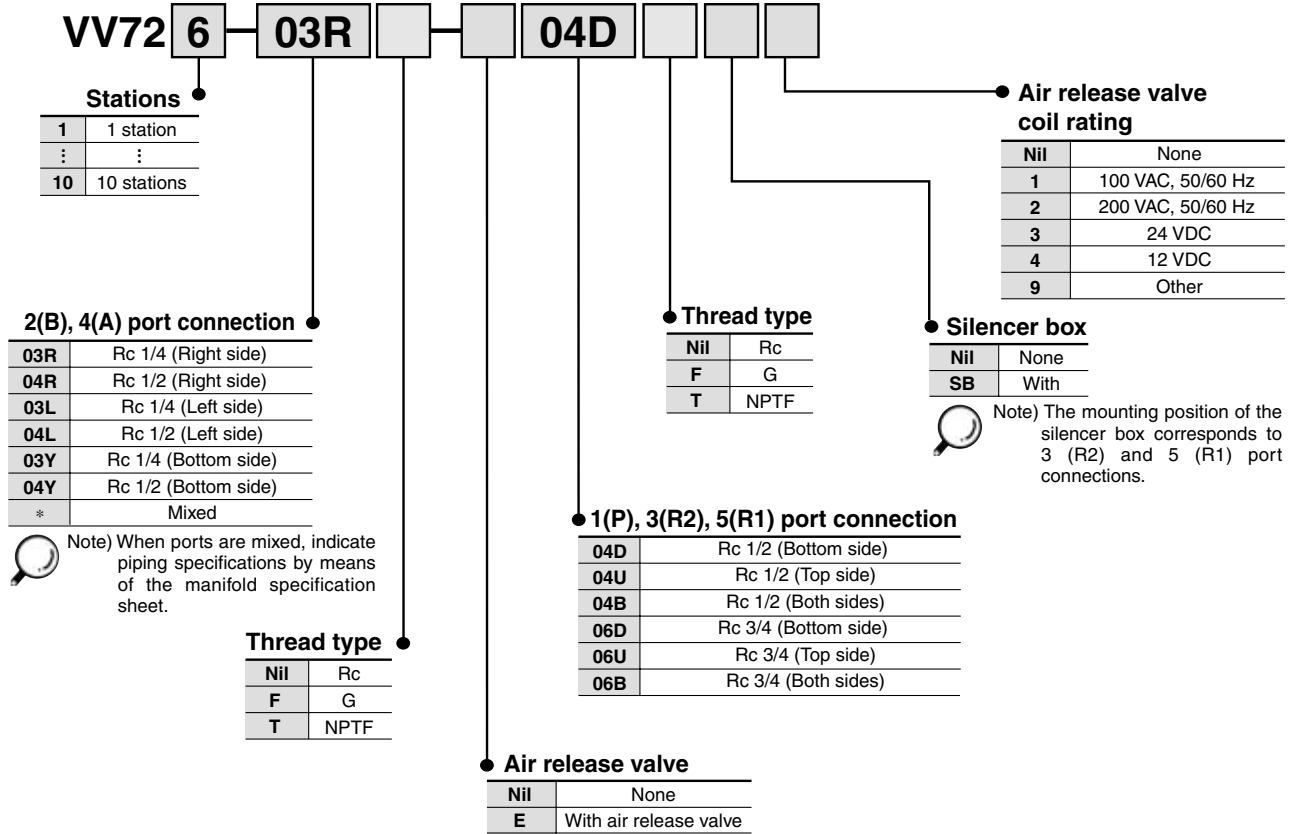


Series VQ7-8

Manifold Specifications

How to Order Manifold



- VK
- VZ
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7**
- EVS
- VFN

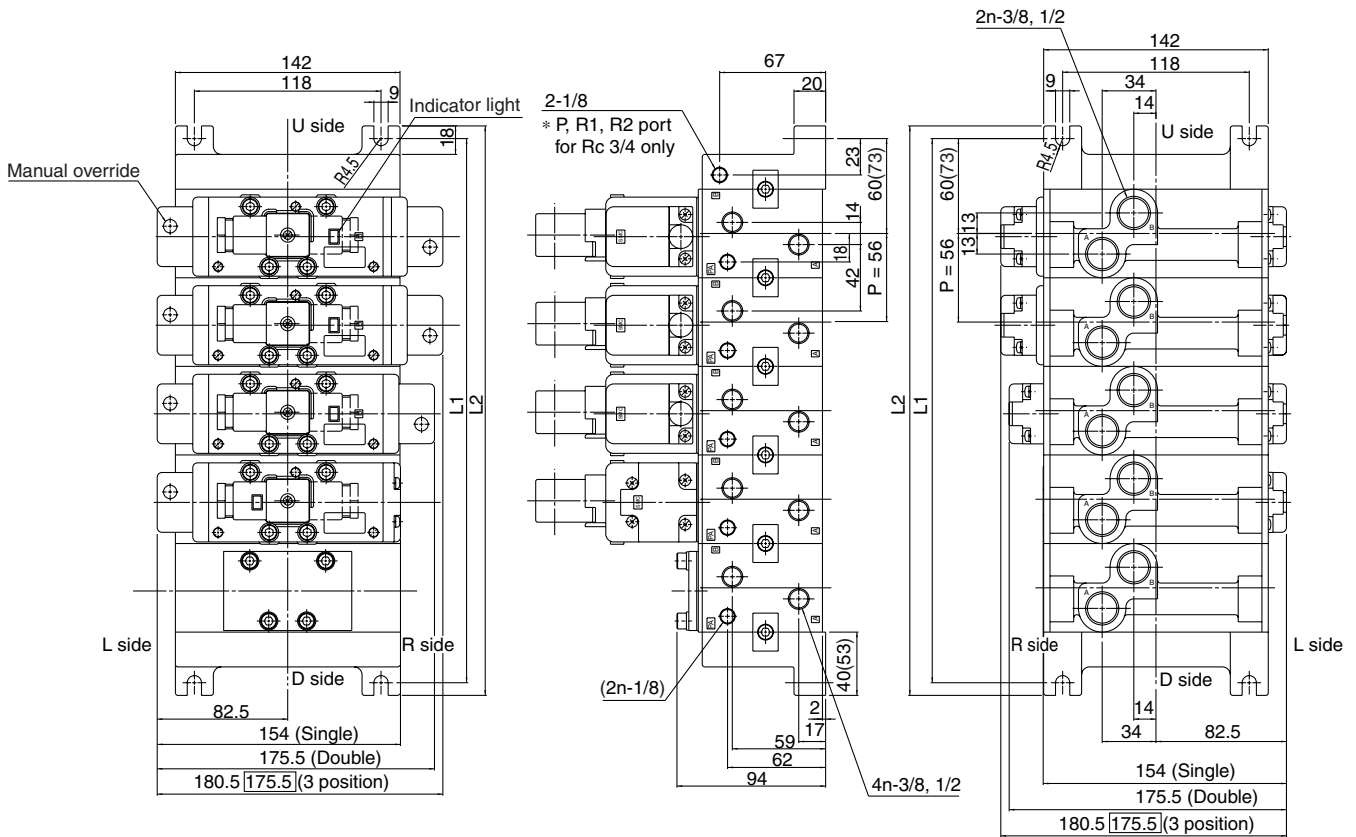
Manifold Specifications

Manifold block size	Applicable solenoid valve	Porting specifications		Stations	Weight (kg)
		2(B), 4(A) port size	1(P), 3(R2) 5(R1) port size		
ISO size 2	Series VQ7-8 ISO size 2	3/8 1/2	1/2 3/4	Max. 10 stations	0.96n + 0.77 (n: Stations)

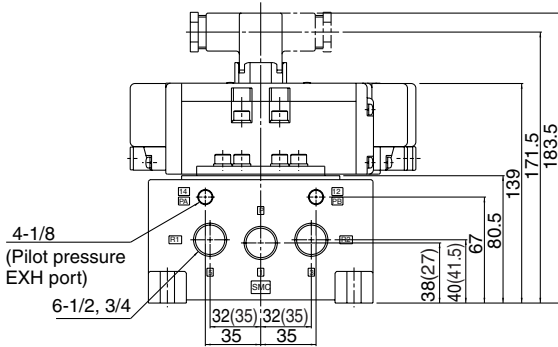
Series VQ7-8

DIN Terminal Type

VV72□-□-□□□



Bottom ported drawing



L Dimension

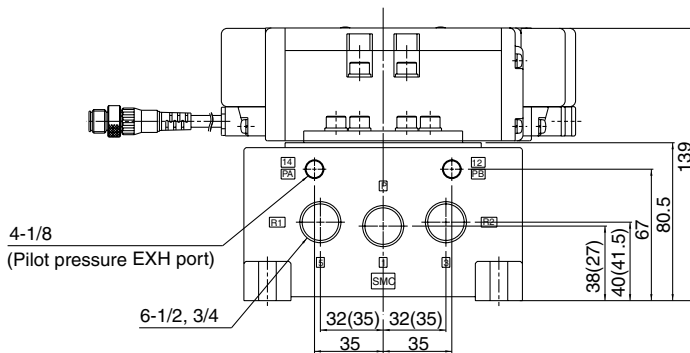
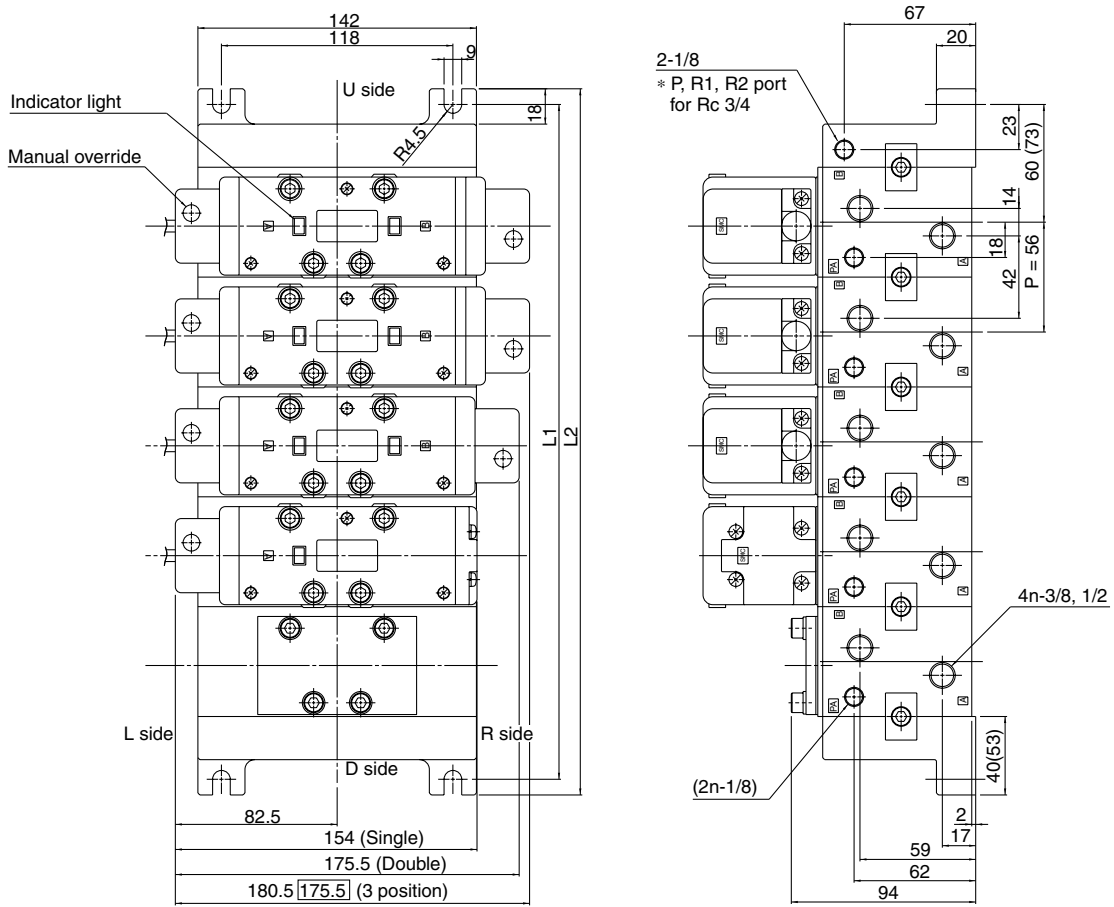
P, R1, R2 port	L	n	1	2	3	4	5	6	7	8	9	10	Formula
1/2	L1		120	176	232	288	344	400	456	512	568	624	n: Stations L1 = 56n + 64 L2 = 56n + 80
	L2		136	192	248	304	360	416	472	528	584	640	
3/4	L1		146	202	258	314	370	426	482	538	594	650	n: Stations L1 = 56n + 90 L2 = 56n + 106
	L2		162	218	274	330	386	442	498	554	610	666	

() : 3/4
 Dimensions inside □ are for rubber seals.

ISO Standard Solenoid Valve: Size 2 Metal Seal/Rubber Seal Series VQ7-8

Pre-wired Connector Type

VV72□-□-□□□



- VK
- VZ
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7**
- EVS
- VFN

L Dimension

P, R1, R2 port	L	n										Formula
		1	2	3	4	5	6	7	8	9	10	
1/2	L1	120	176	232	288	344	400	456	512	568	624	n: Stations L1 = 56n + 64 L2 = 56n + 80
	L2	136	192	248	304	360	416	472	528	584	640	
3/4	L1	146	202	258	314	370	426	482	538	594	650	n: Stations L1 = 56n + 90 L2 = 56n + 106
	L2	162	218	274	330	386	442	498	554	610	666	

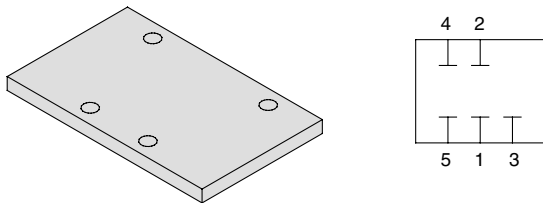
(): 3/4
 Dimensions inside □ are for rubber seals.

Series VQ7-8

Manifold Option Parts

Blanking plate assembly AXT512-9A

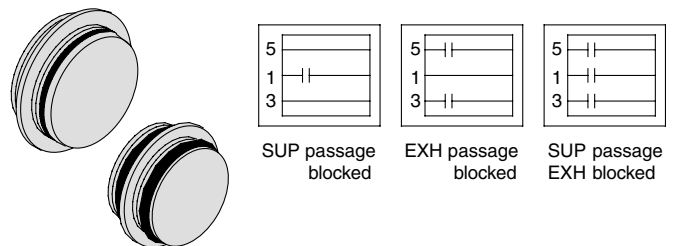
It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.



Block disk (For SUP/EXH passages) AXT512-14-1A (For SUP) AXT512-14-2A (For EXH)

When two or more different high pressures are supplied to one manifold, blocking plates are installed between stations having different pressures.

Also, in cases such as when valve exhaust effects other stations in a circuit, block disks are used for exhaust at stations where the exhaust is to be separated.

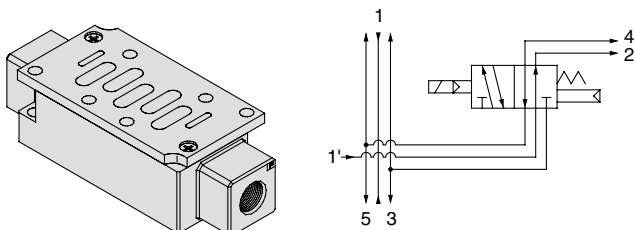


Individual SUP spacer VV72-P-⁰³/₀₄

● Thread type

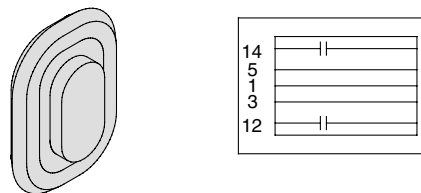
Nil	Rc
F	G
T	NPTF

By mounting individual SUP spacers on a manifold block, it is possible to provide individual supply ports for each valve.



Block disk (For pilot EXH passage) AZ512-49A

When a valve's pilot valve exhaust effects other valves in a circuit, block disks are used between stations where the pilot exhaust passages are to be separated.

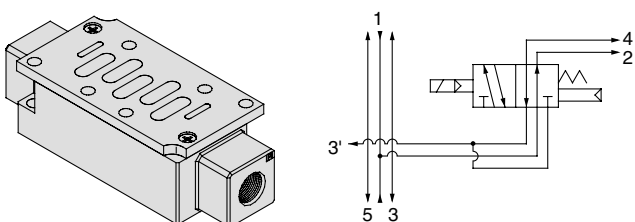


Individual EXH spacer VV72-R-⁰³/₀₄

● Thread type

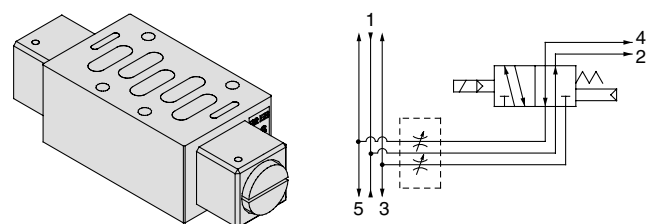
Nil	Rc
F	G
T	NPTF

By mounting individual EXH spacers on a manifold block, exhaust ports can be provided individually for each valve. (3, 5 common exhaust type)



Throttle valve spacer AXT510-32A

A throttle valve spacer is mounted on a manifold block to control cylinder speed by throttling exhaust air flow.



**Reverse pressure spacer
AXT519-19A-1**

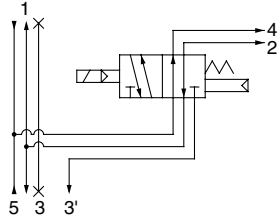
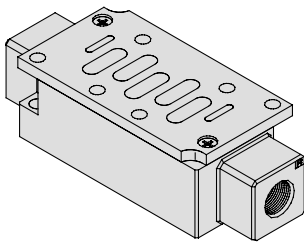
● **Thread type**

Nil	Rc
F	G
T	NPTF

● **Port size**

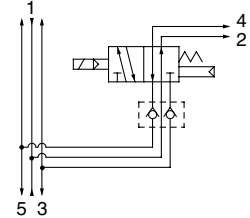
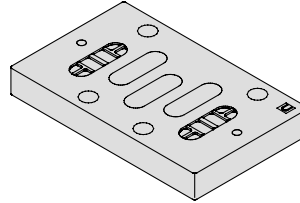
1	3/8
2	1/2

With reverse pressure control manifold specifications, when pressure is changed individually on one side (ex. high speed cylinder return), pressure can be supplied individually to the R2 side by mounting a reverse pressure spacer. {Port 3 (R2) is individual and 5 (R1) is common.}



**Main EXH back pressure check plate
AXT512-25A**

In cases where back pressure effects actuator operation due to simultaneous operation of manifold valves, etc., this effect can be eliminated by installing a plate between the manifold block and the valve from which back pressure is to be prevented.

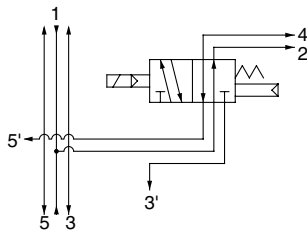
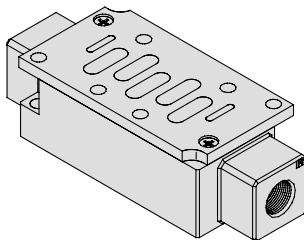


**R1/R2 individual EXH spacer
VV72-R2-04**

● **Thread type**

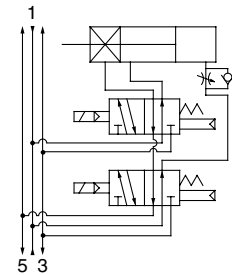
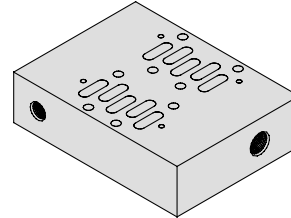
Nil	Rc
F	G
T	NPTF

By mounting an individual EXH spacer on a manifold block, individual exhaust is possible from both R1 and R2. {3 (R2) and (R1) are individual ports.}



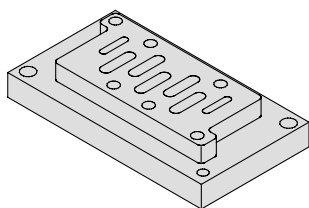
**Adapter plate for locked-up cylinder
AXT602-6A**

When using a locked-up cylinder with 2 valves for control, this spacer can be used by mounting on a manifold block. It consists of a circuit equipped with a function to prevent lurching during release.



**Conversion adapter plate
VV72-V-1**

This conversion adapter plate allows a VQ7-6 (size 1) valve to be mounted on a VQ7-8 manifold base. (V type)



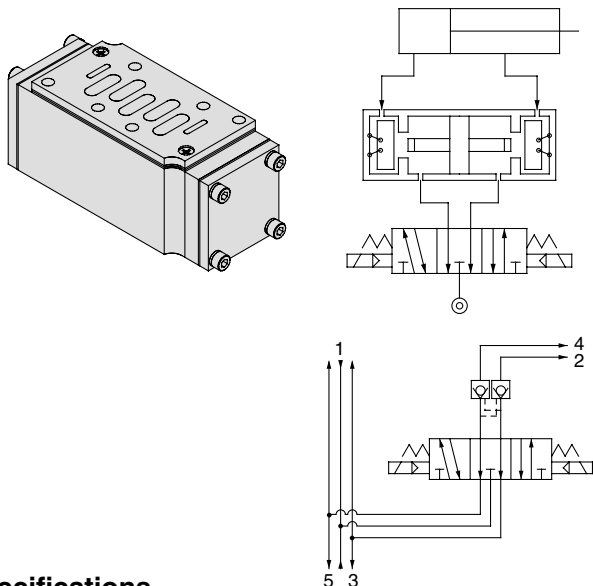
- VK
- VZ
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7**
- EVS
- VFN

Series VQ7-8

Manifold Option Parts

Double check spacer VV72-FPG

By combining a 3 position exhaust center valve with a double check spacer, an intermediate stopping position of a cylinder can be held for an extended period. It can also be used for drop prevention at the cylinder stroke end when releasing residual supply pressure, by combining it with a 2 position single or double valve.

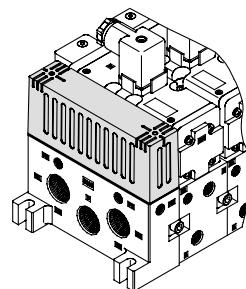


Specifications

Double check spacer part no.		VV72-FPG		
Applicable solenoid or air operated valve		Series VS7-8/VSA7-8		
Leakage (cm ³ /min (ANR))	One solenoid energized (One pilot pressurized)	P	R1	280
			R2	
	Both solenoids unenergized (Both pilots unpressurized)	P	R1	280
			R2	
		A	R1	0
		B	R2	

Silencer box VV72-□□□-□□-SB

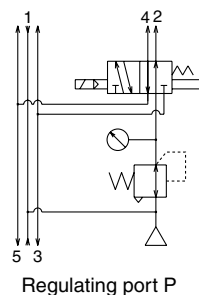
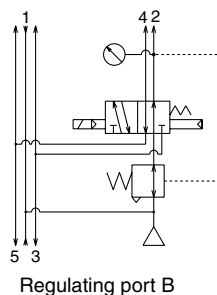
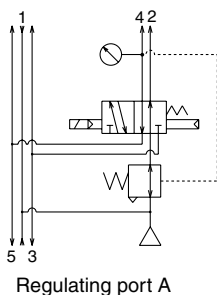
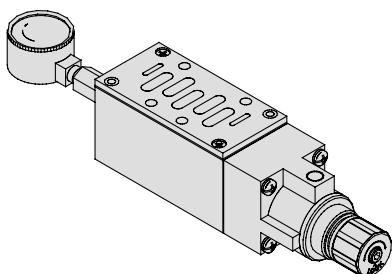
This can be provided as a unit on the end plate to reduce manifold exhaust noise and piping labor.



Interface regulator

ARB350-00-^P_A_B

Spacer Interface regulators can be placed on top of the manifold block to reduce the pressure of each of the valves.



Part No.

P reduced pressure	ARB350-00-P
A reduced pressure	ARB350-00-A
B reduced pressure	ARB350-00-B

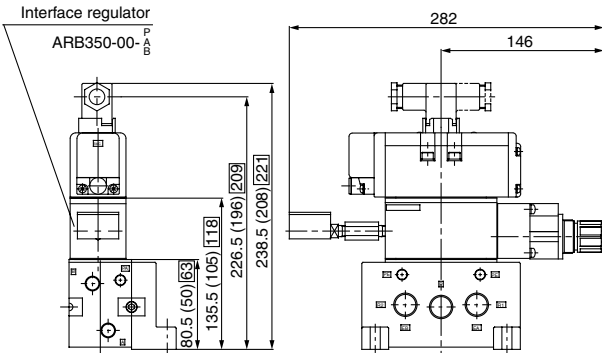
⚠ Caution

- When combining a pressure center valve and interface regulator with reduced pressure at ports A and B, use model ARB310-^A_B.
- When combining a reverse pressure valve and interface regulator, use model ARB310-^A_B. Further, it cannot be used with reduced pressure at port P.
- When combining a double check valve and an interface regulator, use a manifold or sub-plate as a basis, and stack them in the following order; the perfect spacer → the interface regulator → the valve.
- When a closed center valve is combined with the interface regulator's A, B port regulation, note that it cannot be used for intermediate stops of a cylinder because there is leakage from relief port on the regulator.

Manifold Option Parts

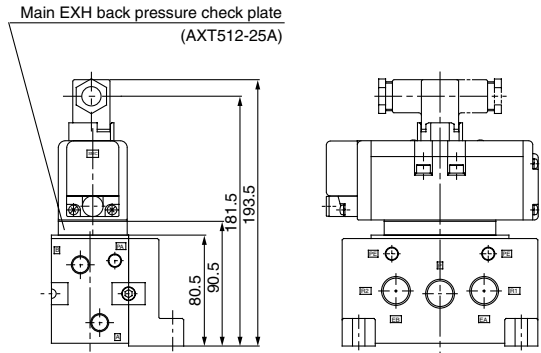
Interface regulator

ARB350-00-^P
A
B



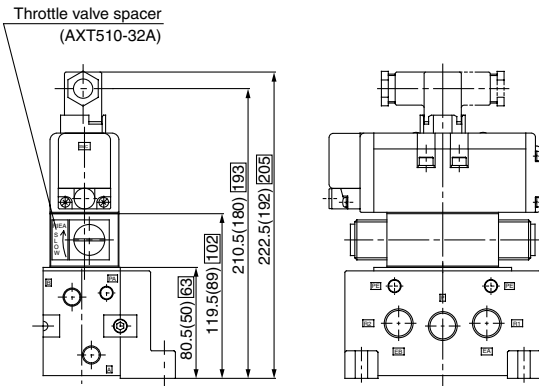
Dimensions inside () are for sub-plate aperture Rc 3/8 and 1/2.
Dimensions inside □ are for sub-plate aperture Rc 3/4.

Main EXH back pressure check plate
AXT512-25A



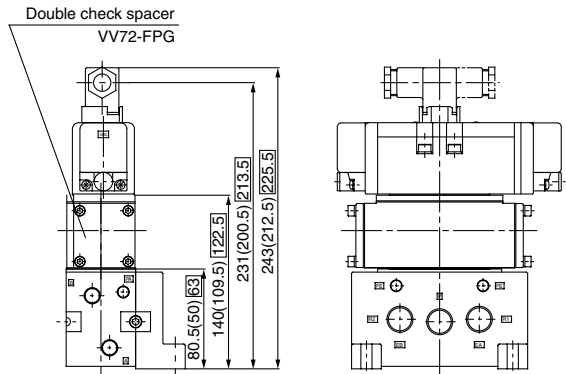
- VK
- VZ
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7**
- EVS
- VFN

Throttle valve spacer
AXT510-32A



Dimensions inside () are for sub-plate aperture Rc 3/8 and 1/2.
Dimensions inside □ are for sub-plate aperture Rc 3/4.

Double check spacer
VV72-FPG



Dimensions inside () are for sub-plate aperture Rc 3/8 and 1/2.
Dimensions inside □ are for sub-plate aperture Rc 3/4.

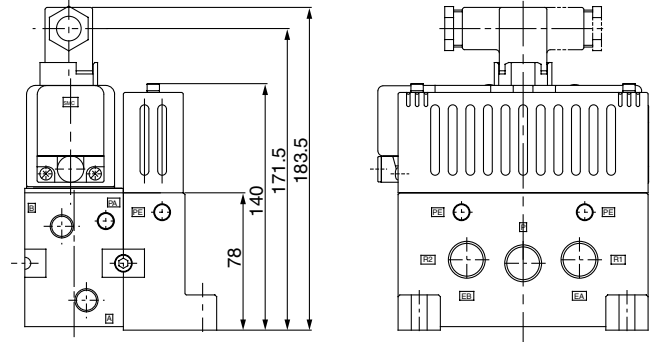
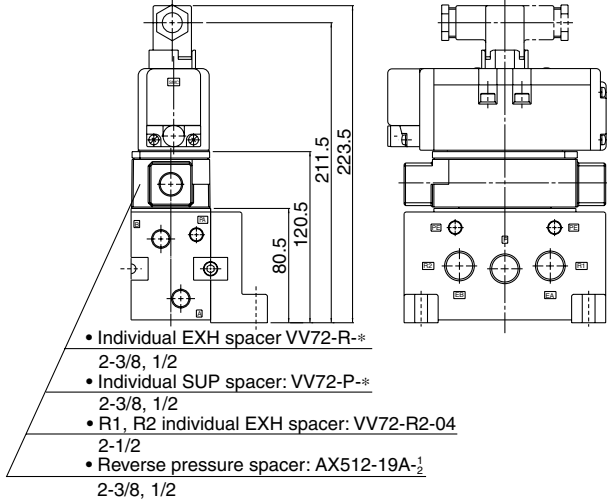
Series VQ7-8

Manifold Option Parts

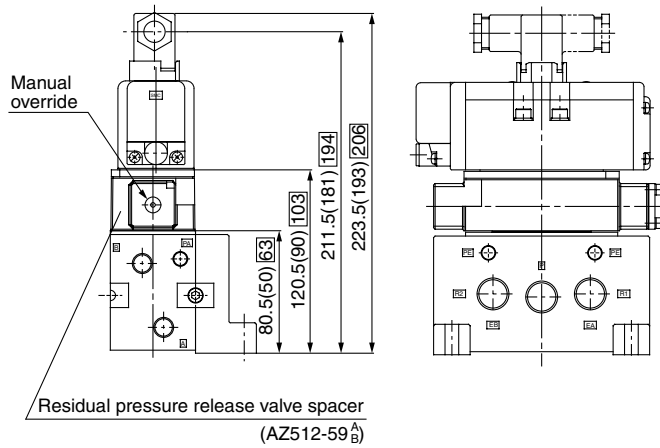
Individual EXH spacer
 Individual SUP spacer
 R1/R2 individual EXH spacer
 Reverse pressure spacer

VV72-R-03/04
 VV72-P-03/04
 VV72-R2-04
 AXT512-19A-¹/₂

Silencer box
 AXT512-26A



Residual pressure release valve spacer AZ512-59^A/_B



Dimensions inside () are for sub-plate aperture Rc 3/8 and 1/2.
 Dimensions inside are for sub-plate aperture Rc 3/4.

Manifold Option Parts/Mounting Bolt Part No.

VQ7-6 Mounting Bolt Part No.

Number of options		0		Single stack				Double stack					
Mounting bolt	No.	AXT632-45-1	AXT632-45-2	AXT632-45-4	AXT632-45-5	AXT632-45-6	AXT632-45-7	AXT632-45-8	AXT632-45-9	AXT632-45-10	AXT632-45-11	AXT632-45-12	AXT632-45-13
	Size	M5 x 35 with SW	M5 x 15 with SW	M5 x 45 with SW	M5 x 60 with SW	M5 x 65 with SW	M5 x 70 with SW	M5 x 75 with SW	M5 x 90 with SW	M5 x 95 with SW	M5 x 100 with SW	M5 x 105 with SW	M5 x 115 with SW
Option mounting diagram													

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

EVS

VFN

Number of options		Triple stack				
Mounting bolt	No.	AXT632-45-14	AXT632-45-16	AXT632-45-17	AXT632-45-18	AXT632-45-19
	Size	M5 x 120 with SW	M5 x 130 with SW	M5 x 135 with SW	M5 x 140 with SW	M5 x 145 with SW
Option mounting diagram						

The installation position of spacer (1) in the option mounting diagrams is limited only by the precautions given below.

Spacers

- Main EXH back pressure check plate
- Throttle valve spacer
- Release valve spacer
- Spacer (1)
 - Individual SUP spacer
 - Individual EXH spacer
 - R1, R2 individual EXH spacer
 - Reverse pressure spacer
 - Residual pressure release valve spacer
 - Individual SUP spacer with residual pressure release valve
- Spacer (2)
 - Interface regulator (P port regulation)
 - Interface regulator (A port regulation)
 - Interface regulator (B port regulation)
 - Double check spacer
 - Double check spacer with residual pressure release valve

- Note 1) A throttle valve spacer and double check spacer (including those with residual pressure release valve) cannot be combined.
- Note 2) When a double check spacer (Top) (including those with residual pressure release valve) and individual EXH spacer (Bottom) are combined with a R1, R2 individual EXH spacer (Bottom), be careful regarding the installation position.
- Note 3) When an interface regulator (Top) and double check spacer (Bottom) (including those with residual pressure release valve) (Bottom) are combined, be careful regarding the installation position.

VQ7-8 Mounting Bolt Part No.

Number of options		0		Single stack				Double stack			
Mounting bolt	No.	AXT632-54-1	AXT632-54-2	AXT632-54-3	AXT632-54-5	AXT632-54-6	AXT632-54-7	AXT632-54-8	AXT632-54-9	AXT632-54-10	AXT632-54-11
	Size	M6 x 45 with SW	M6 x 18 with SW	M6 x 55 with SW	M6 x 85 with SW	M6 x 100 with SW	M6 x 105 with SW	M6 x 125 with SW	M6 x 140 with SW	M6 x 145 with SW	M6 x 160 with SW
Option mounting diagram											

Number of options		Triple stack			
Mounting bolt	No.	AXT632-54-12	AXT632-54-13	AXT632-54-14	AXT632-54-15
	Size	M6 x 165 with SW	M6 x 180 with SW	M6 x 185 with SW	M6 x 200 with SW
Option mounting diagram					

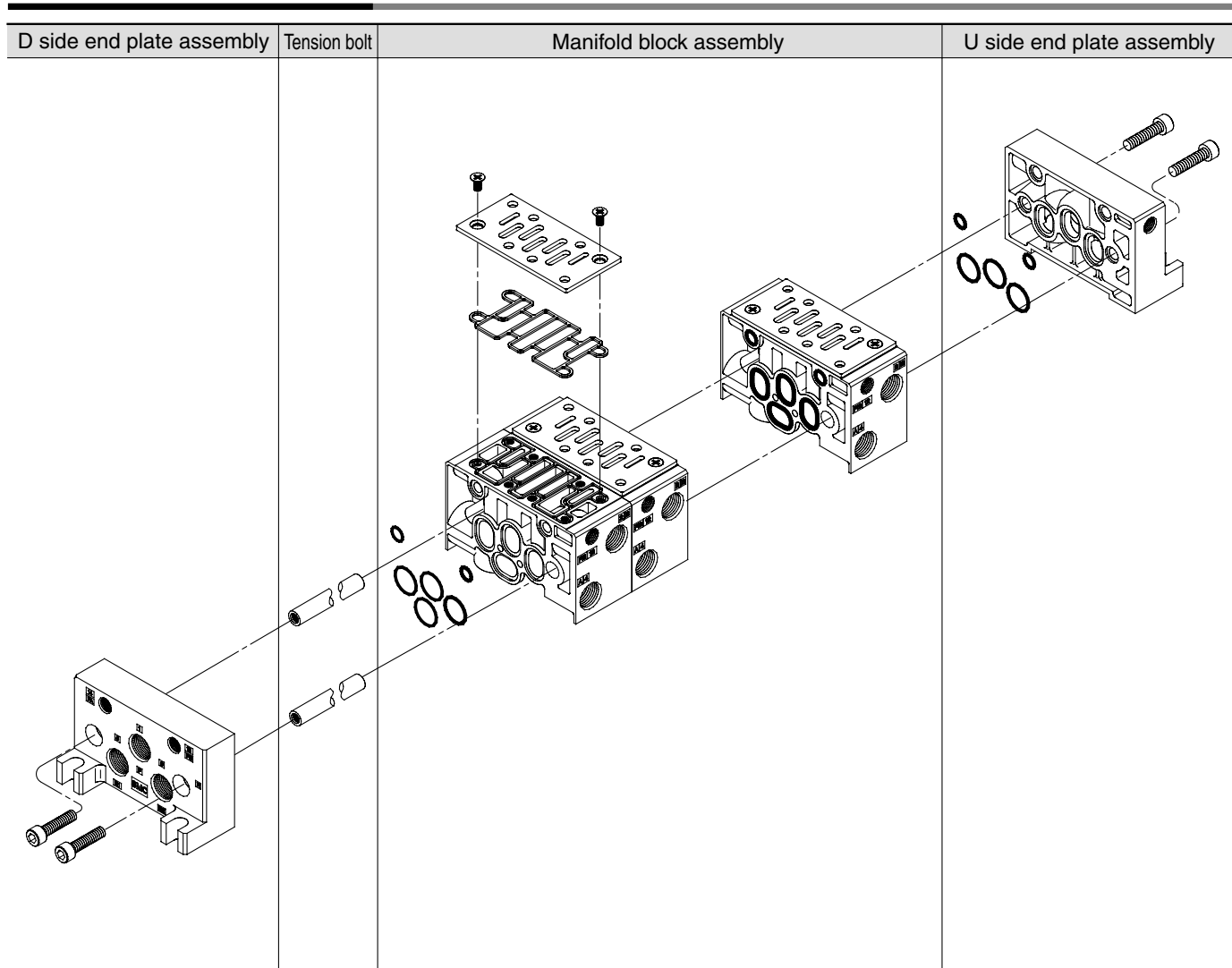
Spacers

- Main EXH back pressure check plate
- Interface regulator (P reduced pressure)
- Interface regulator (A port regulation)
- Interface regulator (B port regulation)
- Double check spacer
- Spacer (1)
 - Individual SUP spacer
 - Individual EXH spacer
 - R1, R2 individual EXH spacer
 - Reverse pressure spacer
 - Residual pressure release valve spacer
- Throttle valve spacer

- Note 1) A throttle valve spacer and double check spacer cannot be combined.
- Note 2) There is no limitation on the mounting position for spacer (1).

Series VQ7-8

Exploded View of Manifold



<End Plate Assembly>

AXT502 - A -

End plate position

L	U side
R	D side

P, R port size

02	Rc 1/4
03	Rc 3/8
C12	One-touch fitting for $\phi 12$

Thread type

Nil	Rc
F	G
T	NPTF

Note) It is not applicable to One-touch fittings.

<Tension Bolt Part No.>

AXT502 - 34 -

Stations

2	For 2 stations
3	For 3 stations
:	:
10	For 10 stations

Note) These tie-rods are solid pieces for each number of stations.

<Manifold Block Assembly>

AXT502 - 1A -

Porting specifications

A	Side
B	Bottom

Cylinder port location

L	L side
R	R side

Cylinder port size

02	Rc 1/4
03	Rc 3/8
C6 ⁽¹⁾	One-touch fitting for $\phi 6$
C8 ⁽¹⁾	One-touch fitting for $\phi 8$
C10 ⁽¹⁾	One-touch fitting for $\phi 10$

Thread type

Nil	Rc
F	G
T	NPTF

Note) It is not applicable to One-touch fittings.

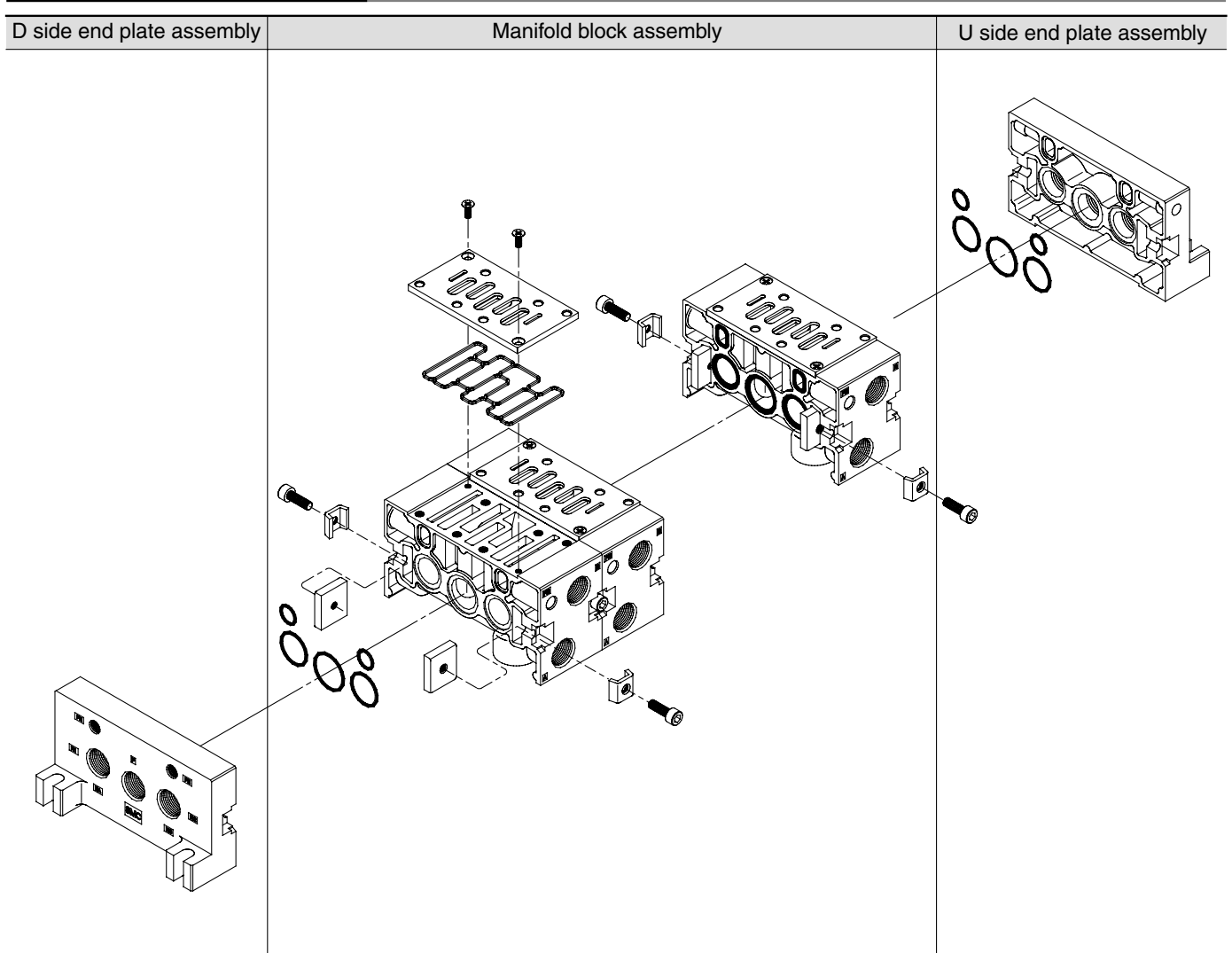


Note 1) Side piping only
Note 2) In this manifold block assembly, the tension bolt for increasing station (1 station) is included.

Replacement Parts (For manifold block)

Part no.	Description	Qty.	Material
AXT502-19	O-ring	4	NBR
AXT502-20	O-ring	2	NBR
AXT502-22-2	Plate	1	SPCC
AXT502-31	Gasket	1	NBR
M4 x 8	Oval countersunk head screw	2	SWRH3

Exploded View of Manifold



- VK
- VZ
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7**
- EVS
- VFN

<End Plate Assembly>

AXT512 - [] A - [] []

End plate position

L	U side
R	D side

P, R port size

04	Rc 1/2
06	Rc 3/4
C12	One-touch fitting for ø12

Thread type

Nil	Rc
F	G
T	NPTF

Note) It is not applicable to One-touch fittings.

<Manifold Block Assembly>

AXT512 - 1A - [] [] [] []

Wiring specifications

A	Side
B	Bottom

Cylinder port location

L	L side
R	R side

Cylinder port size

03	3/8
04	1/2

Thread type

Nil	Rc
F	G
T	NPTF

Replacement Parts (For manifold block)

Part no.	Description	Qty.	Material
AXT512-13	O-ring	2	NBR
AS568-022	O-ring	1	NBR
AS568-020	O-ring	2	NBR
AXT512-5	Gasket	1	NBR
AXT512-4	Plate	1	SPCC
M4X10	Oval countersunk head screw	2	SWRH3
AXT512-6-1	Connection fitting A	2	
AXT512-6-4	Connection fitting B	2	
AXT512-6-3	Hexagon socket head screw	2	