

Single Valve/Sub-plate Type IP67 Compliant *90-SV Series*

How to Order



Series compatible with secondary batteries

90	Material restriction
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Series

2	90-SV2000
4	90-SV4000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center
A	4 position dual 3 port valve: N.C./N.C.
B	4 position dual 3 port valve: N.O./N.O.
C	4 position dual 3 port valve: N.C./N.O.

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

Port size

Symbol	Port size	Applicable series
Nil	Without sub-plate	
02	1/4	90-SV2000
03	3/8	90-SV4000
04	1/2	90-SV4000

Manual override

Nil	Non-locking push type
D	Push-turn locking slotted type

Light/Surge voltage suppressor

U	With light/surge voltage suppressor(Non-polar type)
R	With surge voltage suppressor(Non-polar type)

M12 waterproof connector

Symbol	Cable length (mm)
W1	300
W2	500
W3	1000
W4	2000
W7	5000

Rated voltage

5	24 VDC
6	12 VDC

Pilot type

Nil	Internal pilot
R	External pilot

*External pilot specifications is not available for 4 position dual 3 port valves.

*Specifications and dimensions for the 90-series are the same as standard products.

*4 position dual 3 port valve is not available for the 90-SV4000.

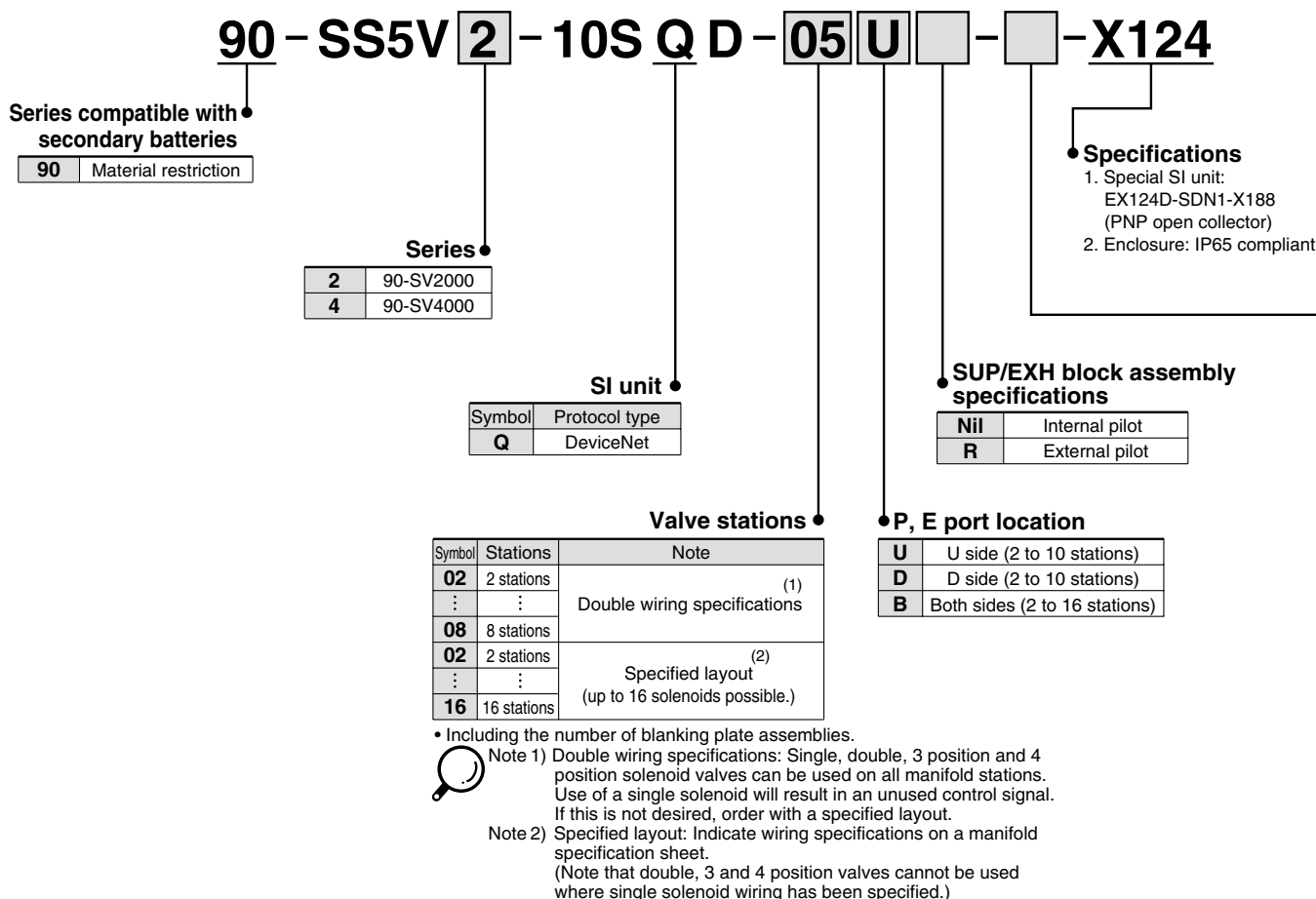
EX124 Integrated Type (for Output) Serial Transmission System

90-SV-X124 Series

IP65 Compliant

How to Order Manifold

● Tie-rod base



SI Unit Part No.

Symbol	Protocol type	SI unit part no.	CE-certified
Q	DeviceNet (Negative common)	EX124D-SDN1-X188	○

A, B port size (Metric)

Symbol	A, B port	P, E port	Applicable series
C4	One-touch fitting for ø4	One-touch fitting for ø10	90-SV2000
C6	One-touch fitting for ø6		
C8	One-touch fitting for ø8		
M	A, B ports mixed		

A, B port size (Inch)

Symbol	A, B port	P, E port	Applicable series
N3	One-touch fitting for ø5/32"	One-touch fitting for ø3/8"	90-SV2000
N7	One-touch fitting for ø1/4"		
N9	One-touch fitting for ø5/16"		
M	A, B ports mixed		

*In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

*Port sizes of X, PE port for external pilot specifications (R) are ø4 mm or ø5/32 inch.

*Specifications and dimensions for the 90-series are the same as standard products.

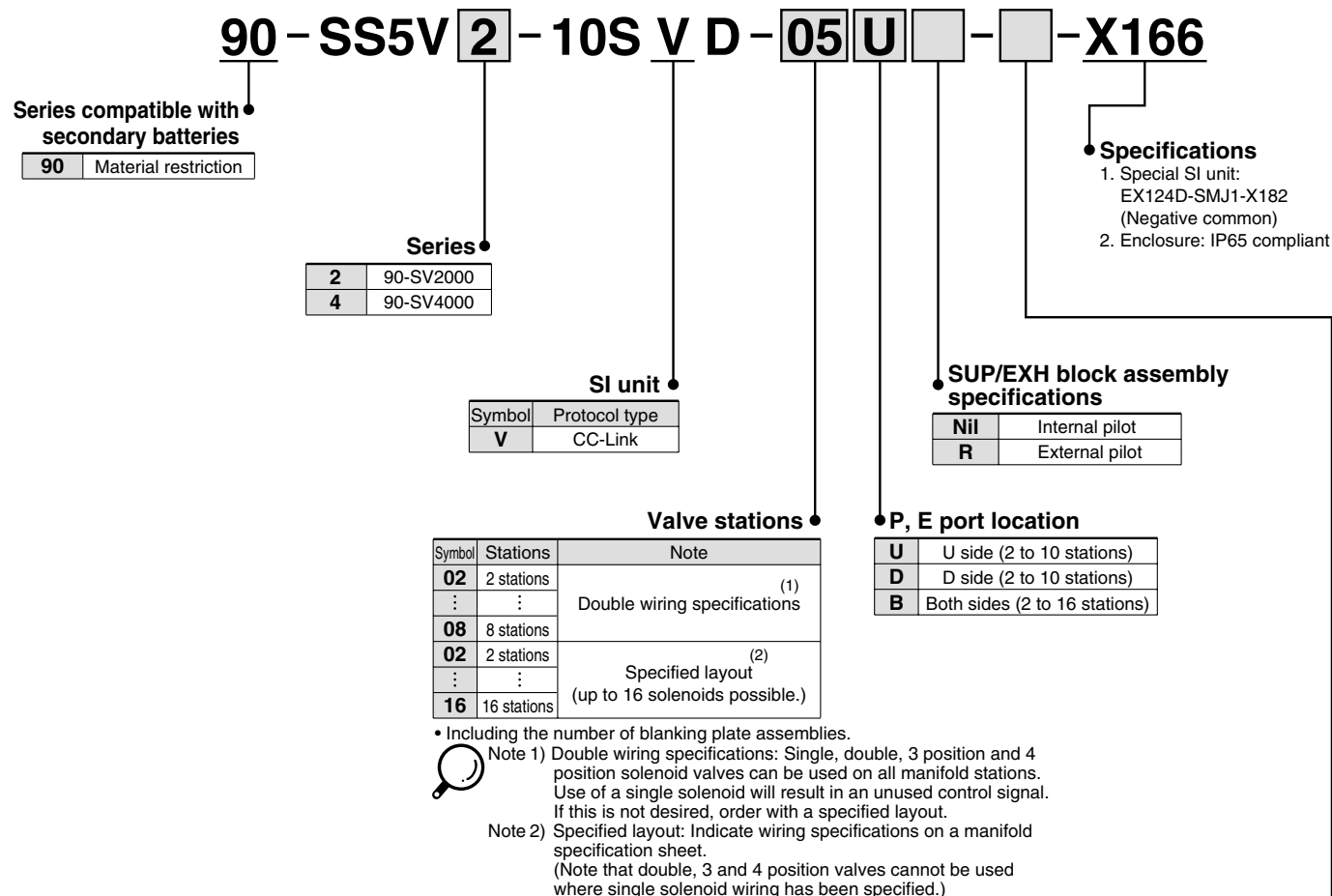
EX124 Integrated Type (for Output) Serial Transmission System

90-SV-X166 Series

IP65 Compliant

How to Order Manifold

● Tie-rod base



SI Unit Part No.

Symbol	Protocol type	SI unit part no.	CE-certified
V	CC-Link (Negative common)	EX124D-SMJ1-X182	○

A, B port size (Metric)

Symbol	A, B port	P, E port	Applicable series
C4	One-touch fitting for ø4	One-touch fitting for ø10	90-SV2000
C6	One-touch fitting for ø6		
C8	One-touch fitting for ø8		
C8	One-touch fitting for ø8	One-touch fitting for ø12	90-SV4000
C10	One-touch fitting for ø10		
C12	One-touch fitting for ø12		
M	A, B ports mixed		

A, B port size (Inch)

Symbol	A, B port	P, E port	Applicable series
N3	One-touch fitting for ø5/32"	One-touch fitting for ø3/8"	90-SV2000
N7	One-touch fitting for ø1/4"		
N9	One-touch fitting for ø5/16"		
N9	One-touch fitting for ø5/16"	One-touch fitting for ø3/8"	90-SV4000
N11	One-touch fitting for ø3/8"		
M	A, B ports mixed		

*In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

*Port sizes of X, PE port for external pilot specifications (R) are ø4 mm or ø5/32 inch for 90-SV2000 series and ø6 mm or ø1/4 inch for 90-SV4000 series.

*Specifications and dimensions for the 90-series are the same as standard products.

D-sub Connector 90-SV Series

How to Order Manifold

● Tie-rod base

90 - SS5V **2** - 10FD **1** - **05** **U** -

● Series

2	90-SV2000
4	90-SV4000

● Series compatible with secondary batteries

90	Material restriction
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Connector entry direction ●

1	Upward
2	Lateral

Valve stations ●

Symbol	Stations	Note
02	2 stations	(1) Double wiring specifications
:	:	
11	11 stations	(2) Specified layout (Up to 23 solenoids possible.)
02	2 stations	
:	:	
20	20 stations	



Note 1) Double wiring specifications: Single, double, 3 position and 4 position solenoid valves can be used at all of the manifold stations. Use of a single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate wiring specifications on the manifold specification sheet. (Note that double, 3 and 4 position valves cannot be used where single solenoid wiring has been specified.)

P, E port location ●

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 20 stations)

Pilot type ●

Nil	Internal pilot
R	External pilot

A, B port size (metric) ●

Symbol	A, B port	P, E port	Applicable series
C4	One-touch fitting for ø4	One-touch fitting for ø1	90-SV2000
C6	One-touch fitting for ø6		
C8	One-touch fitting for ø8		
C8	One-touch fitting for ø8	One-touch fitting for ø12	90-SV4000
C10	One-touch fitting for ø10		
C12	One-touch fitting for ø12		
M	A, B ports mixed		

A, B port size (inch) ●

Symbol	A, B port	P, E port	Applicable series
N3	One-touch fitting for ø5/32"	One-touch fitting for ø3/8"	90-SV2000
N7	One-touch fitting for ø1/4"		
N9	One-touch fitting for ø5/16"		
N9	One-touch fitting for ø5/16"	One-touch fitting for ø3/8"	90-SV4000
N11	One-touch fitting for ø3/8"		
M	A, B ports mixed		

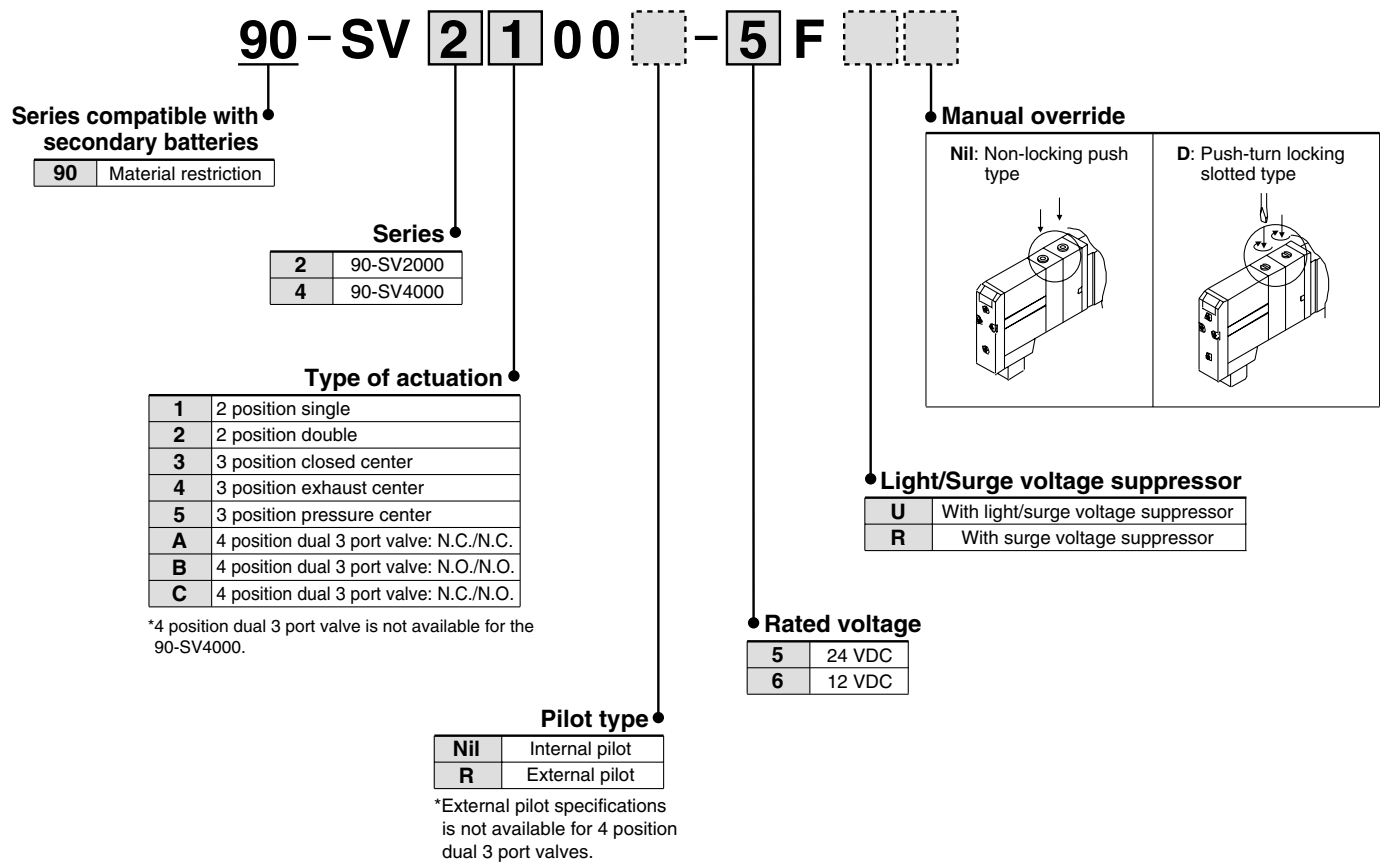
*In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

*Port sizes of X, PE port for external pilot specifications (R) are ø4 mm or ø5/32 inch for 90-SV2000 series and ø6 mm or ø1/4 inch for 90-SV4000 series.

*Specifications and dimensions for the 90-series are the same as standard products.

90-SV Series

How to Order Solenoid Valves



*Specifications and dimensions for the 90-series are the same as standard products.

Plug-in Unit
Base Mounted

90-VQ1000-X121 Series

90-VQ2000-X121 Series

Double Check Block (Separated Type)

How to Order

90-VQ1000

90 - VQ1000 - FPG - C6 C6 - X121

- Series compatible with secondary batteries

90 Material restriction

- For blanking manual specification

- OUT side port size

C4	One-touch fitting for ø4
C6	One-touch fitting for ø6

- IN side port size

C4	One-touch fitting for ø4
C6	One-touch fitting for ø6

*Specifications and dimensions for the 90-series are the same as standard products.

90-VQ2000

90 - VQ2000 - FPG - 01 01 - X121

- Series compatible with secondary batteries

90 Material restriction

- For blanking manual specification

- OUT side port size

01	Rc 1/8
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- IN side port size

01	Rc 1/8
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*Specifications and dimensions for the 90-series are the same as standard products.

Directional
Control Valves

Actuators

Air Grippers

Air Preparation
Equipment

Air Filters/Pressure
Control Equipment

Flow Control
Related Products

Vacuum
Equipment

Detection
Switches

Auto Switches

3 Port Solenoid Valve Pilot Operated Poppet Type

90-VP300/500 Series

Rubber Seal

How to Order

90-VP342-5DZ-02A

Series compatible with secondary batteries
90 Material restriction

Series VP solenoid valve

Body size
3 1/4 standard
5 3/8 standard

Type of actuation
4 Common use to normally closed and normally open (Pilot)

Body type
2 Body ported

Valve option
Nil Standard (Internal pilot)
R External pilot

Rated voltage
5 24 VDC
6 12 VDC

Passage symbol
A N.C. (Normally closed)
B N.O. (Normally open)
Only "A" is available for external pilot type.

Thread type
Nil Rc
F G
N NPT
T NPTF

Port size

Symbol	Port size Rc	90-VP342	90-VP542
02	1/4	●	●
03	3/8		●

Manual override
Nil Push type
B Locking type (Slotted)
C Locking type (Manual)

Light/Surge voltage suppressor
Nil None
Z* With light/surge voltage suppressor
*Option

Electrical entry
D DIN terminal



How to Order Pilot Valve Assembly

90-SF4-5DZ-50

Rated voltage
5 24 VDC
6 12 VDC

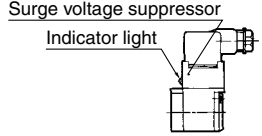
Series compatible with secondary batteries
90 Material restriction

Manual override
Nil Push type
B Locking type (Slotted)
C Locking type (Manual)

Light/Surge voltage suppressor
Nil None
Z* With light/surge voltage suppressor
*Option

Electrical entry
D DIN terminal

Pilot Valve Assembly and Electrical Entry

Symbol	Electrical entry
DZ	

*Specifications and dimensions for the 90-series are the same as standard products.

3 Port Solenoid Valve Pilot Operated Poppet Type

90-VG342 Series

Rubber Seal

How to Order



Series compatible with
secondary batteries

90	Material restriction
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Valve option

Nil	Internal pilot
R	External pilot

Rated voltage

5	24 VDC
6	12 VDC

Electrical entry

D	DIN terminal
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Light/Surge voltage suppressor

Nil	None
Z	With light/surge voltage suppressor

Port size

04	1/2
06	3/4
10	1

Pilot valve option

Nil	Standard type
Y	Energy-saving type (DC only)
E	Continuous duty type

Passage symbol

Nil	External pilot
A	N.C. (Normally closed)
B	N.O. (Normally open)

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

*Specifications and dimensions for the 90-series are the same as standard products.

Directional
Control Valves

Actuators

Air Grippers

Air Preparation
Equipment

Air Filters/Pressure
Control Equipment

Flow Control
Related Products

Vacuum
Equipment

Detection
Switches

Auto Switches

3 Port Solenoid Valve

Direct Operated Poppet Type

90-VT317 Series

Rubber Seal



How to Order

90 - V T 317 **5** **D** **Z** - **02**

Series compatible with secondary batteries

90	Material restriction
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Body type

T	Body ported
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Valve option

Nil	Standard type
E	Continuous duty type
V	For vacuum

Rated voltage

5	24 VDC
6	12 VDC

Electrical entry

D	DIN terminal
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Port size

02	1/4 (8A)
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Light/Surge voltage suppressor

Symbol	Electrical entry	D
Nil		—
S		●
Z		●

Z: With light/surge voltage suppressor

*Specifications and dimensions for the 90-series are the same as standard products.

Finger Valve

90-VHK Series

How to Order



Standard type

90 - VHK 2 - 02S - 06F

Series compatible with secondary batteries

90 Material restriction

Valve model

2 2 port valve

1(P) port size

04F	ø4
06F	ø6
08F	ø8
01S	R 1/8
02S	R 1/4
03S	R 3/8

Bracket

Nil	None
L	With L-bracket



*Bracket and screws are attached.

Knob color

Nil (Standard)	Gray
R (Option)	Red

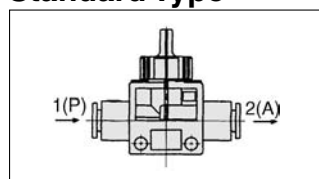
2(A) port size

04F	ø4
06F	ø6
08F	ø8

*Specifications and dimensions for the 90-series are the same as standard products.

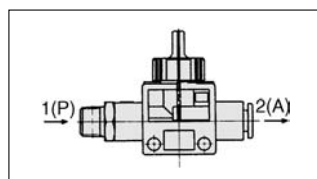
Applicable Series

Standard Type



1(P): One-touch fitting
2(A): One-touch fitting

Applicable tubing O.D. (mm)	1(P)	2(A) Applicable tubing O.D. (mm)		
		ø4	ø6	ø8
ø4		●	—	—
ø6		●	●	—
ø8		—	●	●



1(P): Male thread
2(A): One-touch fitting

Port size R	1(P)	2(A) Applicable tubing O.D. (mm)		
		ø4	ø6	ø8
1/8		●	●	●
1/4		—	●	●
3/8		—	●	●

L Type Bracket Part No.

1(P): One-touch fitting · 2(A): One-touch fitting

Applicable tubing O.D. (mm)		Bracket assembly no.
1(P)	2(A)	
ø4	ø4	90-VHK-B1A
ø6	ø4	90-VHK-B1A
	ø6	
ø8	ø6	90-VHK-B1A
	ø8	

1(P): Male thread · 2(A): One-touch fitting

Connection thread R	Applicable tubing O.D. (mm)	Bracket assembly no.
1(P)	2(A)	
1/8	ø4	90-VHK-B1A
	ø6	
	ø8	
1/4	ø6	90-VHK-B1A
	ø8	
3/8	ø6	90-VHK-B1A
	ø8	