



Conforms to ISO 15407-2 Standard Size 18 mm, 26 mm Plug-in Type

5 Port Solenoid Valve

Series VS_R^S8-2/VS_R^S8-4



Conforms to ISO 15407-2 Standard

ISO Standard: Interface conforming to 18 mm size (VS_R^S8-2) and 26 mm size (VS_R^S8-4)

Accommodates IP65 enclosure.

Dust-tight/Water-jet-proof

Compact and high flow

Rubber seal	Flow rate C [dm ³ /(s·bar)]	Mass
VS_R^S8-2 Size 18 mm (Single)	2.2	140 g
VS_R^S8-4 Size 26 mm (Single)	3.6	225 g



CAT.ES11-102A

Conforms to ISO 15407-2 Standard 5 Port Solenoid Valve/Plug-in Type

Series VS_R^S8-2/VS_R^S8-4

ISO Standard: Interface conforming to 18 mm size (VS_R^S8-2) and 26 mm size (VS_R^S8-4)

Outstanding high-speed response and long service life

(Metal seal: Single type, with light/surge voltage suppressor)

VSS8-2: 20 msec or less, service life 200 million cycles

VSS8-4: 40 msec or less, service life 200 million cycles

IP65 enclosure compatible Dust-tight/Water-jet-proof

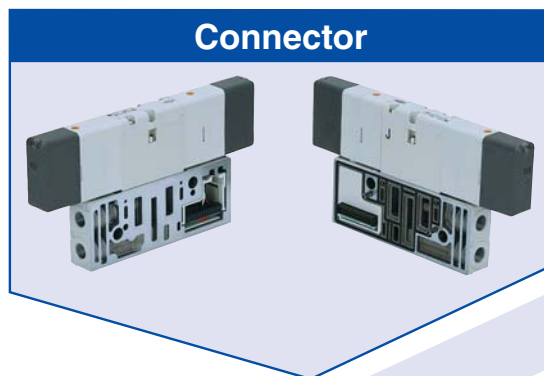
(S/T/L/M kit) (Based on IEC60529)

Compact and high flow

Series	Manifold pitch (mm)	Flow-rate characteristics Note)			Applicable cylinder bore size (mm)
		C	b	Cv	
VSS8-2 (Metal seal)	19	1.70	0.10	0.30	Up to ø80
VSR8-2 (Rubber seal)		2.20	0.10	0.50	
VSS8-4 (Metal seal)	27	3.40	0.10	0.70	Up to ø100
VSR8-4 (Rubber seal)		4.20	0.20	1.00	

Note) Values for CYL. → EXH. (2, 4 → 3, 5)

Connector



Applicable to EX600 (Input/Output) serial transmission

- Applicable to DeviceNet™, PROFIBUS DP and CC-Link fieldbus protocols

- **Max. 9 units Note) can be connected in any order.**

The unit to connect input device such as an auto switch, pressure switch and flow switch, and the unit to connect output device such as a solenoid valve, relay and indicator light can be connected in any order.

Note) Except SI unit

- **Analog Input Unit can be connected with analogue input device.**

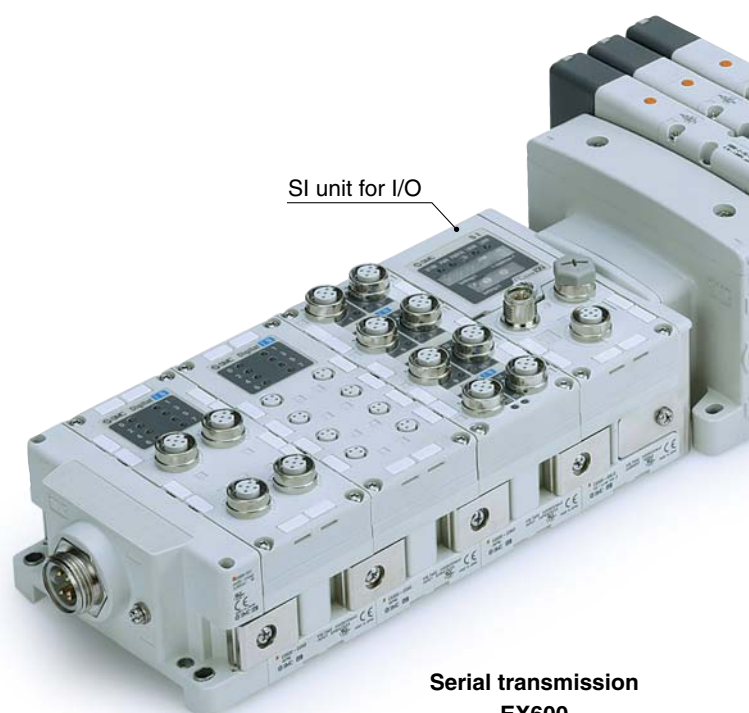
As well as a Digital (switch) Input/Output Unit, a unit applicable to analogue signal is provided, and can be connected with various device for control.

- **Self-diagnosis function**

It is possible to ascertain the maintenance period and identify the parts that require maintenance, by an input (sensor) open circuit detecting function and an input/output signal of ON/OFF counter function. Also, the monitoring of input/output signal and the setting of parameters can be performed with a Handheld Terminal.

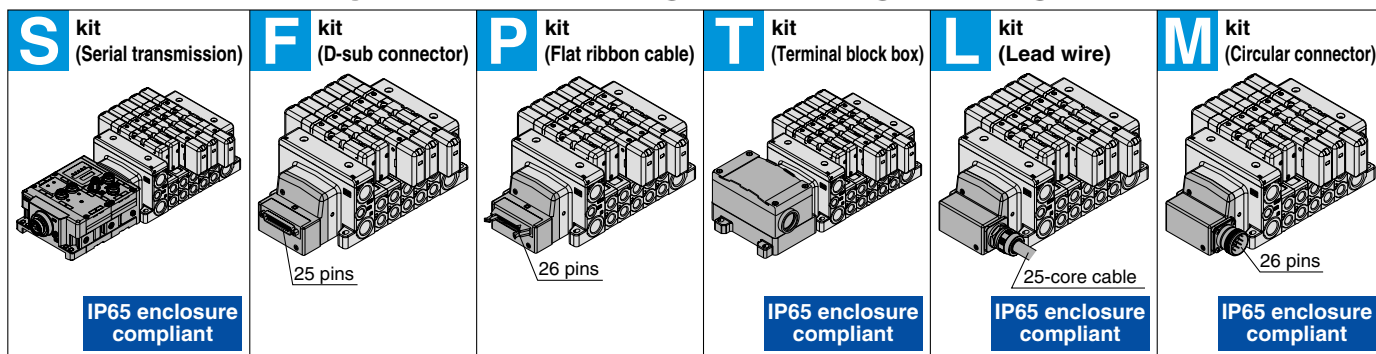
Features 1

SI unit for I/O



**Serial transmission
EX600**

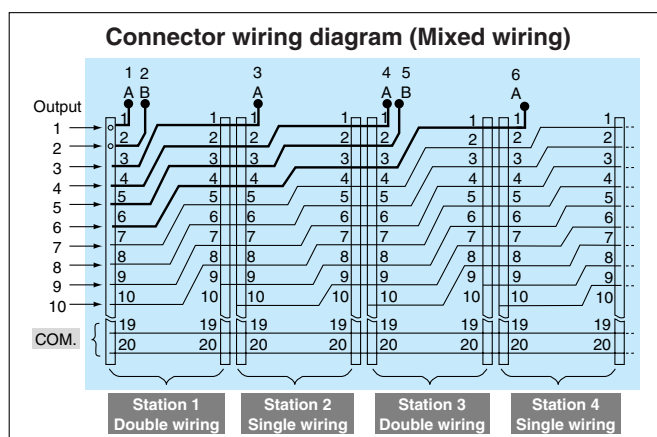
A wide variety of prepackaged wiring configurations



- Our six standard wiring packages bring a world of ease to wiring and maintenance work, and the four wiring types (S/T/L/M) are compatible with the IP65 enclosure.

Connector type manifold

- The use of multi-pin connectors to replace wiring inside manifold blocks provides flexibility when adding stations or changing manifold configuration.
- All kits use multi-pin connectors, so switching from the F kit (D-sub connector) to the S kit (serial transmission) can be done simply by changing the kit section.



(Refer to the connector wiring diagram.)

Printed circuit board patterns between connectors are shifted at every station. This allows for viable connections to take place without necessarily specifying whether the manifold station is double, single, or mixed wiring.

4-position dual 3-port valves

(Rubber seal only)

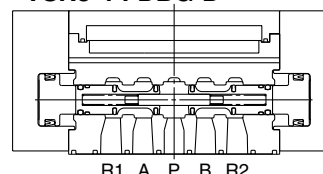
- Two 3-port valves built into one body
- The 3-port valves on the A and B sides can operate independently.
- When used as 3-port valves, only half the number of stations is required.
- Can also be used as a 3-position, 5-port type valve.

Exhaust center : **VSR8-2-FDAG-D**

VSR8-4-FDAG-D

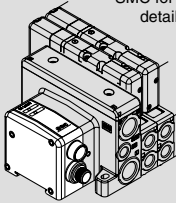
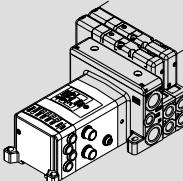
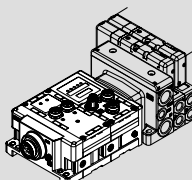
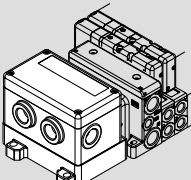
Pressure center : **VSR8-2-FDBG-D**

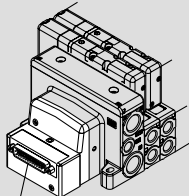
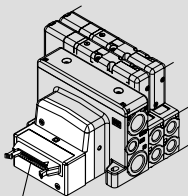
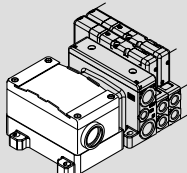
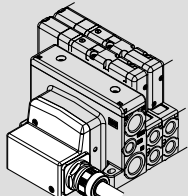
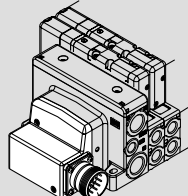
VSR8-4-FDBG-D



Model	A side	B side	Symbol
VSR8-2-FDAG-D VSR8-4-FDAG-D	N.C. valve	N.C. valve	
VSR8-2-FDBG-D VSR8-4-FDBG-D	N.O. valve	N.O. valve	
VSR8-2-FDCG-D VSR8-4-FDCG-D	N.C. valve	N.O. valve	

Base Mounted: Variations

			Sonic conductance C [dm³/(s·bar)] (4/2 → 5/3) A/B → EA/EB		Applicable cylinder bore size	S kit			
			Single/Double	3-position (Closed center)		Serial transmission			
Gateway application Compatible network • DeviceNet™ • PROFIBUS DP • CC-Link • EtherNet/IP™ Decentralized Serial Wiring Gateway application requires a gateway unit and communication cable separately. Please contact SMC for details.  Serial unit: EX500 IP65 compliant		Compatible network • DeviceNet™ • PROFIBUS DP • CC-Link • AS-Interface • CANopen • ControlNet • EtherNet/IP™ I/O  Serial unit: EX250 IP65 compliant				Compatible network • DeviceNet™ • PROFIBUS DP • CC-Link I/O  Serial unit: EX600 IP65 compliant		Compatible network • CC-Link Output  Serial unit: EX126 IP65 compliant	
Series VS ^S _R 8-2	Metal seal	VSS8-2	1.7	1.6	Up to ø80	 P.3, 8	 P.3, 9	 P.3, 10	 P.3, 12
	Rubber seal	VSR8-2	2.2	2.1					
Series VS ^S _R 8-4	Metal seal	VSS8-4	3.4	3.2	Up to ø100	 P.3, 8	 P.3, 9	 P.3, 10	 P.3, 12
	Rubber seal	VSR8-4	4.2	4.2					

F kit		P kit		T kit		L kit		M kit		Port size	
D-sub connector		Flat ribbon cable		Terminal block box		Electrical entry		Circular connector		SUP EXH port 1, 3 (P, R)	Cylinder port 2, 4 (A, B)
D-sub connector (Conforming to MIL D-sub connector)		Flat ribbon cable (Conforming to MIL flat ribbon cable connector)		Terminal block box (Terminal block) (Terminal block is compactly arranged on one side.)		Lead wire (IP65 enclosure with use of multiple wire cable with sheath and waterproof connector)		Circular connector (IP65 enclosure with use of waterproof circular connector)			
 25 pins		 26 pins		 IP65 compliant		 25-core cable IP65 compliant		 26 pins IP65 compliant			
 P.3, 13		 P.3, 15		 P.3, 17		 P.3, 19		 P.3, 21		3/8"	1/8"
 P.3, 13		 P.3, 15		 P.3, 17		 P.3, 19		 P.3, 21		1/2"	1/4" 3/8"

Conforms to ISO 15407-2 Standard

5 Port Solenoid Valve/Plug-in Type

Series VS_R^S8-2/VS_R^S8-4



How to Order Manifold

VV8 **01** **5** - **03** **SD6Q** **N** **1** **1** **N** - **W1** -

Size

01	Size 26 mm
02	Size 18 mm

Stations

1	1 station
16	16 stations

Cylinder port size

Symbol	Port size	Size 26 mm	Size 18 mm
01	Side ported 1/8"	—	●
02	Side ported 1/4"	●	—
03	Side ported 3/8"	●	—
01B	Bottom ported 1/8"	—	●
02B	Bottom ported 1/4"	●	—

Thread type

Nil	Rc
T	NPTF
F	G (Note)

Note) Conforms to ISO1179-1

Kit type/Electrical entry/Cable length (Refer to page 4)

End plate

(Enter EX600-compliant S kit only.)

Nil	Without SI unit/end plate
2	M12 connector power supply (Max. supply current 2A)
3	7/8 inch connector power supply (Max. supply current 8A)

CE compliant

Nil	—
Q	CE compliant

Option

Nil	None
K	Special wiring specifications (Except double wiring)
S	Direct exhaust with built-in silencer
R	External pilot

Input block specification (Enter EX250-compliant S kit only.)

Nil	PNP or without SI unit/input block
N	NPN

Input block type (Enter EX250-compliant S kit only.)

Nil	Without input block
1	M12, 2 inputs
2	M12, 4 inputs
3	M8, 4 inputs

Number of input blocks (Enter EX250/600-compliant S kit only.)

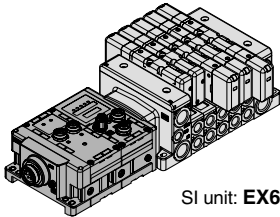
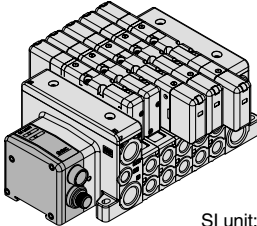
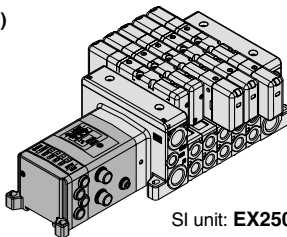
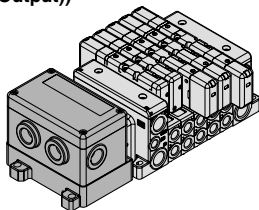
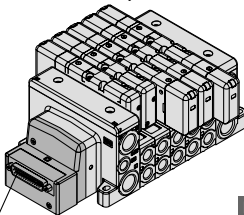
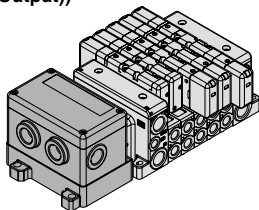
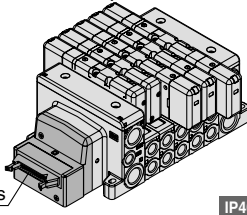
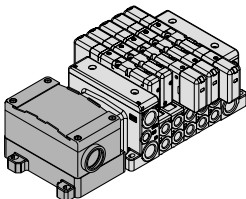
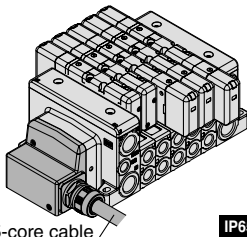
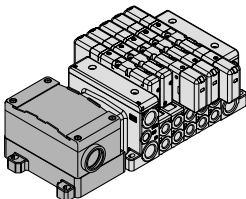
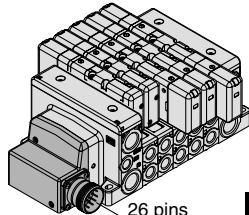
Nil	Without SI unit/input block
0	Without input block
1	With 1 input block
↓	↓
8	With 8 input blocks

SI unit COM

SI unit COM		EX250 integrated-type (I/O) serial transmission system						
		DeviceNet™	PROFIBUS DP	CC-Link	AS-Interface	CANopen	ContorlNet	EtherNet/IP™
Nil	+COM	—	—	○	—	—	—	—
N	—COM	○	○	—	○	○	○	○
SI unit COM		EX500 gateway-type serial transmission system					EX126	
		DeviceNet™	PROFIBUS DP	CC-Link	EtherNet/IP™	CC-Link		
Nil	+COM	○	○	○	○	○		
N	—COM	○	○	○	○	—		
SI unit COM		EX600 integrated-type (I/O) serial transmission system						
		DeviceNet™	PROFIBUS DP	CC-Link				
Nil	+COM	○	○	○				
N	—COM	○	○	○				

Kit type/Electrical entry/Cable length

* Numbers in parentheses represent the maximum number of solenoids in case of mixed single and double wiring. The maximum number of stations is determined by the total number of solenoids. When ordering mixed wiring, please add the option symbol "K".

S kit (Serial transmission: EX600 integrated type (I/O))		S kit (Serial transmission: EX500 gateway type)			
					
SI unit: EX600		SI unit: EX500			
SD60	Without SI unit	1 to 12 stations (24)	Note) A separate gateway unit and communication cable are required.	IP65 compliant	
SD6Q	DeviceNet™				
SD6N	PROFIBUS DP				
SD6V	CC-Link				
S kit (Serial transmission: EX250 integrated type (I/O))					
SI unit: EX250		IP40 compliant IP65 compliant			
SD0	Without SI unit	1 to 12 stations (24)	SDY CANopen SDZCN ControlNet (IP40) Note 2) SDZEN EtherNet/IP™	1 to 12 stations (24)	
SDQ	DeviceNet™				
SDN	PROFIBUS DP				
SDV	CC-Link				
S kit (Serial transmission: EX126 integrated type (Output))		F kit (D-sub connector)			
					
SI unit: EX126		IP40 compliant			
SDVB	CC-Link	1 to 12 stations (24)	PD0 Flat ribbon cable (26P) without cable PD1 Flat ribbon cable (26P) with 1.5 m cable PD2 Flat ribbon cable (26P) with 3.0 m cable PD3 Flat ribbon cable (26P) with 5.0 m cable	1 to 12 stations (24)	
T kit (Terminal block box)				FD0	D-sub connector (25P) without cable
				FD1	D-sub connector (25P) with 1.5 m cable
				FD2	D-sub connector (25P) with 3.0 m cable
		FD3	D-sub connector (25P) with 5.0 m cable		
					
SI unit: EX126		IP40 compliant			
T kit (Terminal block box)		L kit (Lead wire)			
					
IP65 compliant		IP65 compliant			
TD0	Terminal block box	1 to 12 stations (24)	MD0 Circular connector (26P) without cable MD1 Circular connector (26P) with 1.5 m cable MD2 Circular connector (26P) with 3.0 m cable MD3 Circular connector (26P) with 5.0 m cable	1 to 12 stations (24)	
M kit (Circular connector)				LD0	Lead wire (25 cores) 0.6 m lead wire
				LD1	Lead wire (25 cores) 1.5 m lead wire
				LD2	Lead wire (25 cores) 3.0 m lead wire
					
IP65 compliant		IP65 compliant			

* The maximum number of stations displayed in parentheses is applied to the special wiring specifications. (Option "K")

Note 1) When selecting SI units with SDTC or SDTD specifications, there are limits to the supply current from the SI unit to the input block or valve. Refer to the operation manual for details.

Note 2) When selecting SI units with SDZCN specifications only, IP40 is compatible. (All other SI units are IP65 compliant.)

How to Order Valve (ISO15407-2)

VS

R

8

-

4

-

FG

-

S

-

3

V

Z

-

Seal type

R	Rubber
S	Metal

Size

2	Size 18 mm
4	Size 26 mm

Type of actuation

FG	2-position
FHG	3-position closed center
FJG	3-position exhaust center
FIG	3-position pressure center
FDAG Note)	4-position dual 3-port (N.C. + N.C.)
FDBG Note)	4-position dual 3-port (N.O. + N.O.)
FDCG Note)	4-position dual 3-port (N.C. + N.O.)

Note) Rubber seal only

Number of solenoids

D	Double
S Note)	Single

Note) Single solenoid is available with 2-position only.

CE compliant

Nil	—
Q	CE compliant

Internal/External pilot

Nil	Internal pilot
R	External pilot Note)

Note) Not compatible with dual 3-port valves.

Manual override

Nil	Push type
B	Locking type (Tool required)

Light/surge voltage suppressor

Nil	None Note)
Z	With indicator light / surge voltage suppressor

Note) Not applicable to the S kit.

Individual pilot exhaust

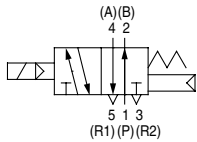
Rated voltage

3	24 VDC
4	12 VDC

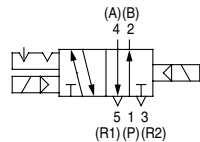
Standard Specifications

Symbol

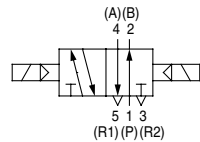
2-position single



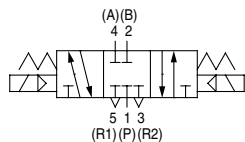
2-position double (Metal)



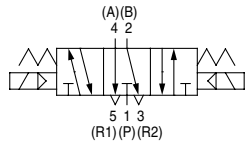
2-position double (Rubber)



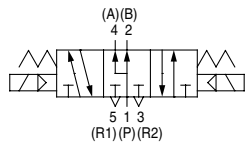
3-position closed center



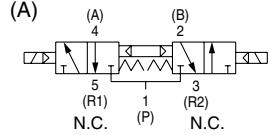
3-position exhaust center



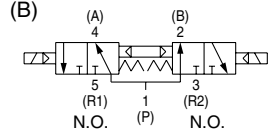
3-position pressure center



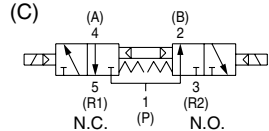
4-position dual 3-port valve (A)



4-position dual 3-port valve (B)



4-position dual 3-port valve (C)



Note) Rubber seal only

Valve specifications	Valve type		Metal seal		Rubber seal	
	Fluid		Air, Inert gas			
	Maximum operating pressure		1.0 MPa			
	Minimum operating pressure	Single	0.1 MPa		0.15 MPa	
		Double	0.1 MPa		0.1 MPa	
		3-position	0.15 MPa		0.2 MPa	
		4-position	—		0.15 MPa	
	Ambient and fluid temperature		−10° to 60°C Note 1)		−5° to 60°C Note 1)	
	Lubrication		Not required (Non-lube)			
	Manual override		Push type (Tool required)/Locking type (Tool required)			
Impact/Vibration resistance		150, 30 ms ² Note 2)				
Enclosure		IP65 (Dust-tight/Water-jet-proof)				
Electrical specifications	Rated coil voltage		12 VDC, 24 VDC			
	Allowable voltage fluctuation		±10% of rated voltage			
	Type of coil insulation		Equivalent to Class B			
	Power consumption (Current)	24 VDC	1 W DC (42 mA)			
		12 VDC	1 W DC (83 mA)			

Note 1) Use dry air to prevent condensation at low temperatures.

Note 2) Impact resistance: No malfunction resulted during an impact test using a drop impact tester. The test was performed one time each in the axial and right angle directions of the main valve and armature for both energized and de-energized conditions.

Vibration resistance: No malfunction resulted during a one-sweep test between 8.3 and 2000 Hz. The test was performed in the axial and right angle directions of the main valve and armature for both energized and de-energized conditions.

Manifold Specifications

Series	Manifold model	Port size			Mass (g)		Wiring specifications		
		1, 3 (P, R)	2, 4 (A, B)	12, 14 (PE, X)	Note 1) 1-station manifold	1-station addition	Type	Max. number of solenoids	Mass (g)
VS _R 8-2 (Size 18 mm)	VV802	3/8" Built-in silencer (Option)	1/8" (Side, Bottom)	1/8"	985	170	S kit: Serial transmission	16	90
							• Gateway-type (EX500)		
							• For I/O (EX250)	24 Note 2)	250
							• For I/O (EX600)	24	300
							• For Output (EX126)	16	240
VS _R 8-4 (Size 26 mm)	VV801	1/2" Built-in silencer (Option)	3/8" (Side) 1/4" (Side, Bottom)	1/8"	1240	330	F kit: D-sub connector	24	70
							P kit: Flat ribbon cable connector	24	70
							T kit: Terminal block box	20	390
							L kit: Lead wire	24	215
							M kit: Circular connector	24	170

Note 1) Mass for each wiring part is not included.

Note 2) The maximum number of solenoids for the unit compatible with the AS-Interface is 4 or 8, depending on the specifications.

Flow-rate Characteristics

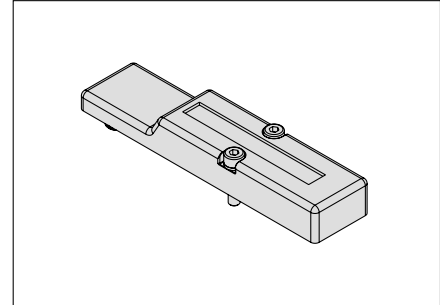
Series	Type of actuation		Seal	Flow-rate characteristics						Response time (msec)	Mass (g)
				1 → 4, 2 (P → A, B)			4, 2 → 5, 3 (A, B → EA, EB)				
				C [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv		
VS _R 8-2 (Size 18 mm)	2-position	Single	Metal	1.50	0.10	0.30	1.70	0.10	0.30	20 or less	140
			Rubber	2.20	0.20	0.50	2.20	0.10	0.50	25 or less	140
		Double	Metal	1.50	0.10	0.30	1.70	0.10	0.30	13 or less	170
			Rubber	2.20	0.20	0.50	2.20	0.10	0.50	15 or less	170
	3-position	Closed center	Metal	1.50	0.10	0.30	1.60	0.10	0.30	36 or less	185
			Rubber	2.20	0.20	0.50	2.10	0.10	0.40	40 or less	185
		Exhaust center	Metal	1.30	0.10	0.20	1.60	0.10	0.20	36 or less	185
			Rubber	2.00	0.16	0.50	2.10	0.10	0.40	40 or less	185
		Pressure center	Metal	1.60	0.10	0.20	1.50	0.10	0.20	36 or less	185
			Rubber	2.20	0.20	0.50	2.10	0.10	0.40	40 or less	185
	4-position	Dual 3-port	Rubber	1.50	0.20	0.30	1.50	0.20	0.30	40 or less	170
VS _R 8-4 (Size 26 mm)	2-position	Single	Metal	3.10	0.10	0.60	3.40	0.10	0.70	45 or less	225
			Rubber	3.60	0.28	0.90	4.20	0.20	1.00	50 or less	215
		Double	Metal	3.10	0.10	0.60	3.40	0.10	0.70	15 or less	260
			Rubber	3.60	0.28	0.90	4.20	0.20	1.00	20 or less	250
	3-position	Closed center	Metal	3.10	0.10	0.60	3.20	0.10	0.60	70 or less	285
			Rubber	3.20	0.34	0.80	4.20	0.30	1.00	80 or less	275
		Exhaust center	Metal	2.70	0.10	0.60	3.30	0.10	0.70	70 or less	285
			Rubber	3.10	0.26	0.80	4.00	0.25	1.10	80 or less	275
		Pressure center	Metal	3.20	0.10	0.70	3.20	0.10	0.60	70 or less	285
			Rubber	4.40	0.25	1.00	3.60	0.25	1.00	80 or less	275
	4-position	Dual 3-port	Rubber	3.10	0.28	0.60	3.10	0.28	0.60	80 or less	250

Series VS_{R8-2}/VS_{R8-4}

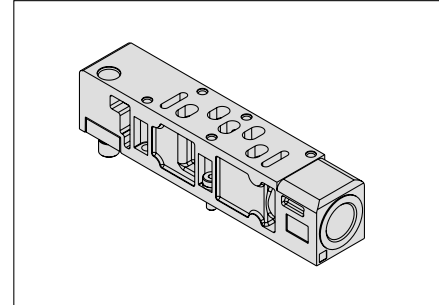
Manifold Options

Refer to pages 23 through to 26 for details.

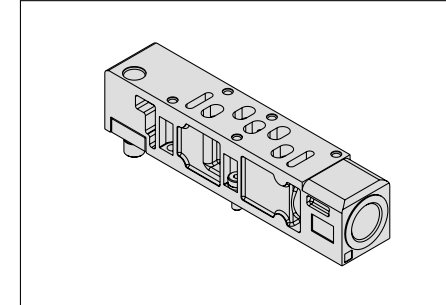
Blanking plate assembly
VVS8020-11A (Size 18 mm)
VVS8040-11A (Size 26 mm)



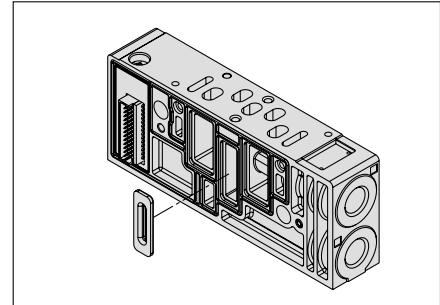
Individual SUP spacer
VV802-P-01□ (Size 18 mm)
VV801-P-03□ (Size 26 mm)



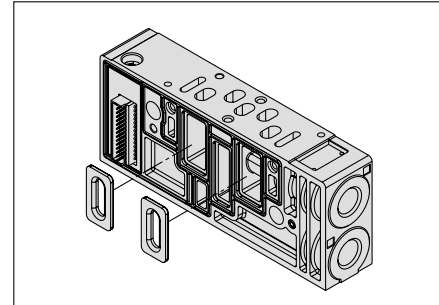
Individual EXH spacer
VV802-R-01□ (Size 18 mm)
VV801-R-03□ (Size 26 mm)



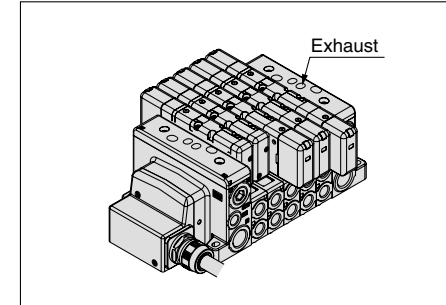
SUP block plate
VVS8020-16A (Size 18 mm)
VVS8040-16A (Size 26 mm)



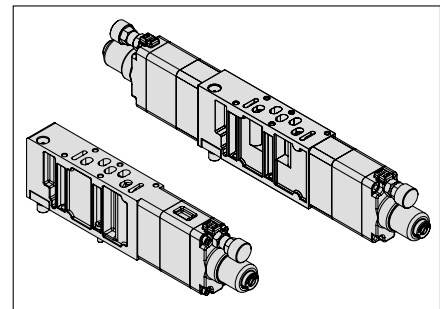
EXH block plate
VVS8020-19A (Size 18 mm)
VVS8040-19A (Size 26 mm)



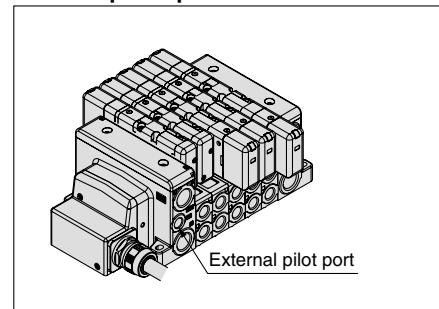
Direct EXH outlet with
built-in silencer [-S]



Interface regulator
VVS8040-ARB-□-1

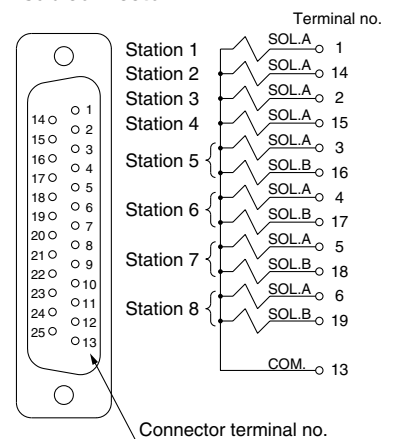


External pilot specification



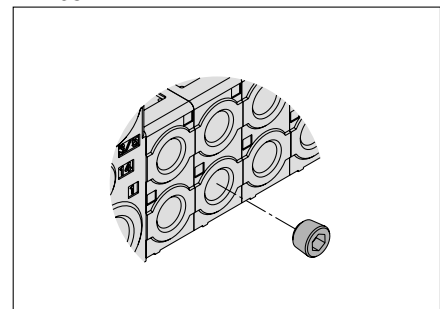
Special electrical wiring specifications [-K]

D-sub connector



Standard manifolds are for double wiring, but mixed wiring (single and double wiring) can be specified as an option.

Port plug
AXT954-□



S

Series VS_{R8-2}^S

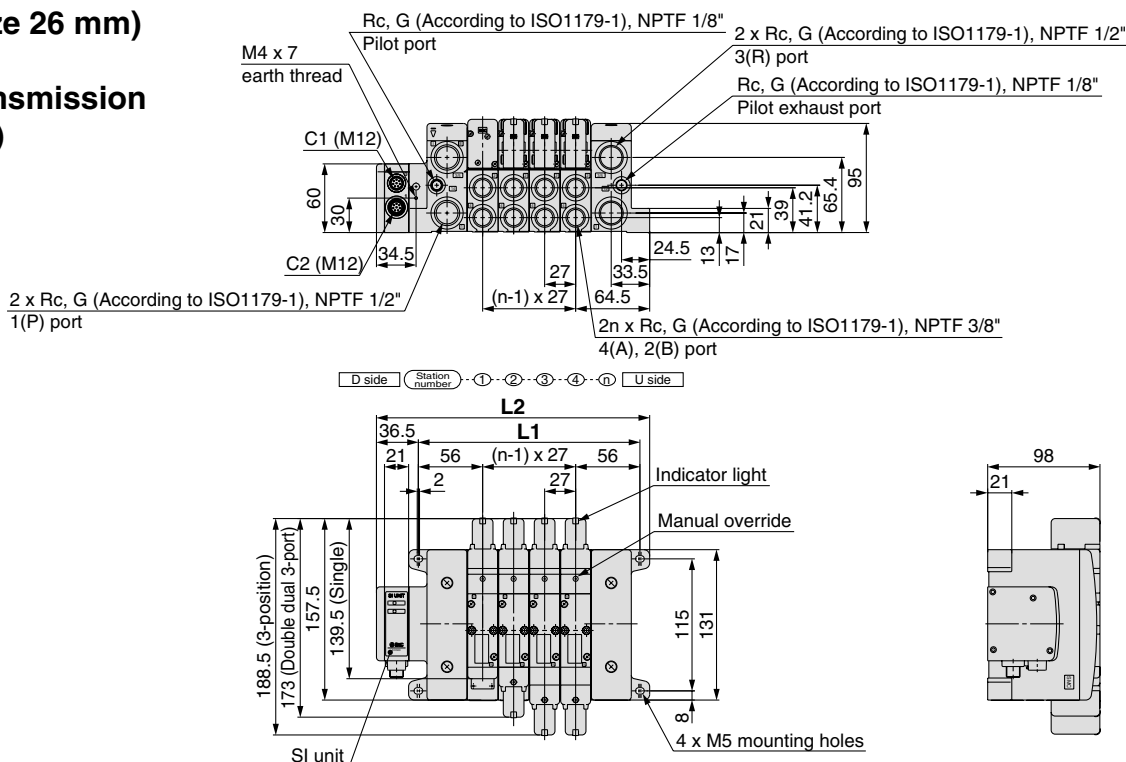
kit (Serial transmission) For EX500 Gateway-type serial transmission system

IP65 compliant

VV801 (Size 26 mm)

S kit

**(Serial transmission
kit: EX500)**



Dimension (mm)

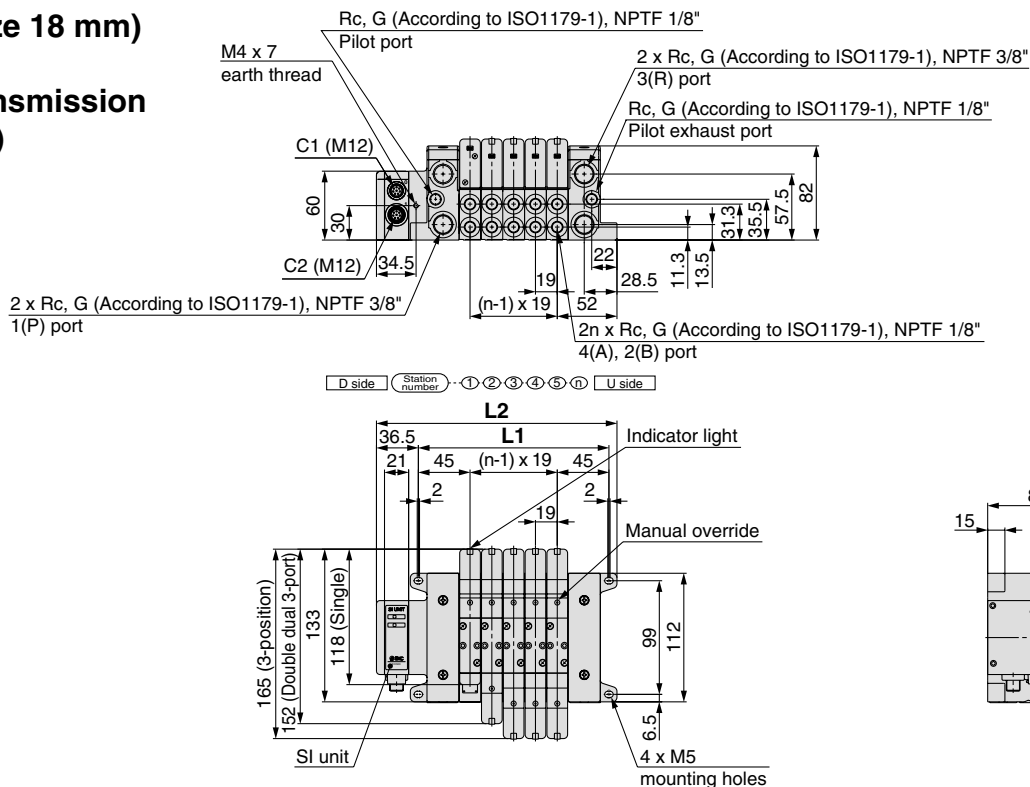
Formula: $L1 = 27n + 85$, $L2 = 27n + 130$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112	139	166	193	220	247	274	301	328	355	382	409	436	463	490	517
L2	157	184	211	238	265	292	319	346	373	400	427	454	481	508	535	562

VV802 (Size 18 mm)

S kit

**(Serial transmission
kit: EX500)**



Dimension (mm)

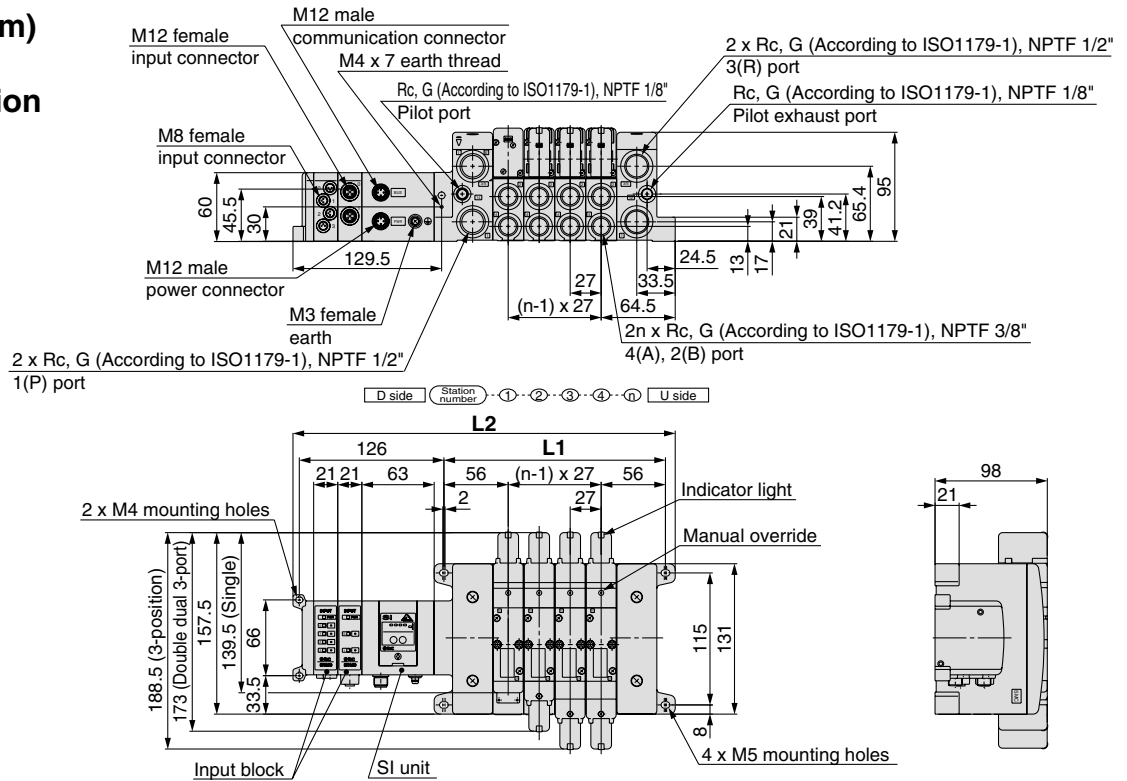
Formula: $L1 = 19n + 71$, $L2 = 19n + 114.5$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375
L2	133.5	152.5	171.5	190.5	209.5	228.5	247.5	266.5	285.5	304.5	323.5	342.5	361.5	380.5	399.5	418.5

Series VS_R^S8-2/VS_R^S8-4

S Series VS_R^S8-2 kit (Serial transmission) For EX250 Integrated-type (I/O) serial transmission system **IP65 compliant**

VV801 (Size 26 mm)
S kit
(Serial transmission
kit: EX250)



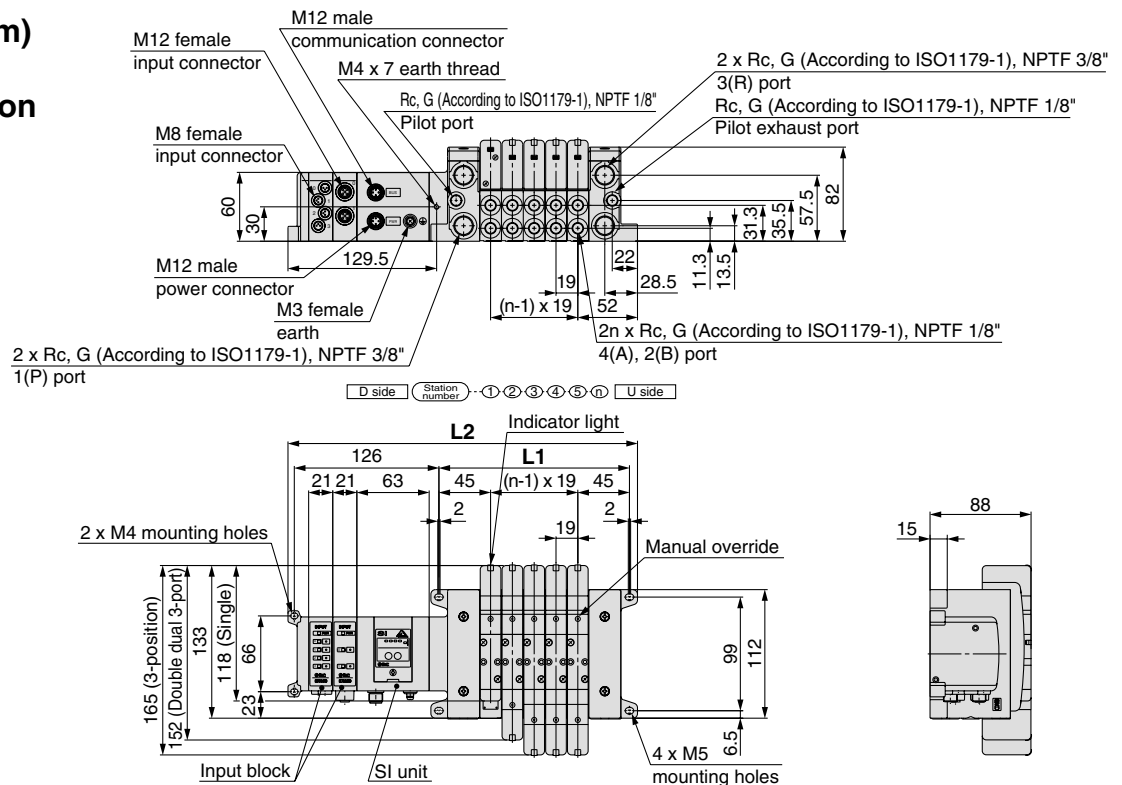
Dimension (mm)

Formula: $L1 = 27n + 85$, $L2^* = 27n + 204$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112	139	166	193	220	247	274	301	328	355	382	409	436	463	490	517
L2	231	258	285	312	339	366	393	420	447	474	501	528	555	582	609	636

* In case of 1 piece in the input block. The dimension is added by 21 mm at 1 piece addition.

VV802 (Size 18 mm)
S kit
(Serial transmission
kit: EX250)



Dimension (mm)

Formula: $L1 = 19n + 71$, $L2^* = 19n + 188.5$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375
L2	207.5	226.5	245.5	264.5	283.5	302.5	321.5	340.5	359.5	378.5	397.5	416.5	435.5	454.5	473.5	492.5

* In case of 1 piece in the input block. The dimension is added by 21 mm at 1 piece addition.

S Series VS_R8-2

kit (Serial transmission) For EX600 Integrated-type (I/O) serial transmission system

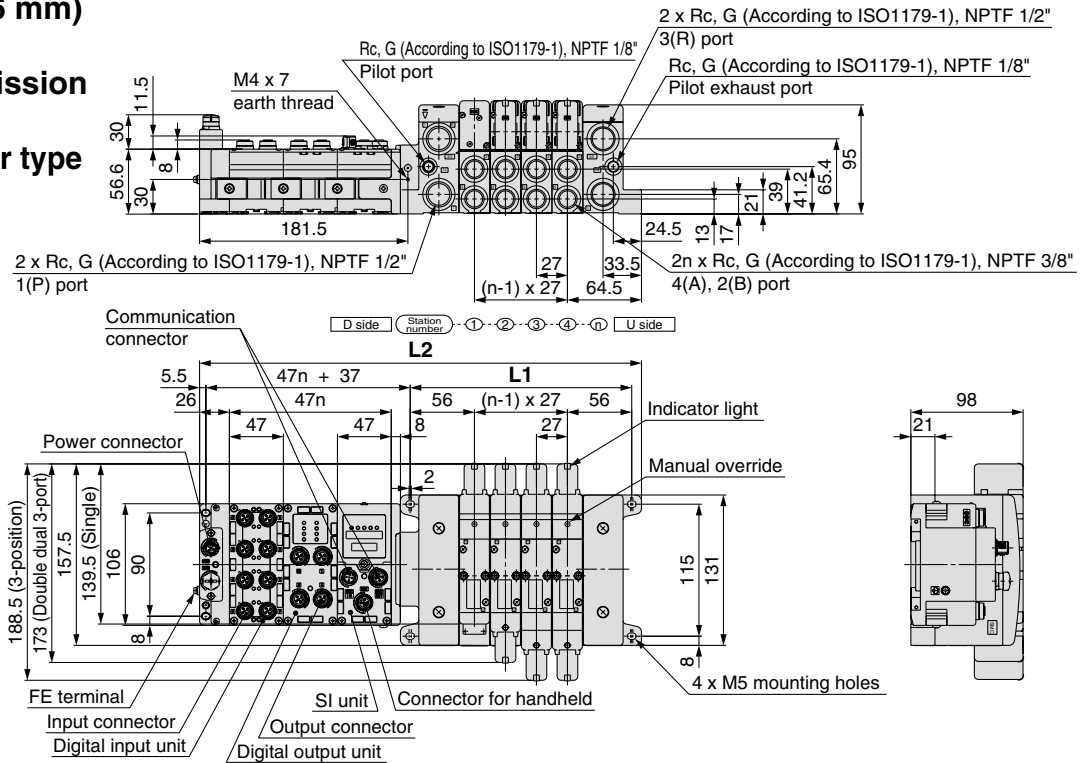
IP65 compliant

VV801 (Size 26 mm)

S kit

(Serial transmission
kit: EX600)

M12 connector type



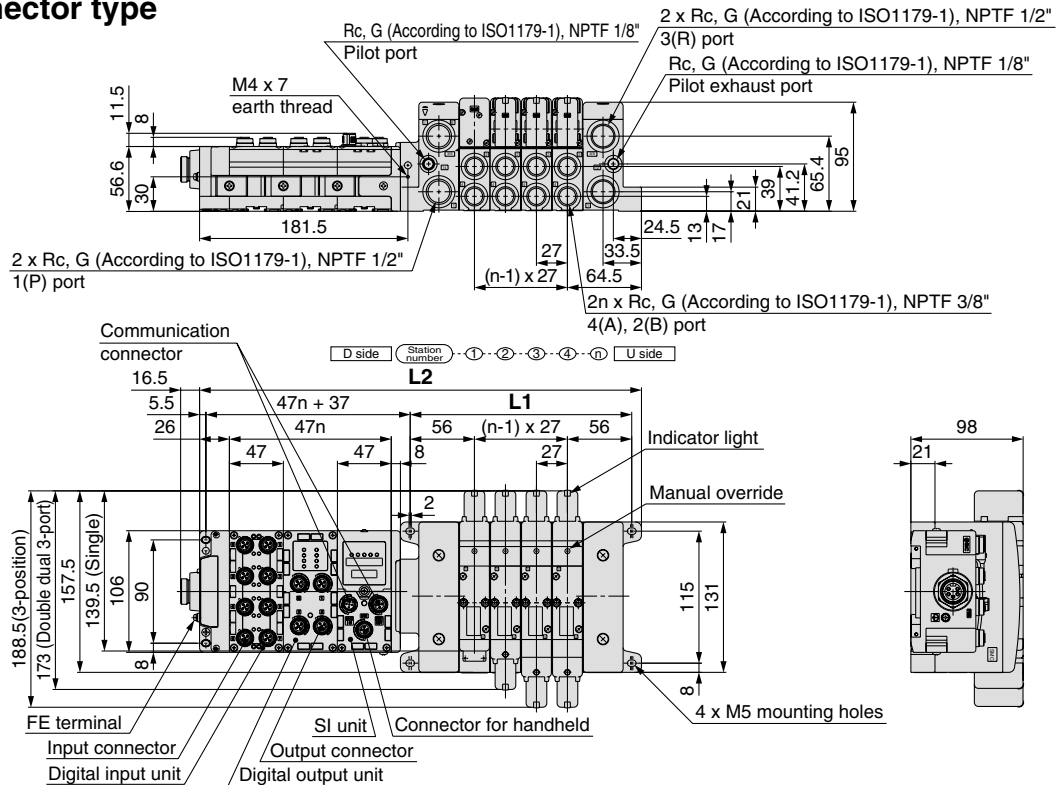
Dimension (mm)

Formula: $L1 = 27n + 85$, $L2^* = 27n + 183$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112	139	166	193	220	247	274	301	328	355	382	409	436	463	490	517
L2	210	237	264	291	318	345	372	399	426	453	480	507	534	561	588	615

* In case of without input/output unit. The dimension is added by 47 mm at 1 piece addition.

7/8 inch connector type



Dimension (mm)

Formula: $L1 = 27n + 85$, $L2^* = 27n + 183$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112	139	166	193	220	247	274	301	328	355	382	409	436	463	490	517
L2	210	237	264	291	318	345	372	399	426	453	480	507	534	561	588	615

* In case of without input/output unit. The dimension is added by 47 mm at 1 piece addition.

Series VS_R^S8-2/VS_R^S8-4

S

Series VS_R^S8-2

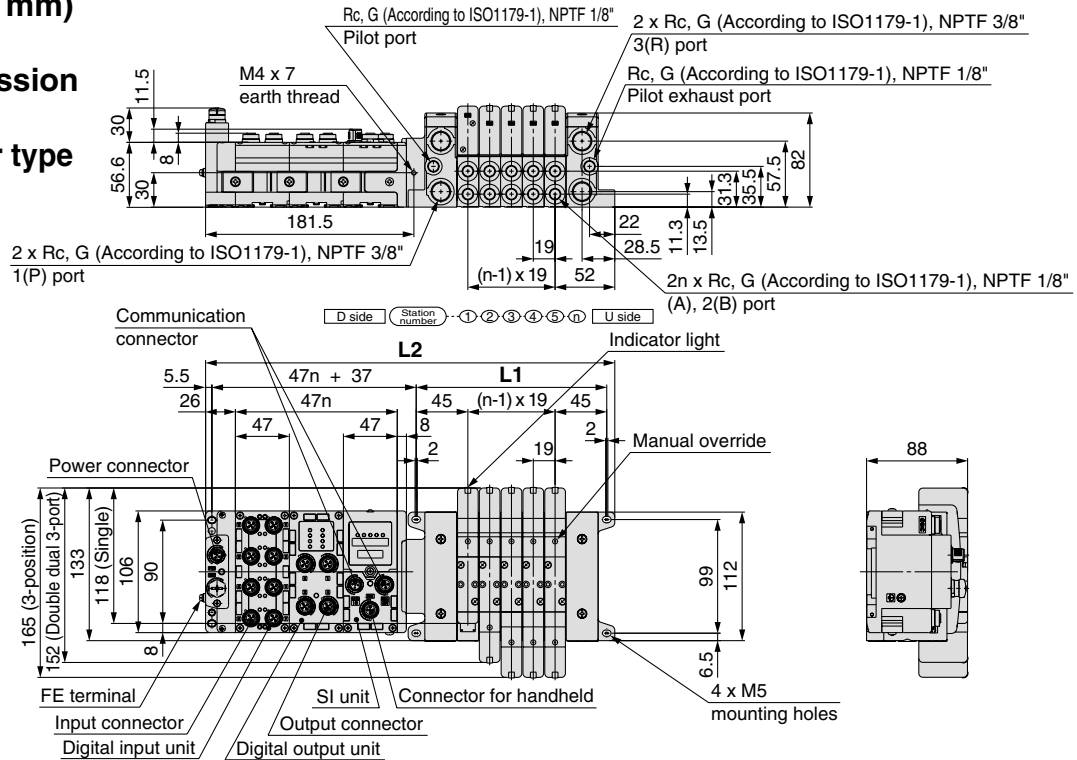
kit (Serial transmission) For EX600 Integrated-type (I/O) serial transmission system IP65 compliant

VV801 (Size 26 mm)

S kit

(Serial transmission kit: EX600)

M12 connector type



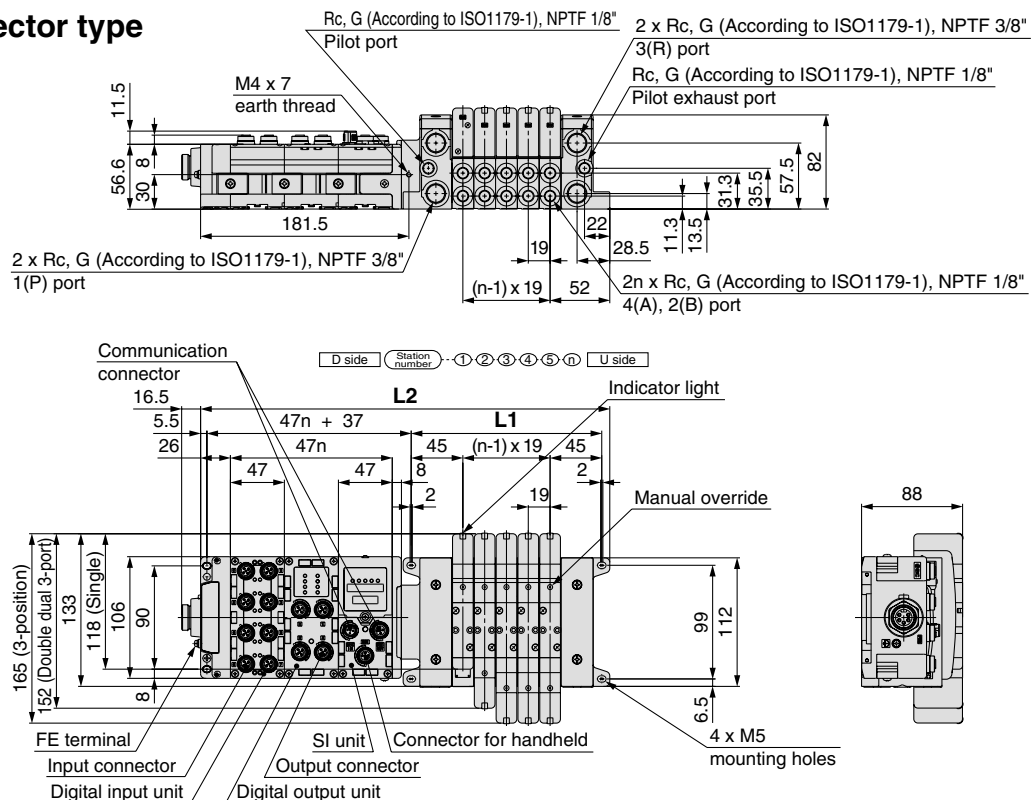
Dimension (mm)

Formula: $L1 = 19n + 71$, $L2^* = 19n + 167.5$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375
L2	186.5	205.5	224.5	243.5	262.5	281.5	300.5	319.5	338.5	357.5	376.5	395.5	414.5	433.5	452.5	471.5

* In case of without input/output unit. The dimension is added by 47 mm at 1 piece addition.

7/8 inch connector type



Dimension (mm)

Formula: $L1 = 19n + 71$, $L2^* = 19n + 167.5$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375
L2	186.5	205.5	224.5	243.5	262.5	281.5	300.5	319.5	338.5	357.5	376.5	395.5	414.5	433.5	452.5	471.5

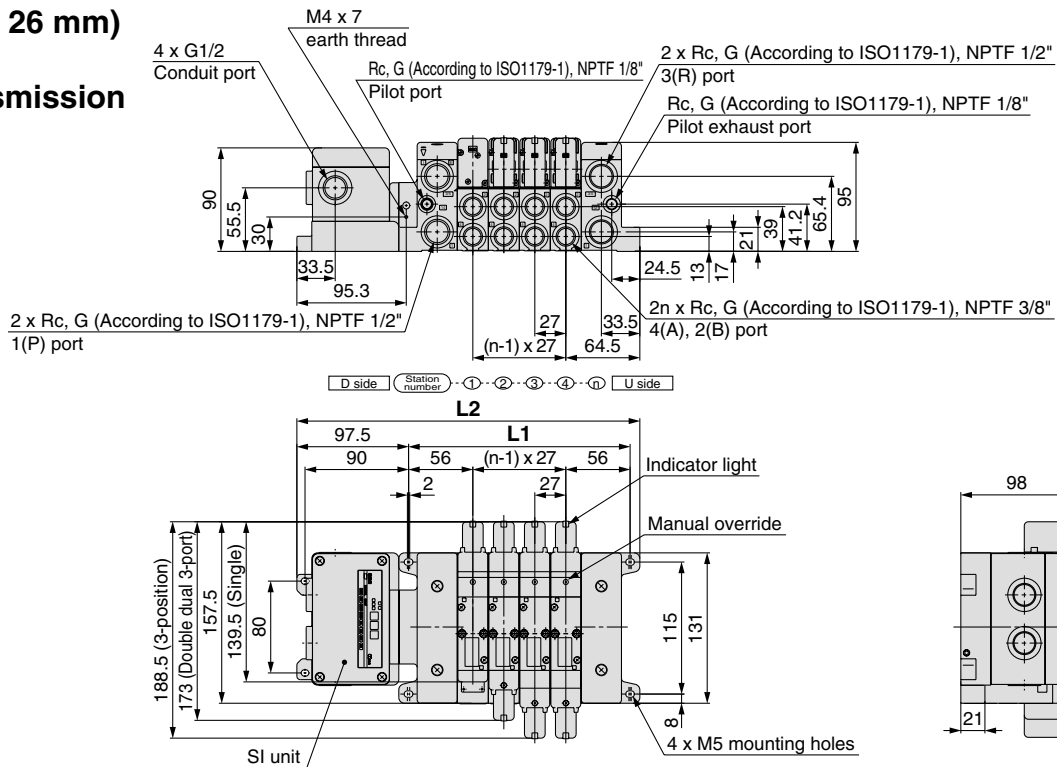
* In case of without input/output unit. The dimension is added by 47 mm at 1 piece addition.

S Series VS_{R8}^S-2

kit (Serial transmission: For EX126 Integrated-type (Output) serial transmission system

IP65 compliant

VV801 (Size 26 mm) S kit (Serial transmission kit: EX126)

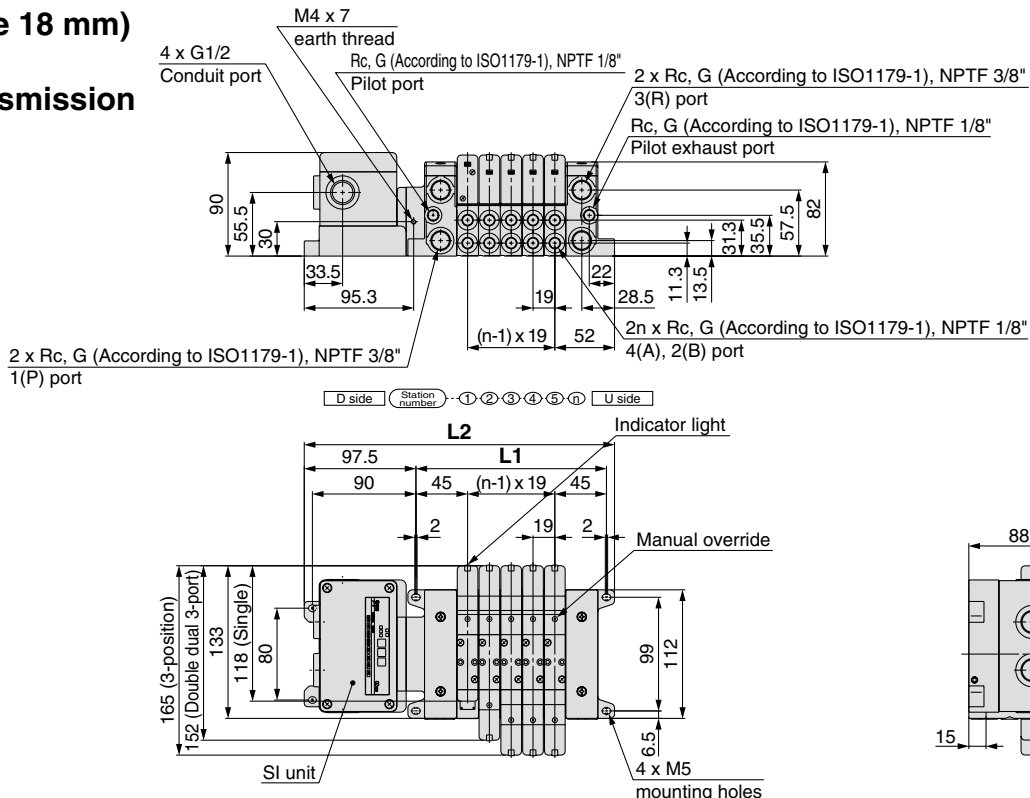


Dimension (mm)

Formula: $L1 = 27n + 85$, $L2 = 27n + 191$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112	139	166	193	220	247	274	301	328	355	382	409	436	463	490	517
L2	218	245	272	299	326	353	380	407	434	461	488	515	542	569	596	623

VV802 (Size 18 mm) S kit (Serial transmission kit: EX126)



Dimension (mm)

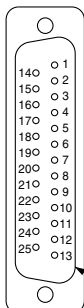
Formula: $L1 = 19n + 71$, $L2 = 19n + 175.5$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375
L2	194.5	213.5	232.5	251.5	270.5	289.5	308.5	327.5	346.5	365.5	384.5	403.5	422.5	441.5	460.5	479.5

- Using our D-sub connector greatly reduces labor, while it also minimizes wiring and saves space.
- We use a D-sub connector (25P) that conforms to MIL standards and is therefore widely compatible with many standard commercial models.
- Top or side entry for the connector can be changed freely, allowing for changes even after mounting, to meet any changing needs for space.

Electrical Wiring Specifications

D-sub connector

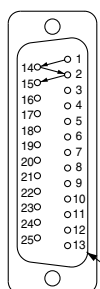


As the standard electrical wiring specifications, double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station for 12 stations or less, regardless of valve and option types. Mixed single and double wiring are available as an option. Refer to the below special wiring specifications (option).

Lead wire colors for D-sub connector assembly (AXT100-DS25-015 030 050)

	Terminal no.	Lead wire color	Dot marking
Station 1	SOL.A 1	Black	None
	SOL.B 14	Yellow	Black
Station 2	SOL.A 2	Brown	None
	SOL.B 15	Pink	Black
Station 3	SOL.A 3	Red	None
	SOL.B 16	Blue	White
Station 4	SOL.A 4	Orange	None
	SOL.B 17	Purple	None
Station 5	SOL.A 5	Yellow	None
	SOL.B 18	Gray	None
Station 6	SOL.A 6	Pink	None
	SOL.B 19	Orange	Black
Station 7	SOL.A 7	Blue	None
	SOL.B 20	Red	White
Station 8	SOL.A 8	Purple	White
	SOL.B 21	Brown	White
Station 9	SOL.A 9	Gray	Black
	SOL.B 22	Pink	Red
Station 10	SOL.A 10	White	Black
	SOL.B 23	Gray	Red
Station 11	SOL.A 11	White	Red
	SOL.B 24	Black	White
Station 12	SOL.A 12	Yellow	Red
	SOL.B 25	White	None
	COM. 13	Orange	Red

Special Wiring Specifications (Option)

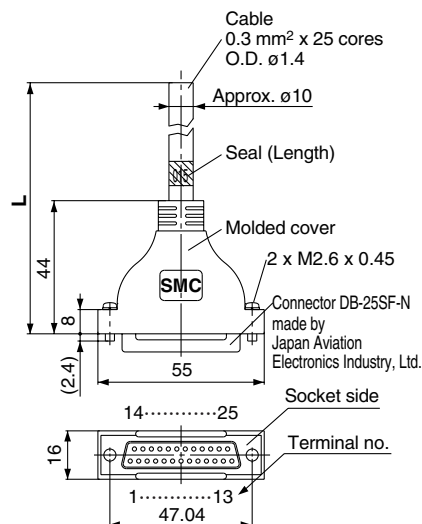


Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 24.

Cable Assembly

**015
AXT100-DS25-030
050**

(D-sub connector cable assembly can be ordered with manifolds.)
(Refer to "How to Order Manifold.")



Lead wire colors for D-sub connector cable assembly terminal numbers

Terminal no.	Lead wire color	Dot marking
1	Black	None
2	Brown	None
3	Red	None
4	Orange	None
5	Yellow	None
6	Pink	None
7	Blue	None
8	Purple	White
9	Gray	Black
10	White	Black
11	White	Red
12	Yellow	Red
13	Orange	Red
14	Yellow	Black
15	Pink	Black
16	Blue	White
17	Purple	None
18	Gray	None
19	Orange	Black
20	Red	White
21	Brown	White
22	Pink	Red
23	Gray	Red
24	Black	White
25	White	None

D-sub connector cable assembly

Cable length (L)	Assembly part no.	Note
1.5 m	AXT100-DS25-015	Cable 0.3 mm² x 25 cores
3 m	AXT100-DS25-030	
5 m	AXT100-DS25-050	

* When using a standard commercial connector, use a type 25P female connector conforming to MIL-C-24308.

* Cannot be used for transfer wiring.

* Lengths other than the above is also available. Please contact SMC for details.

Electrical characteristics

Item	Property
Conductor resistance Ω/km, 20°C	65 or less
Voltage limit V, 1 minute, AC	1000
Insulation resistance MΩ/km, 20°C	5 or more

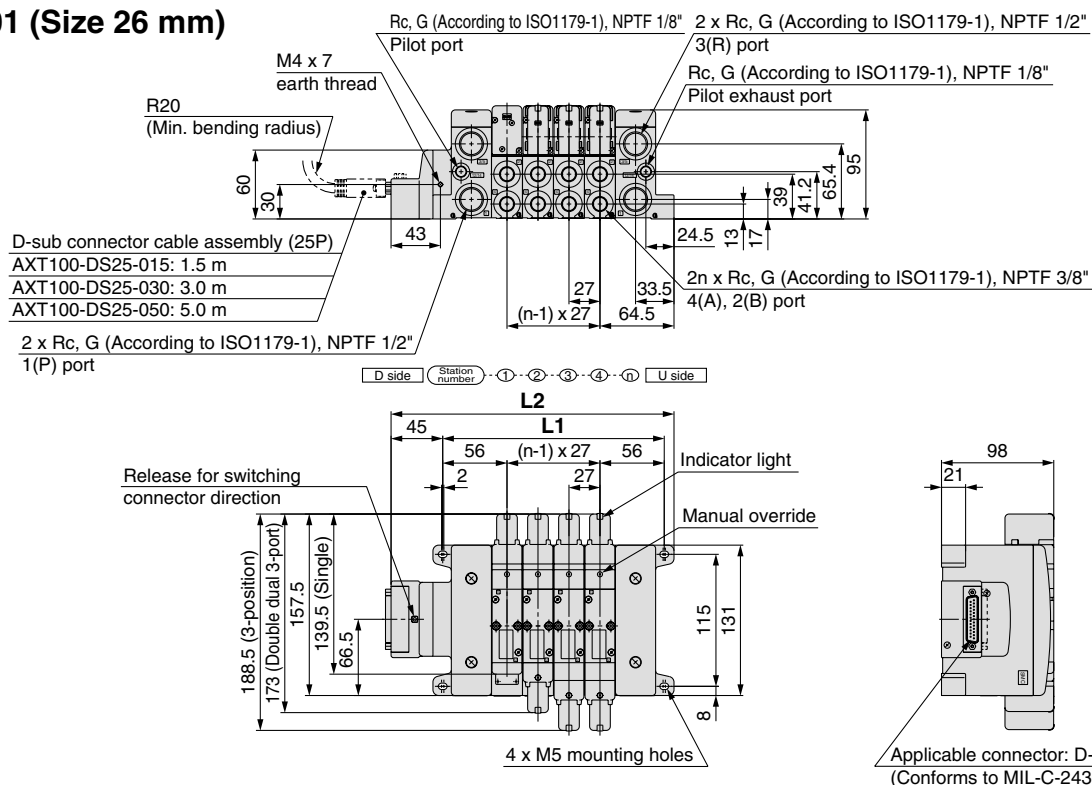
Note) The minimum bending radius of the D-sub connector cables is 20 mm.

Connector Manufacturers' Example

- Fujitsu, Ltd.
- Japan Aviation Electronics Industry, Ltd.
- J.S.T. Mfg. Co., Ltd.
- Hirose Electric Co., Ltd.

F Series VS_R8-2 kit (D-sub connector) IP40 compliant

VV801 (Size 26 mm)

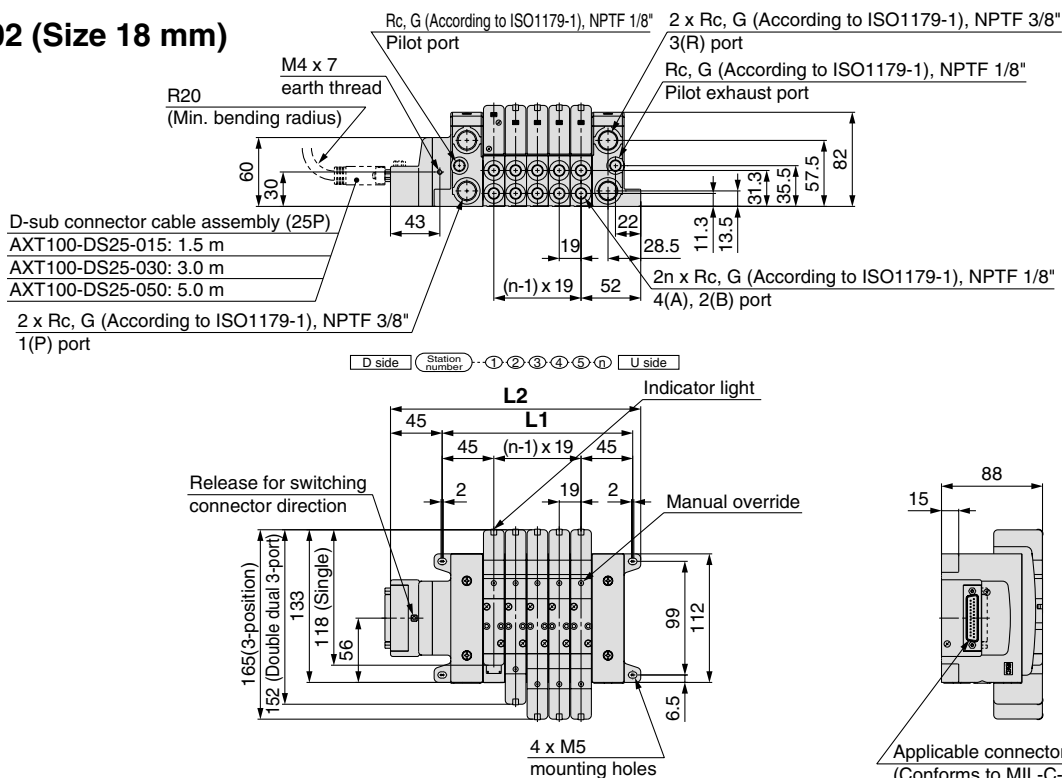


Dimension (mm)

Formula: $L1 = 27n + 85$, $L2 = 27n + 138.5$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112	139	166	193	220	247	274	301	328	355	382	409	436	463	490	517
L2	165.5	192.5	219.5	246.5	273.5	300.5	327.5	354.5	381.5	408.5	435.5	462.5	489.5	516.5	543.5	570.5

VV802 (Size 18 mm)



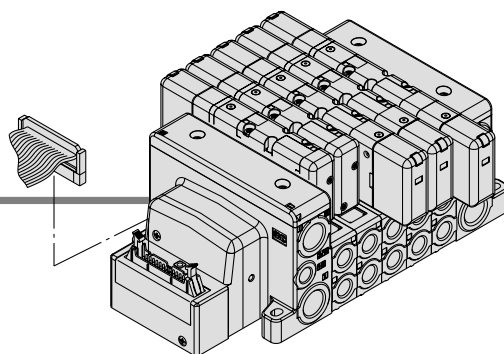
Dimension (mm)

Formula: $L1 = 19n + 71$, $L2 = 19n + 123$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375
L2	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408	427

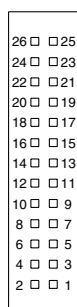
P Series VS_{R8-2}^S kit (Flat ribbon cable) IP40 compliant

- Using our flat ribbon cable greatly reduces labor, while it also minimizes wiring and saves space.
- We use flat ribbon cables whose connectors (26P) conform to MIL standards, and are therefore widely compatible with many standard commercial models.
- Top or side entry for the connector can be changed freely, allowing for changes even after mounting, to meet any changing needs for space.



Electrical Wiring Specifications

Flat ribbon cable connector

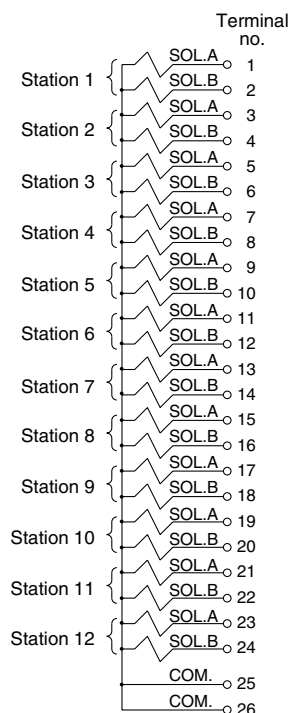


Double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station, regardless of valve and option types. Mixed single and double wiring are available as an option. Refer to the below special wiring specifications (option).

Connector terminal number

Triangle mark indicator position

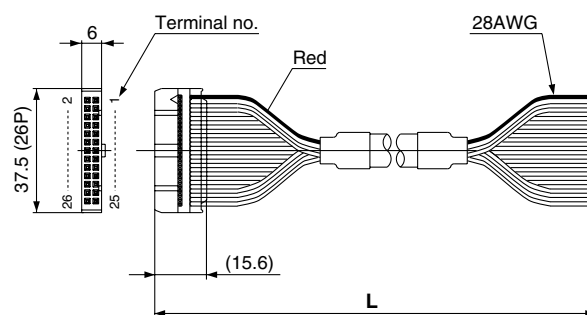
<26P>



Cable Assembly

AXT100-FC26- $\frac{1}{2}$ ³

(Type 26P flat ribbon cable connector assembly can be ordered with manifolds. Refer to "How to Order Manifold.")



Flat ribbon cable connector assembly

Cable length (L)	Assembly part no.
	26P
1.5 m	AXT100-FC26-1
3 m	AXT100-FC26-2
5 m	AXT100-FC26-3

* When using a standard commercial connector, use a type 26P connector conforming to MIL-C-83503 with strain relief.

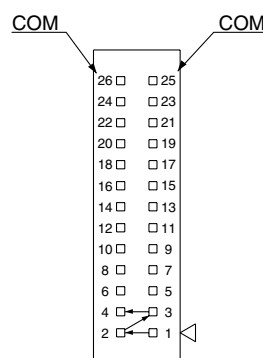
* Cannot be used for transfer wiring.

* Lengths other than the above is also available. Please contact SMC for details.

Connector Manufacturers' Example

- Hirose Electric Co., Ltd.
- Sumitomo 3M Limited
- Fujitsu, Ltd.
- Japan Aviation Electronics Industry, Ltd.
- J.S.T. Mfg. Co., Ltd.
- Oki Electric Cable Co., Ltd.

Special Wiring Specifications (Option)

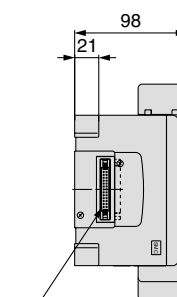
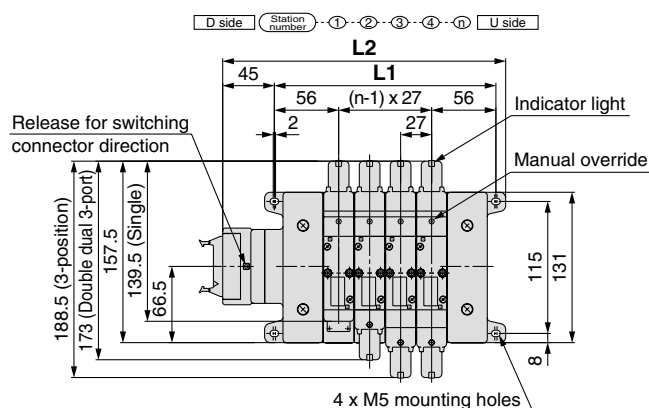
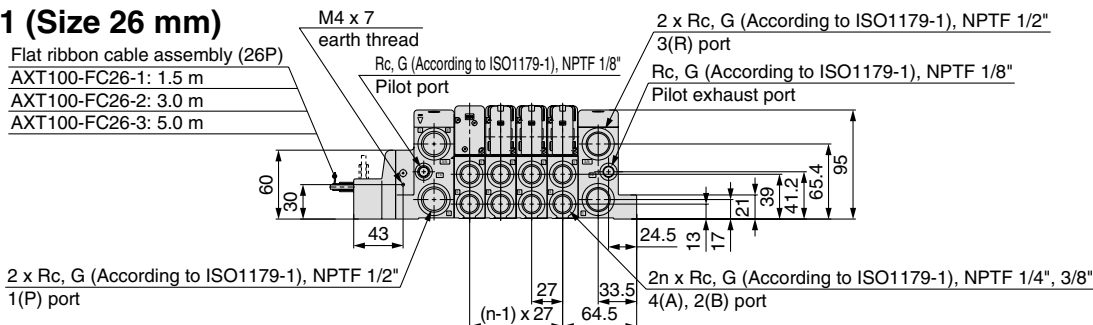


Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 24.

P Series **VS_R8-2** kit (Flat ribbon cable) IP40 compliant

VV801 (Size 26 mm)

Flat ribbon cable assembly (26P)
AXT100-FC26-1: 1.5 m
AXT100-FC26-2: 3.0 m
AXT100-FC26-3: 5.0 m



Applicable connector: Flat ribbon cable connector (26P)
(Conforms to MIL-C-83503)

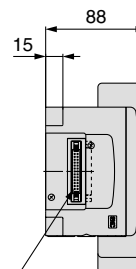
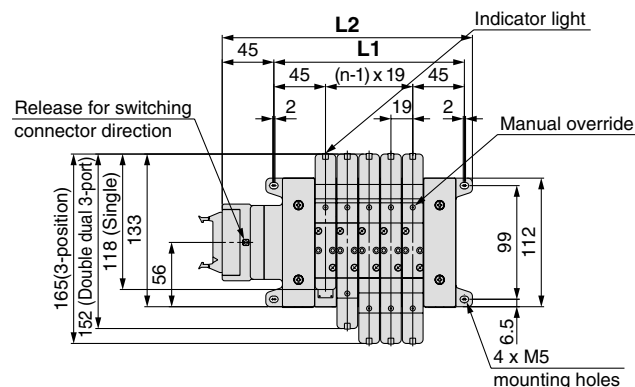
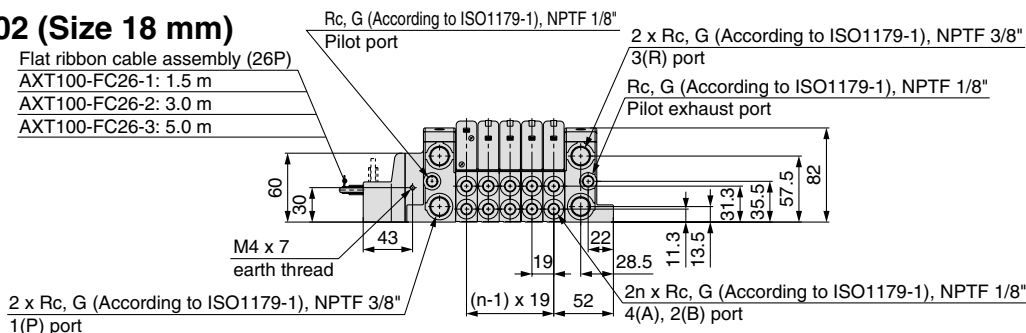
Dimension (mm)

Formula: $L1 = 27n + 85$, $L2 = 27n + 138.5$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112	139	166	193	220	247	274	301	328	355	382	409	436	463	490	517
L2	165.5	192.5	219.5	246.5	273.5	300.5	327.5	354.5	381.5	408.5	435.5	462.5	489.5	516.5	543.5	570.5

VV802 (Size 18 mm)

Flat ribbon cable assembly (26P)
AXT100-FC26-1: 1.5 m
AXT100-FC26-2: 3.0 m
AXT100-FC26-3: 5.0 m



Applicable connector: Flat ribbon cable connector (26P)
(Conforms to MIL-C-83503)

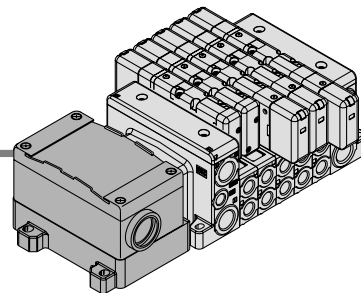
Dimension (mm)

Formula: $L1 = 19n + 71$, $L2 = 19n + 123$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375
L2	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408	427

T Series VS_{R8-4}^S kit (Terminal block box) IP65 compliant

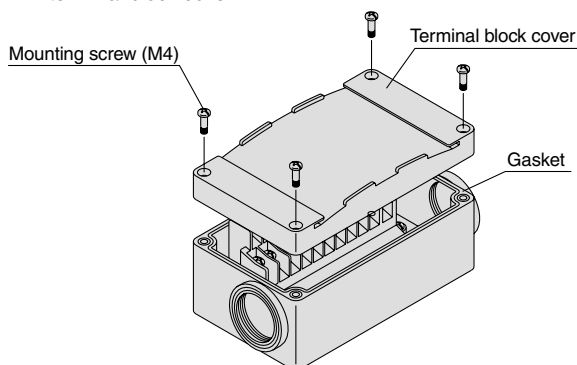
- This kit has a small terminal block inside a junction box. The electrical entry port of a G 3/4 permits connection of conduit fittings.



Terminal Block Connection

Step 1. Removing the terminal block cover

Loosen the 4 mounting screws (M4) and remove the terminal block cover.



Step 3. Mounting the terminal block cover

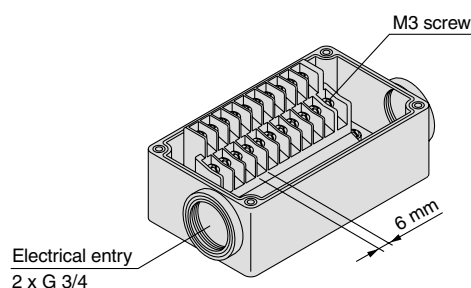
Securely tighten the screws to the torque shown below, after confirming that the gasket is installed correctly.

Proper tightening torque (N·m)
0.7 to 1.2

Step 2. The diagram below shows the terminal block wiring.

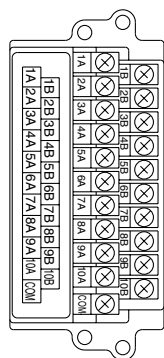
All stations are provided with double wiring regardless of the valves which are mounted.

Connect each wire to the power supply side, according to the markings provided inside the terminal block.

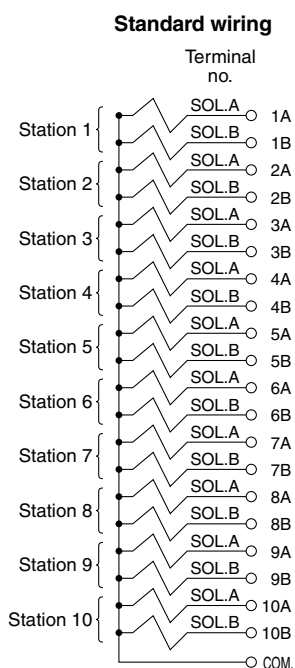


- Applicable crimped terminal: 1.25-3S, 1.25Y-3, 1.25Y-3N, 1.25Y-3.5
- Name plate: VVQ5000-N-T
- Drip-proof plug assembly (for G 3/4): AXT100-B06A

Electrical Wiring Specifications



Double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station, regardless of the type of valve or options. Mixed single and double wiring are available as an option.



Special Wiring Specifications (Option)

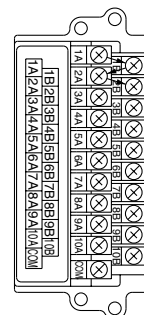
Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 20.

1. How to Order

Indicate option symbol "K" in the manifold part number and be sure to specify station positions for single or double wiring on the manifold specification sheet.

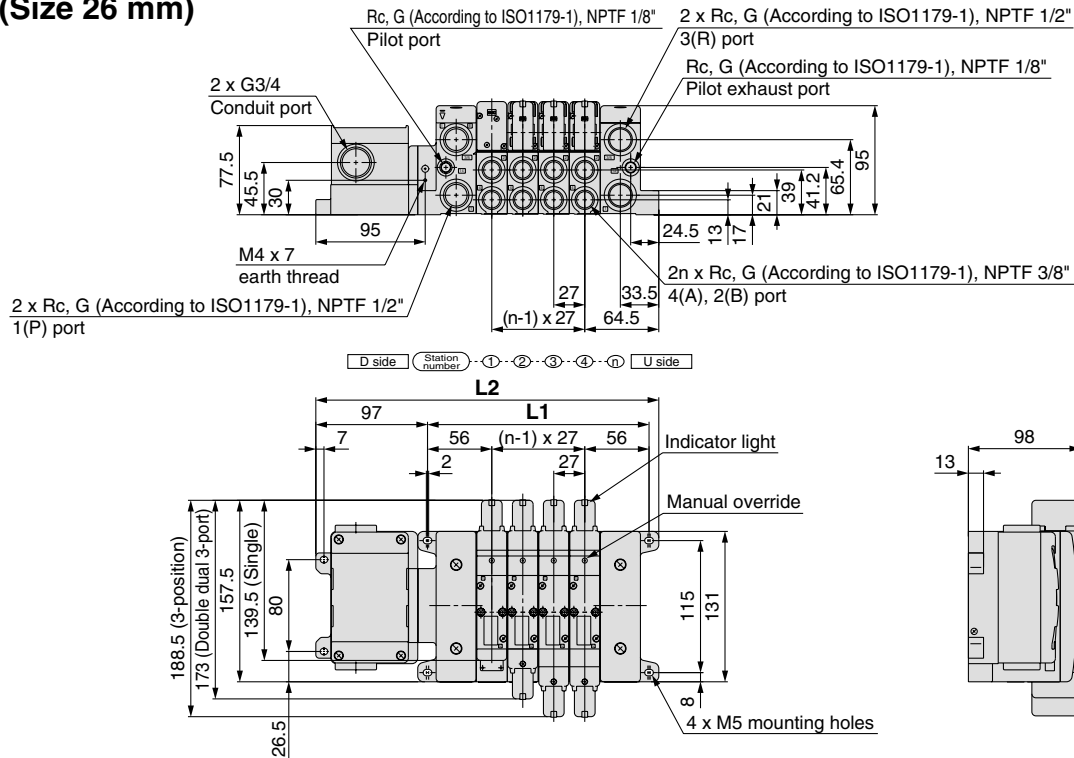
2. Wiring specifications

Connector terminal numbers are connected from solenoid station 1 on the A side in the order indicated by the arrows without skipping any terminal numbers.



T Series VS_R8-2 kit (Terminal block box) IP65 compliant

VV801 (Size 26 mm)

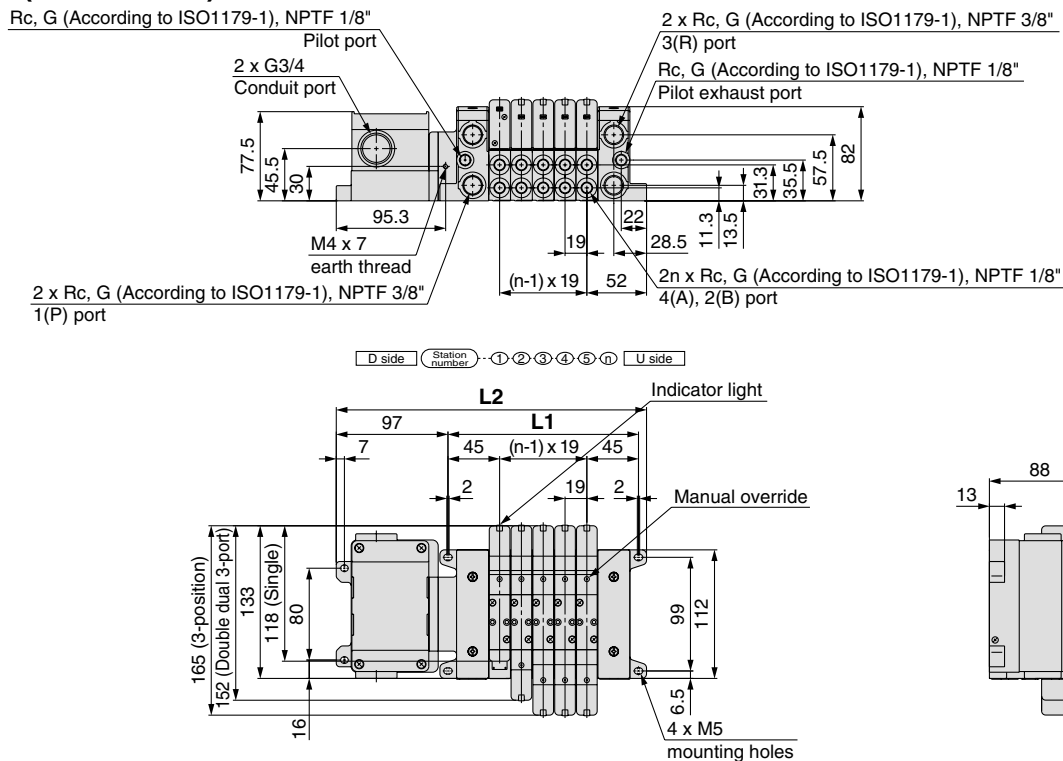


Dimension (mm)

Formula: L1 = 27n + 85, L2 = 27n + 190.5 n: Stations (Maximum 20 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112	139	166	193	220	247	274	301	328	355	382	409	436	463	490	517
L2	217.5	244.5	271.5	298.5	325.5	352.5	379.5	406.5	433.5	460.5	487.5	514.5	541.5	568.5	595.5	622.5

VV802 (Size 18 mm)



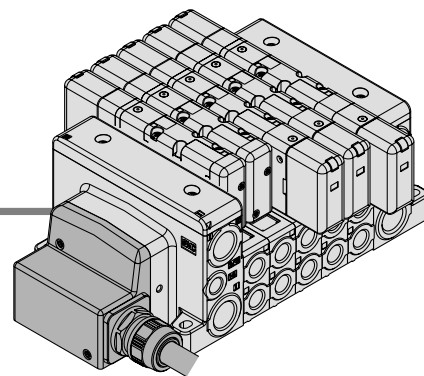
Dimension (mm)

Formula: L1 = 19n + 71, L2 = 19n + 175 n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375
L2	194	213	232	251	270	289	308	327	346	365	384	403	422	441	460	479

L Series VS_R^{S8-2} kit (Lead wire) IP65 compliant

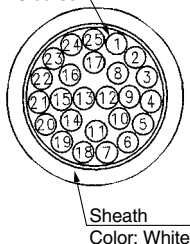
- Direct electrical entry type
- IP65 enclosure is available with use of cables with sheath and waterproof connectors.



Electrical Wiring Specifications

Lead wire

Lead wire
0.3 mm² x 25 cores



Sheath
Color: White

As the standard electrical wiring specifications, double wiring (connected to SOL. A and SOL. B) is adopted for the internal wiring of each station for 12 stations or less, regardless of valve and option types. Mixed single and double wiring are available as an option. Refer to the below special wiring specifications (option).

Electrical characteristics

Item	Property
Conductor resistance Ω/km , 20°C	65 or less
Voltage limit V, 1 minute, AC	1000
Insulation resistance $M\Omega/\text{km}$, 20°C	5 or more



Note) Cannot be used for transfer wiring. The minimum bending radius of the cable is 20 mm.

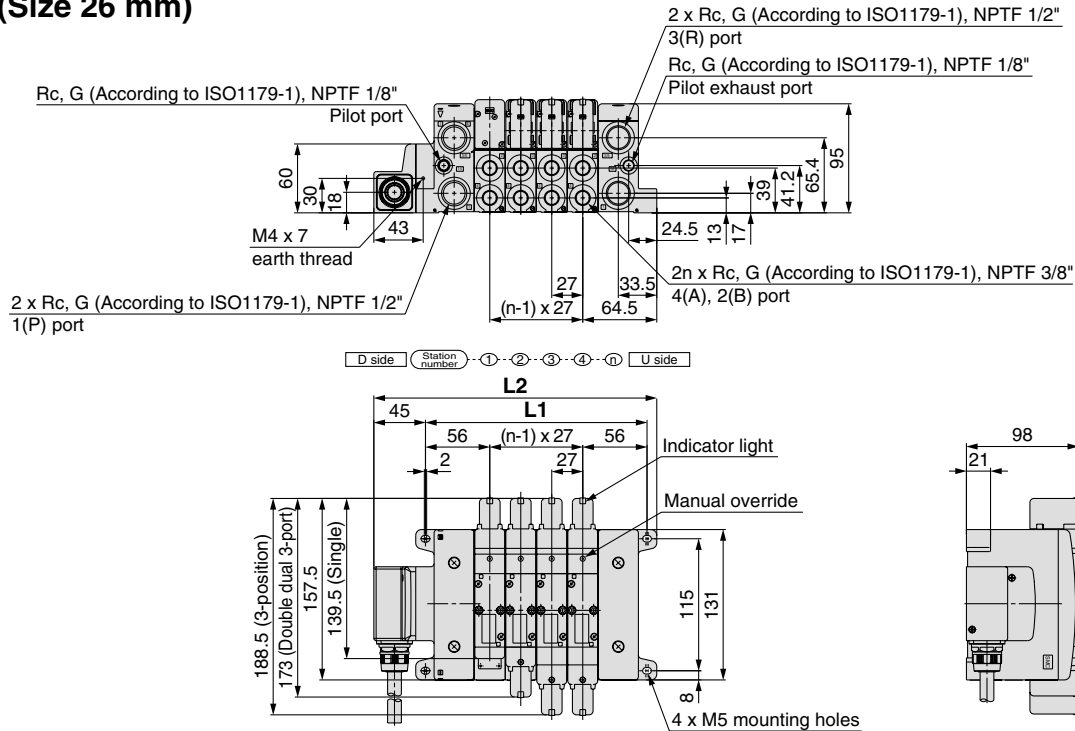
	Terminal no.	Lead wire color	Dot marking
Station 1	SOL.A 1	Black	None
	SOL.B 14	Yellow	Black
Station 2	SOL.A 2	Brown	None
	SOL.B 15	Pink	Black
Station 3	SOL.A 3	Red	None
	SOL.B 16	Blue	White
Station 4	SOL.A 4	Orange	None
	SOL.B 17	Purple	None
Station 5	SOL.A 5	Yellow	None
	SOL.B 18	Gray	None
Station 6	SOL.A 6	Pink	None
	SOL.B 19	Orange	Black
Station 7	SOL.A 7	Blue	None
	SOL.B 20	Red	White
Station 8	SOL.A 8	Purple	White
	SOL.B 21	Brown	White
Station 9	SOL.A 9	Gray	Black
	SOL.B 22	Pink	Red
Station 10	SOL.A 10	White	Black
	SOL.B 23	Gray	Red
Station 11	SOL.A 11	White	Red
	SOL.B 24	Black	White
Station 12	SOL.A 12	Yellow	Red
	SOL.B 25	White	None
	COM. 13	Orange	Red

Special Wiring Specifications (Option)

Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 24.

L Series VS_R8-2 kit (Lead wire) IP65 compliant

VV801 (Size 26 mm)

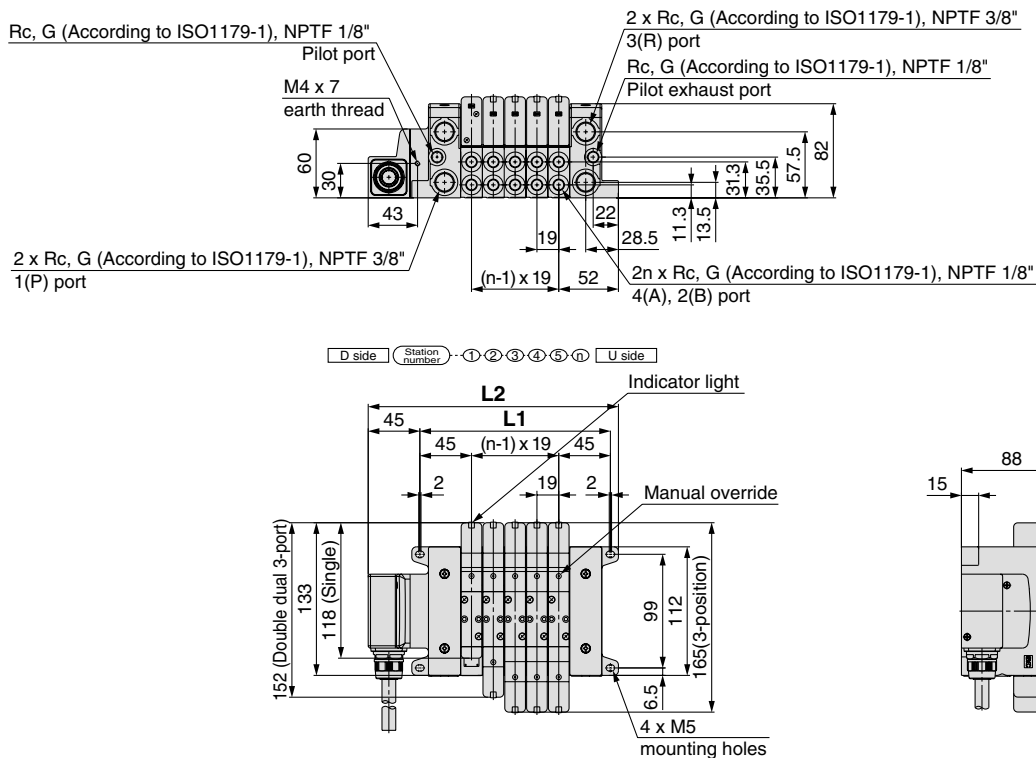


Dimension (mm)

Formula: $L1 = 27n + 85$, $L2 = 27n + 138.5$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112	139	166	193	220	247	274	301	328	355	382	409	436	463	490	517
L2	165.5	192.5	219.5	246.5	273.5	300.5	327.5	354.5	381.5	408.5	435.5	462.5	489.5	516.5	543.5	570.5

VV802 (Size 18 mm)



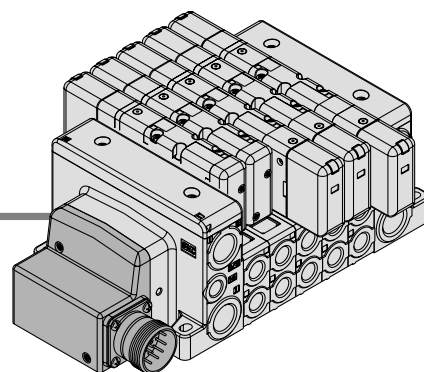
Dimension (mm)

Formula: $L1 = 19n + 71$, $L2 = 19n + 123$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375
L2	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408	427

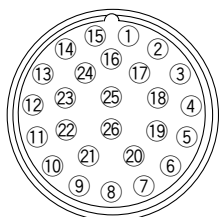
M Series VS_{R8-2}^S kit (Circular connector) IP65 compliant

- Use of circular connectors helps streamline wiring procedure to save labor.
- IP65 enclosure is available with use of waterproof circular connectors.



Electrical Wiring Specifications

Circular connector



Double wiring (connected to SOL.A and SOL.B) is adopted for the internal wiring of each station, regardless of valve and option types. Mixed single and double wiring are available as an option. Refer to the below special wiring specifications (option).

Lead wire colors for circular connector cable assembly (AXT100-MC26-015 030 050)

	Terminal no.	Lead wire color	Dot marking
Station 1	SOL.A 1	Black	None
	SOL.B 2	Brown	None
Station 2	SOL.A 3	Red	None
	SOL.B 4	Orange	None
Station 3	SOL.A 5	Yellow	None
	SOL.B 6	Pink	None
Station 4	SOL.A 7	Blue	None
	SOL.B 8	Purple	White
Station 5	SOL.A 9	Gray	Black
	SOL.B 10	White	Black
Station 6	SOL.A 11	White	Red
	SOL.B 12	Yellow	Red
Station 7	SOL.A 13	Orange	Red
	SOL.B 14	Yellow	Black
Station 8	SOL.A 15	Pink	Black
	SOL.B 16	Blue	White
Station 9	SOL.A 17	Purple	None
	SOL.B 18	Gray	None
Station 10	SOL.A 19	Orange	Black
	SOL.B 20	Red	White
Station 11	SOL.A 21	Brown	White
	SOL.B 22	Pink	Red
Station 12	SOL.A 23	Gray	Red
	SOL.B 24	Black	White
	COM. 25	White	None
	COM. 26	White	None

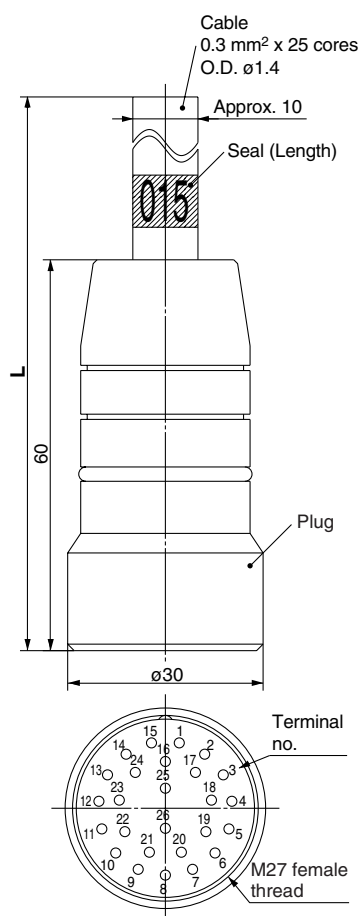
Special Wiring Specifications (Option)

Mixed single and double wiring are available as an option. The maximum number of manifold stations is determined by the number of solenoids. Count one point for a single solenoid type and two points for a double solenoid type. The total number of solenoids (points) must not exceed 24.

Cable Assembly

015 AXT100-MC26-030 050

(Type 26P circular connector cable assembly can be ordered with manifolds. Refer to "How to Order Manifold.")



Lead wire colors for circular connector cable assembly terminal numbers

Terminal no.	Lead wire color	Dot marking
1	Black	None
2	Brown	None
3	Red	None
4	Orange	None
5	Yellow	None
6	Pink	None
7	Blue	None
8	Purple	White
9	Gray	Black
10	White	Black
11	White	Red
12	Yellow	Red
13	Orange	Red
14	Yellow	Black
15	Pink	Black
16	Blue	White
17	Purple	None
18	Gray	None
19	Orange	Black
20	Red	White
21	Brown	White
22	Pink	Red
23	Gray	Red
24	Black	White
25	White	None
26	White	None

Electrical characteristics

Item	Property
Conductor resistance Ω/km, 20°C	65 or less
Voltage limit V, 1 minute, AC	1000
Insulation resistance MΩ/km, 20°C	5 or more

Note) The minimum bending radius of the circular connector cable is 20 mm.

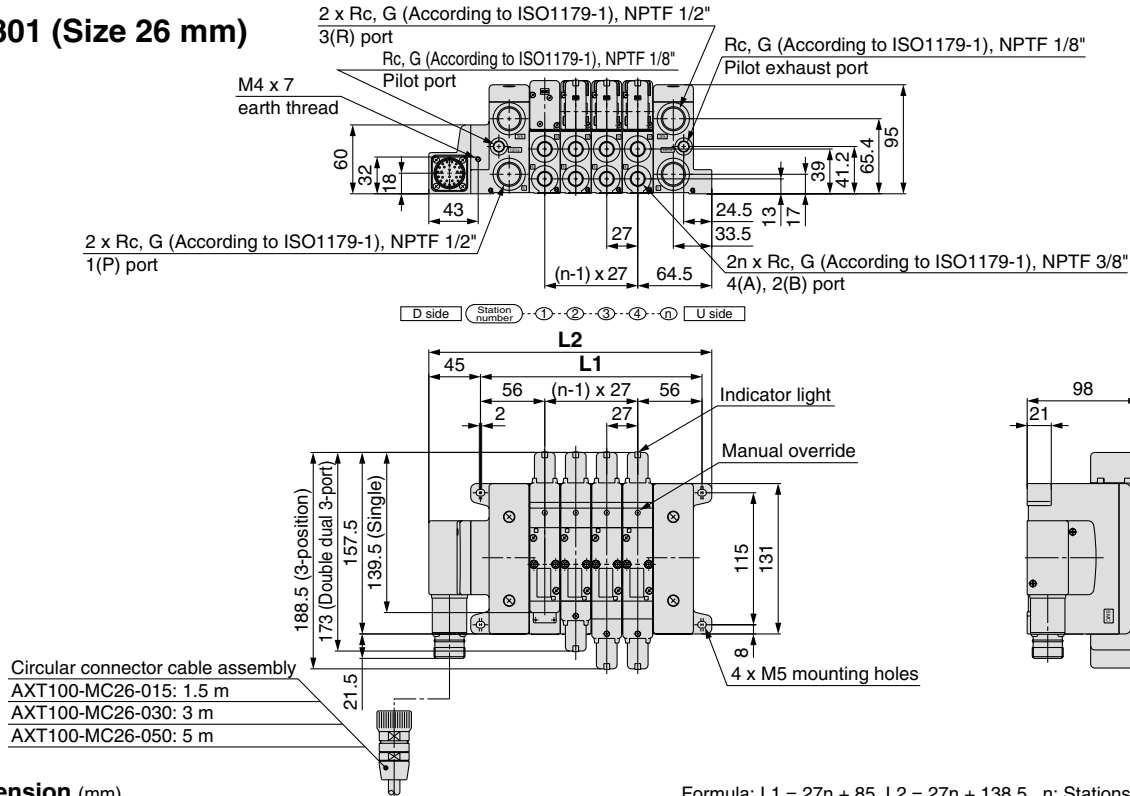
Circular connector cable assembly

Cable length (L)	Assembly part no.
	26P
1.5 m	AXT100-MC26-015
3 m	AXT100-MC26-030
5 m	AXT100-MC26-050

- * Cannot be used for transfer wiring.
- * Lengths other than the above is also available. Please contact SMC for details.

M Series VS_R8-2^S kit (Circular connector) IP65 compliant

VV801 (Size 26 mm)

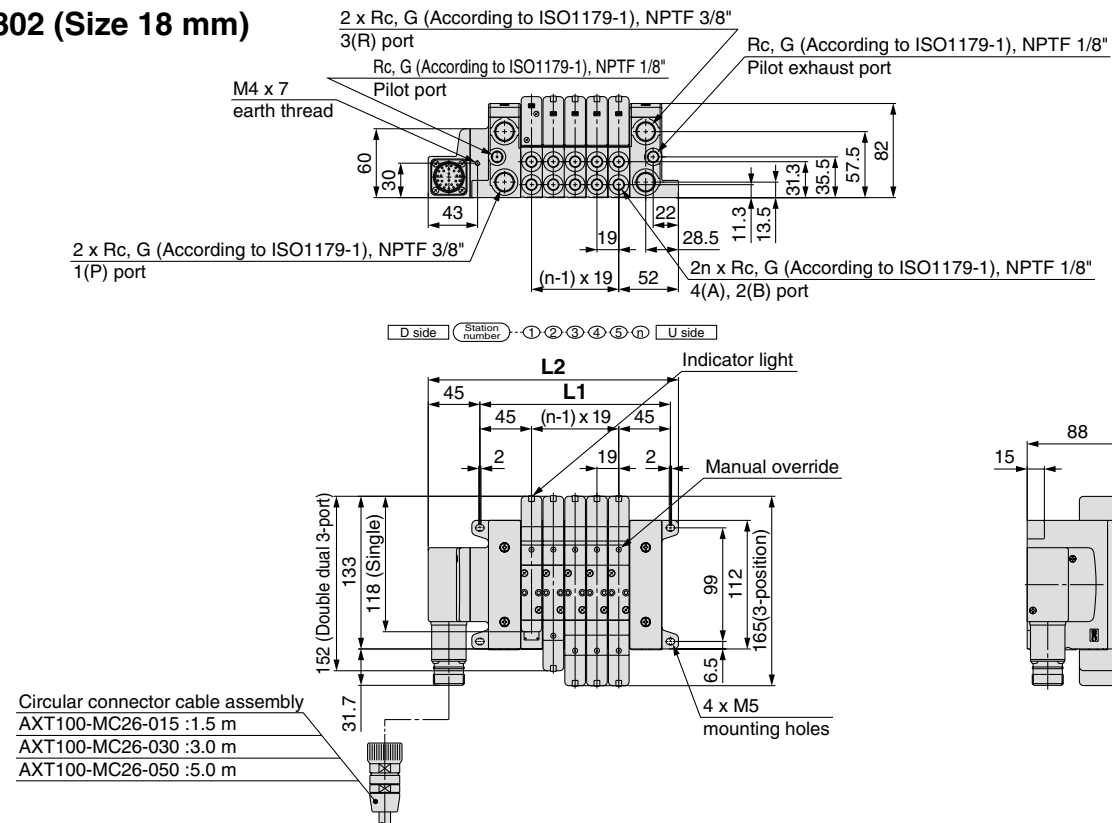


Dimension (mm)

Formula: $L1 = 27n + 85$, $L2 = 27n + 138.5$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112	139	166	193	220	247	274	301	328	355	382	409	436	463	490	517
L2	165.5	192.5	219.5	246.5	273.5	300.5	327.5	354.5	381.5	408.5	435.5	462.5	489.5	516.5	543.5	570.5

VV802 (Size 18 mm)



Dimension (mm)

Formula: $L1 = 19n + 71$, $L2 = 19n + 123$ n: Stations (Maximum 16 stations)

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375
L2	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408	427

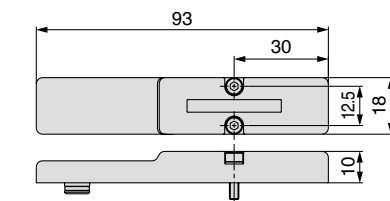
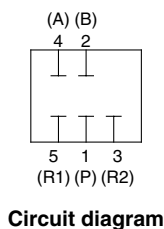
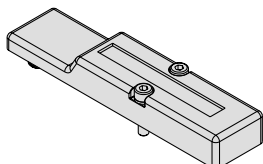
Manifold Options

Blanking plate assembly

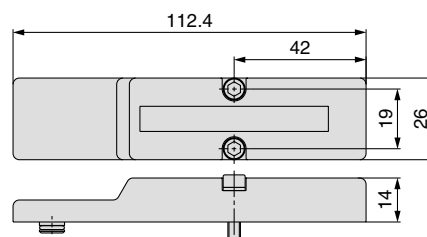
VVS8020-11A (Size 18 mm)

VVS8040-11A (Size 26 mm)

By attaching this on a manifold block, it is possible to prepare for removing a valve for maintenance reasons or planning to mount a spare valve, etc.



Size 18 mm



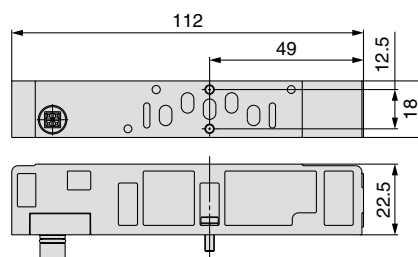
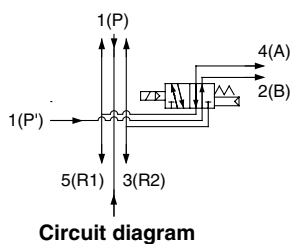
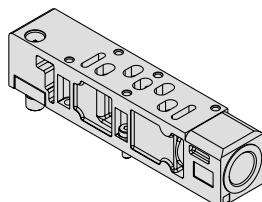
Size 26 mm

Individual SUP spacer

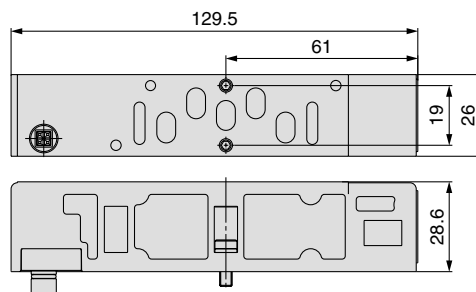
VV802-P-01^(F)_(T) (Size 18 mm)

VV801-P-03^(F)_(T) (Size 26 mm)

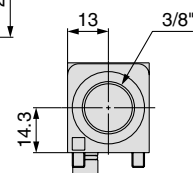
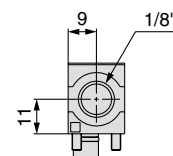
By mounting individual SUP spacers on a manifold block, it is possible to provide individual SUP ports for each valve.



Size 18 mm



Size 26 mm

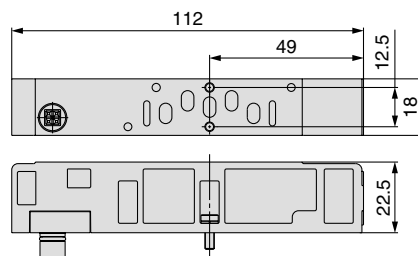
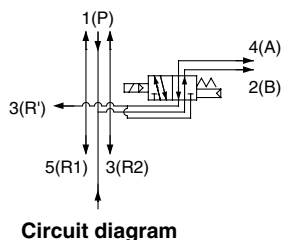
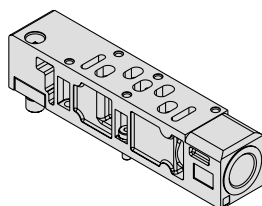


Individual EXH spacer

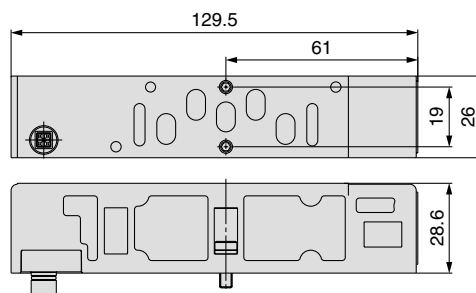
VV802-R-01^(F)_(T) (Size 18 mm)

VV801-R-03^(F)_(T) (Size 26 mm)

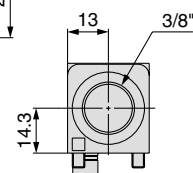
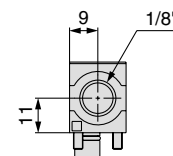
By mounting individual EXH spacers on a manifold block, it is possible to provide individual EXH ports for each valve. (3(R2), 5(R1) common EXH type)



Size 18 mm



Size 26 mm

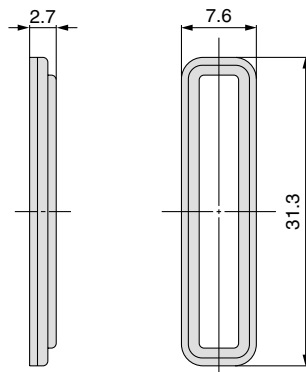
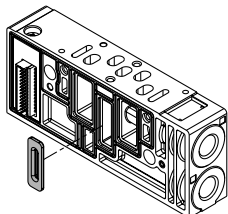


SUP block plate

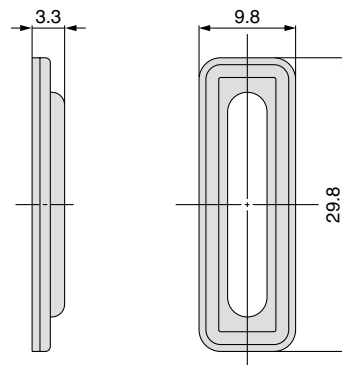
VVS8020-16A (Size 18 mm)

VVS8040-16A (Size 26 mm)

When different pressures are supplied to a manifold, a SUP block plate is used to block the stations under different pressures.



Size 18 mm



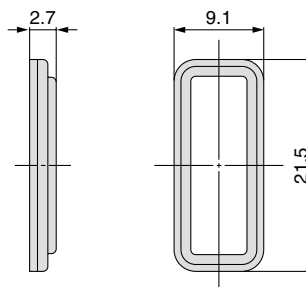
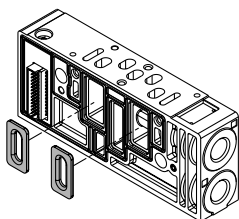
Size 26 mm

EXH block plate

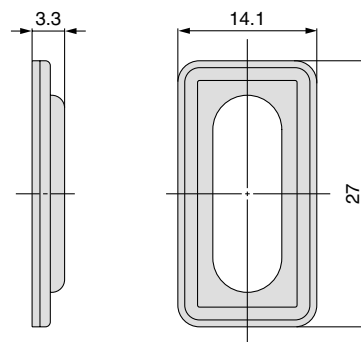
VVS8020-19A (Size 18 mm)

VVS8040-19A (Size 26 mm)

This is used to divide the exhaust passage when the exhaust from a valve interferes with the valve of other stations.



Size 18 mm

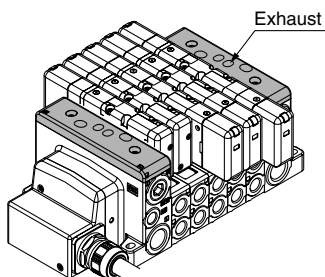


Size 26 mm

Direct EXH outlet with built-in silencer [-S]

This is a type with an exhaust port atop the manifold end plate. The built-in silencer exhibits an excellent noise suppression effect. (Noise reduction: 30 dB)

* When ordering this option incorporated with a manifold, suffix "-S" to the end of the manifold part number.



Built-in Silencer Element Replacement

⚠ Caution

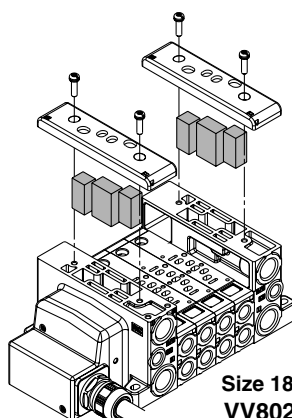
A filter element on both sides is built into the manifold base end plate. When the element becomes dirty and clogged, this will cause trouble such as a drop in the cylinder speed, etc. Therefore, replace the element regularly.

Element Part No.

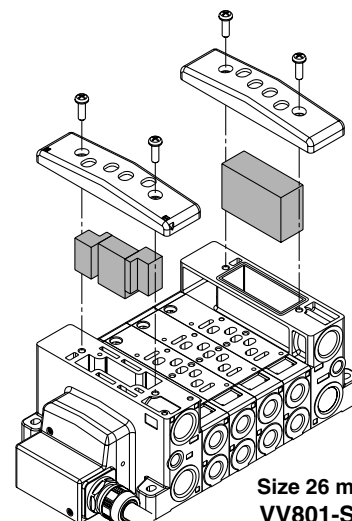
Type	Element part no.	
	Size 18 mm (VV802)	Size 26 mm (VV801)
Direct EXH outlet with built-in silencer	VV802-SE	VV801-SE

This is for 1 manifold set.

To replace an element, remove the cover on the top side of the end plate and remove the old element with a flat head screwdriver, etc.



Size 18 mm
VV802-SE



Size 26 mm
VV801-SE

Series **VS^S_R8-2/VS^S_R8-4**

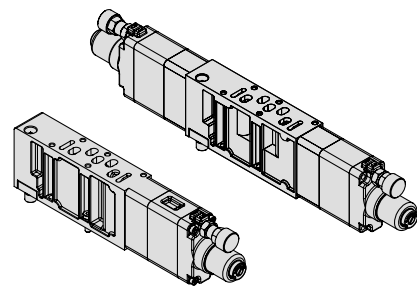
Manifold Options

Interface regulator (P, A, B port regulation)

Specifications

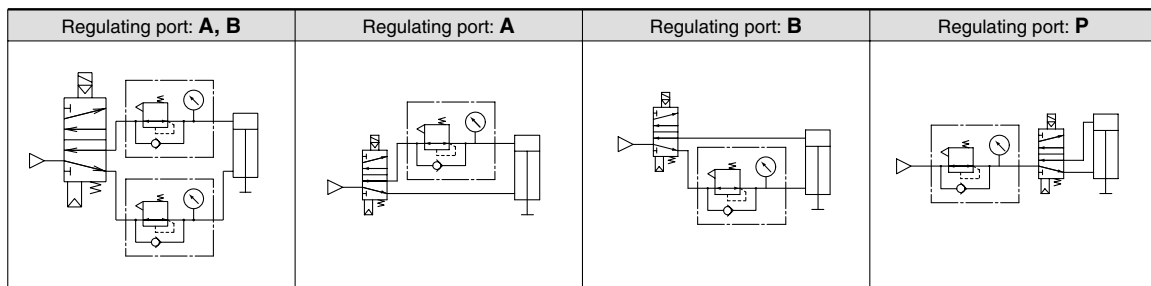
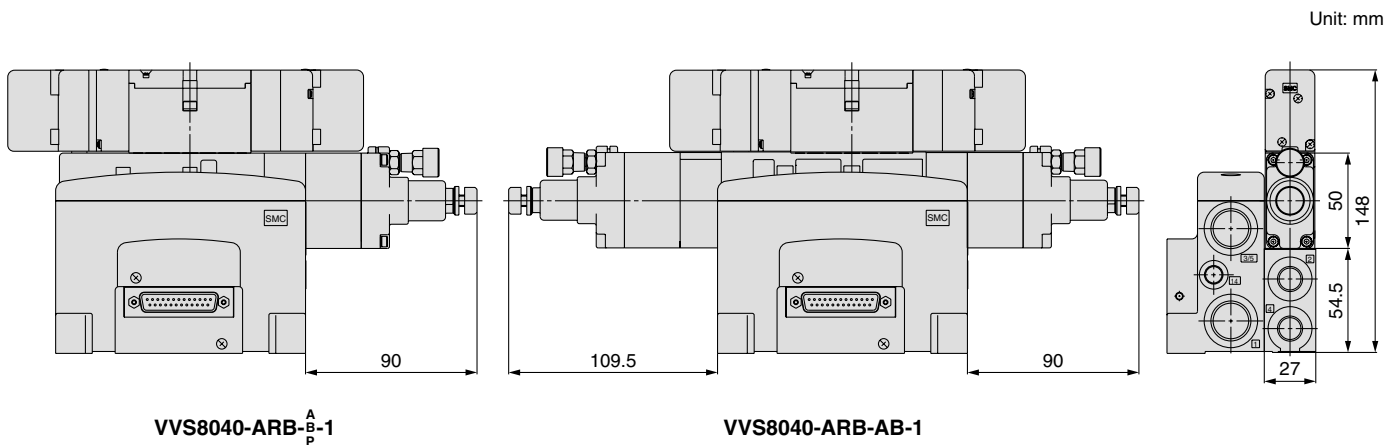
Interface regulator model		VVS8040-ARB-□-1			
Regulating port		A	B	P	A, B
Applicable solenoid valve		VS ^S _R 8-4			
Max. operating pressure (MPa)		1.0			
Set pressure range (MPa)		0.05 to 0.85			
Fluid		Air			
Ambient and fluid temperature (°C)		-5 to 60			
Pressure gauge port size		M5 x 0.8			
Mass (kg)		0.35		0.45	
Effective area at supply side (mm ²) P1 = 0.7 MPa, P2 = 0.5 MPa	1(P) → 4(A)	9.0	11.8	16.7	12.2
	1(P) → 2(B)	9.0	11.8	12.8	13.1
Effective area at exhaust side (mm ²) P2 = 0.5 MPa	4(A) → 5(R1)	21.3	14.4	21.4	13.1
	2(B) → 3(R2)	18.2	14.8	14.9	12.2

- Note 1) Set the pressure within operating pressure range of solenoid valve.
Note 2) When using A port regulation and B port regulation in a closed center, please contact SMC because there will be a problem in its operation.
Note 3) IP65 enclosure is not available with interface regulator.



How to Order

Applicable solenoid valve model	Interface regulator model	Regulating port
VS ^S _R 8-4 (Size 26 mm)	VVS8040-ARB-A-1	A
	VVS8040-ARB-B-1	B
	VVS8040-ARB-P-1	P
	VVS8040-ARB-AB-1	A, B



Manifold Options

External pilot specification

Either internal pilot or external pilot can be selected when ordering a manifold (internal pilot is standard).

The arrow on the silencer cover points to "I" when using the internal pilot and "E" when using the external pilot. It can be changed later by changing the mounting orientation of the silencer cover.

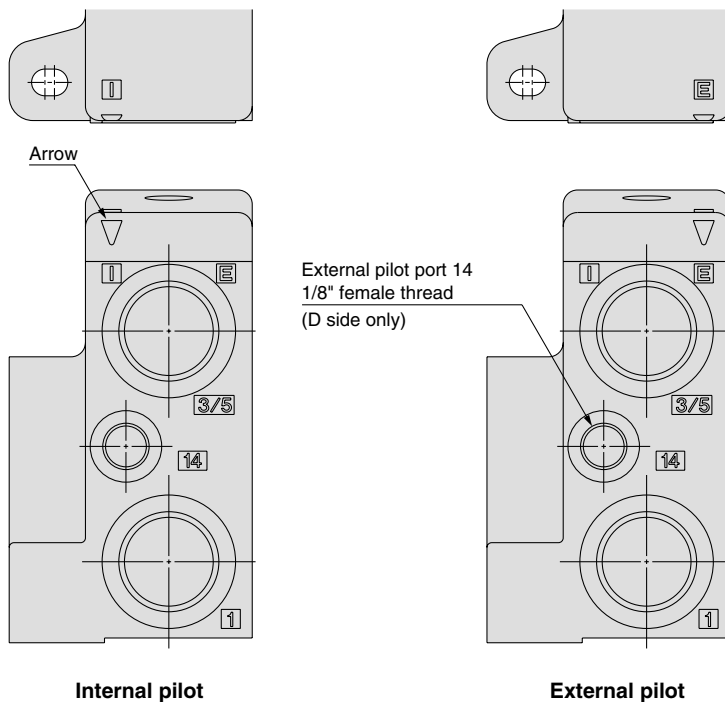
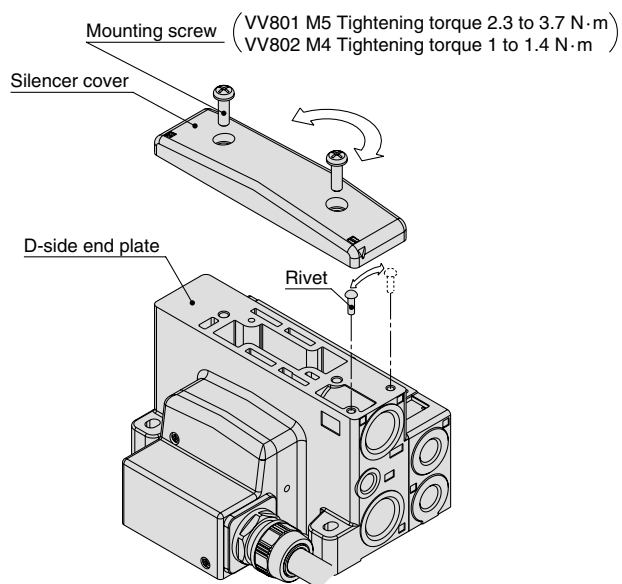
<How to change the pilot type>

- 1) Remove the silencer cover.
- 2) Turn the silencer cover 180° and mount it to the end plate.

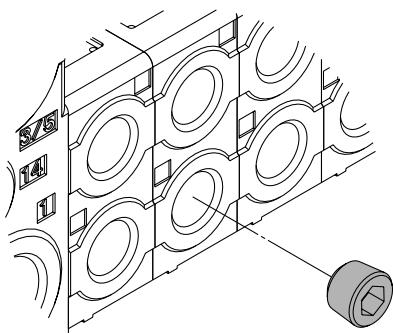
At the same time, mount the built-in rivet as the same place with the arrow on silencer cover.

Note 1) Do not let the gasket get caught when mounting the silencer cover.

Note 2) For internal pilot specification, it is not necessary to mount a plug to the external pilot port.



Port plug



Part no.	Thread size, type
AXT954-01	For Rc 1/8"
AXT954-02	For Rc 1/4"
AXT954-03	For Rc 3/8"
AXT954-04	For Rc 1/2"
AXT954-01T	For NPTF 1/8"
AXT954-02T	For NPTF 1/4"
AXT954-03T	For NPTF 3/8"
AXT954-04T	For NPTF 1/2"
AXT954-01F#1	For G 1/8"
AXT954-02F#1	For G 1/4"
AXT954-03F#1	For G 3/8"
AXT954-04F#1	For G 1/2"

This is used to plug the cylinder ports when using as a 3-port valve, etc.

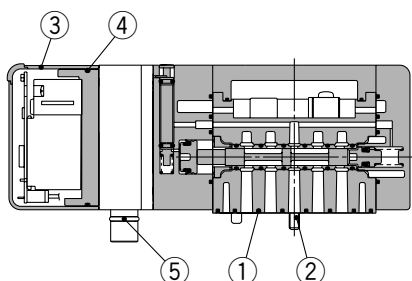
Series VS^S_R8-2

Construction

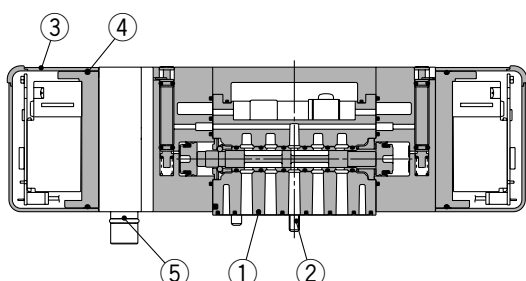
Construction

Metal seal

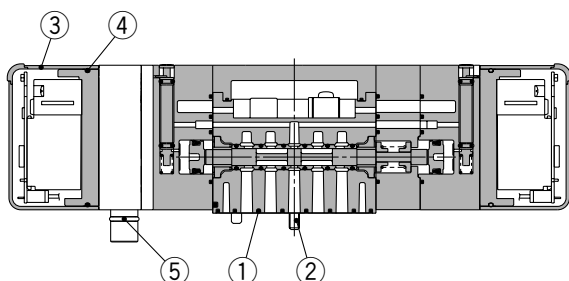
VSS8-2-FG-S-□



VSS8-2-FG-D-□

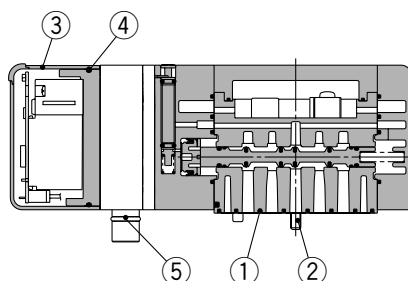


VSS8-2-^{FHG}
FIG-D-□
FJG

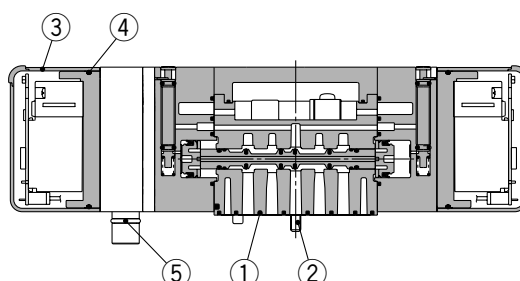


Rubber seal

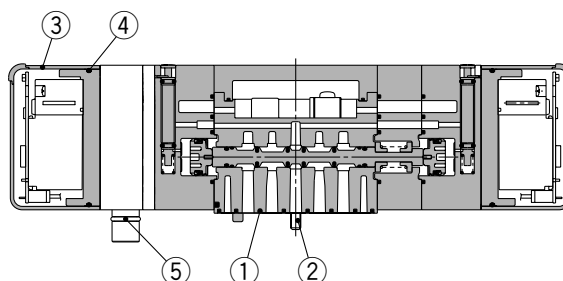
VSR8-2-FG-S-□



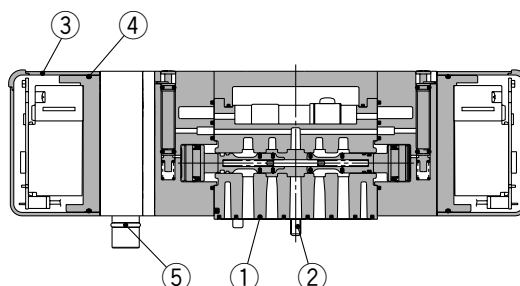
VSR8-2-FG-D-□



VSR8-2-^{FHG}
FIG-D-□
FJG



VSR8-2-^{FDAG}
FDBG-D-□
FDCG



Replacement Parts

No.	Description	VSS8-2-FG-S-□	VSS8-2-FG-D-□	VSS8-2- ^{FHG} FIG-D-□ FJG	VSR8-2-FG-S-□	VSR8-2-FG-D-□	VSR8-2- ^{FHG} FIG-D-□ FJG	VSR8-2- ^{FDAG} FDBG-D-□ FDCG
1	Gasket	EVS1002-13-11H						
2	Hexagon bolt	AXT632-17-7 (M3 x 30, with washer, nickel plated)						
3	Light cover	EVS1001-9-1						
4	O-ring	29.5 x 1.2						
5	O-ring	OR-0500-130-H						

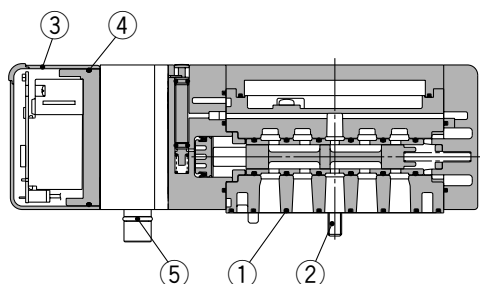
Series VS_R^S 8-4

Construction

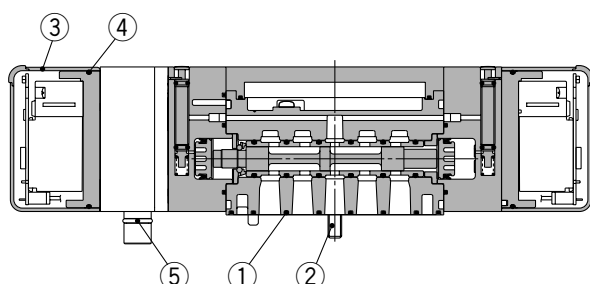
Construction

Metal seal

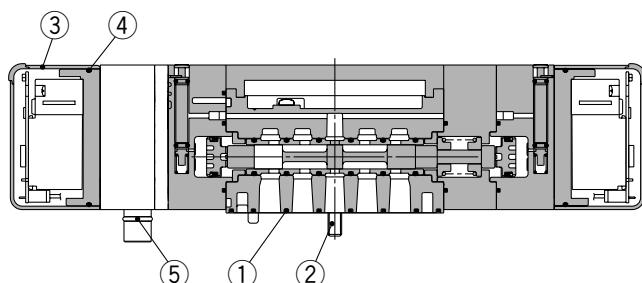
VSS8-4-FG-S-□



VSS8-4-FG-D-□

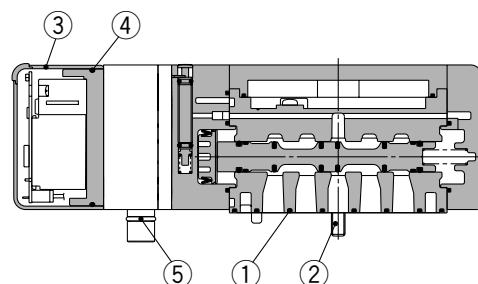


VSS8-4- $\begin{smallmatrix} FHG \\ FIG \\ FJG \end{smallmatrix}$ -D-□

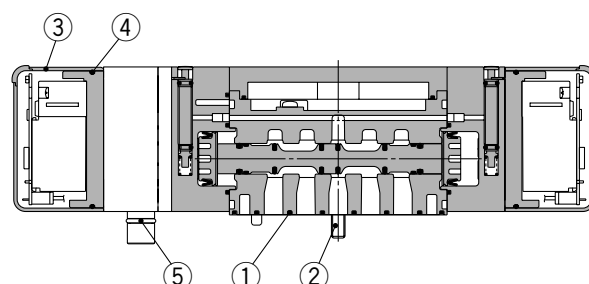


Rubber seal

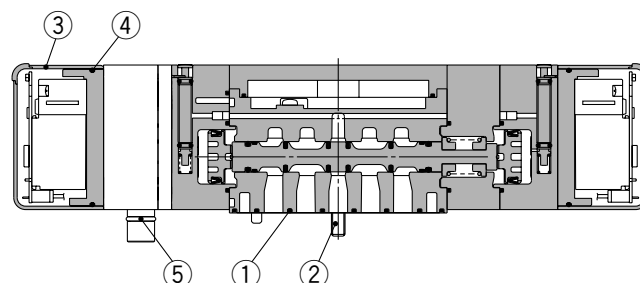
VSR8-4-FG-S-□



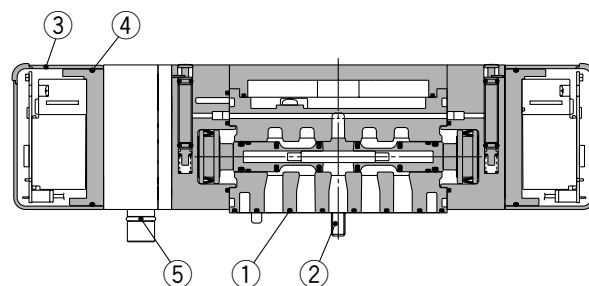
VSR8-4-FG-D-□



VSR8-4- $\begin{smallmatrix} FHG \\ FIG \\ FJG \end{smallmatrix}$ -D-□



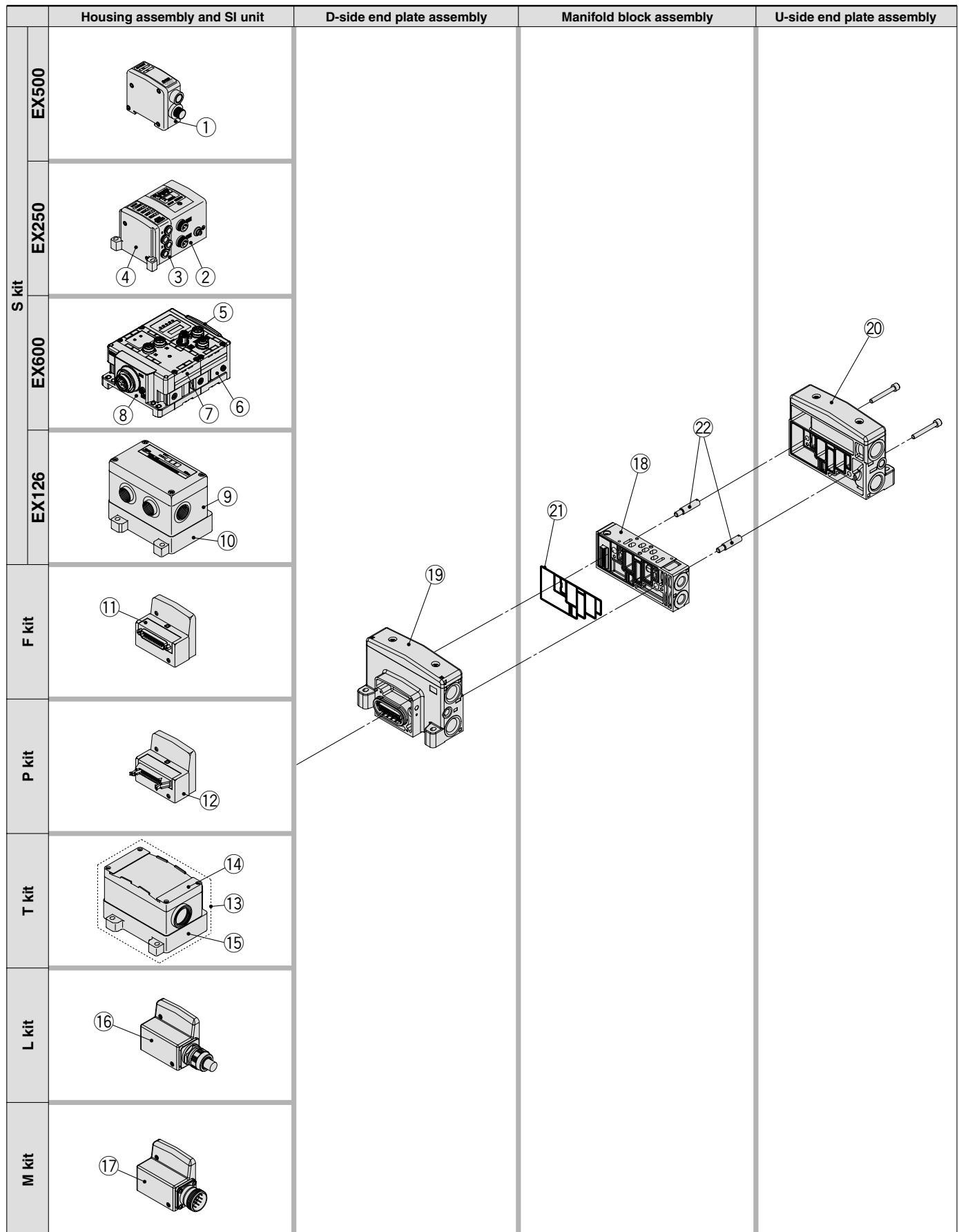
VSR8-4- $\begin{smallmatrix} FDAG \\ FDBG \\ FDCG \end{smallmatrix}$ -D-□



Replacement Parts

No.	Description	VSS8-4-FG-S-□	VSS8-4-FG-D-□	VSS8-4- $\begin{smallmatrix} FHG \\ FIG \\ FJG \end{smallmatrix}$ -D-□	VSR8-4-FG-S-□	VSR8-4-FG-D-□	VSR8-4- $\begin{smallmatrix} FHG \\ FIG \\ FJG \end{smallmatrix}$ -D-□	VSR8-4- $\begin{smallmatrix} FDAG \\ FDBG \\ FDCG \end{smallmatrix}$ -D-□
1	Gasket	EVS1001-9-2H						
2	Hexagon bolt	AXT632-25-15 (M4 x 30, with washer, nickel plated)						
3	Light cover	EVS1001-9-1						
4	O-ring	29.5 x 1.2						
5	O-ring	OR-0500-130-H						

Exploded View of Manifold



The exploded view indicates VV801.

Manifold Assembly Part No.

Housing Assembly, SI Unit, etc.

No.	Description	Part no.	Note
1	SI unit	EX500-Q001	+COM., DeviceNet™, PROFIBUS DP, CC-Link, EtherNet/IP™
		EX500-Q001-X1	+COM., Remote I/O
		EX500-Q101	–COM., DeviceNet™, PROFIBUS DP, CC-Link, EtherNet/IP™
		EX500-Q101-X1	–COM., Remote I/O
2	SI unit	EX250-SDN1	DeviceNet™ (–COM.)
		EX250-SPR1	PROFIBUS DP (–COM.)
		EX250-SMJ2	CC-Link (+COM.)
		EX250-SAS3	AS-Interface (8 in/8 out, 31 slave modes, 2 power supply systems, –COM.)
		EX250-SAS5	AS-Interface (4 in/4 out, 31 slave modes, 2 power supply systems, –COM.)
		EX250-SAS7	AS-Interface (8 in/8 out, 31 slave modes, 1 power supply systems, –COM.)
		EX250-SAS9	AS-Interface (4 in/4 out, 31 slave modes, 1 power supply systems, –COM.)
		EX250-SCA1A	CANopen (–COM.)
		EX250-SCN1	ControlNet (–COM.)
3	Input block	EX250-SEN1	EtherNet/IP™ (–COM.)
		EX250-IE1	M12, 2 inputs
		EX250-IE2	M12, 4 inputs
4	End plate assembly	EX250-IE3	M8, 4 inputs
5	Valve plate	EX250-EA1	
6	SI unit	EX600-ZMV1	
		EX600-SDN1	DeviceNet™ (–COM.)
		EX600-SDN2	DeviceNet™ (+COM.)
		EX600-SMJ1	CC-Link (–COM.)
		EX600-SMJ2	CC-Link (+COM.)
		EX600-SPR1	PROFIBUS DP (–COM.)
7	Digital input unit	EX600-SPR2	PROFIBUS DP (+COM.)
		EX600-DXPB	PNP, M12, 8 inputs
		EX600-DXNB	NPN, M12, 8 inputs
		EX600-DXPC	PNP, M8, 8 inputs
		EX600-DXNC	NPN, M8, 8 inputs
		EX600-DXPC1	PNP, M8, 8 inputs, with open detection function
		EX600-DXNC1	NPN, M8, 8 inputs, with open detection function
		EX600-DXPD	PNP, M12, 16 inputs
		EX600-DXND	NPN, M12, 16 inputs
	Digital output unit	EX600-DYPB	PNP, M12, 8 outputs
		EX600-DYNB	NPN, M12, 8 outputs
	Analog input unit	EX600-AXA	2-channel input
8	End plate	EX600-ED2	M12 connector
		EX600-ED3	7/8 inch connector
9	SI unit	EX126D-SMJ1	CC-Link (+COM.), 16 outputs
10	Plate assembly	VVQC1000-74A-2	
11	D-sub connector housing assembly	VVQC1000-P25-1	F kit, 25 pins
12	Flat ribbon cable housing assembly	VVQC1000-F26-1	P kit, 26 pins
13	Terminal block box housing assembly	VVQC1000-T0-1	T kit
14	Terminal block box assembly	VVQC1000-80A-D	T kit
15	Terminal block plate assembly	VVQC1000-74A-1	T kit
16	Lead wire housing assembly	VVQC1000-L25-0-1	L kit with 0.6 m lead wire
		VVQC1000-L25-1-1	L kit with 1.5 m lead wire
		VVQC1000-L25-2-1	L kit with 3.0 m lead wire
17	Circular connector housing assembly	VVS8040-M26-1	M kit, 26 pins

Series VS_{R}^S8-2/VS_{R}^S8-4

Manifold Component Part No.

⑱ Manifold Block Assembly

Standard

MBS80 **2** 0 - **01** ☐ - **D** ☐

Size •

2	Size 18 mm
4	Size 26 mm

• With/Without tie-rod

Nil	Included
-1	None

• Wiring specifications

D	Double wiring
S	Single wiring

• Thread type

Nil	Rc
F	G
T	NPTF

Port size •

Symbol	Port size	Size 18 mm	Size 26 mm
01	Side ported 1/8"	●	—
02	Side ported 1/4"	—	●
03	Side ported 3/8"	—	●
01B	Bottom ported 1/8"	●	—
02B	Bottom ported 1/4"	—	●

⑲ D-Side End Plate Assembly

MES80 **2** D - **03** ☐ ☐

Size •

2	Size 18 mm
4	Size 26 mm

• Option

Nil	None
-R	External pilot
-S	Built-in silencer
-RS	External pilot + Built-in silencer

• Thread type

Nil	Rc
F	G
T	NPTF

Port size •

Symbol	Port size	Size 18 mm	Size 26 mm
03	3/8"	●	—
04	1/2"	—	●

⑳ U-Side End Plate Assembly

MES80 **2** U - **03** ☐ ☐

Size •

2	Size 18 mm
4	Size 26 mm

• Option

Nil	None
-S	Built-in silencer

• Thread type

Nil	Rc
F	G
T	NPTF

Port size •

Symbol	Port size	Size 18 mm	Size 26 mm
03	3/8"	●	—
04	1/2"	—	●

㉑ Gasket

Size 18 mm	EVVS1002-9-1H
Size 26 mm	EVVS1001-9-1H

Note) Part no. for 1 pc. of gasket

㉒ Tie-rod (2 pcs.)

Size 18 mm	VV802-TR-□
Size 26 mm	VV801-TR-□

Note 1) This is used to decrease the number of manifold stations. When increasing the number of stations, it is not necessary to order tie-rods separately if a manifold block assembly with a tie-rod is ordered.

Note 2) □: Stations 01 to 16