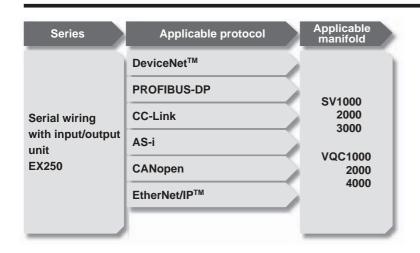


SMC Corporation

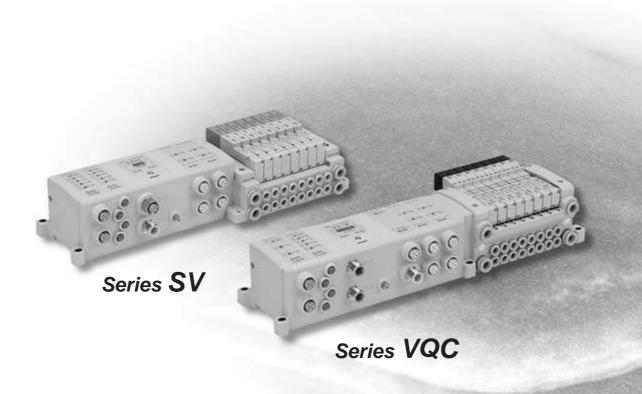
Akihabara UDX 15F, 4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-0021, JAPAN URL http://www.smcworld.com @2006 SMC Corporation All Rights Reserved

06-EU532-UK Issued: September, 2006 D-DNP P-120 (DN)

Serial Wiring with Input/Output Unit 5 Port Solenoid Valve for EX250 Series SV/VQC



- EtherNet/IP[™] compatible products are now available.
 - Compatible with DHCP
 - Communication speed: 10 M/100 Mbps
 - Able to HOLD/CLEAR the output in case of an error occurrence.



 $\label{eq:decomposition} \mbox{DeviceNet}^{\mbox{\scriptsize TM}} \mbox{ is a trademark of ODVA}.$ EtherNet/IP $^{\mbox{\scriptsize TM}}$ is a trademark used under license by ODVA.



EX250 Serial Wiring With Input/Output Unit

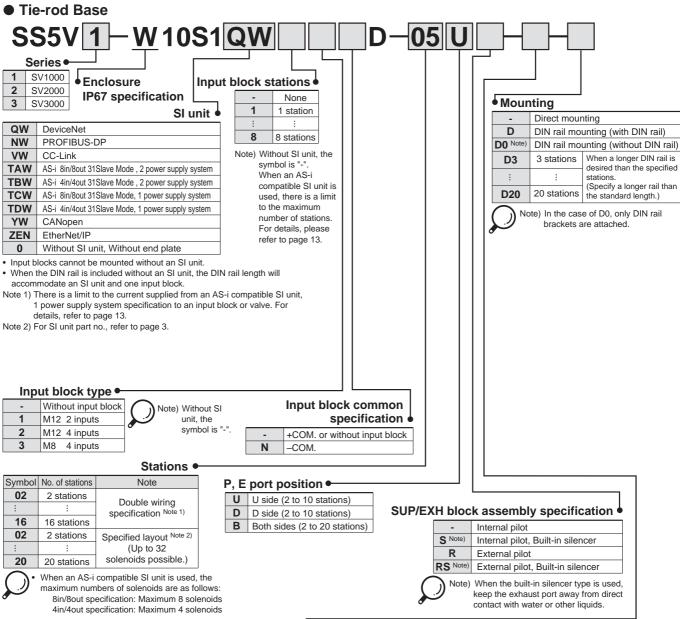
Series SV

 ϵ



For details about certified products conforming to international standards, visit us at www.smcworld.com.

How to Order



4in/4out specification: Maximum 4
Note 1) Double wiring specification: Single, double, 3
position and 4 position
solenoid valves can be
used on all 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 the wiring specification on a manifold specification sheet. (Note that double, 3 position and 4 position valves cannot be used where single solenoid wiring has been specified.)

A. B port size (Metric)

/1, D P	i, b port size (metric)					
Symbol	A, B port	P, E port	Applicable series			
C3	With one-touch fitting for ø3.2	With one-touch				
C4	With one-touch fitting for ø4	fitting for	SV1000			
C6	With one-touch fitting for ø6	ø8				
C4	With one-touch fitting for ø4	With one-touch				
C6	With one-touch fitting for ø6	fitting for	SV2000			
C8	With one-touch fitting for ø8	ø10				
C6	With one-touch fitting for ø6	With one-touch				
C8	With one-touch fitting for ø8	fitting for	SV3000			
C10	With one-touch fitting for ø10	ø12				
M	A, B ports mixed					

A, B port size (Inch)

1, -	1 ,			
Symbol	A, B port	P, E port	Applicable series	
N1	With one-touch fitting for ø1/8"	With one-touch		
N3	With one-touch fitting for ø5/32"			
N7	With one-touch fitting for ø1/4"	ø5/16"		
N3	With one-touch fitting for ø5/32"	With one-touch	SV2000	
N7	With one-touch fitting for ø1/4"	fitting for		
N9	With one-touch fitting for ø5/16"	ø3/8"		
N7	With one-touch fitting for ø1/4"	With one-touch	SV3000	
N9	With one-touch fitting for ø5/16"	fitting for		
N11	With one-touch fitting for ø3/8"	ø3/8"		
M	A, B ports mixed			

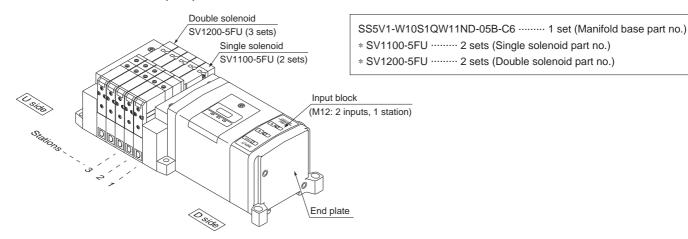
* In the case of a mixed specification (M), indicate separately on a manifold specification sheet.

* The port sizes for the X, PE ports of the external pilot specification (R, RS) are ø4 (metric), ø5/32" (inch) for the SV1000/2000 series and ø6 (metric) and ø1/4" (inch) for the SV3000 series.

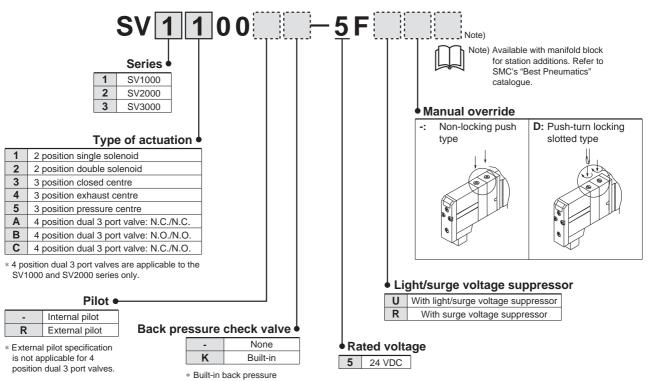
How to Order Valve Manifold Assembly (Example)

Example (SV1000)

Manifold SS5V1-W10S1QW11ND-05B-C6 (1 set)



How to Order Solenoid Valves



- Built-in back pressure check valve type is applicable to the SV1000 series only.
- For solenoid valve specifications and dimensions, refer to the SV series in the SMC's "Best Pneumatics" catalogue.
- For SI unit dimensions, refer to page 12.
- For details on the SI unit, refer to the separate technical instruction manual.

SI Unit Part No.

SI Unit Part No.

Symbol	Protocol type	SI unit part no.	
QW DeviceNet		EX250-SDN1	
NW	PROFIBUS-DP	EX250-SPR1	
VW	CC-Link	EX250-SMJ2	
YW	CANopen	EX250-SCA1A	

Symbol	Protocol type	SI unit part no.
TAW	AS-i 8in/8out 31Slave Mode, 2 power supply system	EX250-SAS3
TBW	AS-i 4in/4out 31Slave Mode, 2 power supply system	EX250-SAS5
TCW	AS-i 8in/8out 31Slave Mode, 1 power supply system	EX250-SAS7
TDW	AS-i 4in/4out 31Slave Mode, 1 power supply system	EX250-SAS9
ZEN	EtherNet/IP	EX250-SEN1

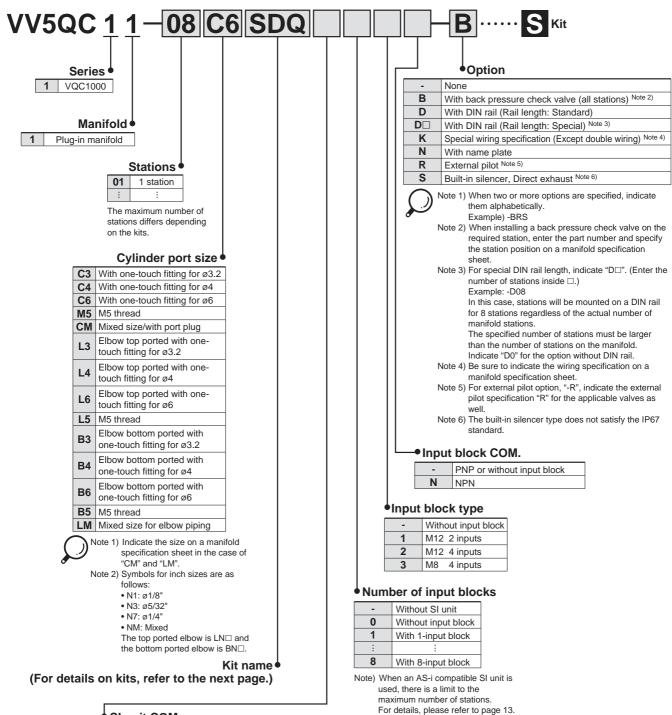


Series VQC1000 **Base Mounted**

Plug-in Manifold (€

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How to Order Manifold



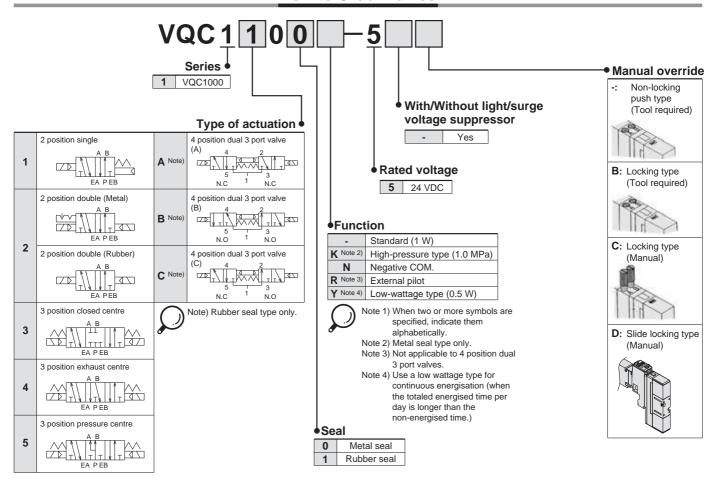
SLunit COM

- Of drift COM.									
Cl uni	it COM.	EX250							
Si uiii	it COIVI.	DeviceNet PROFIBUS-DP CC-Link AS-i CANopen				CANopen	EtherNet/IP		
-	+COM.	_	_	0	_	_	_		
N	-COM.	0	0	_	0	0	0		

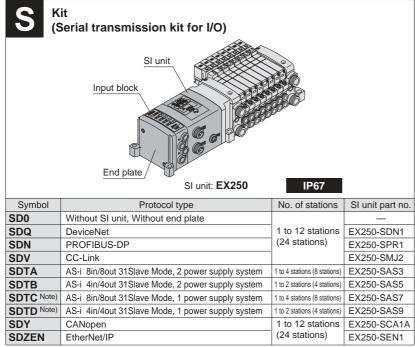




How to Order Valves



Kit name



Note) There is a limit to the current supplied from an SI unit of the SDTC or SDTD specification to an input block or valve. For details, refer to page 13. SI units are compatible with IP67 ratings.

- For solenoid valve specifications and dimensions, refer to the VQC series in SMC's "Best Pneumatics" catalogue.
- For SI unit dimensions, refer to page 12.
- For details on the SI unit, refer to the separate technical instruction manual.

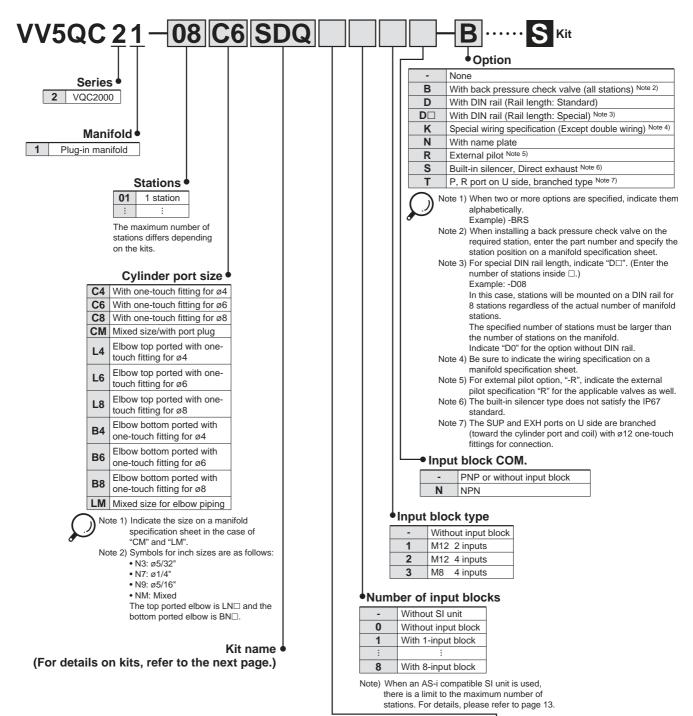


Series VQC2000 Base Mounted

Plug-in Manifold (6

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How to Order Manifold



SI unit COM.

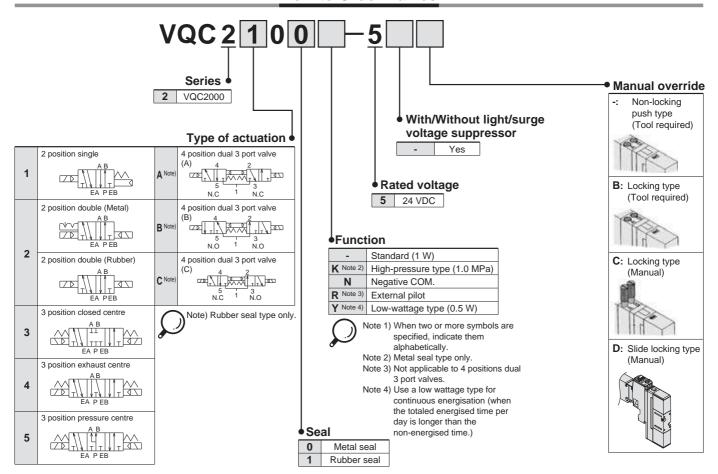
CL unit COM			EX250							
	SI unit COM. DeviceN			PROFIBUS-DP	CC-Link	AS-i	CANopen	EtherNet/IP		
	-	+COM.	_	_	0	_	_	_		
	N	-COM.	0	0	_	0	0	0		



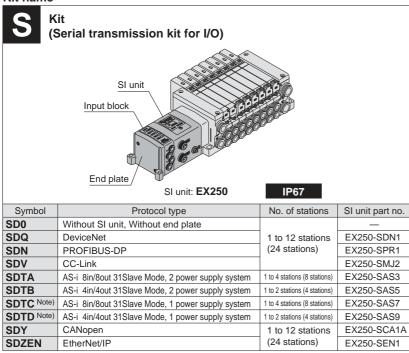
Note) Without SI unit, the symbol is "-"



How to Order Valves



Kit name



Note) There is a limit to the current supplied from an SI unit of the SDTC or SDTD specification to an input block or valve. For details, refer to page 13. SI units are compatible with IP67 ratings.

- For solenoid valve specifications and dimensions, refer to the VQC series in SMC's "Best Pneumatics" catalogue.
- For SI unit dimensions, refer to page 12.
- For details on the SI unit, refer to the separate technical instruction manual.

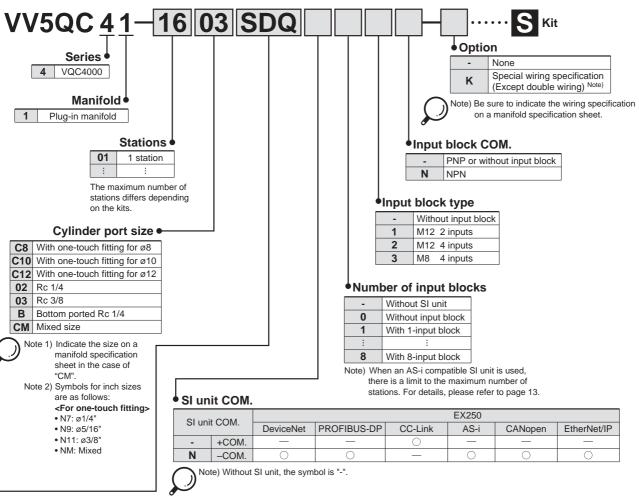


Series VQC4000 **Base Mounted**

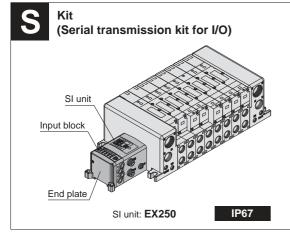
Plug-in Manifold (€

For details about certified products conforming to international standards, visit us at www.smcworld.com.

How to Order Manifold



Kit name

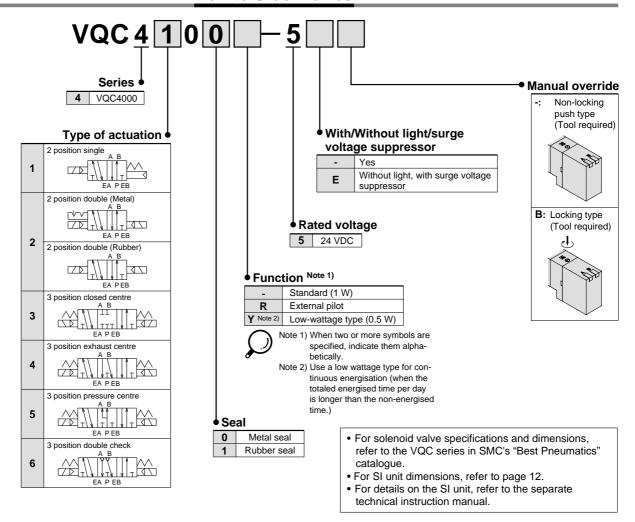


Symbol	Protocol type	No. of stations	SI unit part no.
SD0	Without SI unit, Without end plate		_
SDQ	DeviceNet	1 to 12 stations (24 stations)	EX250-SDN1
SDN	PROFIBUS-DP	EX250-SPR1	
SDV	CC-Link		EX250-SMJ2
SDTA	AS-i 8in/8out 31Slave Mode, 2 power supply system	1 to 4 stations (8 stations)	EX250-SAS3
SDTB	AS-i 4in/4out 31Slave Mode, 2 power supply system	1 to 2 stations (4 stations)	EX250-SAS5
SDTC Note)	AS-i 8in/8out 31Slave Mode, 1 power supply system	1 to 4 stations (8 stations)	EX250-SAS7
SDTD Note)	AS-i 4in/4out 31Slave Mode, 1 power supply system	1 to 2 stations (4 stations)	EX250-SAS9
SDY	CANopen	1 to 12 stations	EX250-SCA1A
SDZEN	EtherNet/IP	(24 stations)	EX250-SEN1

Note) There is a limit to the current supplied from an SI unit of the SDTC or SDTD specification to an input block or valve. For details, refer to page 13.

SI units are compatible with IP67 ratings.

How to Order Valves



Serial Wiring with Input/Output Unit Series EX250

Integrated serial wiring

• Ease of mounting, and space-savings are achievable, integrating wiring by connector.

Input/Output number

• Compatible with 32-digital outputs/inputs.

Enclosure

• IP67 compatible

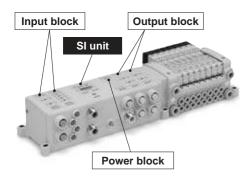
How to Order SI Unit

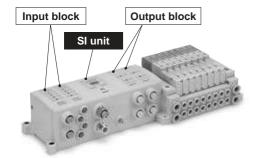
EX250-S DN1

Commi	• Communication protocol				
DN1	DeviceNet				
PR1	PROFIBUS-DP				
MJ2	CC-Link				
AS3	AS-i (8in/8out 31Slave Mode, 2 power supply system)				
AS5	AS-i (4in/4out 31Slave Mode, 2 power supply system)				
AS7	AS-i (8in/8out 31Slave Mode, 1 power supply system)				
AS9	AS-i (4in/4out 31Slave Mode, 1 power supply system)				
CA1A	CANopen				
EN1	EtherNet/IP				

For options, refer to page 16.

SI Unit







SI Unit Specifications

	Model	EX250-SDN1	EX250-SPR1	EX250-SMJ2	EX250-SCA1A	EX250-SEN1	EX250-SAS3/5	EX250-SAS7/9
	Protocol	DeviceNet	PROFIBUS-DP	CC-Link	CANopen	EtherNet/IP	AS-Interfa	ace (AS-i)
Applicable system	Version Note 1)	Release 2.0	Release 2.0 V0 Ver.1.10 CiA DS-301 V4.02 and CiA DS-401 Release 1.0		Version 2.11 Standard Address Mode			
Communication speed		125 k/250 k/ 500 kbps	187.5 k/500 khns 250 k/500 k/			167 kbps		
Power supply	Power supply voltage			21.6 to 2	6.4 VDC		26.5 to 31.6	VDC Note 2)
for input and internal control	Internal current consumption	_			100 mA or less		-	_
Power supply for output	Power supply voltage			2	22.8 to 26.4 VDC			Note 2) 26.5 to 31.6 VDC
Power supply for	Power supply voltage	11 to 25 VDC			_		26.5 to 31.6	VDC Note 2)
communication	Internal current consumption	100 mA or less —				SAS3: 100 mA or less SAS5: 65 mA or less	SAS7: 100 mA or less SAS9: 65 mA or less	
	Number of inputs		32 points (Based on input block connection) Note 5) SAS3: 8 p. SAS5: 4 p.					
Input	Supply voltage	24 VDC						
	Supply current	Max. 1.0 A				SAS3: max. 240 mA SAS5: max. 2120 mA	Note 3)	
	Output type	PNP output (-COM.) NPN output (+COM.) PNP output (-COI					M.)	
	Number of outputs	32 points S/S/S/						SAS7: 8 points SAS9: 4 points
Output	Connection block	Solenoid valve (single, double), Output block, Power block Note 6)						
	Supply voltage		24 VDC					
	Supply current	May 20 A					SAS3: max. 500 mA SAS5: max. 250 mA	Note 3)
	Enclosure		IP	67			IP67	
	Operating tempera- ture range	Operating: 5 to 45°C Stored: -20 to 60°C (with no freezing and condensation)						
Environmental	Operating humidity range		Оре	erating, Stored:	35 to 85%RH (w	vith no condensa	ation)	
resistance	Withstand voltage		500 \	VAC for 1 min. b	etween whole o	harging part and	d case	
	Insulation resistance		10 MΩ or m	ore (500 VDC N	/lega) between v	whole charging p	part and case	
	Vibration resistance	10 to 150	Hz with a 0.7 m	nm amplitude or	50 m/s² in each	X, Y, Z directio	n for 2 hrs (De-	energised)
	Impact resistance	150 m/s ² in each X, Y, Z direction, 3 times (De-energised)						
Standard		CE marking (CSA)						
Weight	I	250 g						
Accessory	Tie-rod Note 4)				2 pcs.			

Note 1) Please note that the version is subject to change.

EX250-SAS7 ··· Max.250 mA, EX250-SAS9 ··· Max.120 mA

Note 4) When an SI unit is integrated into a manifold, its tie-rods are also incorporated at the time of shipping.

Note 5) For connected input equipment, refer to page 14. Note 6) For connected output equipment, refer to page 21.

Maximum Transmission Distance

Model	Maximum transmission distance				
EX250-SDN1	500 m (125 kbps), 250 m (250 kbps), 100 m (500 kbps)				
EX250-SPR1	23 km (Repeater required)				
EX250-SMJ2	1200 m (156 kbps), 900 m (625 kbps), 400 m (2.5 Mbps), 160 m (5 Mbps), 100 m (10 Mbps)				
EX250-SCA1A	5000 m (10 kbps), 2000 m (20 kbps), 1000 m (50 kbps), 500 m (125 kbps), 250 m (250 kbps), 100 m (500 kbps), 50 m (800 kbps), 25 m (1 Mbps)				
EX250-SEN1	100 m (10/100 Mbps)				
EX250-SAS3/5					
EX250-SAS7/9	300 m (when using a repeater)				



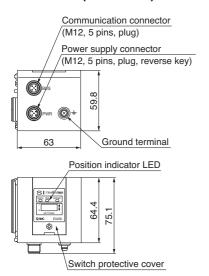
Note 2) The EX250-SAS7/9 is powered by the single system spec., in which the communication power source is separated into input, power supply for internal control, and/or for

output.

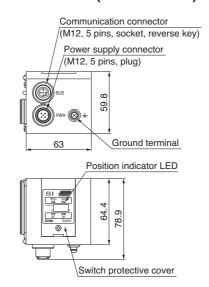
Note 3) The EX250-SAS7/9 is powered by the single system spec., that is separated for use depending on the aggregated values of input/output supply power as shown below. (For details, refer to page 13.)

SI Unit Dimensions / Parts Description

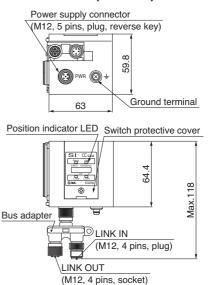
EX250-SDN1 (DeviceNet)



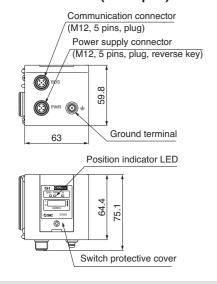
EX250-SPR1 (PROFIBUS-DP)



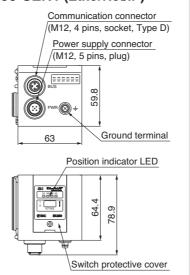
EX250-SMJ2 (CC-Link)



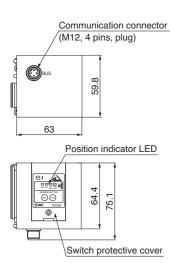
EX250-SCA1A (CANopen)



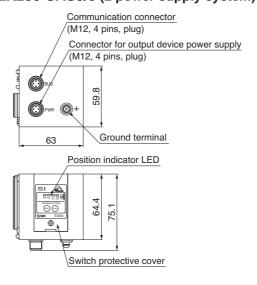
EX250-SEN1 (EtherNet/IP)



AS-i EX250-SAS7/9 (1 power supply system)



EX250-SAS3/5 (2 power supply system)





▲ Specific Product Precautions

Be sure to read this before handling. Please consult with SMC for applications outside the specifications.

When one AS-i power supply system is used

		EX250-SAS7	EX250-SAS9	
Power supply voltage		Supplied from AS-i circuit, 26.5 to 31.6 VDC Note		
Inte	ernal current consumption	Max. 100 mA	Max. 65 mA	
put	Number of inputs	8	4	
outp	Number of outputs	8	4	
Supply voltage		24 VDC		
드 냥	Supply current Note 2)	Max. 240 mA	Max. 120 mA	

- Note 1) For communication power supply, use a power supply dedicated to AS-i. For details, please refer to instruction manuals provided by the respective manufacturers.
- Note 2) The AS-i circuit provides current to the internal parts of the SI unit and all connected equipment.

 Since there is a limit on the possible supply current to all connected equipment, select the equipment connected to the input/output device to stay within the possible supply current.

Example) When EX250-SAS9 is used

Valve: VQC1100NY - 5 (low-wattage type of 0.5 W) x 4 pcs.

 $0.5 [W] \div 24 [V] \times 4 [pcs.] = 84 [mA] (4 outputs simultaneously ON)$

The maximum possible supply current of EX250-SAS9 is 120 mA. Therefore, the possible supply current to the sensor is 120 [mA] – 84 [mA] = 36 [mA]

Use of low-wattage type valves by minimising the maximum number of simultaneous outputs, and low current consumption sensors (2-wire sensor, etc.) is recommended.

Maximum number of AS-i compatible input blocks

	SI unit specifications	Inpu	ut block type	Input block maximum stations
			M12/2 inputs	4 stations
EX250-SAS3	AS-i 8in/8out 31SlaveMode, 2 power supply system	2	M12/4 inputs	2 stations
		3	M8/4 inputs	2 stations
		1	M12/2 inputs	2 stations
EX250-SAS5	AS-i 4in/4out 31SlaveMode, 2 power supply system	2	M12/4 inputs	1 station
			M8/4 inputs	1 station
			M12/2 inputs	4 stations
EX250-SAS7	AS-i 8in/8out 31SlaveMode, 1 power supply system	2	M12/4 inputs	2 stations
			M8/4 inputs	2 stations
			M12/2 inputs	2 stations
EX250-SAS9	AS-i 4in/4out 31SlaveMode, 1 power supply system	2	M12/4 inputs	1 station
		3	M8/4 inputs	1 station



SI unit

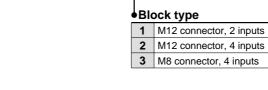
Input block

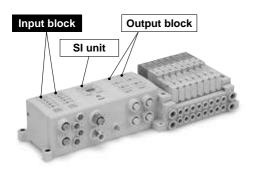
How to Order Input Blocks



Output block

- 2 M12 connector, 4 inputs
- 3 M8 connector, 4 inputs





Power block

For options, refer to page 16.

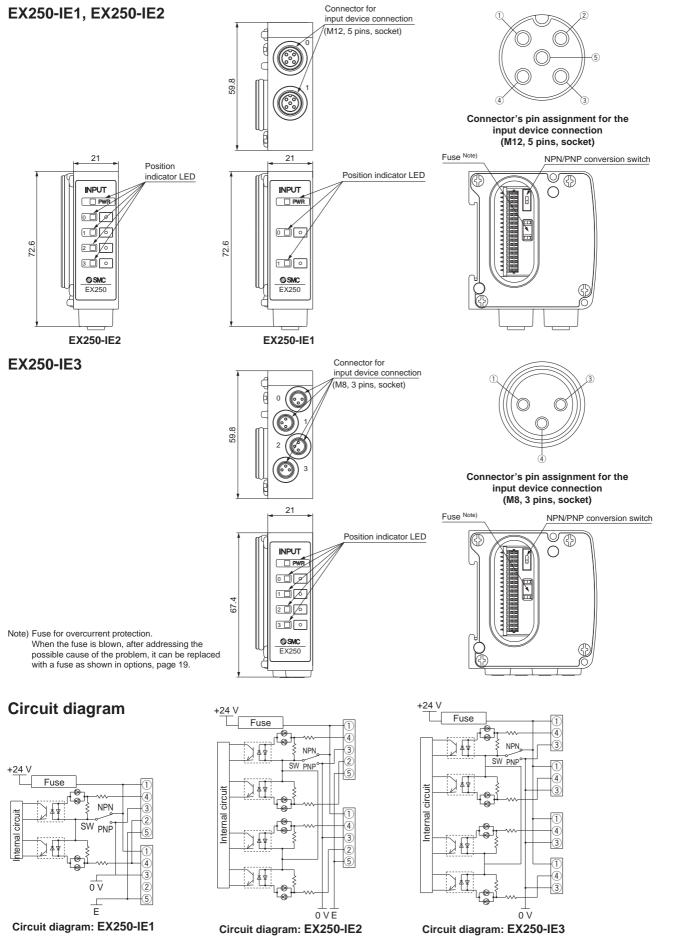
Input Block Specifications

Model		EX250-IE1 EX250-IE2 EX250-IE3						
	Input type	PNP/N	PNP/NPN input (switched using a switch)					
	Number of inputs	2 points	4 pc	pints				
la a cont	Input device supply voltage	'	24 VDC					
Input specification	Input device supply current	Max. 30 mA/point Note 1)						
	Rated input current		Approx. 8 mA					
	Display	Green LED (Illuminated when the power supply for the SI unit input is applied), Yellow LED (Illuminated when the input signal is turned on.)						
	Connector on the input device side	M12 connector (4 pins, p	M8 connector (3 pins, plug)					
	Enclosure	IP67						
	Operating temperature range	Operating: 5 to 45°C Stored: –20 to 60°C (with no freezing and condensation)						
	Operating humidity range	Operating, Stored: 35 to 85%RH (with no condensation)						
Environmental resistance	Withstand voltage	500 VAC for 1 min. between whole charging part and case						
	Insulation resistance	10 $M\Omega$ or more (500 VDC Mega) between whole charging part and case						
	Vibration resistance	10 to 150 Hz with a 0.7 mm amplitude or 50 m/s² in each X, Y, Z direction for 2 hrs (De-energised)						
	Impact resistance	150 m/s², in each X, Y, Z direction, 3 times (De-energised)						
Standard		CE marking, UL (CSA)						
Weight		90 g						
Accessory	Tie-rod Note 2)	2 pcs.						

Note 1) When the maximum inputs for the SI unit is reached by adding an input block, pay attention not to exceed the supply current for the SI unit input. Note 2) When an input block is integrated into a manifold, its tie-rods are also incorporated at the time of shipping.



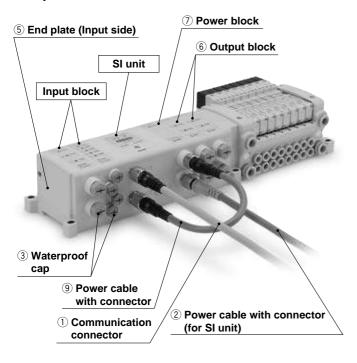
Input Block Dimensions / Parts Description



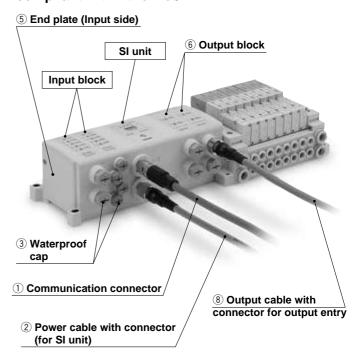
Options

Example of connections

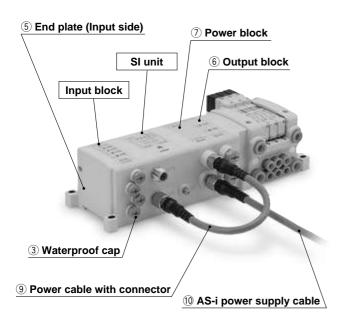
Connection example of the SI unit compliant with DeviceNet



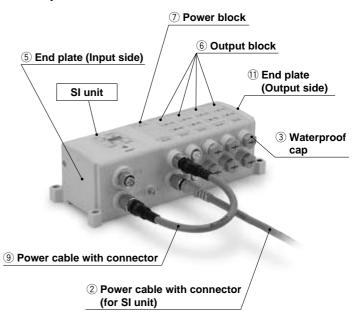
Connection example of the SI unit compliant with EtherNet/IP



Connection example of the SI unit compliant with AS-i



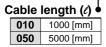
Connection example of the SI unit compliant with PROFIBUS-DP

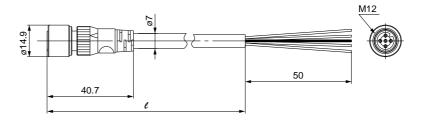


1) Communication connector

For DeviceNet type SI unit

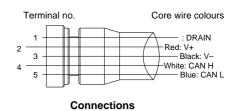
EX500-AC 050-DN



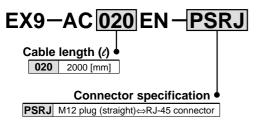


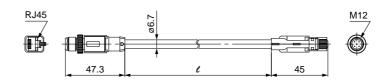


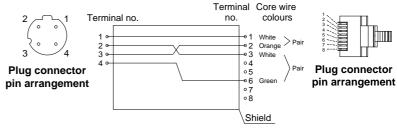
Socket connector pin arrangement



For EtherNet/IP type SI unit







Connections (Straight cable)

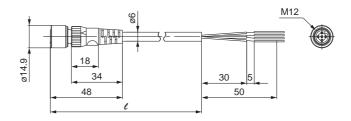
Options

2 Power cable with connector (for SI unit)

For PROFIBUS-DP, EtherNet/IP type SI unit

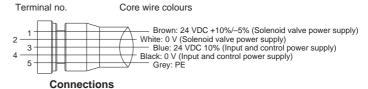








Socket connector pin arrangement

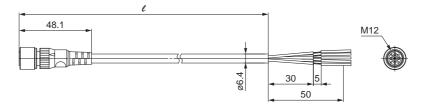


For the SI unit (except for PROFIBUS-DP, AS-i, EtherNet/IP) and power block



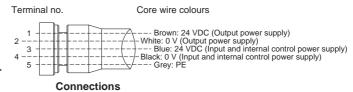


010	1000 [mm]
030	3000 [mm]
050	5000 [mm]





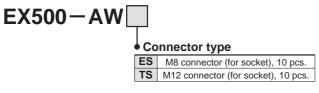
Socket connector pin arrangement

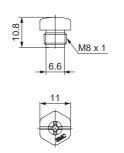


③ Waterproof cap: M8, M12 connector (for socket)

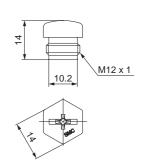
Use this on M8 and M12 connectors (socket) ports that are not being used. Use of this waterproof cap maintains the integrity of the IP65 enclosure.

Note) Tighten the waterproof cap with the prescribed tightening torque. (For M8: 0.05 N•m, For M12: 0.1 N•m)





M8 connector (for socket)



M12 connector (for socket)

4 Replacement fuse

Replacement fuse for when the fuse in the input block (EX250-IE \square) for overcurrent protection is blown.

EX9-FU05

Model	EX9-FU05	
Applicable model	EX250-IE□	
Rated current	0.5 A	
Rated insulation capacity	48 VAC/DC 50 A	
Fuse resistance value	0.36 Ω	



EX250-EA1

5 End plate (Input side)

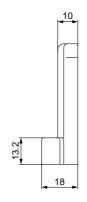
EX250-EA 1

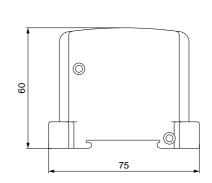
Mounting specification

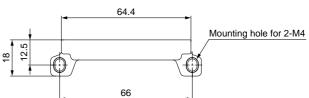
1 Direct mounting2 DIN rail mounting

Accessory

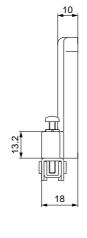
Hexagon socket head cap screw (M3 x 10): 2 pcs.

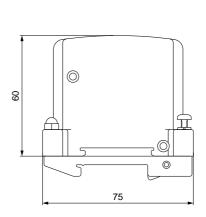


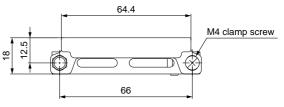




EX250-EA2







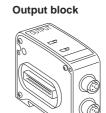


Options

6 Output block / 7 Power block

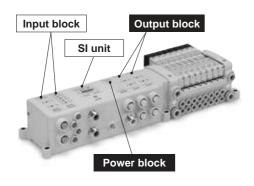
Features: • Able to retrofit to the valve manifold, using the unused points.

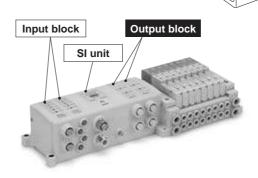
- 2-output (M12 connector)
- + common / common are standardised.
- Able to drive by 0.5 A per point.



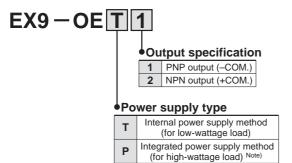
Power block







How to Order Output Block



Note) Required to connect with a power block.

How to Order Power Block

EX9-PE1

Option/Part No.

Description	Part no.	Note
Waterproof cap	EX500-AWTS	Refer to page 18. Order separately: 10 pcs. included
Power cable with connector	EX9-AC□-1	Refer to page 18, Order separately.
Cable with connector for between SI unit and power block	EX9-AC002-2 EX9-AC002-3 EX9-AC002-4	Refer to page 23, Order separately.
AS-i power supply cable	EX9-AC□-5	Refer to page 24, Order separately.

SI Unit Part No.

5. O					
SI unit part no.	Output	Applicable model			
EX250-SDN1 EX250-SPR1 EX250-SAS□ EX250-SCA1A EX250-SEN1	-СОМ.	EX9-OET1 EX9-OEP1			
EX250-SMJ2	+COM.	EX9-OET2 EX9-OEP2			

Option/Part No.

Option/Fait No.						
Description	Part no.	Applicable model		Note		
Description	Fait iio.	OET□	OEP□	Note		
Waterproof cap EX500-AWTS		0	0	Refer to page 18. Order separately: 10 pcs. included		
Cable with connector for output entry	EX9-AC□-7	0	0	Refer to page 23. Order separately.		
Power block	EX9-PE1		0	Refer to page 20. Order separately.		



Output Block Specifications

Model		EX9-OET1	EX9-OET2	EX9-OEP1	EX9-OEP2		
Output connector		M12 connector (5 pins)					
Internal curren	t consumption		40 mA	or less			
	Output type	PNP output (-COM.)	NPN output (+COM.)	PNP output (-COM.)	NPN output (+COM.)		
	Number of outputs		2 p	oints			
Output	Power supply method	Internal power	supply method	Integrated power supply method (Po	ower block: supplied from EX9-PE1)		
specification	Output device supply voltage		24 VDC				
	Output device supply current	Max. 62 mA/po	int (1.5 W/point)	Max. 0.5 A/point (12 W/point)			
	Display	Yellow LED (Lights when power is turned ON.)					
	Connector on the output device side	M12 connector (5 pins, plug)					
	Enclosure	IP67					
	Operating temperature range	Operating: 5 to 45°C Stored: –20 to 60°C (with no freezing and condensation)					
Environmental	Operating humidity range	Operating, Stored: 35 to 85%RH (with no condensation)					
resistance	Withstand voltage	1500 VAC for 1 min. between whole charging part and case					
	Insulation resistance	10 $M\Omega$ or more (500 VDC Mega) between whole charging part and case					
	Vibration resistance	10 to 150 Hz with a 0.7 mm amplitude or 50 m/s² in each X, Y, Z direction for 2 hrs (De-energised)					
	Impact resistance	100 m/s ² in each X, Y, Z direction, 3 times (De-energised)					
Standard		CE marking, UL (CSA)					
Weight		120 g					
Accessory Tie-rod		2 pcs.					

Power Block Specifications

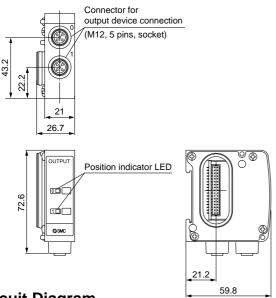
Model		EX9-PE1			
Connection block		Output block (EX9-OEP□)			
Connection block stations		Output block: Max. 9 stations (excluding input blocks) Note)			
Power supply for	Power supply voltage	22.8 to 26.4 VDC			
output and internal control	Internal power consumption	20 mA or less			
Supply current		Max. 3.1 A (When using with 3.0 to 3.1 A, the ambient temperature should not exceed 40°C, and do not bundle the cable.)			
	Enclosure	IP67			
	Operating temperature range	Operating: 5 to 45°C Stored: –20 to 60°C (with no freezing and condensation)			
	Operating humidity range	Operating, Stored: 35 to 85%RH (with no condensation)			
Environmental resistance	Withstand voltage	1500 VAC for 1 min. between whole charging part and case			
	Insulation resistance	10 ${\rm M}\Omega$ or more (500 VDC Mega) between whole charging part and case			
	Vibration resistance	10 to 150 Hz with a 0.7 mm amplitude or 50 m/s² in each X, Y, Z direction for 2 hrs (De-energised)			
	Impact resistance	100 m/s² in each X, Y, Z direction, 3 times (De-energised)			
Standard		CE marking, UL (CSA)			
Weight		120 g			
	Tie-rod	2 pcs.			
Accessory	Waterproof cap (for M12 connector socket)	1 pc. (EX500-AWTS)			

Note) The total number of connectable input/output/power block to the EX250 series SI unit (except for AS-i compliant) is 10 stations at the maximum.

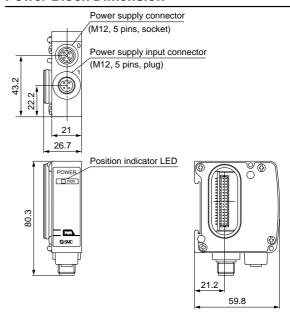


Options

Output Block Dimension

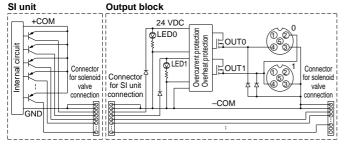


Power Block Dimension

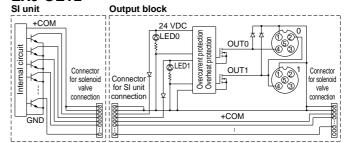


Circuit Diagram

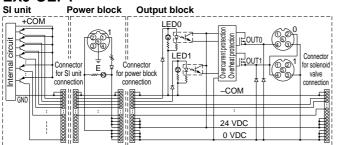
EX9-OET1



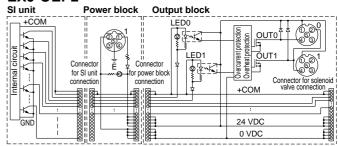
EX9-OET2



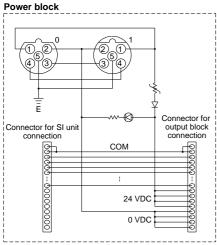
EX9-OEP1



EX9-OEP2



EX9-PE1

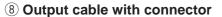


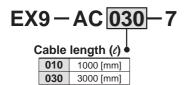
We sell this product individually. Please place an order separately. You are requested to connect it to an SI unit and a valve manifold. When using the output block only (valve manifold is unused.), place an order for an end plate (① EX9-EA \square) separately for connection.

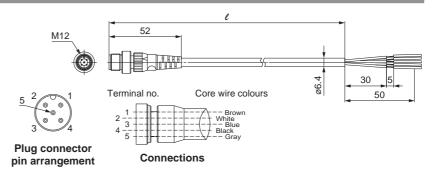
Refer to the separate technical instruction manual for connection, wiring, installation, optional goods and cable, etc.



Serial Wiring with Input/Output Unit Series EX250



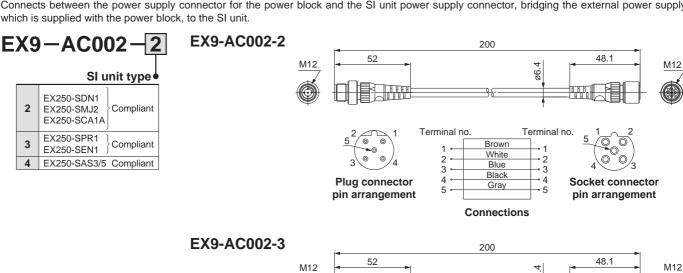


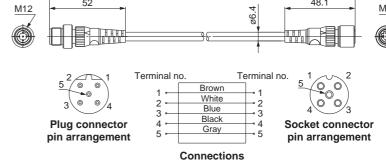


Note) Wiring to the output devices differs depending on the output style of the output block. For details, please refer to the technical documentation for the output block.

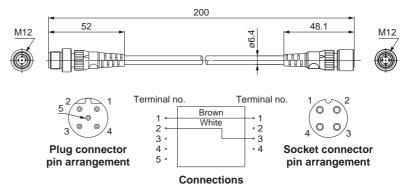
(9) Power cable with connector

Connects between the power supply connector for the power block and the SI unit power supply connector, bridging the external power supply,





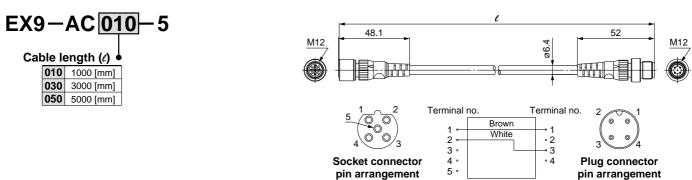
EX9-AC002-4



Options

10 AS-i power cable

Cable connecting between AS-i power supply line (for external devices) branch connector (M12) and the power block's power supply input connector.

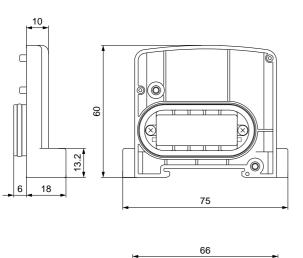


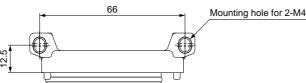
11 End plate (Output side)

The plate connected on the output block side in order to connect or fix between the SI unit and the input/output/power block when the valve manifold is not used.

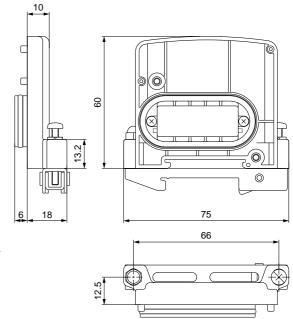


EX9-EA03



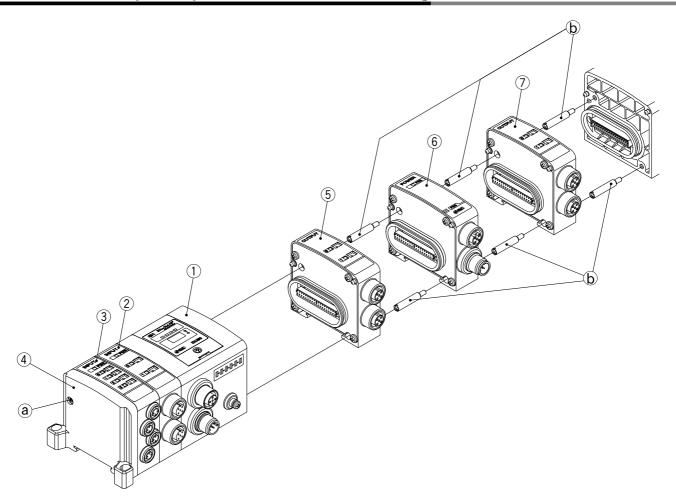


EX9-EA04



Connections

How to Increase Input/Output Blocks, Procedure Drawing



Parts List

No.	Description	Part no.	Note
1	SI unit	EX250-S□	For details, refer to page 10.
2	Input block (M12, 2 inputs)	EX250-IE1	PNP/NPN switchable
3	Input block (M8, 4 inputs)	EX250-IE3	PNP/NPN switchable
4	End plate (Input side)	EX250-EA1	EA2: DIN rail mounting
5	Output block (For low-wattage load)	EX9-OET□	1: PNP output, 2: NPN output
6	Power block	EX9-PE1	For EX9-OEP□
7	Output block (For high-wattage load)	EX9-OEP□	1: PNP output, 2: NPN output

How to increase the input block, and output block (power block)

- ① Loosen the hexagon socket head cap screws ⓐ (2 locations) which are fixing the end plate of the valve manifold.
- 2 Separate the section to be installed additionally.
- ③ Add and increase the attached tie-rod ⓑ (2 pcs per block) to the increased block respectively and pass through a block by the tie-rod.

Increased section: Input block Between the left side of the SI unit and the end plate Output (power) block Between the right side of the SI unit and the valve

- ④ Fix by loosening the hexagon socket head cap screw ⓐ, paying attention to avoid the gap between eack block.
- * In the case of the DIN rail manifold, prepare the DIN rail long enough to ensure the extended length, because the length of the manifold is increased by a 21 mm per block addition. Please contact SMC for the DIN rail's part number and its specifications.







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