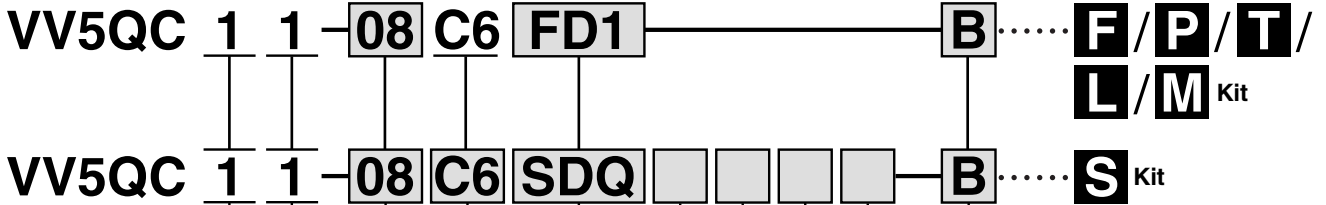


Series VQC1000

Base Mounted Plug-in Unit

How to Order Manifold



Series

1	VQC1000
---	---------

Manifold model

1	Plug-in unit
---	--------------

Stations

01	1 station
⋮	⋮

The maximum number of stations differs depending on the electrical entry.

Cylinder port size

C3	With ø3.2 One-touch fitting
C4	With ø4 One-touch fitting
C6	With ø6 One-touch fitting
M5	M5 thread
CM	Mixed sizes and with port plug
L3	Top ported elbow With ø3.2 One-touch fitting
L4	Top ported elbow With ø4 One-touch fitting
L6	Top ported elbow With ø6 One-touch fitting
L5	M5 thread
B3	Bottom ported elbow With ø3.2 One-touch fitting
B4	Bottom ported elbow With ø4 One-touch fitting
B6	Bottom ported elbow With ø6 One-touch fitting
B5	M5 thread
LM	Elbow port, mixed sizes

Note 1) Indicate the size in the specification sheet in the case of "CM" and "LM".

Note 2) Symbols for inch sizes areas follows:

<For One-touch fittings>
 N1: ø1/8"
 N3: ø5/32"
 N7: ø1/4"
 NM: Mixed

The top ported elbow is LN□ and the bottom ported elbow is BN□.

Kit designation/Electrical entry/Cable length
 (Refer to page 2-2-12 for detailed information on kits.)

Option

Nil	None
B	All stations with back pressure check valve ^{Note 1)}
D	With DIN rail (Rail length: Standard)
D□	With DIN rail (Rail length: Special) ^{Note 2)}
K	Special wiring specifications ^{Note 3)} (Except double wiring)
N	With name plate
R	External pilot ^{Note 4)}
S	Direct exhaust with built-in silencer ^{Note 5)}

* When specifying more than one option, enter symbols in alphabetical order.
 Example: -BRS

Note 1) When using the back pressure check valve for the necessary stations only, enter the back pressure check valve part no. and indicate the number of manifold stations on the specification sheet.

Note 2) For special DIN rail length, indicate "D□". (Enter the number of stations inside □.)

Example: -D08
 In this case, stations will be mounted on a DIN rail for 8 stations regardless of the actual number of manifold stations.

The specified number of stations must be larger than the number of stations on the manifold.

Indicate "-D0" for the option without DIN rail.

Note 3) Be sure to indicate the wiring specifications on the specification sheet.

Note 4) For external pilot option, "-R", indicate the external pilot specification "R" for the applicable valves as well.

Note 5) The built-in silencer type does not satisfy the IP67 standard.

Input block COM.
 (Fill out for I/O unit only)

Nil	PNP (+) or without SI unit/input block
N	NPN (-)

Input block type
 (Fill out for I/O unit only)

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

SI unit COM

SI unit COM	EX250					EX500				EX126
	DeviceNet	PROFIBUS-DP	CC-LINK	AS-i	CANopen	DeviceNet	PROFIBUS-DP	CC-LINK	Remote I/O	CC-LINK
Nil +COM	—	—	○	—	—	○	○	○	○	○
N -COM	○	○	—	○	○	○	○	○	○	—

Note) Leave the box blank for the SI unit COM without SI unit (SD0).

Number of input blocks
 (Fill out for I/O unit only)

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

- VQC
- SQ
- VQ0
- VQ4
- VQ5
- VQZ
- VQD

How to Order Valves

VQC 1 1 0 0 **5**

Series
1 VQC1000

Type of actuation

1	2 position single (A)(B) 4 2 5 1 3 (R1)(P)(R2)	A Note)	4 position dual 3 port valve (A) (A) (B) 4 2 5 1 3 (R1) 1 (R2) N.C (P) N.C
2	2 position double (metal) (A)(B) 4 2 5 1 3 (R1)(P)(R2)	B Note)	4 position dual 3 port valve (B) (A) (B) 4 2 5 1 3 (R1) 1 (R2) N.O (P) N.O
	2 position double (rubber) (A)(B) 4 2 5 1 3 (R1)(P)(R2)		C Note)
3	3 position closed center (A)(B) 4 2 5 1 3 (R1)(P)(R2)	Note) For rubber seal type only.	
	3 position exhaust center (A)(B) 4 2 5 1 3 (R1)(P)(R2)		
	3 position pressure center (A)(B) 4 2 5 1 3 (R1)(P)(R2)		

Seal type

0	Metal seal
1	Rubber seal

Light/Surge voltage suppressor

Nil	With
E	Without Note)

Note) Not applicable to S kit.

Coil voltage

5	24 VDC Note)
6	12 VDC

Note) S kit is only available for 24 VDC.

Function

Nil	Standard type (1 W)
K Note 1)	High pressure type (1.0 MPa)
N	Negative COM
R Note 2)	External pilot
Y	Low wattage type (0.5 W)

* When specifying more than one option, enter symbols in alphabetical order.
Note 1) For metal seal type only.
Note 2) Not applicable for dual 3 port valve.

Manual override

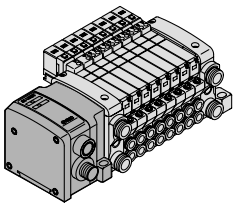
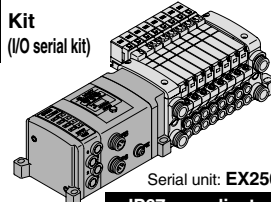
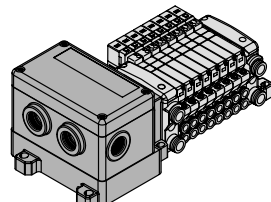
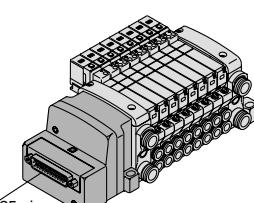
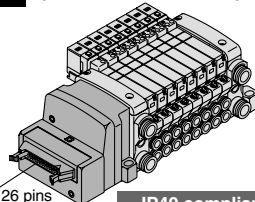
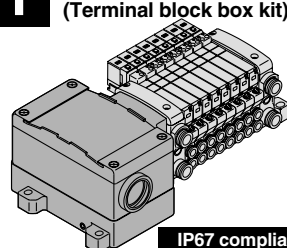
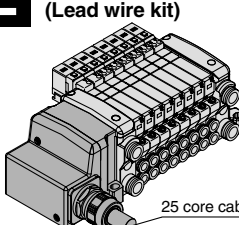
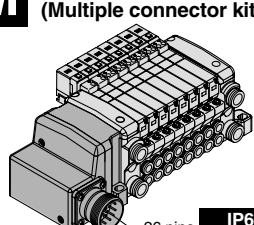
Nil: Non-locking push type (Slotted)

B: Locking type (Slotted)

C: Locking type (Manual)

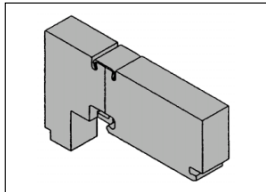
D: Slide locking type (Manual)

Kit Designation/Electrical Entry/Cable Length

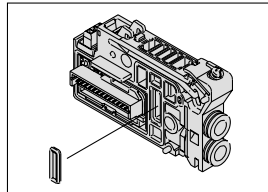
<p>S Kit (Decentralized wiring type serial kit)</p>  <p>Serial unit: EX500 IP67 compliant</p> <p>Note) A separate gateway unit and communication cable are required.</p> <table border="1"> <tr> <td>SD0 Serial kit without SI unit</td> <td></td> </tr> <tr> <td>SDA1 Serial kit for Remote I/O</td> <td>1 to 8 stations (16 stations)</td> </tr> <tr> <td>SDA2 Serial kit for DeviceNet/PROFIBUS-DP/CC-LINK</td> <td></td> </tr> </table>	SD0 Serial kit without SI unit		SDA1 Serial kit for Remote I/O	1 to 8 stations (16 stations)	SDA2 Serial kit for DeviceNet/PROFIBUS-DP/CC-LINK		<p>S Kit (I/O serial kit)</p>  <p>Serial unit: EX250 IP67 compliant</p> <table border="1"> <tr> <td>SD0 Serial kit without SI unit</td> <td></td> </tr> <tr> <td>SDY Serial kit for CANopen</td> <td></td> </tr> <tr> <td>SDQ Serial kit for DeviceNet</td> <td>1 to 12 stations (24 stations)</td> </tr> <tr> <td>SDN Serial kit for PROFIBUS-DP</td> <td></td> </tr> <tr> <td>SDV Serial kit for CC-LINK</td> <td></td> </tr> <tr> <td>SDTA AS-; 8 in/out, 31 slave modes, 2 power supply systems</td> <td>1 to 4 stations (8 stations)</td> </tr> <tr> <td>SDTB AS-; 4 in/out, 31 slave modes, 2 power supply systems</td> <td>1 to 2 stations (4 stations)</td> </tr> <tr> <td>SDTC AS-; 8 in/out, 31 slave modes, 1 power supply systems</td> <td>1 to 4 stations (8 stations)</td> </tr> <tr> <td>SDTD AS-; 4 in/out, 31 slave modes, 1 power supply systems</td> <td>1 to 2 stations (4 stations)</td> </tr> </table>	SD0 Serial kit without SI unit		SDY Serial kit for CANopen		SDQ Serial kit for DeviceNet	1 to 12 stations (24 stations)	SDN Serial kit for PROFIBUS-DP		SDV Serial kit for CC-LINK		SDTA AS-; 8 in/out, 31 slave modes, 2 power supply systems	1 to 4 stations (8 stations)	SDTB AS-; 4 in/out, 31 slave modes, 2 power supply systems	1 to 2 stations (4 stations)	SDTC AS-; 8 in/out, 31 slave modes, 1 power supply systems	1 to 4 stations (8 stations)	SDTD AS-; 4 in/out, 31 slave modes, 1 power supply systems	1 to 2 stations (4 stations)	<p>S Kit (Serial output kit)</p>  <p>Serial unit: EX126 IP67 compliant</p> <table border="1"> <tr> <td>SDVB Serial kit for CC-LINK</td> <td>1 to 8 stations (16 stations)</td> </tr> </table>	SDVB Serial kit for CC-LINK	1 to 8 stations (16 stations)	<p>F Kit (D-sub connector kit)</p>  <p>25 pins</p> <p>IP40 compliant</p> <table border="1"> <tr> <td>FD0 D-sub connector kit (25P) without cable</td> <td></td> </tr> <tr> <td>FD1 D-sub connector kit (25P) with 1.5 m cable</td> <td>1 to 12 stations (24 stations)</td> </tr> <tr> <td>FD2 D-sub connector kit (25P) with 3.0 m cable</td> <td></td> </tr> <tr> <td>FD3 D-sub connector kit (25P) with 5.0 m cable</td> <td></td> </tr> </table>	FD0 D-sub connector kit (25P) without cable		FD1 D-sub connector kit (25P) with 1.5 m cable	1 to 12 stations (24 stations)	FD2 D-sub connector kit (25P) with 3.0 m cable		FD3 D-sub connector kit (25P) with 5.0 m cable	
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<p>P Kit (Flat ribbon cable kit)</p>  <p>26 pins 20 pins</p> <p>IP40 compliant</p> <p>Note) For a 20P flat ribbon cable, the cable assembly must be ordered separately.</p> <table border="1"> <tr> <td>PD0 Flat ribbon cable kit (26P) without cable</td> <td></td> </tr> <tr> <td>PD1 Flat ribbon cable kit (26P) with 1.5 m cable</td> <td>1 to 12 stations (24 stations)</td> </tr> <tr> <td>PD2 Flat ribbon cable kit (26P) with 3.0 m cable</td> <td></td> </tr> <tr> <td>PD3 Flat ribbon cable kit (26P) with 5.0 m cable</td> <td></td> </tr> <tr> <td>PDC Flat ribbon cable kit (20P) without cable</td> <td>1 to 9 stations (18 stations)</td> </tr> </table>	PD0 Flat ribbon cable kit (26P) without cable		PD1 Flat ribbon cable kit (26P) with 1.5 m cable	1 to 12 stations (24 stations)	PD2 Flat ribbon cable kit (26P) with 3.0 m cable		PD3 Flat ribbon cable kit (26P) with 5.0 m cable		PDC Flat ribbon cable kit (20P) without cable	1 to 9 stations (18 stations)	<p>T Kit (Terminal block box kit)</p>  <p>IP67 compliant</p> <table border="1"> <tr> <td>TD0 Terminal block box kit</td> <td>1 to 10 stations (20 stations)</td> </tr> </table>	TD0 Terminal block box kit	1 to 10 stations (20 stations)	<p>L Kit (Lead wire kit)</p>  <p>25 core cable</p> <p>IP67 compliant</p> <table border="1"> <tr> <td>LD0 Lead wire kit (25 core) 0.6 m lead wire</td> <td>1 to 12 stations (24 stations)</td> </tr> <tr> <td>LD1 Lead wire kit (25 core) 1.5 m lead wire</td> <td></td> </tr> <tr> <td>LD2 Lead wire kit (25 core) 3.0 m lead wire</td> <td></td> </tr> </table>	LD0 Lead wire kit (25 core) 0.6 m lead wire	1 to 12 stations (24 stations)	LD1 Lead wire kit (25 core) 1.5 m lead wire		LD2 Lead wire kit (25 core) 3.0 m lead wire		<p>M Kit (Multiple connector kit)</p>  <p>26 pins</p> <p>IP67 compliant</p> <table border="1"> <tr> <td>MD0 Multiple connector kit (26P) without cable</td> <td></td> </tr> <tr> <td>MD1 Multiple connector kit (26P) with 1.5 m cable</td> <td>1 to 12 stations (24 stations)</td> </tr> <tr> <td>MD2 Multiple connector kit (26P) with 3.0 m cable</td> <td></td> </tr> <tr> <td>MD3 Multiple connector kit (26P) with 5.0 m cable</td> <td></td> </tr> </table>	MD0 Multiple connector kit (26P) without cable		MD1 Multiple connector kit (26P) with 1.5 m cable	1 to 12 stations (24 stations)	MD2 Multiple connector kit (26P) with 3.0 m cable		MD3 Multiple connector kit (26P) with 5.0 m cable									
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MD2 Multiple connector kit (26P) with 3.0 m cable																																					
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Manifold Option

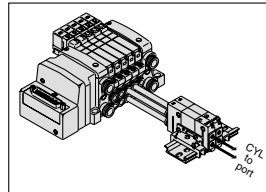
Blanking plate assembly
VVQ1000-10A-1



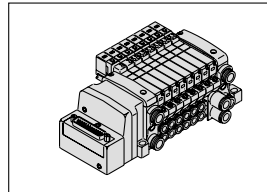
SUP block plate
VVQ1000-16A



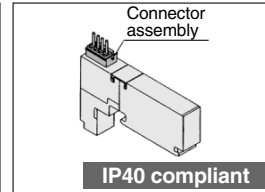
Perfect block
VVQ1000-FPG-□□



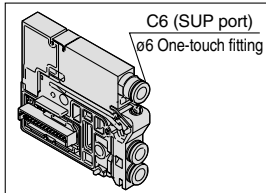
Dual flow fitting assembly
VVQ1000-52A-C8



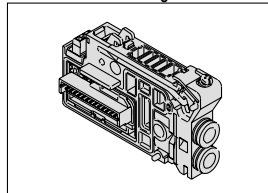
Blanking plate with connector
VVQ1000-1C□□-□



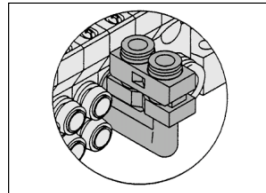
Individual SUP spacer
VVQ1000-P-1-C6



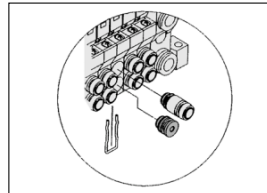
EXH block plate assembly
VVQC1000-19A-S-□□□□□□



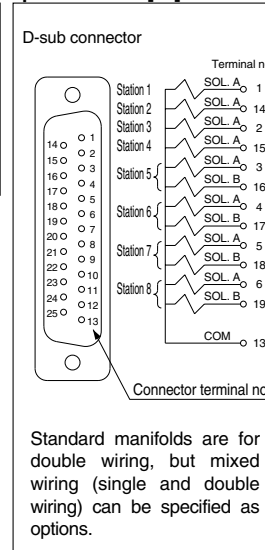
Elbow fitting assembly
VVQ1000-F-L□



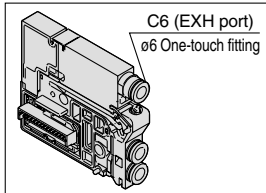
Port plug
VVQ0000-58A



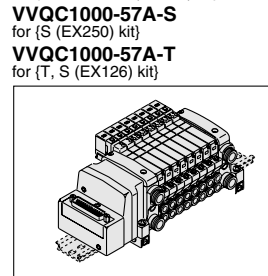
Electrical wiring specifications [-K]



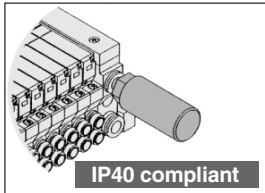
Individual EXH spacer
VVQ1000-R-1-C6



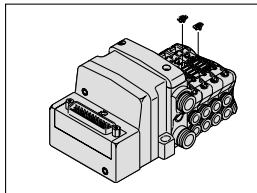
DIN rail mounting bracket [-D]
VVQ1000-57A
for (F, L, M, P, S (EX500) kit)



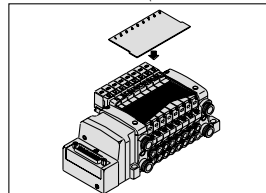
Silencer (For EXH port)
AN200-KM8
AN203-KM8



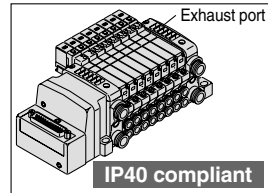
Back pressure check valve assembly [-B]
VVQ1000-18A



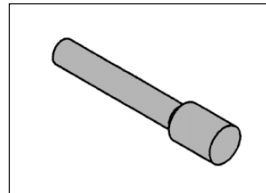
Name plate [-N]
VVQ1000-N-Stations (1 to max. no. of stations)



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



Blanking plug
KQ2P-□



VQC

SQ

VQ0

VQ4

VQ5

VQZ

VQD

Standard Specifications

Valve Configuration		Metal seal		Rubber seal		
		Air/Inert gas				
Valve specifications	VQC1000/2000	Max. operating pressure		0.7 MPa (High pressure type: 1.0 MPa) ^{Note 4)}		
		Min. operating pressure	Single	0.1 MPa	0.15 MPa	
			Double	0.1 MPa		
			3 position	0.1 MPa	0.2 MPa	
			4 position	—	0.15 MPa	
	VQC4000	Max. operating pressure ^{Note 3)}		1.0 MPa (0.7 MPa)		
		Min. operating pressure	Single	0.15 MPa	0.2 MPa	
			Double	0.15 MPa		
	3 position	0.15 MPa	0.2 MPa			
	Proof pressure		1.5 MPa			
Ambient and fluid temperature		-10 to 50°C ^{Note 1)}				
Lubrication		Not required				
Manual override		Push type/Locking type (tool required)/Locking type (Manual override) ^{Note 5)/Slide locking type ^{Note 5)}}				
Impact resistance/Vibration resistance		150/30 m/s ² ^{Note 2)}				
Enclosure		Dust proof (IP67 compliant)				
Electrical specifications	Rated coil voltage		24 VDC			
	Allowable voltage fluctuation		±10% of rated voltage			
	Coil insulation type		Equivalent to B type			
	Power consumption (Current)	24 VDC	1 W DC (42 mA), 0.5 W DC (21 mA)			
		12 VDC	1 W DC (83 mA), 0.5 W DC (42 mA)			

- VQC
- SQ
- VQ0
- VQ4
- VQ5
- VQZ
- VQD

Note 1) Use dry air to prevent condensation at low temperatures.
 Note 2) **Impact resistance:** No malfunction resulted from the 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 states.
Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000Hz. Test was performed in the axial and right angle directions of the main valve and armature for both energized and de-energized states.
 Note 3) Values in () are for the low wattage (0.5 W) specification.
 Note 4) Metal seal type only.
 Note 5) Only for VQC1000/2000.



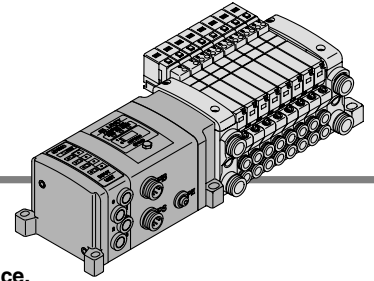
Manifold Specifications

Series	Base model	Connection type	Piping specifications		Applicable stations ^{Note 2)}	Applicable solenoid valves	5 station weight (g)
			Port direction	Port size ^{Note 1)}			
VQC1000	VV5QC11-□□□	<ul style="list-style-type: none"> ■ F Kit: D-sub connector ■ P Kit: Flat cable ■ T Kit: Terminal block box ■ S Kit: Serial transmission ■ L Kit: Lead wire ■ M Kit: Multiple connector 	Side	C8 (For ø8) Options Direct outlet with built-in silencer C3 (For ø3.2) C4 (For ø4) C6 (For ø6) M5 (M5 threads)	(F, L, M and P kits) 1 to 12 stations T kit 1 to 10 stations S kit 1 to 8 stations: EX500 1 to 12 stations: EX250 1 to 8 stations: EX126	VQC1□00-5 VQC1□01-5	628 (Single) 759 (Double, 3P)
VQC2000	VV5QC21-□□□		Side	C10 (For ø10) Options Direct outlet with built-in silencer Branch type C12 (for ø12) C4 (For ø4) C6 (For ø6) C8 (For ø8)	1 to 8 stations: EX500 1 to 12 stations: EX250 1 to 8 stations: EX126	VQC2□00-5 VQC2□01-5	1051 (Single) 1144 (Double, 3P)
VQC4000	VV5QC41-□□□		Side Bottom	C8 (For ø8) C10 (For ø10) C12 (For ø12) Rc 1/4 Rc 3/8 Rc 1/4	(F, L, M and P kits) 1 to 12 stations T kit 1 to 10 stations S kit 1 to 12 stations: EX240, EX250 1 to 8 stations: EX500 1 to 8 stations: EX126	VQC4□00-5 VQC4□01-5	4150 • S kit (without unit) • Solenoid weight is not included.

Note 1) One-touch fittings in inch sizes are also available.
 Note 2) An optional specification for special wiring is available to increase the maximum number of stations.



S VQC1000/2000/4000 Kit (Serial Transmission Kit) for I/O IP67 compliant



Compatible network DeviceNet/PROFIBUS-DP/CC-Link

• The serial transmission system greatly reduces connection work, minimizes wiring, and saves space.

SI unit for DeviceNet/PROFIBUS-DP/CC-LINK

As a DeviceNet/PROFIBUS-DP/CC-LINK slave unit, this kit is capable of up to 32 points of solenoid valve ON and OFF control. Furthermore, by connecting an input block, a maximum 32 sensor signal inputs are possible.

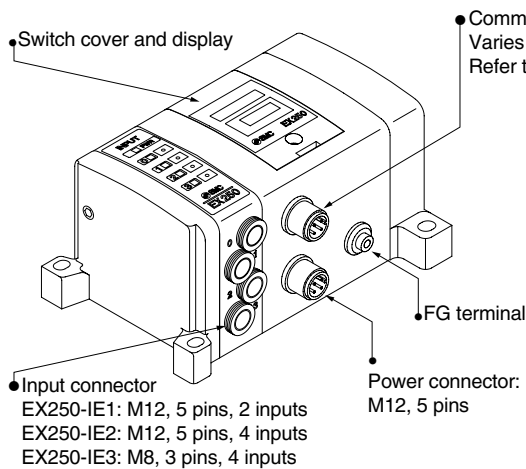
SI unit for AS-i

As a AS-i slave unit, this kit is capable of up to 4 or 8 points of solenoid valve ON and OFF control. Furthermore, by connecting an input block, a maximum 4 or 8 sensor signal inputs are possible.

Input block

This expansion block connects to the SI unit and allows for sensor input to the auto switches. Each input block can receive input from up to two or four sensors, and the common can be matched to the sensor by an NPN/PNP selector switch. Input connectors are available in both M8 and M12 types.

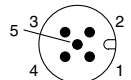
Connector Details



Communication connector

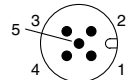
CANopen: Female connector cable: M12 female 5 pins cable with shield (according to ISO11898).

Pos.	Description	Function
1	CAN_SHLD	Shield
2	CAN_V+	Power supply +
3	CAN_GND	Power supply -
4	CAN_H	Bus line (dominant High)
5	CAN_L	Bus line (dominant Low)



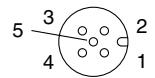
DeviceNet: M12...5 pins (Plug) Example for a cable set with plug / socket: OMRON Corporation DCA1-5CN05F1. Karl Lumberg GmbH: 0935 253 103/...M, RSC RKC 57* ... M. Accessories, bus branch Y: Karl Lumberg GmbH: 0906 UTP 101, Hans Turck GmbH: VB2-FKM-FSM57. Accessories terminating socket with resistor: Hans Turck GmbH: RSE57-TR2, Karl Lumberg GmbH: 0939 CXT 101.

Pos.	Description	Function
1	Drain	Drain / shield
2	V+	Circuit power supply +
3	V-	Circuit power supply -
4	CAN_H	Signal H
5	CAN_L	Signal L



PROFIBUS-DP: M12... 5 pins reserve-keyed (Socket). Example for the corresponding cable sets with plug / socket: Hans Turck GmbH: RSSW-RKSW456-...M; Karl Lumberg GmbH: 0975 254 101/...M. Accessories Bus branch Y: Hans Turck GmbH: VB2/FSW/FKW/FSW45. Accessories terminating resistor: Hans Turck GmbH: RSS4.5-PDP-TR; Karl Lumberg GmbH: 0979PTX101

Pos.	Description	Function
1	VP	Power supply for terminating resistor
2	A-N	Negative for data transfer/reception
3	DGND	Ground for terminating resistor
4	B-P	Positive for data transfer/reception
5	SHIELD	Shield



Circuit diagram Input module (EX250-IE*)

Input connection: M12 ... 5 pins (Socket)
Example for the cable side connection: OMRON Corporation XS2G;
Karl Lumberg GmbH: Series RST5; Franz Binder GmbH: Series 713,763

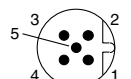
Pos.	Description	Function
1	SW+	Sensor power supply +
2	N.C (SIGNAL)	Open*
3	SW-	Sensor power supply -
4	SIGNAL	Sensor input signal
5	E	Sensor ground connection

* In the 4 input type unit (EX250-IE2), this is the input signal from the second sensor connected.

Power supply

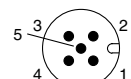
DeviceNet: M12 ... 5 pins reserve-keyed (Plug)
(The configuration of the connection surface area differs from that of the transmission plug)
Example of the cable set with socket: Hans Turck GmbH: WAKW4.5T-2, Franz Binder GmbH: 79-4449-...05.

Pos.	Description	Function
1	SV24V	+24 V solenoid valve
2	SV0V	0V solenoid valve
3	SW24V	+24 V SI and input blocks
4	SW0V	0 V SI and input blocks
5	E	Ground connection



PROFIBUS-DP: M12...5 pins (Plug)
Example of the cable set with socket:
SMC: EX500-AP...S (See page 2-2-25.)

Pos.	Description	Function
1	SV24V	+24 V solenoid valve
2	SV0V	0 V solenoid valve
3	SW24V	+24 V SI and input blocks
4	SW0V	0 V SI and input blocks
5	E	Ground connection



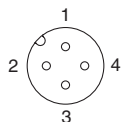
Input connection: M8 ... 3 pins (Socket)
Example for cable side connection: Franz Binder GmbH Series 718, 768
Karl Lumberg GmbH: Series RSMV3



Pos.	Description	Function
1	SW+	Sensor power supply +
3	SW-	Sensor power supply -
4	SIGNAL	Sensor input signal

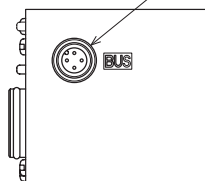
AS-i EX250-SAS7 / EX250-SAS9

Communication connector: M12 male 4 pins

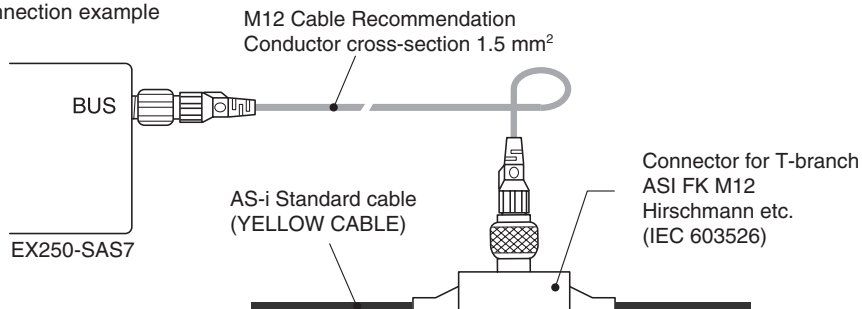


Pos.	Description	Function
1	AS-i +	Positive AS-Interface line
2	RESERVE	RESERVE
3	AS-i -	Negative AS-Interface line
4	RESERVE	RESERVE

Communication connector



Connection example



VQC

SQ

VQ0

VQ4

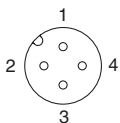
VQ5

VQZ

VQD

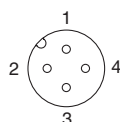
AS-i EX250-SAS3 / EX250-SAS5

Communication connector: M12 male 4 pins



Pos.	Description	Function
1	AS-i +	Positive AS-Interface line
2	0V	Negative output equipment power line
3	AS-i -	Negative AS-Interface line
4	24V	Positive output equipment power line

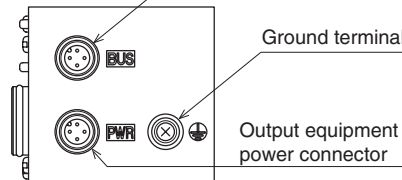
Output equipment power connector: M12 male 4 pins



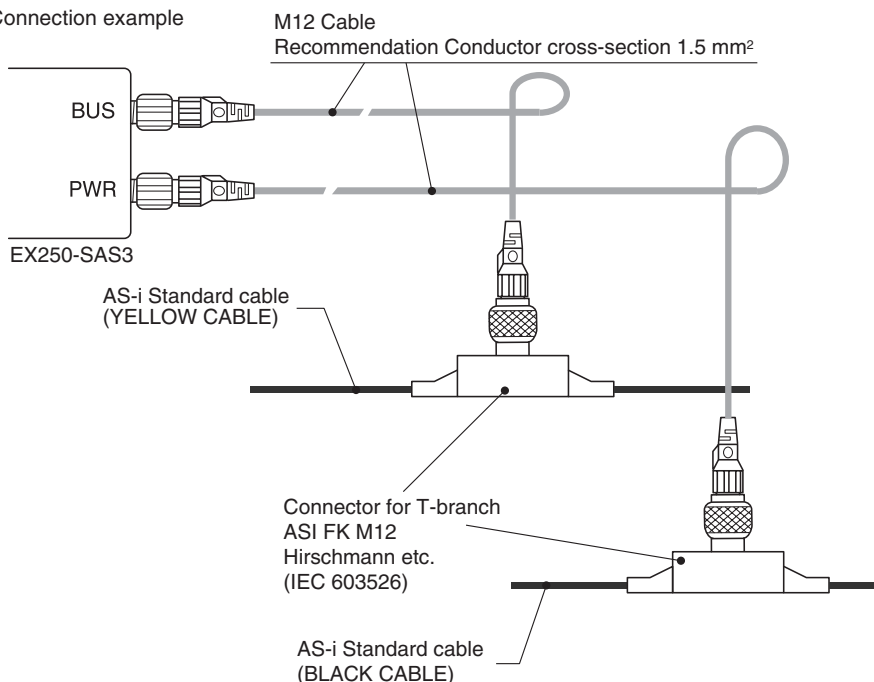
Pos.	Description	Function
1	24V	Positive output equipment power line
2	NC	Not connected
3	0V	Negative output equipment power line
4	NC	Not connected

* Connected inside the SI unit.

Communication connector



Connection example

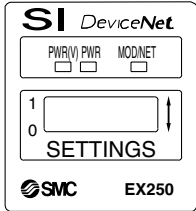


S VQC1000/2000/4000 Kit (Serial transmission kit) for I/O **IP67 compliant**

Indicator Unit (LED) Description and Its Function

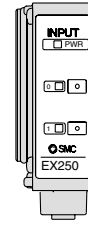
SI unit

DeviceNet (EX250-SDN1)

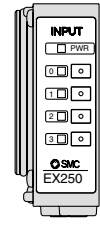


Name	Function
PWR(V)	ON when solenoid valve power supply is turned ON.
PWR	ON when DeviceNet circuit power supply input is turned ON.
MOD/NET	OFF: Power supply off, off line, or when checking duplication of MAC_ID.
	GREEN BLINKING: Waiting for connection (on line).
	GREEN ON: Connection established (on line).
	RED BLINKING: Connection time out (minor communication abnormality).
	RED ON: MAC_ID duplication error, or BUSOFF error (major communication abnormality).

Input block (EX250-IE1/2/3)



2-input type (EX250-IE1)



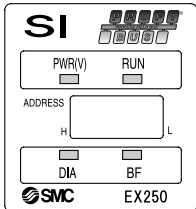
4-input type (EX250-IE2/3)

Description	Function
PWR	ON when sensor power is turned ON.
0 to 1(3)	ON when each sensor input goes ON.



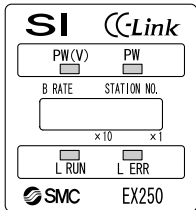
* Please contact your SMC representative for specifications and handling precautions.

PROFIBUS-DP (EX250-SPR1)



Name	Function
PWR(V)	GREEN ON when solenoid valve power supply is turned ON. GREEN OFF when the power supply voltage is less than 19 V.
RUN	GREEN ON when operating (SI unit power supply is ON).
DIA	RED ON when self diagnosis device detects abnormality.
BF	RED ON for BUS abnormality.

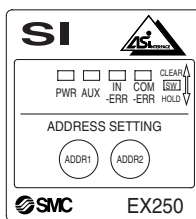
CC-Link (EX250-SMJ2)



Name	Function
PW	ON: Input and control unit power supply ON. OFF: Input and control unit power supply OFF.
PW(V)	ON: Solenoid valve power supply ON. OFF: Solenoid valve power supply voltage is less than 19 V.
L RUN	ON: Normal traffic OFF: Traffic disconnected (Timeover error)
L ERR	ON: Traffic error BLINKING: Station or baud rate switch is set while the power supply is ON. OFF: Normal traffic

When the data link is normal, PW, PW (V) and L RUN are ON.

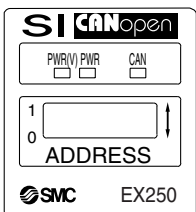
AS-i (EX250-SAS□)



Name	LED Condition	Contents
PWR	Green Light	In time of power supply for AS-Interface line is turned on.
AUX	Green Light	In time of auxiliary power supply for output equipment is turned on.
IN-ERR	Red Light	In time of input power is detected over current. (Lights off at normal condition)
COM-ERR	Red Light	In time of communication error. (Lights off at normal condition)
	Red Blink	In time of peripheral equipment error. (Over current of input power, blowing the fuse etc.)

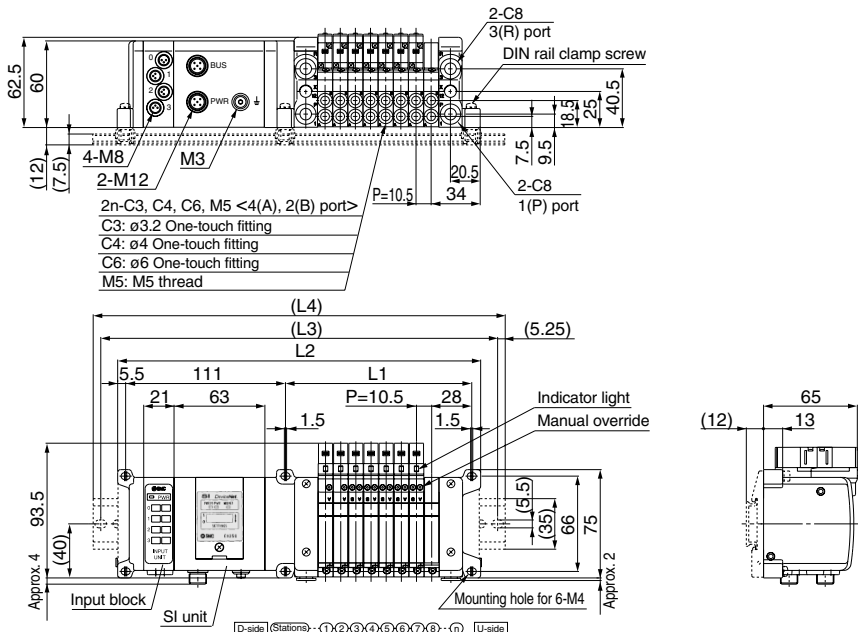
SI unit

CANopen (EX250-SCA1)



Name	LED Condition	Contents
PWR(V)	Green Light	Illuminates when power for solenoid valves is supplied
	Green Light	Illuminates when power for CANopen line is supplied
PWR	Green Light	Illuminates when SI unit is in the Operational state
	Green Light (Blinking)	SI unit is in the Pre-operational state
	Green Light (Single flash)	Single flash when SI unit is in Stopped state
	Red Light (Single flash)	Single flash when CAN controller error occurs
	Red Light (Double flash)	Double flash when Error Control Event occurs
	Green/Red Light (flickering)	Flickering when SI unit is in Configuration mode (LSS services)
	Red Light	Red Light SI unit is in "Bus OFF" state

VV5QC11
S Kit
 (Serial transmission
 kit: EX250)

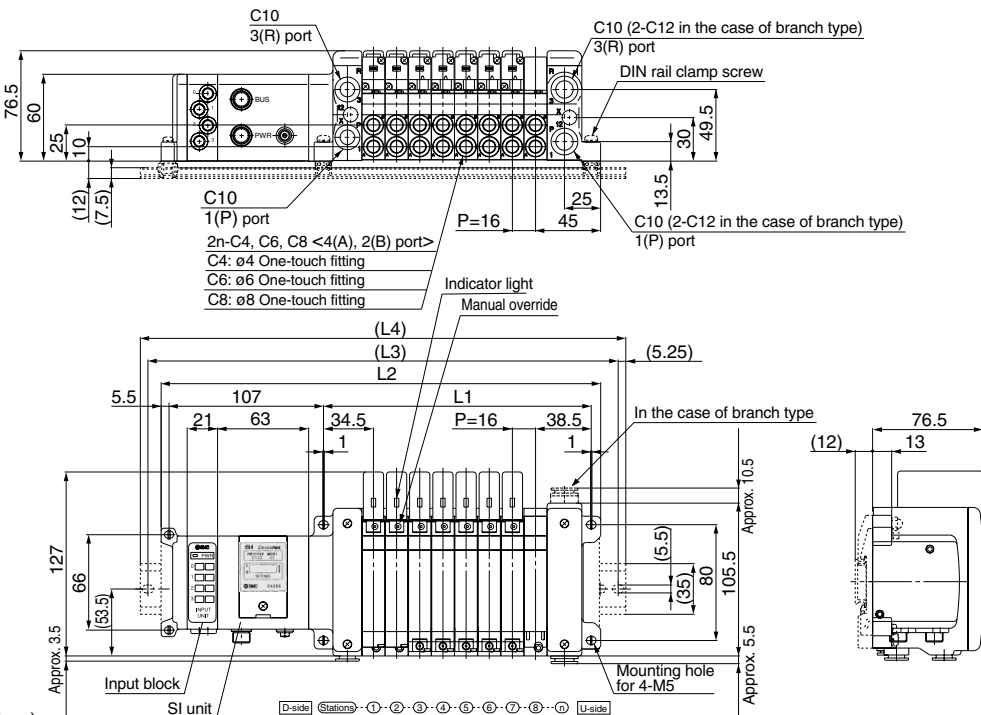


Formulas
 $L1 = 10.5n + 45$ (Maximum 24 single wiring stations)
 * $L2$: For one input block. Add 21 mm for each additional input block.

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	55.5	66	76.5	87	97.5	108	118.5	129	139.5	150	160.5	171	181.5	192	202.5	213	223.5	234	244.5	255	265.5	276	286.5	297
L2	178	188.5	199	209.5	220	230.5	241	251.5	262	272.5	283	293.5	304	314.5	325	335.5	346	356.5	367	377.5	388	398.5	409	419.5
L3	200	212.5	225	237.5	250	250	262.5	275	287.5	300	312.5	325	325	337.5	350	362.5	375	387.5	387.5	400	412.5	425	437.5	450
L4	210.5	223	235.5	248	260.5	260.5	273	285.5	298	310.2	323	335.5	335.5	348	360.5	373	385.5	398	398	410.5	423	435.5	448	448

* With signal cut block, L4 is obtained by adding approximately 30 mm to L2.

VV5QC21
S Kit
 (Serial transmission
 kit: EX250)



Formulas
 $L1 = 16n + 57$ (Maximum 24 single wiring stations)
 * $L2$: For one input block. Add 21 mm for each additional input block.

L \ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	73	89	105	121	137	153	169	185	201	217	233	249	265	281	297	313	329	345	361	377	393	409	425	441
L2	192	208	224	240	256	272	288	304	320	336	352	368	384	400	416	432	448	464	480	496	512	528	544	560
L3	212.5	237.5	250	262.5	275	287.5	312.5	325	337.5	362.5	375	387.5	400	425	437.5	450	462.5	487.5	500	512.5	537.5	550	562.5	587.5
L4	223	248	260.5	273	285.5	298	323	335.5	348	373	385.5	398	410.5	435.5	448	460.5	473	498	510.5	523	548	560.5	573	598

* With signal cut block, L4 is obtained by adding approximately 30 mm to L2.

- VQC
- SQ
- VQ0
- VQ4
- VQ5
- VQZ
- VQD