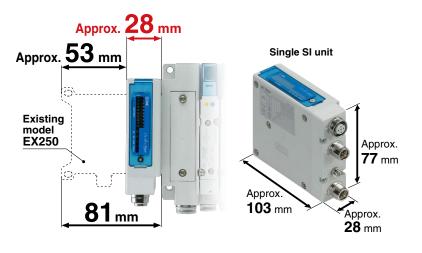
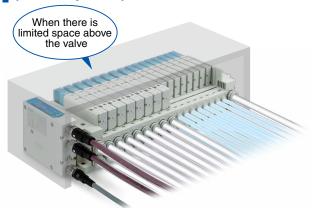


Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

Manifold length reduced by approx. 53 mm



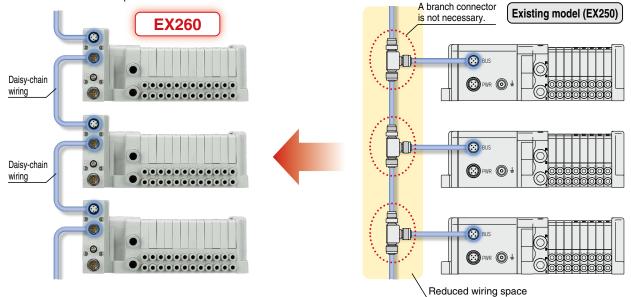
Wiring and piping from the same direction is possible. (for side ported)



Daisy-chain wiring communication is possible.^{*1}

A branch connector is not necessary/Reduced wiring space

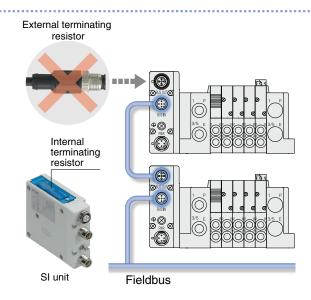
*1 Excludes the units compatible with IO-Link

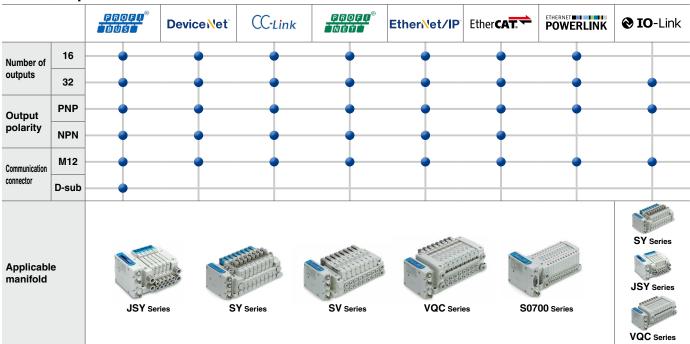


An external terminating resistor is not necessary.

(Only available for M12 PROFIBUS DP, CC-Link communication connectors)

ON/OFF switching is possible with an internal terminating resistor. An external terminating resistor is not necessary.





Product Specification Variations

Communication connector examples



Applicable Valve Series

Series	Flow rate characteristics $(4/2 \rightarrow 5/3)$		Maximum number of	Power consumption	Applicable cylinder	
		C [dm³/(s⋅bar)]	b	solenoids	[W]	size
	SY3000	1.6	0.19		0.35	ø50
	SY5000	3.6	0.17	32	(Standard) 0.1	ø63
C The us	SY7000	5.9	0.20		(With power-saving circuit)	ø80
IP67 *1,*3	JSY1000	0.91	0.48		0.2 (With power-saving circuit)	ø40
CE	JSY3000	2.77	0.27	32	0.4 (Standard)	ø50
	JSY5000	6.59	0.22		0.1 (With power-saving circuit)	ø80
	S0700*2	0.37	0.39	32	0.35	ø25
	SV1000*2	1.1	0.35	32	0.6	ø40
	SV2000*2	2.4	0.18			ø63
C 77 US	SV3000*2	4.3	0.21			ø80
	VQC1000	1.0	0.30		0.4	ø40
	VQC2000	3.2	0.30	24	(Standard)	ø63
CEEEEEE	VQC4000	7.3	0.38	24	0.95 (Standard)	ø160
· · · · · · · · · · · · · · · · · · ·	VQC5000	17	0.31		0.4 (Low-wattage type)	ø180

*1 Units with a D-sub communication connector are IP40.

*2 There is no manifold part number setting for the IO-Link compatible units.

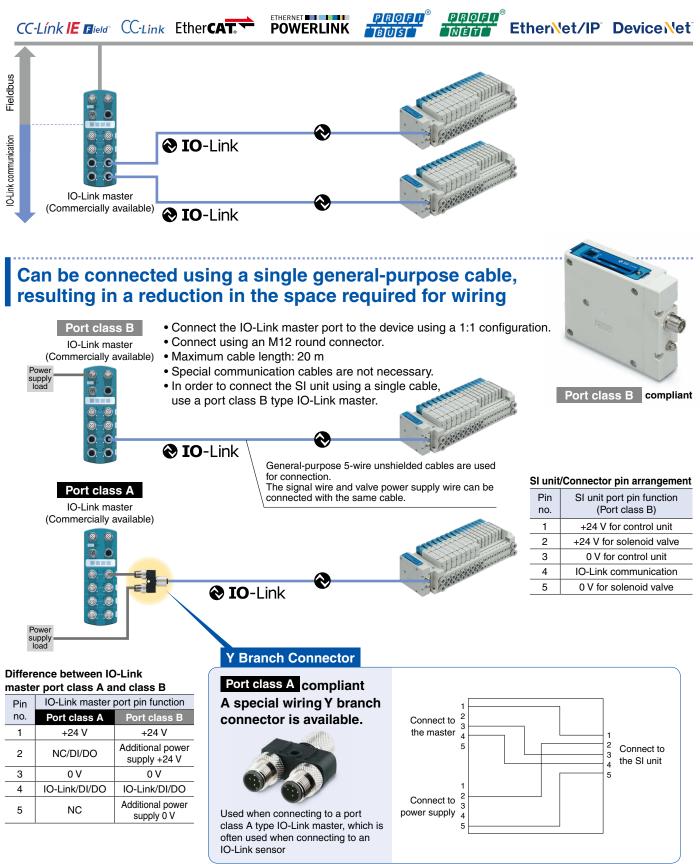
*3 IP40 for the JSY1000

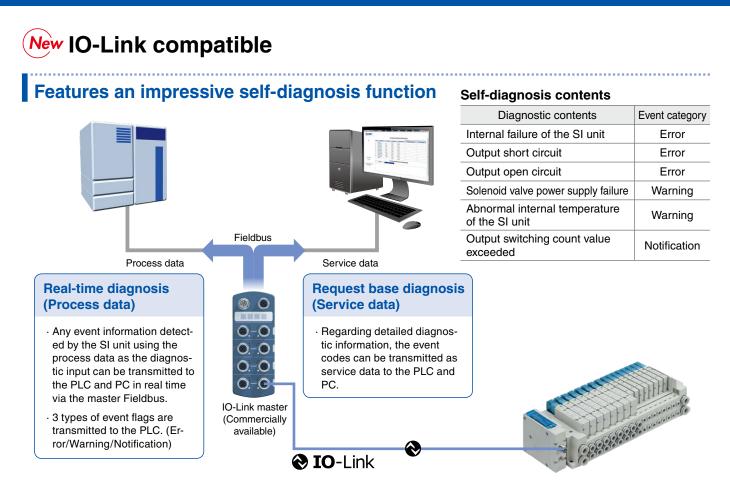
New IO-Link compatible

Integratable with various existing networks

IO-Link devices can be easily connected to various networks via the IO-Link master, which acts as a gateway between IO-Link communication and various Fieldbusses.

Solenoid valves can be connected for communication without relying upon a Fieldbus or PLC.





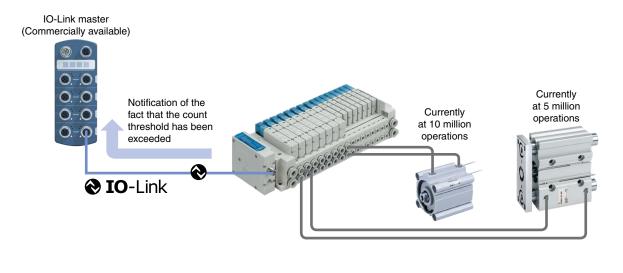
Equipped with a solenoid valve output operation count function

The number of valve operation instructions is counted for each output of the solenoid valve.

Set the count threshold value to be used as a guide for maintenance according to the operating conditions of the cylinder connected to the solenoid valve.

Once the threshold value is reached, notification of this fact will take place automatically.

This enables periodic maintenance to be performed before any unexpected cylinder failures occur.



CONTENTS

Fieldbus System (Output device for driving 5-port solenoid valves) EX260 Series



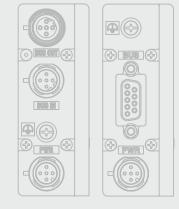
How to Order SI Unitsp.	6
Specifications	7
Dimensions ······ p.	8
Parts Descriptionp.	9
LED Indicator ······p. 1	0

Accessories

Communication Cable p. 11
2 Field-wireable Communication Connectorp. 17
Over Supply Cable (For SI unit)p. 18
Power Supply Cable (For SI unit/For power block) ··· p. 19
5 Seal Cap (10 pcs.) p. 19
Output Block p. 20
Power Block ······ p. 20
Connector for Output Block Wiring p. 21
End Plate p. 21
Bracket Plate/DIN Rail Mounting Bracketp. 21

Made to Order

	Si Unit
	EtherNet/IP™ Web server function compatible ······ p. 22
	Communication Cable p. 22
	Power Supply Cable p. 23
<u> </u>	nacifia Draduat Draceutiona
5	pecific Product Precautionsp. 24





Fieldbus System For Output **EX260 Series** () System () Only the SY and SV values are UL-compliant.

Compact design	Compact design for space saving
Number of outputs	32/16 digital output type available for each unit in the series (IO-Link is only compatible with the 32-point digital output type.)
Output polarity	Negative common (PNP)/positive common (NPN) type available for each unit in the series (Only negative common (PNP) is available for units compatible with Ethernet POWERLINK and IO-Link.)
Enclosure	IP67 (For units with a D-sub connector, and when connected with S0700 manifolds, it is IP40.)
Internal terminating resistor	ON/OFF switching is possible with an internal terminating resistor for communication. (Only for units compatible with M12 PROFIBUS DP, CC-Link communication connectors)

Applicable Manifold

VQC1000/2000/4000/5000

SY3000/5000/7000 JSY1000/3000/5000



Communication protocol •



How to Order SI Units

EX260-SPR1

Communication Manifold Applicable Number o Symbol Protocol Output polarity outputs symbol manifold connector Source/PNP DN1 QAN (Negative common) 32 Sink/NPN (Positive common) DN2 QA DeviceNet™ M12 Source/PNP DN3 QBN (Negative common) 16 Sink/NPN DN4 QB (Positive common) SY3000 Source/PNP PR1 NAN (Negative common) SY5000 32 Sink/NPN PR2 SY7000 NA (Positive common) M12 JSY1000 Source/PNP PR3 NBN JSY3000 (Negative common) 16 JSY5000 Sink/NPN PR4 NB VQC1000 (Positive common) PROFIBUS DP Source/PNP VQC2000 PR5 NCN (Negative common) VQC4000 32 Sink/NPN VQC5000 PR6 NC (Positive common) D-sub*1 S0700 Source/PNP PR7 NDN SV1000 (Negative common) 16 SV2000 Sink/NPN PR8 ND (Positive common) SV3000 Source/PNP MJ1 VAN (Negative common) 32 Sink/NPN MJ2 VA (Positive common) CC-Link M12 Source/PNP MJ3 VBN (Negative common) 16 Sink/NPN MJ4 VB (Positive common)

*1 Enclosure is IP40 when the communication connector is D-

Symbol	Protocol	Number of outputs	Output polarity	Communication connector	Manifold symbol	Applicable manifold				
EC1		32	Source/PNP (Negative common)		DAN					
EC2	EtherCAT	52	Sink/NPN (Positive common)	M12	DA					
EC3	LINEIOAI	16	Source/PNP (Negative common)		DBN					
EC4		10	Sink/NPN (Positive common)		DB	SY3000 SY5000				
PN1		32	Source/PNP (Negative common)		FAN	SY7000				
PN2	PROFINET	52	Sink/NPN (Positive common)	M12	FA	JSY1000 JSY3000				
PN3		16	Source/PNP (Negative common)	10112	FBN	JSY5000 VQC1000				
PN4		10	Sink/NPN (Positive common)		FB	VQC2000 VQC4000				
EN1		32 Source/PNP (Negative common)			EAN	VQC5000				
EN2	EtherNet/IP™	02	Sink/NPN (Positive common)	M12	EA	S0700 SV1000				
EN3					Luioniduli	16	Source/PNP (Negative common)	WI12	EBN	SV2000 SV3000
EN4			Sink/NPN (Positive common)		EB	010000				
PL1	Ethernet	thernet 32 Source/PNP		M12	GAN					
PL3	POWERLINK	16	(Negative common)		GBN					
IL1	IO-Link	32	Source/PNP (Negative common)	M12	KAN	SY3000/5000/7000 JSY1000/3000/5000 VQC1000/2000/4000/5000				

S0700

Made to Order

Made to Order → p. 22

EtherNet/IP™ Web server function compatible

* For "How to Order Manifold Assembly," refer to the **Web Catalog** of each valve.



RoHS

SV1000/2000/3000

Specifications

All SI Units Common Specifications

Power supply	Power supply voltage	21.6 to 26.4 VDC*1				
for control	Internal current consumption	100 mA or less				
Power supply for output	Power supply voltage	22.8 to 26.4 VDC				
	Enclosure	IP67*2				
Environmental resistance	Operating temperature range	−10 to +50°C				
	Operating humidity range	35 to 85%RH (No condensation)				
	Withstand voltage	500 VAC for 1 minute between terminals and housing				
	Insulation resistance	10 $\mbox{M}\Omega$ or more (500 VDC measured via megohmmeter) between terminals and housing				
Standards		CE marking (EMC directive/RoHS directive), UL (CSA) compliant				
Weight		200 g				
	Mounting screw	2 pcs.				
Accessories	Seal cap (for M12 connector socket)	EX9-AWTS (1 pc.)*3				

*1 To serve as the power supply for communication, the power supply voltages are 11 to 25 VDC for the EX260-SDND and 18 to 30 VDC for the EX260-SIL1. *2 IP40 applies to EX260-SPR5/6/7/8.

*3 Not provided for EX260-SPR5/6/7/8

N	lodel	EX260-SPR1/3	EX260-SPR2/4	EX260-SPR5/7	EX260-SPR6/8	EX260-SDN1/3	EX260-SDN2/4	EX260-SMJ1/3	EX260-SMJ2/4	
	Protocol		PROFIE	BUS DP		DeviceNet™		CC-Link		
Applicable system	Version*1		DP	-V0		Volume1 (Edition 3.5) Volume3 (Edition 1.5)		Ver.1.10		
	Configuration file*3		GSE) file		EDS	S file	CSP	+ file	
I/O occupation area (Inputs/Outputs)		SPR1: 0/32 SPR3: 0/16	SPR2: 0/32 SPR4: 0/16	SPR5: 0/32 SPR7: 0/16	SPR6: 0/32 SPR8: 0/16	SDN1: 0/32 SDN3: 0/16	SDN2: 0/32 SDN4: 0/16	SMJ1: 32/32 SMJ3: 32/32 (1 station, remote I/O stations)	SMJ2: 32/32 SMJ4: 32/32 (1 station, remote I/O stations)	
Applicable	e function		-	_		QuickCo	onnect™	-	_	
Communication speed 9.6 k/19.2 k/45.45 k/93.75 k/ 187.5 k/500 k/1.5 M/3 M/6 M/12 Mbps 125 k/250 k/5			k/500 kbps	156 k/625 k/ 2.5 M/5 M/10 Mbps						
Communication c	connector specification	M	12	D-s	sub		М	12		
Terminating	resistor switch	Bui	Built-in No			one		Built-in		
	Output type	Source/PNP (Negative common)	Sink/NPN (Positive common)	Source/PNP (Negative common)	Sink/NPN (Positive common)	Source/PNP (Negative common)	Sink/NPN (Positive common)	Source/PNP (Negative common)	Sink/NPN (Positive common)	
.	Number of outputs	SPR1: 32 points SPR3: 16 points	SPR2: 32 points SPR4: 16 points	SPR5: 32 points SPR7: 16 points	SPR6: 32 points SPR8: 16 points	SDN1: 32 points SDN3: 16 points	SDN2: 32 points SDN4: 16 points	SMJ1: 32 points SMJ3: 16 points	SMJ2: 32 points SMJ4: 16 points	
Output	Load		Soler	oid valve with su	urge voltage sup	pressor 24 VDC	, 1.5 W or less (SMC)		
	Supplied voltage				24 \	/DC				
	Supplied current	SPR1: Max. 2.0 A SPR3: Max. 1.0 A	SPR2: Max. 2.0 A SPR4: Max. 1.0 A	SPR5: Max. 2.0 A SPR7: Max. 1.0 A	SPR6: Max. 2.0 A SPR8: Max. 1.0 A			SMJ1: Max. 2.0 A SMJ3: Max. 1.0 A	SMJ2: Max. 2.0 A SMJ4: Max. 1.0 A	

М	lodel	EX260-SEC1/3	EX260-SEC2/4	EX260-SPN1/3	EX260-SPN2/4	EX260-SEN1/3	EX260-SEN2/4	EX260-SPL1	EX260-SPL3	EX260-SIL1
	Protocol	Ether	CAT*2	PROFI	PROFINET*2		EtherNet/IP ^{™*2}		WERLINK*2	IO-Link
Applicable system	Version*1	Conformance Test Record V.1.1		PROFINET Specification Version 2.2		Volume1 (Edition 3.17) Volume2 (Edition 1.18)		EPSG DS 301 Version 1.2.0		V1.1
	Configuration file*3	XML	_ file	GSE) file	EDS	S file	XDD) file	IODD file
I/O occupa (Inputs/Ou		SEC1: 0/32 SEC3: 0/16	SEC2: 0/32 SEC4: 0/16	SPN1: 0/32 SPN3: 0/16	SPN2: 0/32 SPN4: 0/16	SEN1: 16/32 SEN3: 16/16	SEN2: 16/32 SEN4: 16/16			0/32 16/32 ^{*4}
Applicable	function	-		FSU,	MRP	QuickConn	ect™, DLR	R		
Communio	cation speed		100 M	0 Mbps*2 10 M/100 Mbps*2 100 Mbps*2 COM3/			COM3/COM2*4			
Communication c	nmunication connector specification M12									
Terminating	resistor switch	None (Not required)								
	Output type	Source/PNP (Negative common)	Sink/NPN (Positive common)	Source/PNP (Negative common)	Sink/NPN (Positive common)	Source/PNP (Negative common)	Sink/NPN (Positive common)	Source/PNP (Negative common)		
	Number of outputs		SEC2: 32 points SEC4: 16 points	SPN1: 32 points SPN3: 16 points		SEN1: 32 points SEN3: 16 points	SEN2: 32 points SEN4: 16 points	32	16	32
Output	Load	Solenoid valve w suppressor 24 VDC,	rith surge voltage 1.5 W or less (SMC)	Solenoid valve w suppressor 24 VDC,		Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC)				
	Supplied voltage					24 VDC				
	Supplied current	SEC1: Max. 2.0 A SEC3: Max. 1.0 A	SEC2: Max. 2.0 A SEC4: Max. 1.0 A	SPN1: Max. 2.0 A SPN3: Max. 1.0 A	SPN2: Max. 2.0 A SPN4: Max. 1.0 A	SEN1: Max. 2.0 A SEN2: Max. 2.0 A Max. 2.0 A Max. 1 A SEN3: Max. 1.0 A SEN4: Max. 1.0 A Max. 2 A Max. 1 A				Max. 2 A

*1 Please note that the version is subject to change.

*2 Use a CAT5 or higher transmission cable for EtherCAT, PROFINET, Ethernet/IPTM, and Ethernet POWERLINK.

*3 The configuration file can be downloaded from the SMC website, https://www.smcworld.com

*4 A selection can be made using the setting switch.

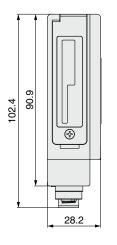


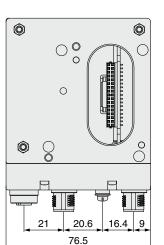
D-sub communication connector type

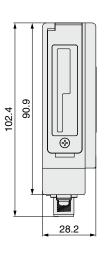
Dimensions

M12 communication connector type

For PROFIBUS DP	For DeviceNet™
For CC-Link For E	therCAT For PROFINET
For EtherNet/IP™	For Ethernet POWERLINK

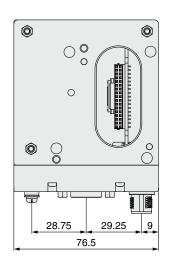






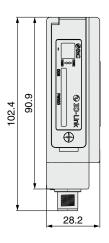
(EX260-SPR5/6/7/8)

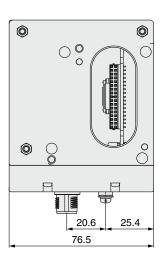
For PROFIBUS DP



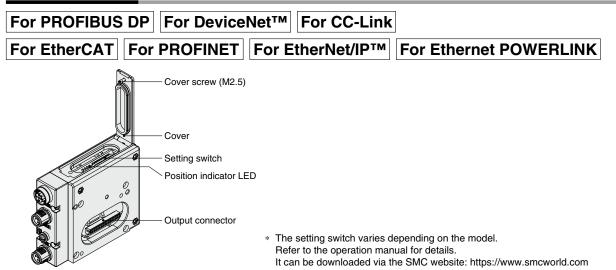
M12 communication connector type

For IO-Link

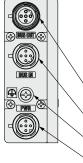




Parts Description



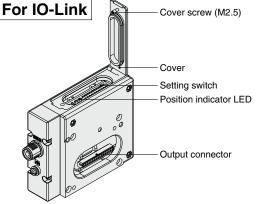
<Connector> M12 communication connector type



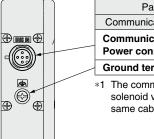
	Part no.	EX260-SPR1/-SPR2 -SPR3/-SPR4	EX260-SDN⊡	EX260-SMJ⊡	EX260-SEC EX260-SPN EX260-SEN EX260-SEN EX260-SPL
	Communication protocol	PROFIBUS DP	DeviceNet™	CC-Link	EtherCAT PROFINET EtherNet/IP™ Ethernet POWERLINK
/ /	Communication connector (M12) BUS OUT	5 pins, socket, B code (SPEEDCON)	5 pins, socket, A code (SPEEDCON)	5 pins, socket, A code ^{*1} (SPEEDCON)	4 pins, socket, D code (SPEEDCON)
\checkmark	Communication connector (M12) BUS IN	5 pins, plug, B code (SPEEDCON)	5 pins, plug, A code (SPEEDCON)	4 pins, plug, A code (SPEEDCON)	4 pins, socket, D code (SPEEDCON)
$\langle \rangle$	Ground terminal		Ν	3	
	Power connector (M12)	5 pins, plug, A code (SPEEDCON)	4 pins, plug, A code (SPEEDCON)	5 pins, plug, B code (SPEEDCON)	5 pins ^{*2} , 4 pins ^{*3} , plug, A code (SPEEDCON)

D-sub communication connector type

			PCA-1567717
	Part no.	EX260-SPR5/-SPR6/-SPR7/-SPR8	*2 For EtherCAT, PROFINET,
\$	Communication protocol	PROFIBUS DP	and Ethernet POWERLINK
() BUE ()	Ground terminal	M3	∗3 For EtherNet/IP™
	Communication connector (D-sub) BUS IN/OUT	9 pins, socket	
000	Power connector (M12)	5 pins, plug, A code	
	<u>م</u>		



<Connector>



		Part no.	EX260-SIL1
		Communication protocol	IO-Link
	Communication/ Power connector (M12)	5 pins, plug,* ¹ A code (SPEEDCON)	
/		Ground terminal	M3
		*1 The communication line,	SI unit power supply line, and the

solenoid valve power supply line are connected using the same cable.

*1 Recommended mating M12

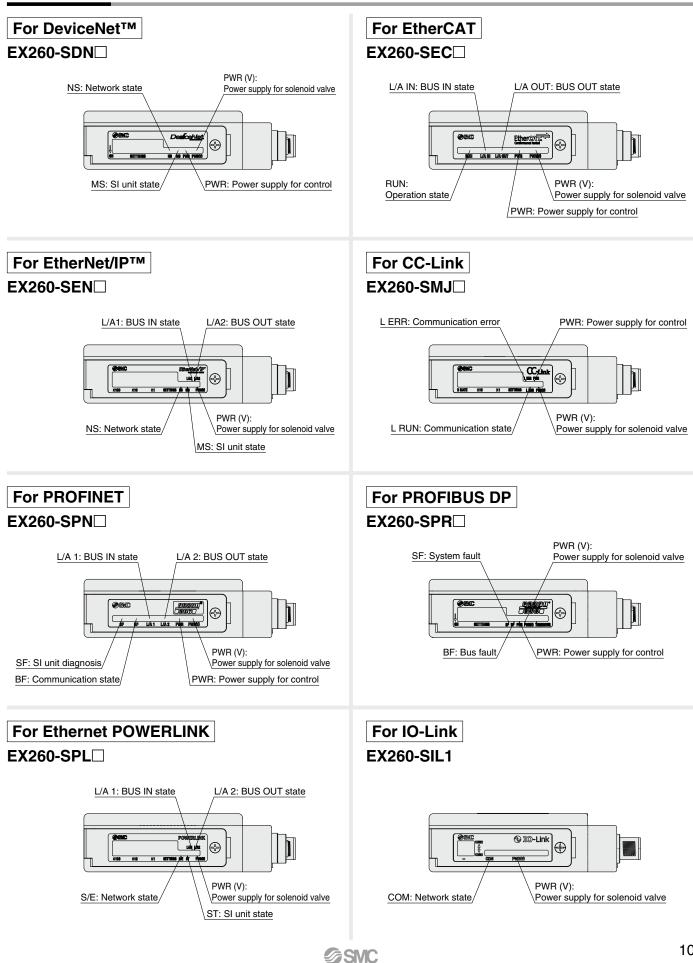
4-pin plug part no.:

The setting switch varies depending on the model.
 Refer to the operation manual for details.
 It can be downloaded via the SMC website: https://www.smcworld.com

⊘SMC

Fieldbus System For Output **EX260 Series**

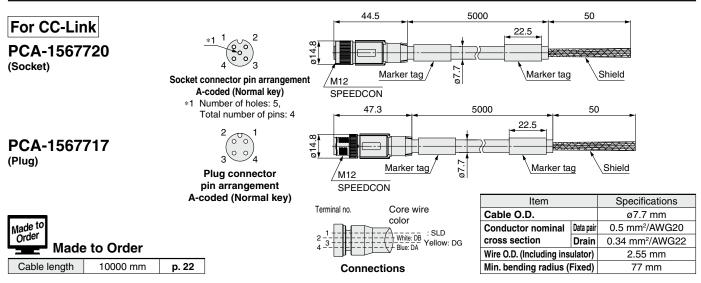




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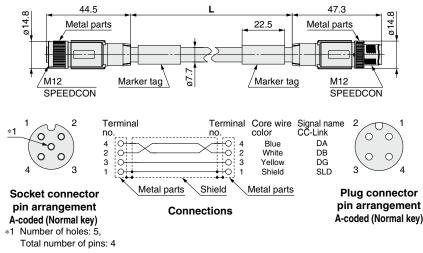
Communication Cable



EX9-AC 005 MJ-SSPS (With connector on both sides (Socket/Plug))

Cab	le length (L)
005	500 mm
010	1000 mm
020	2000 mm
030	3000 mm
050	5000 mm
100	10000 mm

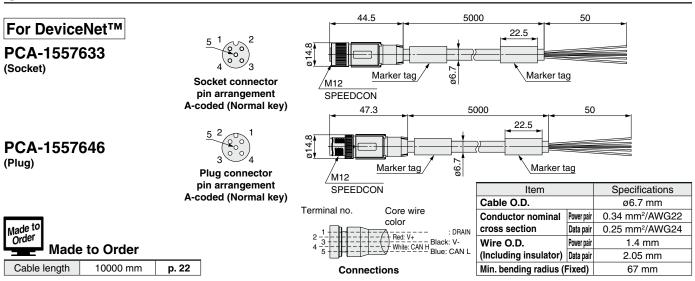
l l				
Item		Specifications		
Cable O.D.		ø7.7 mm		
Conductor nominal Data pair cross section Drain		0.5 mm ² /AWG20		
		0.34 mm ² /AWG22		
Wire O.D. (Including insulator)		2.55 mm		
Min. bending radius (Fixed)		77 mm		



EX9-AC 005 MJ-SAPA (With angled connector on both sides (Socket/Plug))

005 010 020 030 050	Iength (L) 500 mm 1000 mm 2000 mm 3000 mm 5000 mm 10000 mm	35 33.1 w Marker tag 014.8 Metal parts M12 SPEEDCON	M1	Netal parts 014.4
Item Cable O.D. Conductor nominal cross section Wire O.D. (Including insulator) Min. bending radius (Fixed)	0.34 mm²/AWG22 2.55 mm	2 0 4 2 3 4 2 3 1 Metal part Plug connector pin arrangement A-coded (Normal key)	no. color C 4 Blue 0 2 White 0 3 Yellow 1 Shield	ignal name *1 1 C-Link DA DB C-Link DB C-Link DB C-Link DB C-Link DB C-Link DB C-Link DB C-Link DB C-Link DB C-Link DB C-Link DB C-Link DB C-Link DB C-Link C-Link DB C-Link C-Link DB C-Link C-Link DB C-Link C-Link C-Link DB C-Link C-Lin

Accessories **EX260** Series

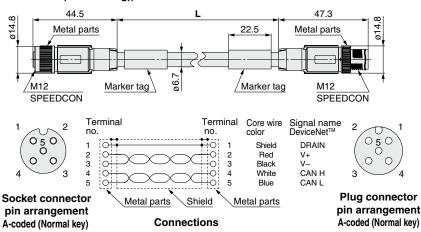


Communication Cable

EX9-AC 005 DN-SSPS (With connector on both sides (Socket/Plug))

• Cable length (L)				
005	500 mm			
010	1000 mm			
020	2000 mm			
030	3000 mm			
050	5000 mm			
100	10000 mm			

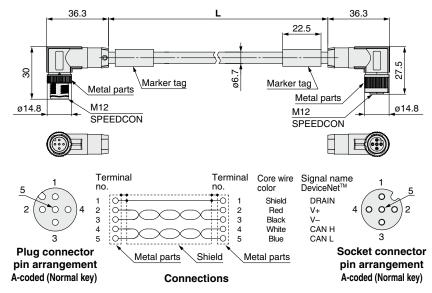
Item		Specifications	
Cable O.D.		ø6.7 mm	
Conductor nominal	Power pair	0.34 mm ² /AWG22	
cross section Data pair		0.25 mm ² /AWG24	
Wire O.D. Power pair		1.4 mm	
(Including insulator) Data pair		2.05 mm	
Min. bending radius (Fixed)		67 mm	



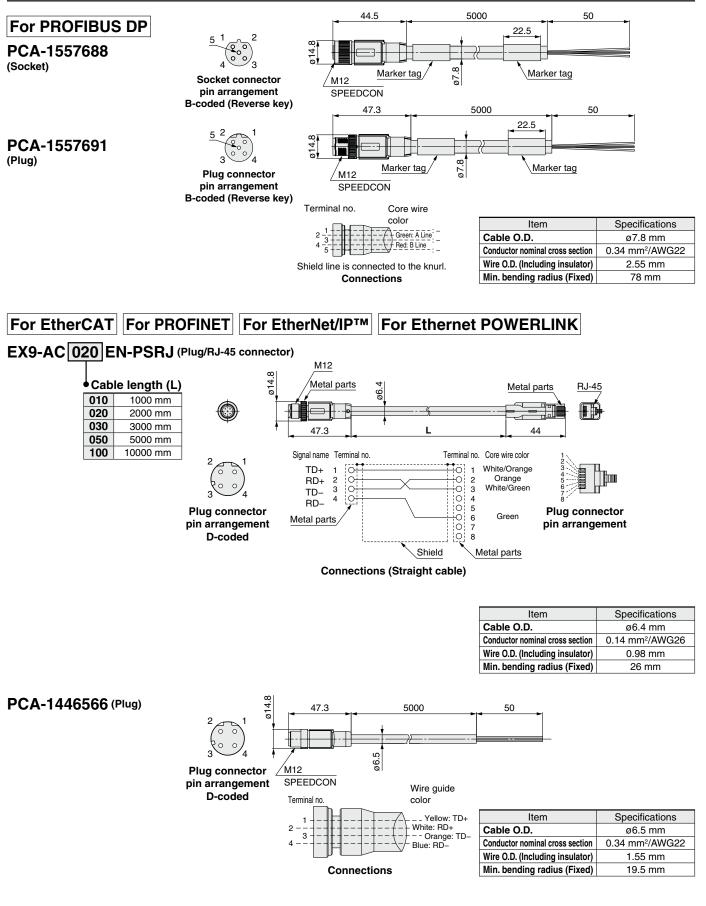
EX9-AC 005 DN-SAPA (With angled connector on both sides (Socket/Plug))

• Cable length (L)				
005	500 mm			
010	1000 mm			
020	2000 mm			
030	3000 mm			
050	5000 mm			
100	10000 mm			

Item		Specifications	
Cable O.D.		ø6.7 mm	
Conductor nominal	Power pair	0.34 mm ² /AWG22	
cross section Data pair		0.25 mm ² /AWG24	
Wire O.D. Power		1.4 mm	
(Including insulator) Data pair		2.05 mm	
Min. bending radius (Fixed)		67 mm	

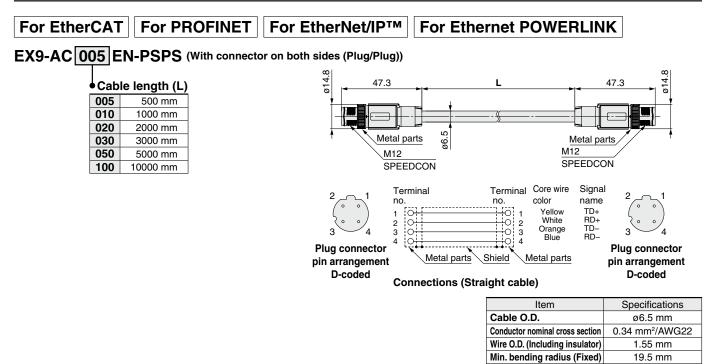


Communication Cable



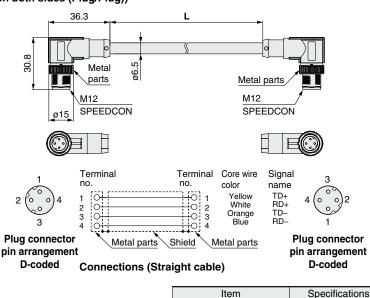


Communication Cable



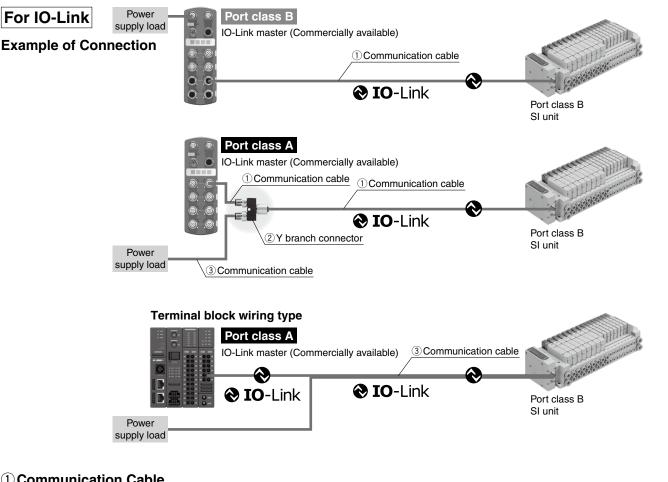
EX9-AC 005 EN-PAPA (With angled connector on both sides (Plug/Plug))

•Cab	•Cable length (L)				
005	500 mm				
010	1000 mm				
020	2000 mm				
030	3000 mm				
050	5000 mm				
100	10000 mm				



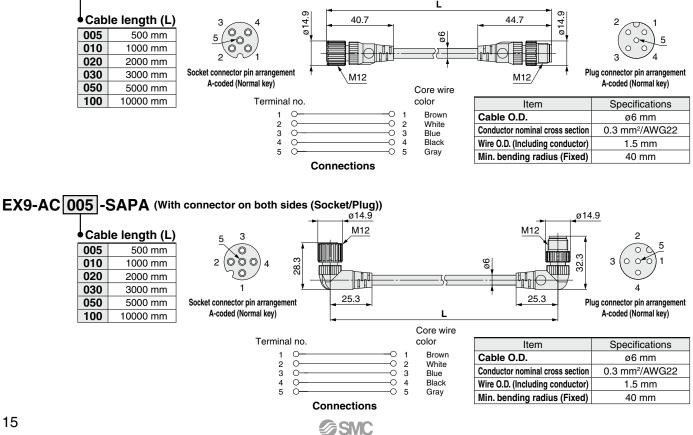
Item	Specifications	
Cable O.D.	ø6.5 mm	
Conductor nominal cross section	0.34 mm ² /AWG22	
Wire O.D. (Including insulator)	1.55 mm	
Min. bending radius (Fixed)	19.5 mm	

Communication Cable



(1) Communication Cable





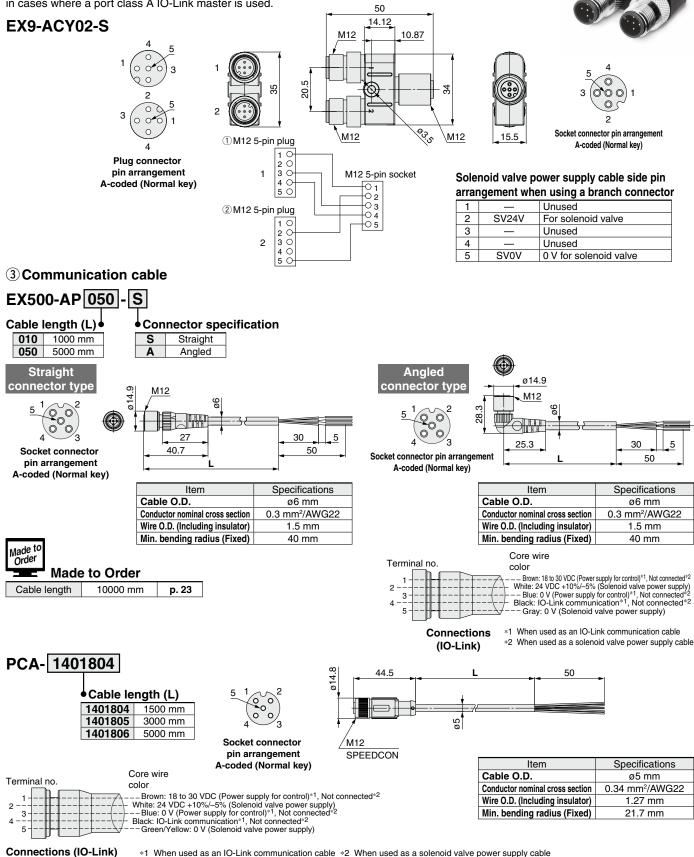
Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

Communication Cable

For IO-Link

2 Y branch connector

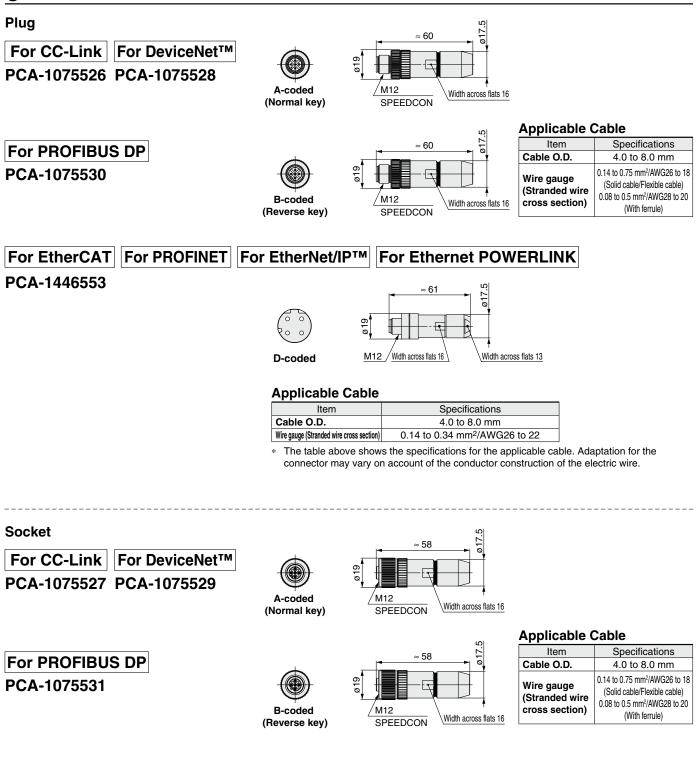
This connector is used to supply power to the valve manifold by branching the IO-Link communication cable in cases where a port class A IO-Link master is used.



Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

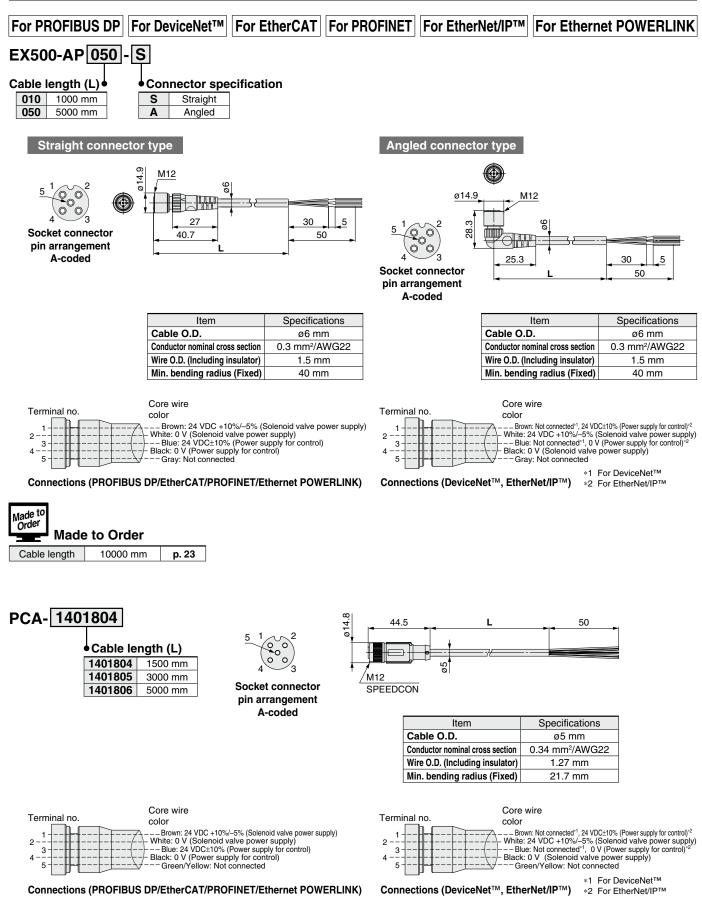
*1 When used as an IO-Link communication cable *2 When used as a solenoid valve power supply cable

Pield-wireable Communication Connector

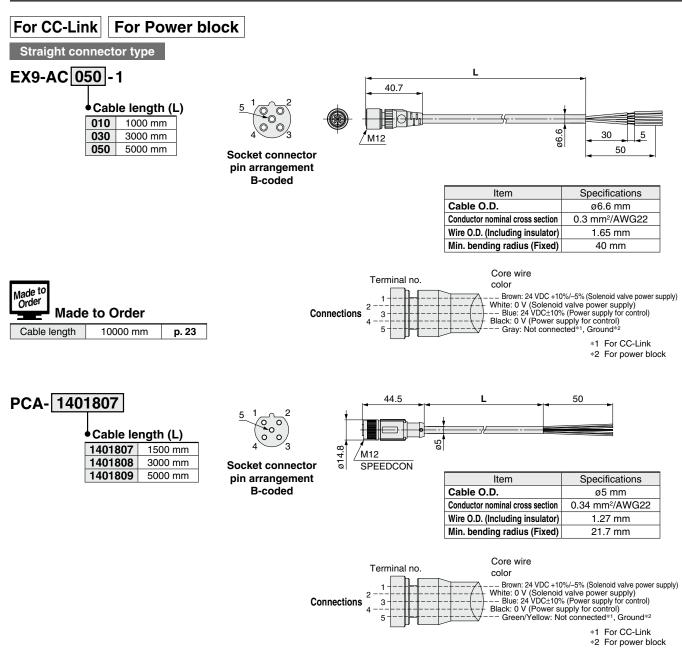


Accessories **EX260** Series

Orever Supply Cable (For SI unit)



Power Supply Cable (For SI unit/For power block)

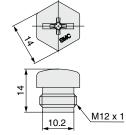


Seal Cap (10 pcs.)

Use this on ports that are not being used for communication connector (M12 connector socket). Use of this seal cap maintains the integrity of the IP67 enclosure. * Tighten the seal cap with the prescribed tightening torque. (For M12: 0.1 N·m)

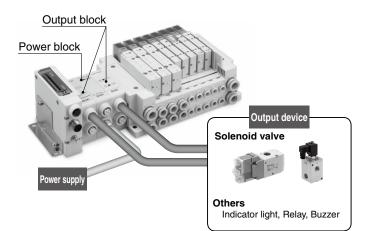


•Connector specification TS For M12 connector socket (10 pcs.)

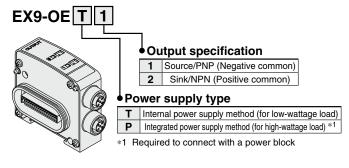


For M12 connector socket

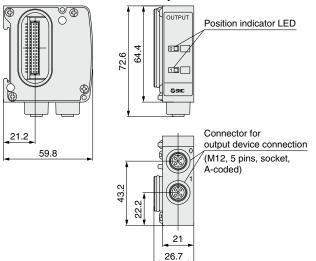




Output Block



Dimensions/Parts Description



Specifications

•	Model EX9-OET1 EX9-OET2 EX9-OEP1 EX9-OEP					
Model		EX9-UETT	EX9-DET2	EX9-DEPT	EX9-DEP2	
Internal cur	rrent consumption		40 mA	or less		
	Output type	Source/PNP (Negative common)	Sink/NPN (Positive common)	Source/PNP (Negative common)	Sink/NPN (Positive common)	
	Number of outputs	2 outputs				
Output	Power supply method	Internal power supply method		Integrated power supply method (Power block: supplied from EX9-PE1)		
	Output device supply voltage	24 VI		/DC	DC	
	Output device supply current	Max. 42 mA/point (1.0 W/point)		Max. 0.5 A/poi	nt (12 W/point)	
	Enclosure	IP67				
Environmental resistance	Operating temperature range	-10 to		o 50°C		
resistance	Operating humidity range	35 to 85%RH (N		(No condensation)		
Standards		CE marking (EMC directive/RoHS directive), UL (CSA)				
Weight		120 g				

- Output devices other than valve manifold can be operated.
- By using the power block and output block for high watt load, operation up to 0.5 A/point can be performed.
- Possible to mount the output block and power block additionally between the SI unit and the solenoid valve (The surplus I/O points are used).
- 2 point outputs per output block (M12 connector)

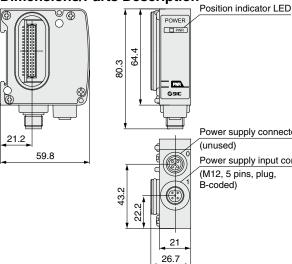
You are requested to connect it to an SI unit and a valve manifold. For detailed specifications, refer to the operation manual that can be downloaded from SMC website, https://www.smcworld.com

Power Block

EX9-PE1



Dimensions/Parts Description



Power supply connector

Power supply input connector (M12, 5 pins, plug,

Specifications

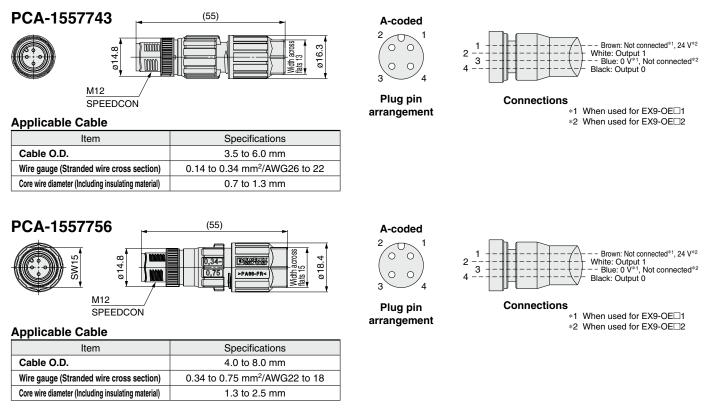
Mc	del	EX9-PE1					
Connection block		Output block for high wattage load					
Connection block stations		Output block: Max. 8 stations					
Power supply for output	Power supply voltage	22.8 to 26.4 VDC					
and internal control	Internal current consumption	20 mA or less					
Supply current		Max. 3.1 A*1					
	Enclosure	IP67					
Environmental resistance	Operating temperature range	Angle Angle <th< td=""></th<>					
resistance	Operating humidity range	35 to 85%RH (No condensation)					
Standards		CE marking (EMC directive/RoHS directive), UL (CSA)					
Weight		120 g					
Enclosed pa	Enclosed parts Seal cap (for M12 connector)						

*1 When using with 3.0 to 3.1 A, the ambient temperature should not exceed 40°C, and do not bundle the cable.



Onnector for Output Block Wiring

Field-wireable connector for connecting an output device to an output block

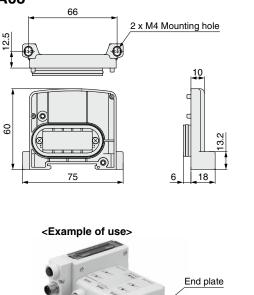


Refer to page 19 for the power supply cable for power block.

End Plate

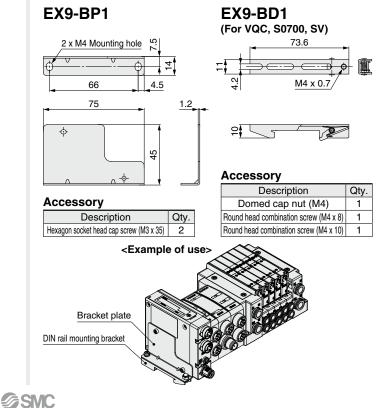
Use when an output block is being used and a valve manifold is not connected.

EX9-EA03



Bracket Plate/DIN Rail Mounting Bracket

A reinforcing brace used to mount an output block or power block onto an SI unit To prevent connection failure between products due to deflection, use this bracket plate whenever an output block or power block is mounted.



EX260 Series Made to Order

Please contact SMC for detailed specifications and lead times.



SI Unit

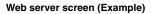
Prepare the SI unit and valve manifold (without SI unit) separately, and combine them before use.

EtherNet/IP™ Web server function compatible

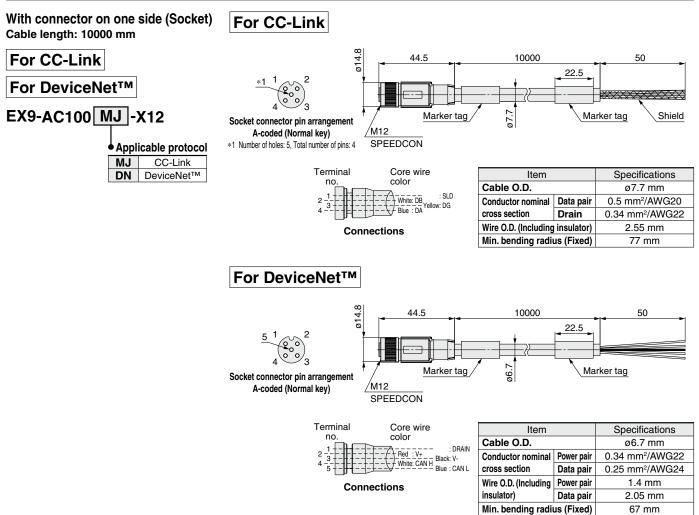
EX260-SEN1-X194

- Web server compatible: Can conduct a solenoid valve operation test (ON/OFF), check communication state, set QuickConnect[™], etc.
- Applicable to the power supply taken from Rockwell Automation's safe output module with pulse test function
- Compliant with QuickConnect[™] class A specifications
- Dimensions are the same as those of the standard type.

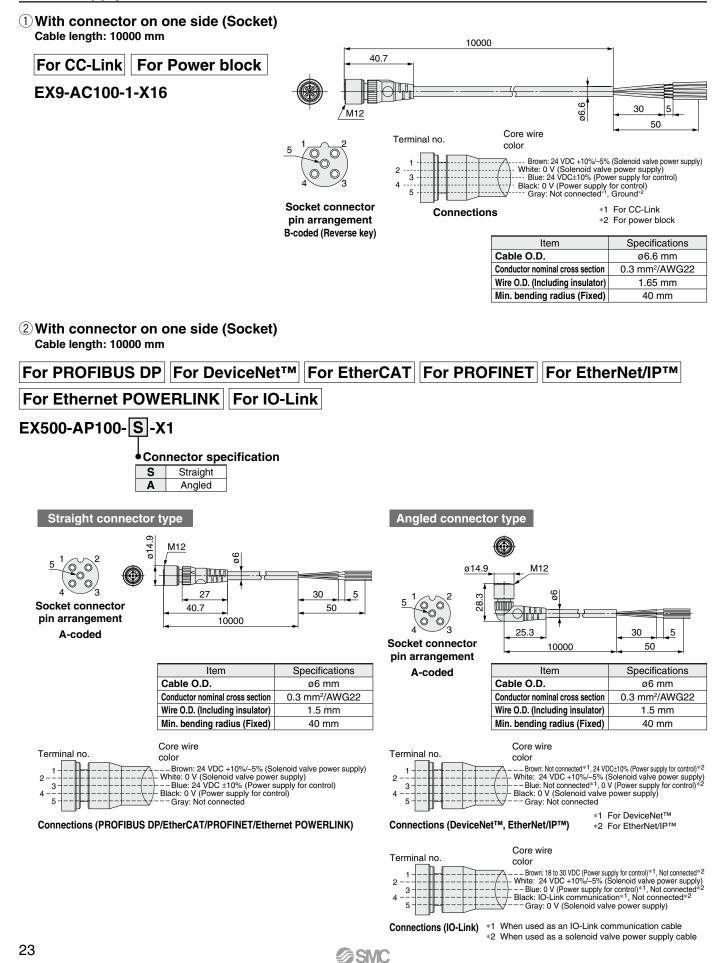
着 het	p://192.1	68.0.1/																
Addrea	8	: 192.16	8.0.1		10		EX2	6 0 -5	SEN1	-X19	94 F	orce o	utput	: ha	ctive			GOLO
le st	atus	:16h/3	2Out De	vice Ope	rational						N	etwork	statu	is : No	Establin	ihed		() SMC
Status	Pr	operties	Pe	rforman	ce I	Diagnosti	c Co	infig										EDS Man
											UT DAT							
Offset (INT)						10.000		Bi	t	INP	DI DAI							
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	8	Hex	Description
0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	#0000	
Char	ee Pass	aword														1	Execute Re	eset Force output
ffset		_	-							OUTF	UT DAT	A				-		
INT)			1 10					Bi	t								Hex	Description
0	15	14	13	12	11	10	9	8	7	6	5	4 0	3	2	0	0	#0000	
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#0000	
		0	0	0	1 0	0	0	0	0		0		0	9	0	0	#0000	



Communication Cable



Power Supply Cable



Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com



EX260 Series **Specific Product Precautions**

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For fieldbus system precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

Wiring

\land Caution

1. Select connectors that are ø16 or less if mounting valve manifolds directly using field-wireable connectors for SI unit power supply wiring.

Using large diameter connectors causes interference with the mounting surface.

The following cables with connectors are recommended.

For EX260-SPR /-SDN /-SEC /-SPN /-SEN /-SPL

- <Cable with connector>
- EX500-AP
- PCA-1401804/-1401805/-1401806

■ For EX260-SMJ□

- <Cable with connector>
- EX9-AC
- PCA-1401807/-1401808/-1401809

Operating Environment

A Caution

1. Select the proper type of enclosure according to the operating environment.

IP67 is achieved when the following conditions are met.

- 1) Provide appropriate wiring between all units using electrical wiring cables, communication connectors and cables with M12 connectors.
- 2) Appropriately mount each unit and valve manifold.
- 3) Be sure to mount a seal cap on any unused connectors.

If using in an environment that is exposed to water splashes, please take measures such as using a cover.

When the enclosure is IP40, do not use in an operating environment or atmosphere where it may come in contact with corrosive gas, chemical agents, seawater, water, or water vapor. When connected to the EX260-SPR5/6/7/8, manifold enclosure is IP40.

Adjustment / Operation

\land Caution

1. For details on programming and address setting, refer to the manual from the PLC manufacturer.

The content of programming related to protocol is designed by the manufacturer of the PLC used.

2. For the EX260-SPN, the side of the SI unit may become hot.

It may cause burns.

Trademark

DeviceNet[™] is a trademark of ODVA EtherNet/IP™ is a trademark of ODVA.

EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany. Modbus® is a registered trademark of Schneider Electric, licensed to the Modbus Organization, Inc.

QuickConnect[™] is a trademark of ODVA.



▲ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of "**Caution**," "**Warning**" or "**Danger**." They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)^{*1}, and other safety regulations.

- Caution: indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
- Warning: Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

AWarning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

- 3. Do not service or attempt to remove product and machinery/ equipment until safety is confirmed.
 - The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
 - 2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
 - Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.

- 1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
- 2. Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalog.
- 3. An application which could have negative effects on people, property, or animals requiring special safety analysis.
- 4. Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation.

- *1) ISO 4414: Pneumatic fluid power General rules relating to systems.
 - ISO 4413: Hydraulic fluid power General rules relating to systems. IEC 60204-1: Safety of machinery – Electrical equipment of machines. (Part 1: General requirements)
 - ISO 10218-1: Manipulating industrial robots Safety. etc.

 The product is provided for use in manufacturing industries. The product herein described is basically provided for peaceful use in manufacturing industries. If considering using the product in other industries, consult SMC beforehand

and exchange specifications or a contract if necessary. If anything is unclear, contact your nearest sales branch.

Limited warranty and Disclaimer/ Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".

Read and accept them before using the product.

Limited warranty and Disclaimer

- The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.*2) Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
- 2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided. This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
- Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

2) Vacuum pads are excluded from this 1 year warranty. A vacuum pad is a consumable part, so it is warranted for a year after it is delivered. Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

Compliance Requirements

- The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
- 2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

SMC products are not intended for use as instruments for legal metrology.

Measurement instruments that SMC manufactures or sells have not been qualified by type approval tests relevant to the metrology (measurement) laws of each country. Therefore, SMC products cannot be used for business or certification ordained by the metrology (measurement) laws of each country.

Revision History

Edition B	∗ EtherNet/IP [™] has been added to applicable Fieldbus protocols.	QS
Edition C	 * The IO-Link compatible EX260-SIL1 has been added. * Accessories and made-to-order specifications have been added. * "How to Order Manifold" and "Dimensions" pages have been deleted. 	
	* Number of pages has been decreased from 52 to 28.	XU

A Safety Instructions Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.