How to Order SI Units

EX260-S PR1

Communication protocol

Symbol	Protocol	Number of outputs	Output polarity	Communication connector	Manifold symbol	Applicable manifold/Vacuum unit
DN1	DeviceNet®	32	Source/PNP (Negative common)	M12	QAN	SY3000/5000/7000 JSY1000/3000/5000 VQC1000/2000/4000/5000 S0700 SV1000/2000/3000 ZK2□A
DN2			Sink/NPN (Positive common)		QA	
DN3		16	Source/PNP (Negative common)		QBN	
DN4			Sink/NPN (Positive common)		QB	
PR1	PROFIBUS DP	32	Source/PNP (Negative common)	M12	NAN	
PR2			Sink/NPN (Positive common)		NA	
PR3		16	Source/PNP (Negative common)		NBN	
PR4			Sink/NPN (Positive common)		NB	
PR5		32	Source/PNP (Negative common)	D-sub*1	NCN	
PR6			Sink/NPN (Positive common)		NC	
PR7		16	Source/PNP (Negative common)		NDN	
PR8			Sink/NPN (Positive common)		ND	
MJ1	CC-Link	32	Source/PNP (Negative common)	M12	VAN	
MJ2			Sink/NPN (Positive common)		VA	
MJ3		16	Source/PNP (Negative common)		VBN	
MJ4			Sink/NPN (Positive common)		VB	
EC1	EtherCAT	32	Source/PNP (Negative common)	M12	DAN	
EC2			Sink/NPN (Positive common)		DA	
EC3		16	Source/PNP (Negative common)		DBN	
EC4			Sink/NPN (Positive common)		DB	
PN1	PROFINET	32	Source/PNP (Negative common)	M12	FAN	
PN2			Sink/NPN (Positive common)		FA	
PN3		16	Source/PNP (Negative common)		FBN	
PN4			Sink/NPN (Positive common)		FB	
EN1	EtherNet/IP™	32	Source/PNP (Negative common)	M12	EAN	
EN2			Sink/NPN (Positive common)		EA	
EN3		16	Source/PNP (Negative common)		EBN	
EN4			Sink/NPN (Positive common)		EB	
PL1	Ethernet POWERLINK	32	Source/PNP (Negative common)	M12	GAN	
PL3		16			GBN	
IL1	IO-Link	32	Source/PNP (Negative common)	M12	KAN	SY3000/5000/7000 JSY1000/3000/5000 VQC1000/2000/4000/5000 ZK2□A

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

Made to Order
➡ p. 1337

EtherNet/IP™ LAN cable connectable RJ45 communication connectors
EtherNet/IP™ Web server function compatible

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

Safety communication compliant SI unit

EX260-F PS1

Communication protocol

Symbol	Protocol	Number of outputs	Output polarity	Communication connector	Manifold symbol	Applicable manifold
PS1	PROFIsafe	32	Source/PNP (Negative common)	M12	FPN	SY3000/5000/7000 JSY1000/3000/5000 VQC1000/2000/4000/5000

* The use of validated products may be required for valve manifolds used in the safety-related parts of equipment which is compliant with safety standard ISO 13849. For validated products, please contact your SMC sales representative.

Specifications

All SI Units Common Specifications

Power supply for control	Power supply voltage	21.6 to 26.4 VDC*1
	Internal current consumption	100 mA or less*4
Power supply for output	Power supply voltage	22.8 to 26.4 VDC
Environmental resistance	Enclosure	IP67*2
	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 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing
Standards		CE/UKCA marking, UL (CSA) compliant
Weight		200 g
Accessories	Mounting screw	2 pcs.
	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-SDN□, 18 to 30 VDC for the EX260-SIL1, and 20.4 to 28.8 VDC for the EX260-FPS1.
*2 IP40 applies to EX260-SPR5/6/7/8.
*3 Not provided for EX260-SPR5/6/7/8
*4 200 mA or less for the EX260-FPS1

Model		EX260-SPR1/3	EX260-SPR2/4	EX260-SPR5/7	EX260-SPR6/8	EX260-SDN1/3	EX260-SDN2/4
Applicable system	Protocol	PROFIBUS DP				DeviceNet®	
	Version*1	DP-V0				Volume 1 (Edition 3.5) Volume 3 (Edition 1.5)	
	Configuration file*3	GSD file				EDS 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
Applicable function		—				QuickConnect™	
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/500 kbps	
Communication connector specification		M12		D-sub*4		M12	
Terminating resistor switch		Built-in		None			
Output	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)
	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
	Load	Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC)					
	Supplied voltage	24 VDC					
	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	SDN1: Max. 2.0 A SDN3: Max. 1.0 A	SDN2: Max. 2.0 A SDN4: Max. 1.0 A

Model		EX260-SMJ1/3	EX260-SMJ2/4	EX260-SEC1/3	EX260-SEC2/4	EX260-SPN1/3	EX260-SPN2/4
Applicable system	Protocol	CC-Link		EtherCAT*2		PROFINET*2	
	Version*1	Ver. 1.10		Conformance Test Record V.1.1		PROFINET Specification Version 2.2	
	Configuration file*3	CSP+ file		XML file		GSD file	
I/O occupation area (Inputs/Outputs)		SMJ1: 32/32 SMJ3: 32/32 (1 station, remote I/O stations)	SMJ2: 32/32 SMJ4: 32/32 (1 station, remote I/O stations)	SEC1: 0/32 SEC3: 0/16	SEC2: 0/32 SEC4: 0/16	SPN1: 0/32 SPN3: 0/16	SPN2: 0/32 SPN4: 0/16
Applicable function		—				FSU, MRP	
Communication speed		156 k/625 k/2.5 M/5 M/10 Mbps		100 Mbps*2			
Communication connector specification		M12					
Terminating resistor switch		Built-in		None (Not required)			
Output	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)
	Number of outputs	SMJ1: 32 points SMJ3: 16 points	SMJ2: 32 points SMJ4: 16 points	SEC1: 32 points SEC3: 16 points	SEC2: 32 points SEC4: 16 points	SPN1: 32 points SPN3: 16 points	SPN2: 32 points SPN4: 16 points
	Load	Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC)				Solenoid valve with surge voltage suppressor 24 VDC, 1.0 W or less (SMC)	
	Supplied voltage	24 VDC					
	Supplied current	SMJ1: Max. 2.0 A SMJ3: Max. 1.0 A	SMJ2: Max. 2.0 A SMJ4: Max. 1.0 A	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

*1 Please note that the version is subject to change.
*2 Use a CAT5 or higher communication cable for EtherCAT, PROFINET, Ethernet/IP™, and Ethernet POWERLINK.
*3 The configuration file can be downloaded from the SMC website: https://www.smcworld.com
*4 Enclosure is IP40 when the communication connector is D-sub.

Specifications

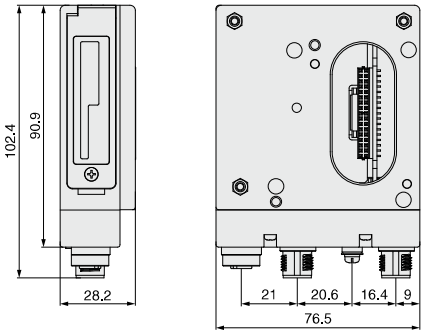
Model		EX260-SEN1/3	EX260-SEN2/4	EX260-SPL1	EX260-SPL3	EX260-SIL1	EX260-FPS1
Applicable system	Protocol	EtherNet/IP™*2		Ethernet POWERLINK		IO-Link	PROFINET/ PROFIsafe*2
	Version*1	Volume 1 (Edition 3.17) Volume 2 (Edition 1.18)		EPSG DS 301 Version 1.2.0		V1.1	PROFINET Specification Version 2.3 PROFIsafe Specification Version 2.4
	Configuration file*3	EDS file		XDD file		IODD file	GSD file
I/O occupation area (Inputs/Outputs)		SEN1: 16/32 SEN3: 16/16	SEN2: 16/32 SEN4: 16/16	16/32	16/16	0/32 16/32*4	0/32*5
Applicable function		QuickConnect™, DLR		—		—	FSU, Shared Device, MRP
Communication speed		10 M/100 Mbps*2		100 Mbps*2		COM3/COM2*4	100 Mbps*2
Communication connector specification		M12					
Terminating resistor switch		None (Not required)					
Output	Output type	Source/PNP (Negative common)	Sink/NPN (Positive common)	Source/PNP (Negative common)			
	Number of outputs	SEN1: 32 points SEN3: 16 points	SEN2: 32 points SEN4: 16 points	32	16	32	
	Load	Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC)					Solenoid valve with surge voltage suppressor 24 VDC, 0.95 W or less (SMC)
	Supplied voltage	24 VDC					
	Supplied current	SEN1: Max. 2.0 A SEN3: Max. 1.0 A	SEN2: Max. 2.0 A SEN4: Max. 1.0 A	Max. 2 A	Max. 1 A	Max. 2 A	Max. 1.3 A

*1 Please note that the version is subject to change.
*2 Use a CAT5 or higher communication cable for PROFINET, PROFIsafe, Ethernet/IP™, 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.
*5 In addition, it occupies input 4 bite/output 5 bite for safety.

Dimensions

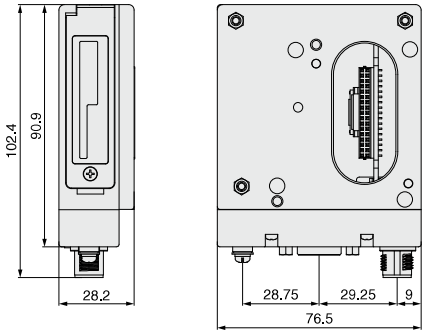
M12 communication connector type

For PROFIBUS DP **For DeviceNet®**
For CC-Link **For EtherCAT** **For PROFINET**
For EtherNet/IP™ **For Ethernet POWERLINK**



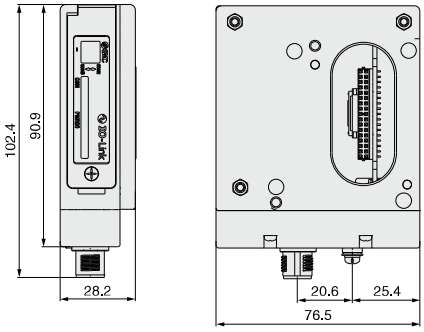
D-sub communication connector type (EX260-SPR5/6/7/8)

For PROFIBUS DP



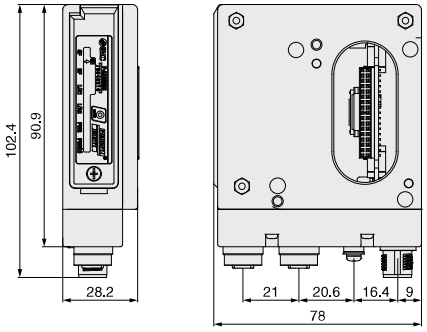
M12 communication connector type

For IO-Link



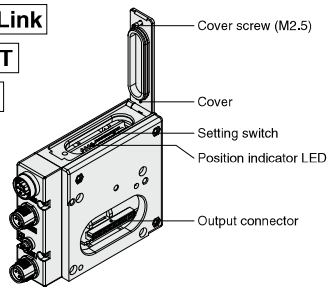
M12 communication connector type

For PROFIsafe



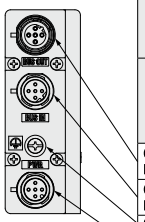
Parts Description

For PROFIBUS DP **For DeviceNet®** **For CC-Link**
For PROFIsafe **For EtherCAT** **For PROFINET**
For EtherNet/IP™ **For Ethernet POWERLINK**



∗ 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

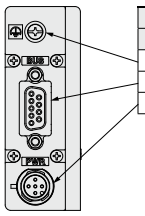
<Connector> M12 communication connector type



Part no.	EX260-SPR1/-SPR2 -SPR3/-SPR4	EX260-SDN□	EX260-SMJ□	EX260-SEC□ EX260-SPN□ EX260-SEN□ EX260-SPL□ EX260-FPS1
Communication protocol	PROFIBUS DP	DeviceNet®	CC-Link	EtherCAT PROFINET EtherNet/IP™ EtherNet POWERLINK PROFIsafe
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)
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)
Ground terminal	M3			
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)

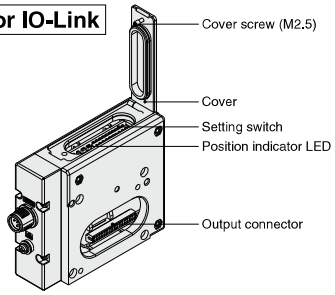
∗1 Recommended mating M12 4-pin plug part no.: PCA-1567717
∗2 For EtherCAT, PROFINET, and Ethernet POWERLINK
∗3 For EtherNet/IP™ and PROFIsafe

<Connector> D-sub communication connector type



Part no.	EX260-SPR5/-SPR6/-SPR7/-SPR8
Communication protocol	PROFIBUS DP
Ground terminal	M3
Communication connector (D-sub) BUS IN/OUT	9 pins, socket
Power connector (M12)	5 pins, plug, A code

For IO-Link



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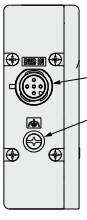


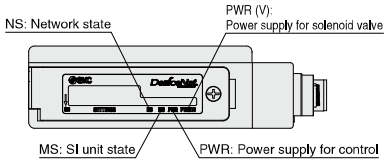
Part no.	EX260-SIL1
Communication protocol	IO-Link
Communication/ Power connector (M12)	5 pins, plug,∗1 A code (SPEEDCON)
Ground terminal	M3

∗1 The communication line, SI unit power supply line, and the solenoid valve power supply line are connected using the same cable.

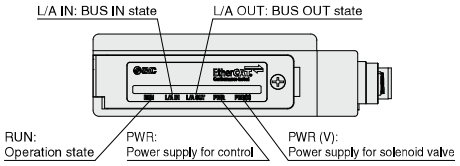
∗ The setting switch varies depending on the model.
Refer to the operation manual for details.
It can be downloaded via the SMC website: https://www.smcworld.com

LED Indicator

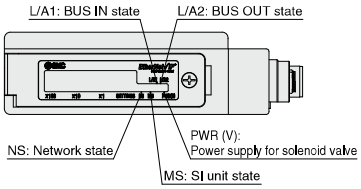
For DeviceNet® EX260-SDN□



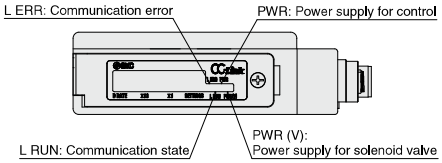
For EtherCAT EX260-SEC□



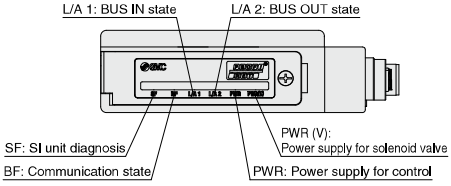
For EtherNet/IP™ EX260-SEN□



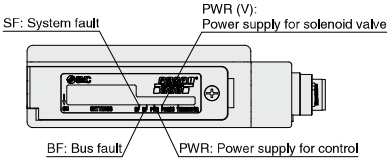
For CC-Link EX260-SMJ□



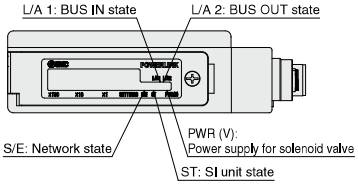
For PROFINET EX260-SPN□



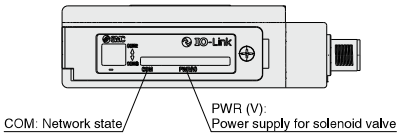
For PROFIBUS DP EX260-SPR□



For Ethernet POWERLINK EX260-SPL□



For IO-Link EX260-SIL1



For PROFIsafe EX260-FPS1