Fieldbus System (For Output)

EX120/121/122 Series

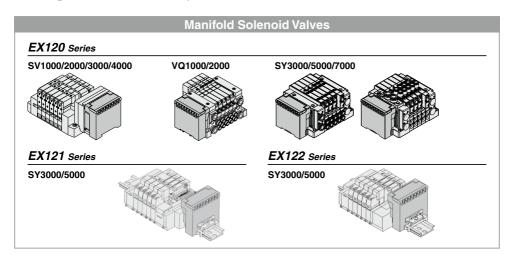
Compatible Protocols

DeviceNet CC-Link

CompoNet[®]



- ★Small unit compatible with a maximum of 16 outputs
- **★**Compatible with a variety of communication networks



CONTENTS

Type 1 Output type for solenoid valves Fieldbus System (For Output) EX120/121/122 Series EX120 EX121 EX122



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Accessories Communication Connector Power Supply Connector	
Made to Order	
 DeviceNet® PNP (Negative common) output, 	
Occupied points: 16 inputs/16 outputs ·········	∙∙p. 129₄
② DeviceNet® PNP (Negative common) output,	
Occupied points: 0 inputs/16 outputs	. · p. 129

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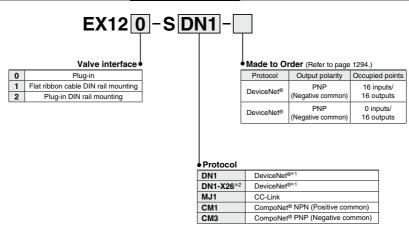
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Specifications ----- p. 1289 Dimensions/Parts Descriptionp. 1290



Fieldbus System For Output EX120/121/122 Series C € ☐

How to Order SI Unit



^{*1} DN1's occupied points are 16 inputs and 16 outputs, while DN1-X26 has 0 inputs and 16 outputs.

^{*2} A manifold part number is not specified for this model. Please contact SMC for the manifold integrated type.

Fieldbus System For Output EX120/121/122 Series

Specifications

Common Specifications

Communication Terminating resistor		Not provided
Internal current consumption (Unit)		100 mA or less
	Enclosure	IP20
	Operating temperature range	0 to 55°C (Valve 8 points ON) 0 to 50°C (Valve 16 points ON)
Environment	Operating humidity range	35 to 85%RH (No condensation)
	Withstand voltage	1500 VAC for 1 minute between whole external terminal and enclosure
	Insulation resistance	$2 \text{ M}\Omega$ or more (500 VDC) between whole external terminal and enclosure

	Model	EX12□-SDN1	EX12□-SDN1-X26	EX12□-SMJ1	
	Protocol	Devic	eNet®	CC-Link	
	Version*1	Relea	Release 2.0		
Communication	Communication speed	125 k/250	k/500 kbps	156 k/625 kbps 2.5 M/5 M/10 Mbps	
	Configuration file*2	EDS	S file	CSP+ file	
	I/O occupation area (Inputs/Outputs)	16/16	16/16 0/16		
Power supply	For control	11 to 25 VDC		15 to 30 VDC	
voltage	For valve		24 VDC +10%/-5%		
	Output type				
	Number of outputs	16 points			
Output Load		Solenoid valve with surge voltage suppressor 24 VDC, 2.1 W or less (SMC)		C, 2.1 W or less (SMC)	
	Fail safe	CLEAR HOLD/CLEAR (Switch setting)		CLEAR	
Standards		CE/UKCA marking			
Weight		EX120: 110 g or less, EX121: 140 g or less, EX122: 130 g or less		(122: 130 g or less	
Accessory Communication connector 1 pc., Power supply connector 1 pc.			_		

^{*1} Please note that the version is subject to change.
*2 The setting file can be downloaded from the SMC website, https://www.smcworld.com

Model		EX12□-SCM1	EX12□-SCM3	
	Protocol	CompoNet®		
	Communication speed	93.75 kbps/1.5 M/3 M/4 Mbps		
Communication	Configuration file	EDS file*1		
	I/O occupation area (Inputs/Outputs)	0/16		
Power supply	For control	14 to 26	6.4 VDC	
voltage For valve 24 VDC +10%/-5%		10%/–5%		
	Output type	Sink/NPN (Positive common)	Source/PNP (Negative common)	
Output	Number of outputs	16 points		
Output	Load	Solenoid valve with surge voltage suppressor 24 VDC, 2.1 W or less (SMC)		
	Fail safe	HOLD/CLEAR (Setting via network)		
Standards	Standards CE/UKCA marking			
		EX120: 100 g or less		
Weight		EX121: 120 g or less		
		EX122: 110 g or less (including accessory)		
Accessory Power supply connector (EX9-CP2) 1 pc.*2			tor (EX9-CP2) 1 pc.*2	

^{*1} The setting file can be downloaded from the SMC website, https://www.smcworld.com

SMC

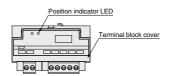
^{*2} Communication connector (for the opposite side) is not provided.

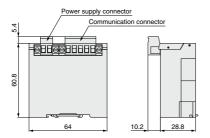
EX120/121/122 Series

Dimensions/Parts Description

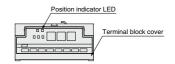
EX120

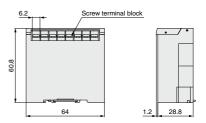
EX120-SDN1(-X26)



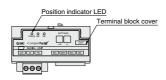


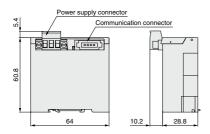
EX120-SMJ1





EX120-SCM□



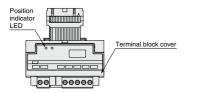


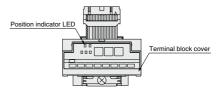
Dimensions/Parts Description

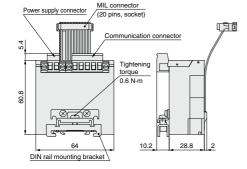
EX121

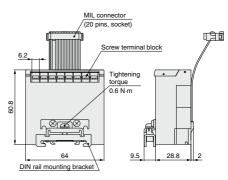
EX121-SDN1(-X26)

EX121-SMJ1

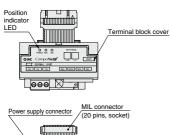


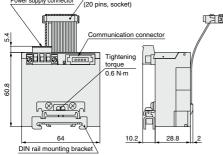






EX121-SCM□



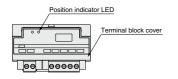


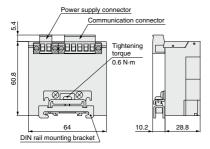
EX120/121/122 Series

Dimensions/Parts Description

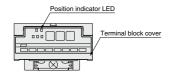
EX122

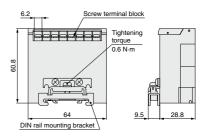
EX122-SDN1(-X26)



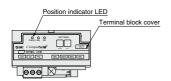


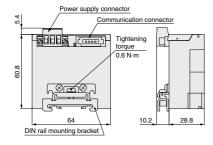
EX122-SMJ1





EX122-SCM□

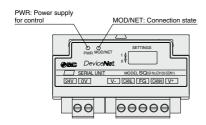


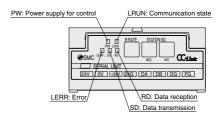


LED Indicator

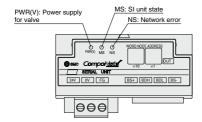
EX12□-SDN1

EX12□-SMJ1





EX12□-SCM□



EX120/121/122 Series

Accessories (For EX12□-SCM□)

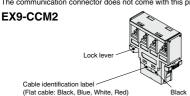
Communication Connector

Press-in connector for flat cables Use this connector for the standard dedicated flat cable. The communication connector does not come with this product.



Terminal block connector for round cables (VCTF) Use this connector for the VCTF cable.

The communication connector does not come with this product.



Power Supply Connector

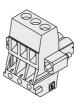
Straight type power supply connector This connector is supplied at the time of shipment.

EX9-CP2



T-branch type power supply connector This connector is not supplied at the time of shipment.

EX9-CP3



Made to Order

Please contact SMC for detailed specifications and lead times. Prepare the SI unit and manifold valve (without SI unit) separately, and combine them before use.

1) DeviceNet® PNP (Negative common) output, Occupied points: 16 inputs/16 outputs

EX12 0 -SDN1-X2

Valve interface

0	Plug-in
1	Flat ribbon cable DIN rail mounting
2	Plug-in DIN rail mounting

. Dimensions are the same as those of the standard type.

2 DeviceNet® PNP (Negative common) output, Occupied points: 0 inputs/16 outputs

EX12 0 -SDN1-X77

Valve interface

0	Plug-in
1	Flat ribbon cable DIN rail mounting
2	Plug-in DIN rail mounting

· Dimensions are the same as those of the standard type.

▲ Specific Product Precautions

I Be sure to read this before handling the products. Refer to page 7 for safety instructions and pages 15 to 17 for I fieldbus system precautions.

Operating Environment

∆Warning

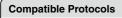
1. Do not use this product in the presence of dust, particles, water, chemicals, and oil. Use around such materials is likely to cause a malfunction or breakage.

■ Trademark

DeviceNet® is a registered trademark of ODVA, Inc. CompoNet® is a registered trademark of ODVA, Inc.

Fieldbus System (For Output)

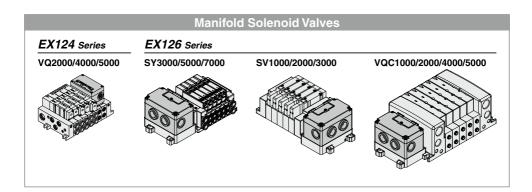
EX124/126 Series



DeviceNet CC-Link



- **★Enclosure IP65 (EX124), IP67 (EX126)**
- **★**Maximum 16 outputs



CONTENTS

Type 1 Output type for solenoid valves

Fieldbus System (For Output) EX124/126 Series



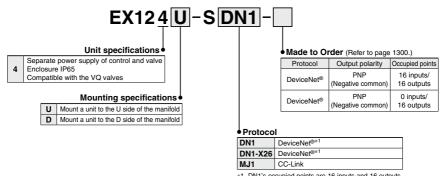


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Accessories ① Replacement Fuse ② Drip Proof Plug Assembly
Made to Order ① DeviceNet® PNP (Negative common), Occupied points: 16 inputs/16 outputs
 Specific Product Precautions

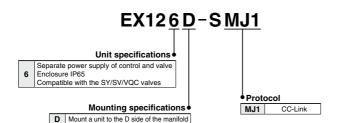


Fieldbus System For Output EX124/126 Series (EX

How to Order SI Unit



^{*1} DN1's occupied points are 16 inputs and 16 outputs, while DN1-X26 has 0 inputs and 16 outputs.



Specifications

Common Specifications

Communication	Terminating resistor	Not provided
Internal current consumption (Unit)		100 mA or less
Output type		Sink/NPN (Positive common)
Output	Load	Solenoid valve with surge voltage suppressor 24 VDC, 2.1 W or less (SMC)
	Operating temperature	0 to 55°C (Valve 8 points ON)
F1	range	0 to 50°C (Valve 16 points ON)
Environmental resistance	Operating humidity range	35 to 85%RH (No condensation)
resistance	Withstand voltage	1500 VAC for 1 minute between whole external terminal and enclosure
	Insulation resistance	$2~M\Omega$ or more (500 VDC) between whole external terminal and enclosure
Weight		240 g or less
Accessory 4 unit mounting screws (M4 x 10)		4 unit mounting screws (M4 x 10)

Model		ı	EX124□-SDN1	EX124□-SDN1-X26* ³
		Protocol	DeviceNet®	DeviceNet [®]
	system	Version*1	Relea	se 2.0
Communication	Communi	ication speed	125 k/250 k/500 kbps	
	Configuration file*2		EDS file	
	I/O occupation area (Inputs/Outputs)		16/16	0/16
Power supply For control		ol	11 to 25 VDC	
voltage			24 VDC +10%/-5%	
Number of outputs		of outputs	16 p	pints
Output	Fail safe		CLEAR	HOLD/CLEAR (Switch setting)
Environment Enclosure		е	IP65	
Standards CE/UKCA marking		A marking		

	Model		EX124□-SMJ1	EX126D-SMJ1
Applicable Protocol		Protocol	CC-	Link
	system	Version*1	Ver.	1.10
Communication	Communication speed		156 k/62 2.5 M/5 M	
	Configura	tion file*2	CSP+ file	
	I/O occupation area (Inputs/Outputs)		32/ (1 station, remo	
Power supply	Power supply For control		15 to 3	0 VDC
voltage			valve 24 VDC +10%/-5%	
Output	Number of outputs		mber of outputs 16 points	
Fail safe		Fail safe CLEAR		AR
Environment Enclosure)	IP65	IP67
Standards			CE/UKCA	marking

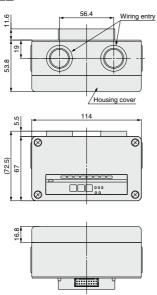
- *1 Please note that the version is subject to change.
- *2 The setting file can be downloaded from the SMC website, https://www.smcworld.com
- *3 Since this is a special product, a manifold part number is not specified. Please consult SMC for the manifold integrated type.
- * For detailed specifications other than the above, refer to the operation manual that can be downloaded from SMC website, https://www.smcworld.com

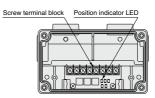
SMC

EX124/126 Series

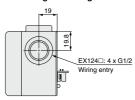
Dimensions/Parts Description

EX124□-S□□□



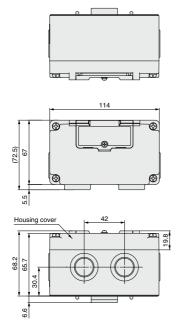


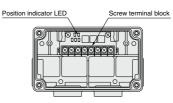
Housing cover diagram



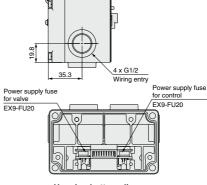
 The housing cover of the EX124U/D-SMJ1 is the same as that of the EX126D-SMJ1.

EX126D-SMJ1





Housing cover diagram

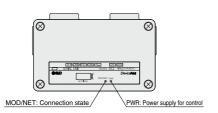


Housing bottom diagram

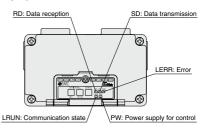


LED Indicator

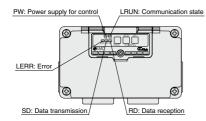
EX124□-SDN1



EX124□-SMJ1



EX126D-SMJ1



Accessories

Replacement Fuse

A replacement fuse for the EX126D-SMJ1

EX9-FU20

Applicable model	EX126D-SMJ1
Rated current	2.0 A



2 Drip Proof Plug Assembly

Use when the wiring entry (G1/2) is not being used. Incorrect handling of the wiring entry may allow foreign matter to enter the SI unit, which will lead to a malfunction and damage to the SI unit.

AXT100-B04A

EX124/126 Series

Made to Order

Please contact SMC for detailed specifications and lead times. Prepare the SI unit, signal cut block, and manifold valve (without SI unit) separately, and combine them before use.



① DeviceNet® PNP (Negative common), Occupied points: 16 inputs*1/16 outputs

EX124 U -SDN1-X2

Mounting specifications

U	Mount a unit to the U side of the manifold Mount a unit to the D side of the manifold
D	Mount a unit to the D side of the manifold

Dimensions are the same as those of the standard type.

- *1 The SI unit cannot be connected to an input device but occupies memory areas of 16 input points (2 bytes) as a mirror function of output data.
 - The mirror function is used to transmit output data received by the SI unit as input data exactly as it is.

② DeviceNet® PNP (Negative common), Occupied points: 0 inputs/16 outputs

EX124 U-SDN1-X77

Mounting specifications

	Mount a unit to the U side of the manifold
D	Mount a unit to the D side of the manifold

• Dimensions are the same as those of the standard type.

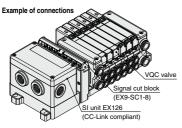
③ CompoNet®

Please contact SMC for details.

4 Signal cut block

EX9-SC1-8

- A switch unit that forcibly turns OFF the output signal to the valve by means
 of a toggle switch operation in double 1-station units
- Open the switch guard to prevent misoperation, and then carry out the operation.
- It comes with a safety mechanism which returns the switch to the normal position (AUTO) after the switch guard is closed.
- Enclosure: IP67



Cover open Switch guard (Part no.: EX9HCOSC1-X42) Connector connection Hook Switch guard (Part no.: EX9HCOSC1-X42) Press the lever to open the switch guard, press the lever and attach the hook.

⚠ Specific Product Precautions

Be sure to read this before handling the products. Refer to page 7 for safety instructions and pages 15 to 17 for fieldbus system precautions.

Caution

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

IP65/67 is achieved when the following conditions are met.

Operating Environment

- Provide appropriate wiring between all units using electrical wiring cables and communication connectors cables.
- 2) For wiring, use a G1/2 cable gland.
- 3) Appropriately mount each unit and valve manifold.
- 4) Be sure to install a drip proof plug assembly (AXT100-B04A) on each unused connector. This is to prevent the risk of the SI unit malfunctioning or breaking down.

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

■ Trademark

1300

DeviceNet® is a registered trademark of ODVA, Inc. CompoNet® is a registered trademark of ODVA, Inc.

Fieldbus System (For Output)

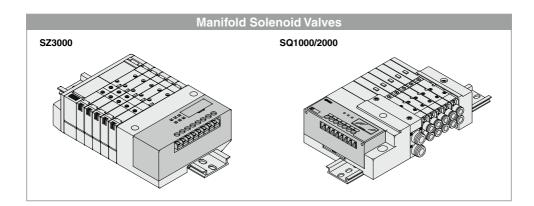
EX140 Series

Compatible Protocols

DeviceNet CC-Link



- **★**Thinner unit with low height
- **★**Maximum 16 outputs



CONTENTS

Type 1 Output type for solenoid valves

Fieldbus System (For Output) EX140 Series

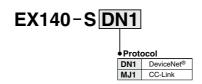


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Dimensions/Parts Descriptionp. 13	03
LED Indicatorp. 13	04
Specific Product Precautionsp. 13	04



Fieldbus System For Output EX140 Series (CA

How to Order SI Unit



Specifications

Model			EX140-SDN1	EX140-SMJ1	
	Applicable	Protocol	DeviceNet®	CC-Link	
ءِ ا	system	Version*1	Release 2.0	Ver. 1.10	
Communication	Communication speed		125 k/250 k/500 kbps	156 k/625 kbps 2.5 M/5 M/10 Mbps	
Ē	Configuration file*2		EDS file	CSP+ file	
Com	I/O occupation area (Inputs/Outputs)		0/16	32/32 (1 station, remote I/O stations)	
	Terminating resistor		Not provided		
Power supply	For control		11 to 25 VDC	15 to 30 VDC	
voltage	For valve		24 VDC +10%/-5%		
Internal current consumption (Unit)			100 mA or less		
	Output type		Sink/NPN (Positive common)		
=	Number of outputs		16 outputs		
Output	Load		Solenoid valve with surge voltage suppressor 24 VDC, 2.1 W or less (SMC)		
, °	Fail safe		HOLD/CLEAR (Switch setting)		
_	Enclosure		IP20		
Environmental resistance	Operating temperature range		0 to 55°C (Valve 8 points ON) 0 to 50°C (Valve 16 points ON)		
l or is	Operating humidity range		35 to 85%RH (No condensation)		
<u> </u>	Withstand voltage		1500 VAC for 1 minute between whole external terminal and enclosure		
"	Insulation resistance		$2~\text{M}\Omega$ or more (500 VDC) between whole external terminal and enclosure		
Standards			CE/UKCA marking		
Weight			80 g or less		
Accessory			Communication connector 1 pc., Power supply connector 1 pc.	-	

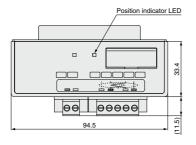
^{*1} Please note that the version is subject to change.

^{*2} The setting file can be downloaded from SMC website, https://www.smcworld.com

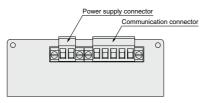
^{*} For detailed specifications other than the above, refer to the operation manual that can be downloaded from SMC website, https://www.smcworld.com

Dimensions/Parts Description

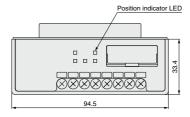
EX140-SDN1



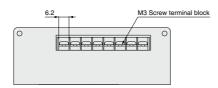




EX140-SMJ1



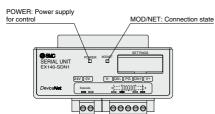




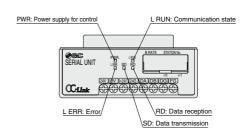
EX140 Series

LED Indicator

EX140-SDN1



EX140-SMJ1



⚠ Specific Product Precautions

I Be sure to read this before handling the products. Refer to page 7 for safety instructions and pages 15 to 17 for I I fieldbus system precautions.

Operating Environment

⚠Warning

1. Do not use this product in the presence of dust, particles, water, chemicals, and oil. Use around such materials is likely to cause a malfunction or breakage.

■ Trademark

DeviceNet® is a registered trademark of ODVA, Inc.



Fieldbus System (For Output)

EX180 Series

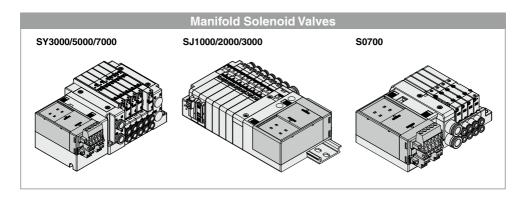
Compatible Protocols

DeviceNet CC-Link

Made to Order AnyWireASLINK



- **★**Thinner unit with low height
- **★**Maximum 32 outputs



CONTENTS

Type 1 Output type for solenoid valves

Fieldbus System (For Output) **EX180** Series



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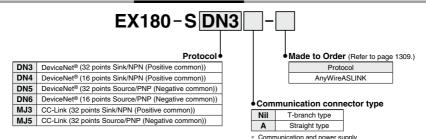


Fieldbus System For Output EX180 Series



* Excludes the S0700.

How to Order SI Unit



Communication and power supply connectors are included.

Specifications

Model			EX180-SDN3 EX180-SDN4	EX180-SDN5 EX180-SDN6	EX180-SMJ3	EX180-SMJ5	
	Applicable	Protocol	DeviceNet®		CC-Link		
	system	Version*1	Release 2.0		Ver. 1.10		
Communication	Communication speed		125 k/250 k/500 kbps		156 k/625 kbps 2.5 M/5 M/10 Mbps		
<u> </u>	Configuration file*2		EDS file		CSP+ file		
Сошш	I/O occupation area (Inputs/Outputs)		SDN3: 0/32 SDN4: 0/16	SDN5: 0/32 SDN6: 0/16	32/32 (1 station)		
	Terminating resistor		Not pr	ovided	Built into the unit (Switch setting, 110 Ω)		
Power supply	For control		11 to 2	5 VDC	24 VDC ±10%		
voltage For valve			24 VDC ±10%/-5%				
Internal current consumption (Unit)			0.1 A or less				
	Output type		Sink/NPN (Positive common)	Source/PNP (Negative common)	n) Sink/NPN (Positive common) Source/PNP (Negative common)		
5	Number of outputs		SDN3: 32 outputs SDN4: 16 outputs	SDN5: 32 outputs SDN6: 16 outputs	32 outputs		
Output	Load		SY3000/5000/7000, SJ2000/3000, S0700 series manifold valves				
	Fail safe		HOLD/CLEAR (Switch setting)				
<u> </u>	Enclosure		IP20				
ner nce	Operating temperature range		−10 to 50°C				
Sta	Operating humidity range		35 to 85%RH (No condensation)				
Environmental resistance	Withstand vo	Itage	500 VAC for 1 minute between whole external terminal and FG				
_ E _	Insulation resistance		10 MΩ or more (500 VDC) between whole external terminal and FG				
Standards			CE/UKCA marking, UL (CSA) CE/UKCA marking, UL				
Weight		110 g or less (including accessory)					
Accessory			Communication Power supply of		Communication connector 1 pc., Power supply connector 2 pcs.		

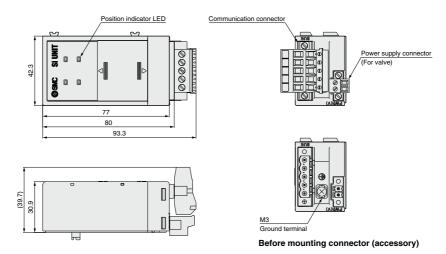
^{*1} Please note that the version is subject to change.

^{*2} The setting file can be downloaded from SMC website, https://www.smcworld.com

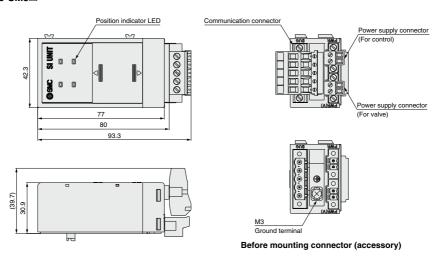
^{*} For detailed specifications other than the above, refer to the operation manual that can be downloaded from SMC website, https://www.smcworld.com

Dimensions/Parts Description

EX180-SDN□



EX180-SMJ□



EX180 Series

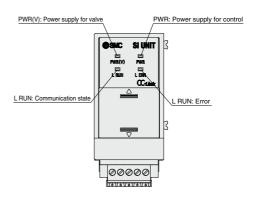
LED Indicator

PWR(V): Power supply for valve PWR: Power supply for control PWR: Power supply for control AMNS: Connection state

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VOVOVOVOVOV

EX180-SMJ□



Accessories

1 Communication Connector

Connector for the network cable

Communication

EX180-C DN 1

protocol

This connector is supplied at the time of shipment.



EX180-C□□1



T-branch type

Straight type

Communication connector type

2

2 Power Supply Connector

Connector for power supply
This connector is supplied at the time of shipment.

EX180-CP1



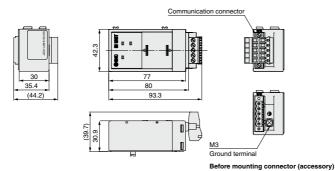
Made to Order

Please contact SMC for detailed specifications and lead times.

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

1) AnyWireASLINK NPN (Positive common), 32 outputs

EX180-SAW1-X237



▲ Specific Product Precautions

I Be sure to read this before handling the products. Refer to page 7 for safety instructions and pages 15 to 17 for I fieldbus system precautions.

Operating Environment

<u>↑</u> Warning

1. Do not use this product in the presence of dust, particles, water, chemicals, and oil. Use around such materials is likely to cause a malfunction or breakage.

■ Trademark

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