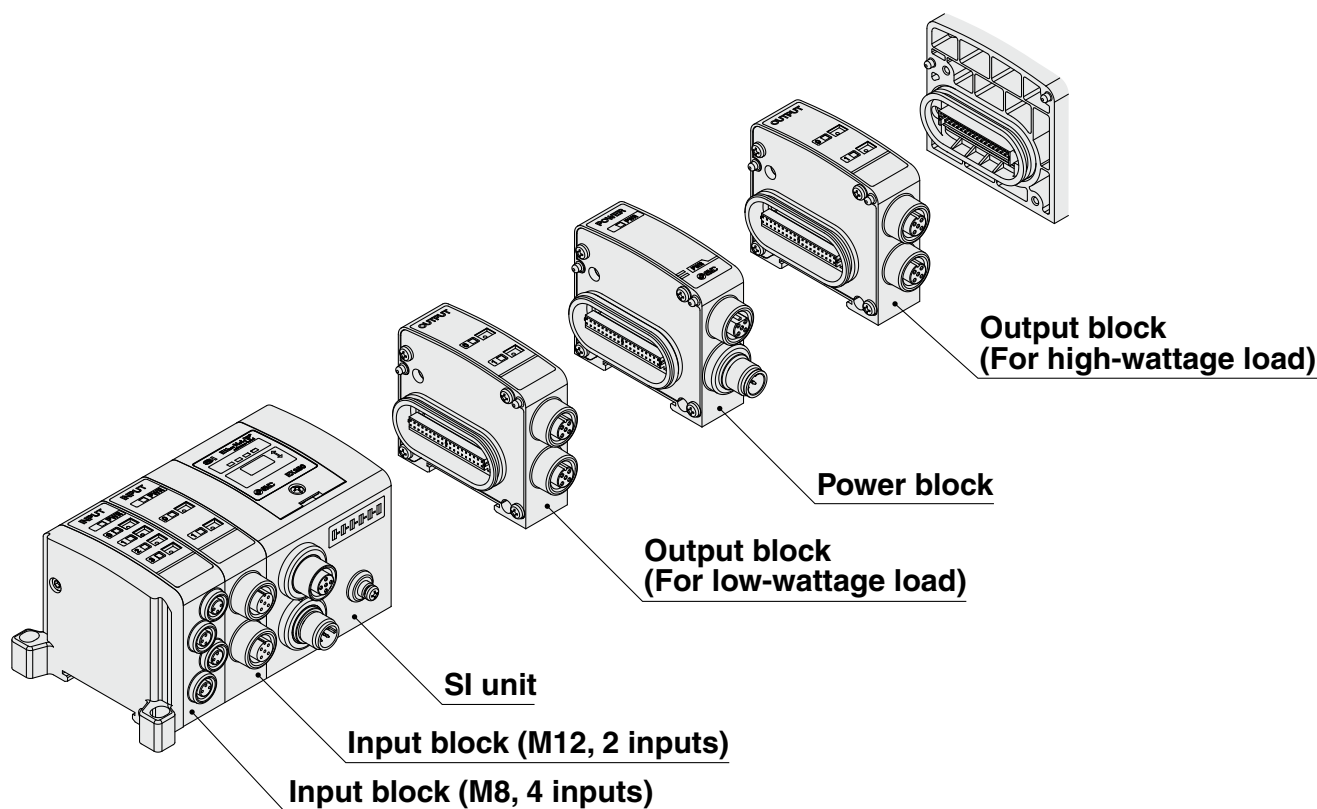


Fieldbus System For Input/Output

EX250 Series (€)

* Only the SY and SV valves are UL-compliant.

Parts Structure



How to Order

EX250-S DN1 -

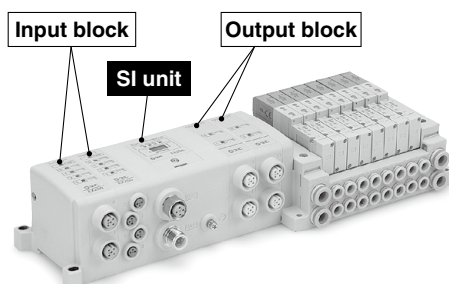
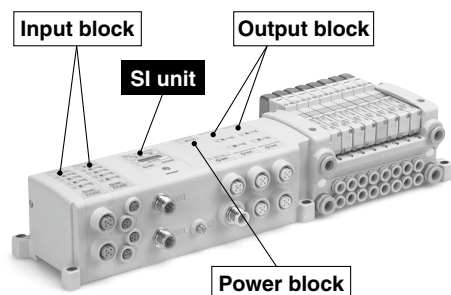
• Made to Order → p. 167
DeviceNet™ 7/8 inch connector

• Protocol

DN1*1	DeviceNet™
DN1-X102*1	DeviceNet™
PR1	PROFIBUS DP
AS3	AS-Interface (8in/8out 31 Slave Mode, 2 power supply systems)
AS5	AS-Interface (4in/4out 31 Slave Mode, 2 power supply systems)
AS7	AS-Interface (8in/8out 31 Slave Mode, 1 power supply system)
AS9	AS-Interface (4in/4out 31 Slave Mode, 1 power supply system)
CA1A	CANopen
EN1	EtherNet/IP™

*1 DN1's occupied points are 32 inputs and 32 outputs, while DN1-X102 has 48 inputs and 32 outputs.

SI Unit



Type 1	EX260
	EX123/124/126
Type 2	EX500
	EX600
Type 3	EX245
	EX250
Type 1	EX140
	EX180
Type 2	EX510
	M8/M12
	ATEX

EX250 Series

Specifications

Model			EX250-SDN1	EX250-SDN1-X102 ^{*1}	EX250-SPR1	EX250-SCA1A	EX250-SEN1	EX250-SAS3/5	EX250-SAS7/9	
Communication	Applicable system	Protocol	DeviceNet™		PROFIBUS DP	CANopen	EtherNet/IP™	AS-Interface		
		Version*2	Release 2.0		DP-V0	CiA DS-301 V4.02 CiA DS-401	Release 1.0	Ver. 2.11 (Standard Address Mode)		
	Communication speed		125 k/250 k/500 kbps		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	10 k/20 k/50 k/ 125 k/250 k/ 500 k/800 k/ 1 Mbps	10 M/100 Mbps	167 kbps		
	Configuration file*3		EDS file		GSD file	EDS file	EDS file	—	—	
	I/O occupation area (Inputs/Outputs)		32/32	48/32	32/32	32/32	48/32	SAS3: 8/8 (2 slave units) SAS5: 4/4	SAS7: 8/8 (2 slave units) SAS9: 4/4	
	Applicable function		QuickConnect™		—	—	—	—	—	
	Terminating resistor		Not provided					Not provided (Not required)		
Power supply voltage	For control		11 to 25 VDC (Supplied by DeviceNet™ circuit)		24 VDC ±20%	18 V to 30 VDC (Supplied by CANopen circuit)	24 VDC ±20%	26.5 to 31.6 VDC (Supplied by AS-i circuit)	*4 26.5 to 31.6 VDC (Supplied by AS-i circuit)	
	For sensors		24 VDC ±20%			24 VDC±20%				
	For valve		24 VDC +10%/−5%							
	Internal current consumption (Unit)		100 mA or less							SAS3: 100 mA or less SAS5: 65 mA or less
Input	Number of inputs		32 inputs (Based on input block connection)						SAS3: 8 inputs SAS5: 4 inputs	SAS7: 8 inputs SAS9: 4 inputs
	Supply voltage		24 VDC							
	Supply current		1.0 A or less						SAS3: 240 mA or less SAS5: 120 mA or less	*5
Output	Output type		Source/PNP (Negative common)							
	Number of outputs		32 outputs						SAS3: 8 outputs SAS5: 4 outputs	SAS7: 8 outputs SAS9: 4 outputs
	Load		Solenoid valve with surge voltage suppressor 24 VDC, 1.5 W or less (SMC) Output block Power block							
	Supply voltage		24 VDC							
	Supply current		2.0 A or less						SAS3: 500 mA or less SAS5: 250 mA or less	*5
	Fail safe		HOLD/CLEAR (Switch setting)		CLEAR	HOLD/CLEAR (Switch setting)				
Environmental resistance	Enclosure		IP67							
	Operating temperature range		5 to +45°C			−10 to +50°C	5 to +45°C			
	Operating humidity range		35 to 85%RH (No condensation)							
	Withstand voltage		500 VAC for 1 minute between whole external terminal and FG							
	Insulation resistance		10 MΩ or more (500 VDC) between whole external terminal and FG							
Standards			CE marking (EMC directive/RoHS directive), UL (CSA)							
Weight			250 g							
Accessory*6			Tie-rod 2 pcs.							

^{*1} This is a specification to transmit the diagnostic information of voltage drop of the valve power supply and input block fuse blowout as an input data to the master. The EX250-SDN1 becomes I/O connection time out when the diagnostic information is detected, but not EX250-SDN1-X102.

Since this is a special product, a manifold part number is not specified. Please consult SMC for the manifold integrated type.

^{*2} Please note that the version is subject to change.

^{*3} The setting file can be downloaded from SMC website, <http://www.smcworld.com>

^{*4} Since the EX250-SAS7/9 is compatible with the 1 power supply system, the power supply for units is divided into two: the power supply for sensors and for valves.

^{*5} Since the EX250-SAS7/9 is compatible with the 1 power supply system, the power supply must be divided in accordance with the values below. (Refer to page 170 for details.)

EX250-SAS7 ... Max. 240 mA, EX250-SAS9 ... Max. 120 mA

^{*6} When the SI unit is mounted to the manifold when shipped, accessories are shipped together with it.

^{*7} For detailed specifications other than the above, refer to the operation manual that can be downloaded from SMC website, <http://www.smcworld.com>