SI Unit Specifications

Model			EX250-SDN1	EX250-SDN1-X102 Note 1)	EX250-SPR1	EX250-SMJ2	EX250-SCA1A	EX250-SCN1	EX250-SEN1	EX250-SAS3/5	EX250-SAS7/9
Communication specification	**Applicable system**	**Protocol**	DeviceNet		PROFIBUS DP	CC-Link	CANopen	ControlNet	EtherNet/IP	AS-Interface	
		Version Note 2)	Release 2.0		DP-V0	Ver.1.10	CiA DS-301 V4.02 CiA DS-401	V2.0 Errata 3 adapter class	Release 1.0	Version 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	156 k/625 k/ 2.5 M/5 M/ 10 Mbps	10 k/20 k/50 k/ 125 k/250 k/ 500 k/800 k/ 1 Mbps	5 Mbps	10 M/100 Mbps	167 kbps	
	Specified file Note 3)		EDS file	EDS file	GSD file	—	EDS file	EDS file	EDS file	—	—
	Occupied area (Number of inputs/outputs)		32/32	48/32	32/32	64/64 (2 stations, remote device station)	32/32	48/32	48/32	SAS3: 8/8 (2 slave units) SAS5: 4/4	SAS7: 8/8 (2 slave units) SAS9: 4/4
	Terminal resistor		Not applicable								
Power supply	**For unit**		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)	Note 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	SAS7: 100 mA or less SAS9: 65 mA or less
Input specification	**Number of inputs**		32 points (Based on input block connection)							SAS3: 8 points SAS5: 4 points	SAS7: 8 points SAS9: 4 points
	Supply voltage		24 VDC								
	Supply current		1.0A or less							SAS3: 240 mA or less SAS5: 120 mA or less	Note 5)
Output specification	**Output type**		PNP output (–COM.)			NPN output (+COM.)	PNP output (–COM.)				
	Number of outputs		32 points							SAS3: 8 points SAS5: 4 points	SAS7: 8 points SAS9: 4 points
	Connection load		SMC: Solenoid valve with light/surge voltage suppressor (24 VDC, 1.5 W or less) 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	Note 5)
	Output when communication error occurs		Hold/Clear (Switch setting)			Clear	Hold/Clear (Switch setting)				
Environmental resistance	**Enclosure**		IP67					IP40	IP67		
	Operating temperature range		5 to 45°C				–10 to 50°C	5 to 45°C			
	Operating humidity range		35 to 85%RH (With no condensation)								
	Withstand voltage		500 VAC for 1 min. between external terminals and FG								
	Insulation resistance		10 MΩ or more (500 VDC) between external terminals and FG								
	Vibration resistance		10 to 150 Hz with a 0.35 mm amplitude or 49 m/s² in each X, Y, Z direction for 2 hrs (De-energized)								
	Impact resistance		147 m/s² in each X, Y, Z direction, 3 times (De-energized)								
Standard			CE marking, UL (CSA)								
Accessory Note 6)			Tie-rod 2 pcs.								

Note 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. 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.
Note 2) Please note that the version is subject to change.
Note 3) Each file can be downloaded from SMC's website (http://www.smcworld.com/).
Note 4) Since 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.
Note 5) Since 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 1667 for details.)
(EX250-SAS7 ··· Max. 240 mA, EX250-SAS9 ··· Max. 120 mA)
Note 6) When the SI unit is mounted to the manifold when shipped, accessories are shipped together with it.
Note 7) For detailed specifications other than the above, refer to the separate technical operation manual that can be downloaded from SMC's website (http://www.smcworld.com/).

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