

Technical Information

ProSafe-RS
Installation Guidance

ProSafe-RS

TI 32S01J10-01E

1.7 Corrosive-gas Environment Compatibility

The ProSafe-RS system complies with the ANSI/ISA G3 environment requirements, allowing use in a corrosive gas-susceptible environment.

■ G3 Environment-compatible Products

Table G3 Environment-compatible Products (1/2)

No.	Product	Model	Description
1	Node unit	SSC60□	Safety control unit (rack mountable type, for Vnet/IP)
		SSC50□	Safety control unit (rack mountable type, for Vnet/IP)
		SSC57□	Safety control unit (rack mountable type, for Vnet/IP-Upstream)
		SSC10□	Safety control unit (rack mountable type)
		SNB10D	Safety node unit (rack mountable type)
2	Input/output module	SAI143-S	Analog input module (4 to 20 mA, 16-channel, Module isolation)
		SAI143-H	Analog input module (4 to 20 mA, 16-channel, Module isolation, HART Communication)
		SAV144	Analog input module (1 to 5 V/1 to 10 V, 16-channel, Module isolation)
		SAI533	Analog output module (4 to 20 mA, 8-channel, Module isolation, HART Communication)
		SAT145	TC/mV Input Module (16-channel, Isolated Channels)
		SAR145	RTD Input Module (16-channel, Isolated Channels)
		SDV144	Digital input module (no-voltage contact, 16-channel, Module isolation)
		SDV521	Digital output module (24 V DC/2 A, 4-channel, Module isolation)
		SDV526	Digital output module (100-120 V AC, 4-channel, Module isolation)
		SDV531	Digital output module (24 V DC, 8-channel, Module isolation)
		SDV53A	Digital output module (48 V DC, 8-channel, Module isolation)
SDV541	Digital output module (24 V DC, 16-channel, Module isolation)		
3	ESB Bus Interface Module	SEC402	ESB Bus Coupler Module (for SSC60□, 2-port)
		SEC401	ESB Bus Coupler Module
4	Unit for Optical Bus Repeater Module	SNT10D	Unit for Optical Bus Repeater Module
5	Optical ESB Bus Repeater Module	SNT401	Optical ESB Bus Repeater Master Module
		SNT501	Optical ESB Bus Repeater Slave Module
		SNT411	Optical ESB Bus Repeater Master Module 5 km - 50 km (for SSC60□, SSC50□, SSC57□)
		SNT511	Optical ESB Bus Repeater Slave Module 5 km - 50 km (for SSC60□, SSC50□, SSC57□)

Table G3 Environment-compatible Products (2/2)

No.	Product	Model	Description
6	Communication module	ALR111-□□1	Serial communication module (RS-232C, 2-port)
		ALR121-□□1 ALR121-□□B ALR121-□□3	Serial communication module (RS-422/RS-485, 2-port)
		ALE111-□□1 ALE111-□□3	Ethernet communication module (*1)
7	Wiring check adapter	SCB1□0	Wiring check adapter for digital input module
8	Power supply bus unit	AEPV7D-□□6 AEPV7D-□□F	Power Supply Bus Unit, Vertical Type
		AEP7D-□6 AEP7D-□F	Primary power supply bus unit
9	Terminal Board	SEA4D	Analog terminal board (Single and Dual-redundant, 16-channel x 2)
		SBA4D	Terminal board for Analog: DIN rail mount type (Single and Dual-redundant, 16-channel x 1)
		SBT4D	Terminal board for TC/mV: DIN rail mount type (Single and Dual-redundant, 16-channel x 1)
		SBR4D	Terminal board for RTD input: DIN rail mount type (Single and Dual-redundant, 16-channel x 1)
		SED2D	Digital terminal board (Single and Dual-redundant, 4-channel x 4)
		SED3D	Digital terminal board (Single and Dual-redundant, 8-channel x 4)
		SED4D	Digital terminal board (Single and Dual-redundant, 16-channel x 2)
		SWD2D	Digital terminal board (Single and Dual-redundant, 100 to 120 V AC, 4-channel x 4)
		SBD2D	Terminal board for Digital output: DIN rail mount type (Single and Dual-redundant, 4-channel x 1, for SDV521)
		SBD3D	Terminal board for Digital output: DIN rail mount type (Single and Dual-redundant, 8-channel x 1, for SDV53□)
SBD4D	Terminal board for Digital: DIN rail mount type (Single and Dual-redundant, 16-channel x 1, for SDV144/SDV541)		
10	Router	AVR10D-□□□□□1	Duplexed V net router

*1: ALE111 supported in R3.02.00 or later can be mounted on SSC60□, SSC50□ or SSC57□.

1.8 Compliance with Marine Standards

The ProSafe-RS offers compliance with the following marine standards:

- American Bureau of Shipping (ABS)
- Bureau Veritas (BV)
- Lloyd's Register

This Section introduces the components of systems which comply with the marine standards, and precautions for installing those components.

■ Marine Standard-compliant ProSafe-RS Components

The table below shows the ProSafe-RS components which comply with the marine standards.

Table Marine Standard-compliant ProSafe-RS Components (1/3)

Product	Model	Module Type	Description
Node Unit	SSC60S-F	Safety control unit (19 inch rack mountable)	Including SCP461, SPW481, SPW482 and SPW484. SSC60S-S and SSC60D-S do not comply.
	SSC60D-F		
	SSC50S	Safety control unit (19 inch rack mountable)	Including SCP451, SPW481, SPW482 and SPW484.
	SSC50D		
	SSC57S		
	SSC57D		
	SSC10S	Safety control unit (19 inch rack mountable)	Including SCP401, SPW481, SPW482 and SPW484.
	SSC10D		
SNB10D	Node unit for dual-redundant ESB bus (19 inch rack mountable)	Including SSB401, SPW481, SPW482 and SPW484.	
Input/Output Module	SAI143	Analog input module (4 to 20 mA, 16-channel, and module isolation)	(*1) SAI143-H□C does not comply.
	SAV144	Analog input module (1 to 5 V/1 to 10 V and module isolation)	Including SCCC01, STB4D, STB4S and STK4A.
	SAT145	TC/mV Input Module (16-channel, Isolated Channels)	
	SAR145	RTD Input Module (16-channel, Isolated Channels)	
	SAI533	Analog output module (4 to 20 mA, 8-channel and module isolation)	(*1)
	SDV144	Digital input module (16-channel, contact input and module isolation)	(*2) SDV144-S□C does not comply.
	SDV521	Digital output module (4-channel, 24 V DC/2A, and module isolation)	SDV521-S3C does not comply.
	SDV531	Digital output module (8-channel, 24 V DC, and module isolation)	(*2) SDV531-L complies with Marine Standards from style code S3. SDV531-L□C does not comply.
	SDV53A	Digital output module (8-channel, 48 V DC, and module isolation)	
	SDV541	Digital output module (16-channel, 24 V DC, and module isolation)	(*2) SDV541-S□C does not comply.
	SDCV01	Dummy cover (for I/O modules)	
Wiring Check Adapter	SCB100	Wiring check adapter for digital input	
	SCB110		
Unit for Optical Bus Repeater Module	SNT10D	Unit for optical bus repeater module	Including SPW481, SPW482 and SPW484.

*1: Including SCCC01, STA4D, STA4S and STK4A.

*2: Including SCCC01, SCCC02, STB4D, STB4S and STD4A.

Table Marine Standard-compliant ProSafe-RS Components (2/3)

Product	Model	Module Type	Description
Optical ESB bus repeater module	SNT401	Optical ESB bus repeater master module	
	SNT411	Optical ESB bus repeater master module 5 km to 50 km	(*3)
	SNT501	Optical ESB bus repeater slave module	
	SNT511	Optical ESB bus repeater slave module 5 km to 50 km	(*3)
ESB Bus Interface Module	SEC402	ESB bus coupler module	
	SEC401		
Communication Module	ALR111	Serial communications module (RS-232C, 2-port)	
	ALR121	Serial communications module (RS-422/RS-485, 2-port)	ALR121-S□B does not comply.
	ALE111	Ethernet communication module	
Terminal Board	SEA4D	Analog terminal board (single and dual-redundant, 16-channel x 2)	
	SED2D	Digital terminal board (single and dual-redundant, 4-channel x 4)	
	SED3D	Digital terminal board (single and dual-redundant, 8-channel x 4)	
	SED4D	Digital terminal board (single and dual-redundant, 16-channel x 2)	
	SBT4D	Terminal board for TC/mV: DIN rail mount type (Single and Dual-redundant, 16-channel x 1)	
	SBR4D	Terminal board for RTD input: DIN rail mount type (Single and Dual-redundant, 16-channel x 1)	
	SBA4D	Terminal board for Analog: DIN rail mount type (Single and Dual-redundant, 16-channel x 1)	
	SBD2D	Terminal board for Digital output: DIN rail mount type (Single and Dual-redundant, 4-channel x 1, for SDV521)	
	SBD3D	Terminal board for Digital output: DIN rail mount type (Single and Dual-redundant, 8-channel x 1, for SDV53□)	
	SBD4D	Terminal board for Digital: DIN rail mount type (Single and Dual-redundant, 16-channel x 1, for SDV144/SDV541)	
Relay Board	SRM53D	8 × 2 dry contact output (safety relay built-in, M4 terminals)	
	SRM54D	16 × 1 dry contact output (safety relay built-in, M4 terminals)	
	SBM54D	Relay board for Digital output: DIN rail mount type (Single and Dual-redundant, 16-channel x 1, for SDV541)	
Control Bus Interface	VI702	Control bus interface card	(*4)
	VF702		(*4)
	VI701		
	VF701		
Vnet Router	AVR10D	Duplexed V net router	

*3: Only style code S1 complies with Marine Standards.

*4: Noisecut transformer shall be attached in the power-line cable of SENG.