

San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com



8 / 16-Port IEC61850-3 certified Industrial, Secure Device Server, SC10EXXAMB Series



- ✓ IEC61850-3 certified, can be easily set up into IEC61850-3 substations
- ✓ Industrial EMC protection, wide temperature operation, -40°C to 85°C
- ✓ Remotely monitor, manage, and control industrial field devices
- ✓ Redundant Power Input for fault protection, either 24 to 48 VDC or High-Voltage AC/DC (100 to 240VAC or 100 to 370VDC)
- ✓ 6 Fast-Ethernet interfaces, either RJ45 or SFP slot
- ✓ 8 or 16 RS232/RS485/RS422 Serial ports, with or without isolation

Product Description

The IEC61850-3 certified SC10E08AB/SC10E16AB supports OpenVPN and IPsec VPN Encryption that allows you to tunnel your data securely through the Internet and prevent unauthorized control of your Serial Devices by malicious attacks, data sniffing etc RSTP saves you from Link losses

Flexible configuration options enable this unit to be setup over Ethernet by Telnet, Web Browser, Serial Console, or our Windows Utility.

Modbus Gateway supports various types of hardware communication interfaces, Modbus protocol conversion, and Modbus ID routing. Therefore the Modbus Gateway can integrate your existing and complex Modbus hardware configuration into a simple network that can be easily managed

Packed in a rugged metal housing for 19" Rack mount with a redundant 24-48 VDC or High Voltage AC/DC power input, it is ideal for mission-critical applications in Utilities and especially in Power substations.

SC10E08AB/SC10E16A embeds high EMC protection, Wide temperature operation, programming and installation flexibility in one device.

The Virtual COM software provides a virtual environment for applications when accessing the device through TCP.

Technical Specifications

Network interface

Speed	IEEE 802.3 10BaseT IEEE 802.3u 100BaseT(X) - RJ45 version IEEE 802.3u 100Base-FX - SFP version
Connector ports	RJ45 x 6 (RJ45 version) or SFP x 6 (SFP version)

Serial Interface

Connector	D-Sub9 (DB models, supporting only 5-pin RS-232 mode) or 5.08mm 5-Pin Terminal block (TB Models)
Ports	8 or 16

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Mode	RS232/422/485 or RS422/485 (Isolated version) Software selectable
Serial port isolation	3 KV Isolation (Isolated version only)
Baud Rate	1,200 to 921,600 bps software selectable
Parity	None, Odd, Even, Mark, Space
Data Bits	5, 6, 7, 8 software selectable
Stop Bits	1, 2 software selectable
Flow Control	None, Xon/Xoff, RTS/CTS (RS-232 only)

Power

Input Voltage	Redundant 24 to 48 VDC or Redundant 100 to 240 VAC/ 100 to 370 VDC
Input Current	0.73 A @ 24 VDC, 0.35 A @ 100 VAC, 0.20 A @ 100 VDC
Power Consumption	Approximately 20 W
Power Redundancy	Yes
Connector	10-Pin Terminal Block
Reverse Polarity Protection	Yes

Physical Characteristics

Housing	IP30 SPCC housing
Dimension	440.6 x 44 x 309 mm (1U Rack-mount) (W x H x D)
Weight	4 kg
Installation	19" Rack mount (Rack-mount kit included)
Reset Button	Yes

Environmental Limits

Operating Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Ambient Relative Humidity	5% to 95% (Non-condensing)

Software

Protocols	IPv4, ICMP, TCP, UDP, DHCP Client, SNMPv1,v2c, v3, HTTP, HTTPS, Telnet, RFC2217, Security through OpenVPN Client/Server or IPsec VPN host-to-host or host-to-side with up to 37.9Mbps VPN throughput, PPTP, and SMTP/TLS
Configuration	Utility, Web UI, Telnet, Console
Virtual COM	Windows/Linux redirection software

Modbus Features

Supported Modes	Ethernet : Modbus TCP Server/Client(or VCOM) Serial : Modbus RTU/ASCII (master/slave)TCP Client Single destination or VirtualCOM
Maximum number of clients/slaves	Modbus TCP: Maximum 16 clients, Maximum 247 slaves

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Regulatory Approvals tested for

Safety : EN61010-1, EN 61010-2-201
 EMC : FCC Part 15, Subpart B, Class B, EN 55032, Class B
 EN 61000-6-2 Class B, EN 61000-3-2, EN 61000-3-3, EN 55024
 EN 61000-6-4
 IEC 61850-3 / IEEE 1613

Test	Item	Value	Level
IEC 61000-4-2	ESD	Contact Discharge ±8kV	4
		Air Discharge ±15kV	4
IEC 61000-4-3	RS	Radiated (enclosure) 20 V/m	3
IEC 61000-4-4	EFT	AC Power Port ±4.0KV	4
		DC Power Port ±4.0KV	4
		Signal Port ±4.0KV	4
IEC 61000-4-5	Surge	AC Power Port Line-to Line±2.0KV	4
		AC Power Port Line-to Earth±4.0KV	4
		DC Power Port Line-to Line±1.0KV	3
		DC Power Port Line-to Earth±2.0KV	3
		Signal Port Line-to Earth±2.0KV	4
IEC 61000-4-6	CS	AC Power Port 10 V rms	3
		DC Power Port	
		Signal Port	
IEC 61000-4-8	PFMF	Enclosure 100 A/m	5
		1000 A/m	
IEC 61000-4-10	Damped Oscillatory		
	Magnetic Field Enclosure	100 A/m	5
IEC 61000-4-11	Voltage DIP	AC Power Port 30% reduction (Voltage Dips)	
		1 period 60% reduction (Voltage Dips), 50 period	
		100%, reduction (Voltage interruptions), 5 period	
		100% reduction (Voltage interruptions), 50 period	
Shock	MIL-STD-810F Method 516.5		
Drop (Freefall)	MIL-STD-810F Method 516.5		
Vibration	MIL-STD-810F Method 514.5 C1 & C2		
RoHS II	Yes		
MTBF	9 Years		

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Ordering Code	SC10EXXAMB-61850 S NI/I D/T YYY T/S
SC10E	Base Model for Industrial Grade Terminal Server
XX	Serial Ports : 08/16
AM	Modbus R TU/TCP
B	IEC 61850-3
S	Secured
NI/I	Non Isolated / Isolated
D/T	Connectors D : DB9 for RS232/485/422 T : Terminal Block for RS485/422
YYY	Input Voltage, Redundant DC : 24 to 48 VDC AC : 100 to 240 VAC HDC : 100 to 370 VDC
T/S	Type of Ports RJ45 x 6 (RJ45 version) SFP x 6 (SFP version)