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16 Port Industrial Secured Modbus TCP Gateway, Model SC10E16AM S Series



- 16-port Secured ModbusTCP Gateway
- Each port can be independently configured
- Software selectable RS-232/422/485 for each port or
- Isolated RS485/422 ports
- Dual 10/100Mbps Ethernet for networking redundancy
- Support DUAL Subnet or RSTP Redundancy
- Support TCP Server/Client UDP and Virtual Com multi-link mode
- Configuration via Serial Console, Telnet, Web Server or Windows-based utilities
- SSH v1 and v2, SSL V3.0/TLS V1.2, SSL V2.0, SSL Server and SSL client mode capability, SSL Peer authentication
- All Serial ports can use 502 as TCP System port for ModbusTCP
- Alarm Relay output for LAN1 / LAN2 Outage
- LCM indication with 4 key pad setting

The Multi-port Industrial, SC10E16AM Series, is a Gateway between Modbus ASCII/RTU to ModbusTCP Communications. It allows almost any Modbus RTU device connect to a ModbusTCP network. SC10E16AM offers full-duplex, bi-directional data transmission transparent between Serial port and Ethernet network. SC10E16AM S Series supports OpenVPN and IPsec, which allows you to securely communicate through the internet.

Flexible configuration options enable this unit to be setup by Telnet, Web browser, Serial Console or Windows utilities. Packed in a rugged metal housing with 19-inch rack mount and 100~240VAC wide power input range, SC10E16AM is ideal for almost any industrial and manufacturing automation.

Dual Subnet Mode : Subnet is a logically visible subdivision of an IP network. The LAN 1 and LAN2 can be assigned to different subnets. This feature gives the user flexible network manageability. Separate IP's. Different Class

RSTP : The integrated Rapid Spanning Tree Protocol (RSTP), allows you to add a backup Ethernet link in the event the primary one fails.

TECHNICAL SPECIFICATIONS

Ethernet

Compliance	: IEEE802.3 and IEEE802.3u
Ports	: 2-port
Transmission Rate	: 10/100Mbps Auto-detection, Auto MDI/MDI-X
Connector	: RJ45
Isolation	: 1.5KV Magnetic Isolation
MAC chips	: 2 Separate MAC chips
Mode	: Dual Sub net mode or RSTP Redundancy

Link Mode

TCP Server	: Up to 4 connections or Virtual Com mode
TCP Client	: Up to 2 destinations
UDP	: Up to 4 destinations
Supports Serial Serial Mode	

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Serial

Interface : RS232/422/485 for Non Isolated
: RS485/422 for Isolated versions
: Software selectable
Ports : 16-port
Baud Rate : 1200bps to 921Kbps
Parity : None, Odd, Even, Mark, Space
Data Bits : 5, 6, 7, 8
Stop Bits : 1, 2
Flow Control : None, Software: Xon/Xoff, Hardware: RTS/CTS
Connector : RJ45
Isolation : 2.5 KV Galvanic : In RS485/422 Isolated model only.

RS-232 : TxD, RxD, RTS, CTS, DTR, DSR, GND
RS-422 : TX+, Tx-, Rx+, Rx-, GND
RS-485-4w : Tx+, Tx-, Rx+, Rx-, GND
RS 485-2w : Data+, Data-, GND

MTBF : AC : 13.95 years, Isolated DC : 13.38 years, Isolated AC : 13.38 years

Software

Configuration : Web Page / Telnet / Serial console / Windows utility / LCM
Virtual Com : Windows & Linux port redirection software
Protocol : TCP/IP, UDP, ARP, ICMP, DHCP client, NTP, DNS, SNMP v1, v2, v3
SMTP, HTTP, HTTPS, SMP/TLS, Telnet, RFC2217, RSTP, IPv4,
VPN-OpenVPN, IPsec, PPTP

Security

IPsec VPN : NAT Traversal, ESP authentication protocol
Encryption : Encryption: AES (256/192/128), 3DES, DES,
Hashing Algorithms : MD5, SHA-1
Certificate authority (CA) list
RADIUS Authentication, Authorization and Accounting
IP Address filtering

Driver Support : Windows 2008, 2007, 98/200/NT/XP/2003/Vista, Windows server 2012
R2 & Windows Server 2016 OS driver Support

Power

Input : AC 100 to 260V
: 24V to 48V DC options are also available
Connectors : 3 Pin Terminal block for DC & AC Inlet of AC Inputs
Consumption : Max. 21W
Reverse Polarity Protection : Yes. For DC Version

Console Port : RS232, DB9 : 1 no's
Alerts : SMTP, SNMPv1, v2, v3, Relay
Diagnostics : Link Status, Syslog, Data Log
LED's : Power, Ready, TX, RX, LAN1, LAN2
LCD with Keypad, Reset Button

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Approvals tested for

Safety : EN60950-1:2006/ IEC60950-1 LVD
 EMC : FCC Part 15, Subpart B, Class B

EN 55032 (Emissions)

EN 61000-3-2 (Harmonic Current Emissions),
 EN 61000-3-3 (Voltage Fluctuations and Flicker)

EN 55024 (Immunity)

IEC 61000-4-2 : **ESD** : +/- 8 KV, +/- 15 KV
 IEC 61000-4-4 : **EFT/Burst** : Power line : AC : +/- 4 KV, DC : +/- 4 KV,
 : Data lines : +/- 2 KV

IEC 61000-4-5 : **Surge Protection**
 : Signal Port : L to E : 2KV
 : Power Port : DC : L to L : +/-1 KV. L to E : +/- 2KV
 : AC : L to E : +/-4 KV. L to L : +/- 2 KV

(8/20µsec Short circuit current & 10/700 µsec for Telecom & Power port)

IEC 61000-4-3 : RS : Level 3
 IEC 61000-4-6 : CS : Level 3
 IEC 61000-4-8 : PFMF : Level 3
 IEC 61000-4-11 : DIP : AC Power Port
 Shock : IEC 60068-2-27
 Drop (Freefall) /Vibration : IEC 60068-2-64I, STA Test Procedure 2A

Environment

Operating Temp : -20°C to 70°C
 Storage Temp : -40° to 85°C
 Relative Humidity : 5 to 95% Rh non condensing
 Heat Load : 34.12 BTU/hr

Physical Characteristics

Ingress Protection : IP30
 W x H x D : 436 x 44 x 200mm
 Weight : 3.2 Kg
 Mounting : Standard 19-inch Rack-mount 1U metal housing
 : Desktop

ORDERING CODE : SC10E16AM S BB C YY

SC10E: Product Series

16 : 16 for 16 Port
 A : Fixed
 M : Modbus Serial & ModbusTCP Function
 S : Secured Gateway
 BB : NI for Non Isolated. I for Isolated
 C : U for RS232/RS485/RS422 (Only in NI-Non Isolated Models)
 : V for RS485/422 (Only in I-Isolated Model)
 YY : AC for 230V AC Input & DC for 24 to 48 DC Input

e.g.

SC10E16AM S I V DC : 2 LAN 16-port Isolated RS422/485 (RJ45) Secured Gateway,
 48V DC operated supporting Modbus Conversions