

SICOM4000

Layer 2 24+4G Port Managed Din-Rail Modular IEC61850 Switch



- Flexible modular DIN-Rail design for easy expansion
- 4 Gigabit SFP slots, 24 Fast Ethernet fiber/RJ45 optional ports or 24 RS232/RS485 serial ports
- Supports DT-Ring protocols and RSTP
- Embedded serial data server
- Patented heat dissipation technology, fanless design
- IP40 protection class



Overview

SICOM4000 is a DIN-Rail modular managed industrial Ethernet switch supporting up to 4 Gigabit SFP slots, 24 100M copper/fiber ports or 24 RS232/RS485 serial ports. It also comes with EMC industrial level 4 design and complies with IP40 protection class. Based on Kyvision3.0, CLI, WEB interface, it offers concentrated management. The state-of-the-art OPC software enables the switch's management embedded in various industrial systems.

Features & Benefits

1. Redundancy Technology: supports DT-Ring protocols (recovery time<50ms), RSTP
2. Multicast Protocol: supports IGMP Snooping, GMRP and static multicast
3. Network Partition: supports VLAN, PVLAN
4. Service Quality: supports QoS
5. Bandwidth Management: supports port trunking, port speed limit, broadcast storm control
6. Network Management and Monitoring: supports CLI, Telnet, WEB management methods, Kyvision centralized management, SNMPv1/v2/v3, RMON, SNTP, LLDP
7. Network Security: supports SSH, SSL, ACL
8. Device Management: supports FTP upgrade
9. Device Maintenance: supports port mirroring
10. Alarm Output: supports IP/MAC conflicts, power, port and ring alarms
11. Special Function: supports Link Check and Loop Status Check

Technical Specifications

Standard

IEEE 802.3i
IEEE 802.3u
IEEE 802.3ab
IEEE 802.3z
IEEE 802.3x
IEEE 802.1p
IEEE 802.1Q
IEEE 802.1w

Protocols

DT-Ring, DT-Ring+, DT-VLAN, RSTP;
IGMP Snooping, GMRP;
VLAN, PVLAN;
Telnet, HTTP, SNMPv1/v2/v3, RMON, LLDP, SNTP;
SSH, SSL, ACL;
ARP, FTP, QoS

Switch Properties

Priority Queues: 4
Number of VLANs: 256
VLAN ID: 1-4094
Number of Multicast Groups: 256
MAC Table: 8K
Packet Buffer: 4Mbit
Packet Forwarding Rate: 9.5Mpps
Switching Delay: <5μs

Interface

1 slot for CPU module
1 slot for switching module
1 slot for power module
1 slot for 4-port Gigabit interface module
6 slots for 4-port Fast Ethernet interface modules or 4-port serial interface modules
Gigabit Ethernet Ports: 4 1000Base SFP slots
Fast Ethernet Ports: max 24 100Base-FX, SM/MM ports, FC/SC/ST connector or 24 10/100Base-TX RJ45 ports
Serial Port: max 24 RS232/RS485 ports
Console Port: RS232 (RJ45 connector)
Alarm Contact: 2-pin 3.81mm-spacing plug-in terminal block, 250VAC/350VDC Max, 120mA Max

LED

1) LEDs on Front Panel:
Running LED: Run
Alarm LED: Alarm
Power LED: PWR1, PWR2
Interface LED: Link/ACT, Speed (RJ45 port)
2) LEDs on Rear Panel:
Interface LED: Link/ACT
Port Speed LED: Speed

Transmission Distance

Serial Cable:
RS232, 15m; RS422/RS485, 1200m
Twisted Pair:
100m (Standard CAT5, CAT5e network cable)
Multi Mode Fiber:
1310nm, 5km (100M)
850nm, 550m (1000M)
Single Mode Fiber:
1310nm, 40km/60km (100M)
1550nm, 60km/80km (100M)
1310nm, 10km/40km (1000M)
1550nm, 60km/80km (1000M)

Power Requirements

Power Input:
24DC (18-36VDC), 48DC (36-72VDC)
Power Terminal:
3-pin 3.81mm-spacing plug-in terminal block
Power Consumption:
<24W (full Ethernet ports)
<36W (full serial ports)

Overload Protection: Support
Reverse Connection Protection: Support
Redundancy Protection: Support

Physical Characteristics

Housing: Aluminum, fanless
Protection Class: IP40
Dimensions (WxHxD):
416x170x158 mm (16.38x6.69x6.22 in.)
Weight: 8kg (17.637 pound)
Mounting: DIN-Rail or panel mounting

Environmental Limits

Operating Temperature: -40 to 85°C (-40 to 185°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

MTBF

282,000 hrs

Warranty

5 years

Approvals

CE, FCC

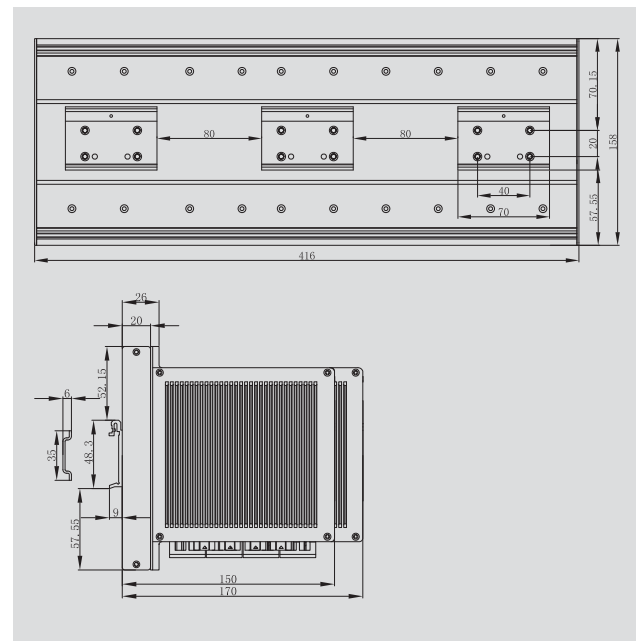
Industrial Standard

EMI:
FCC CFR47 Part 15, EN55022/CISPR22, Class A
EMS:
IEC61000-4-2 (ESD): ±8kV (contact), ±15kV (air)
IEC61000-4-3 (RS): 10V/m (80MHz-2GHz)
IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV
IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV
IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)
IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s)

Machinery:
IEC60068-2-6 (Vibration)
IEC60068-2-27 (Shock)
IEC60068-2-32 (Free Fall)

Industry: IEC61000-6-2
Railway: EN50155, EN50121-4
Traffic Control: NEMA TS-2

➤ Mechanical Drawing



Ordering Information

SICOM4000 - - - - - - - - - -
 C P G S1 S2 S3 S4 S5 S6

C:Chassis

MB24 = SICOM4000-MB-24VDC, SICOM4000 Chassis 24VDC Version

MB48 = SICOM4000-MB-48VDC, SICOM4000 Chassis 48VDC Version

P:Power Supply Module

24 = SM4.1-Power-24VDC, 24VDC(18-36VDC) power supply module

48 = SM4.1-Power-48VDC, 48VDC(36-72VDC) power supply module

G:Gigabit Module

XX = None

4GX24 = SM4.1-4GX-24VDC, interface module with 4 Gigabit SFP ports 24VDC version

4GX48 = SM4.1-4GX-48VDC, interface module with 4 Gigabit SFP ports 48VDC version

4GE24 = SM4.1-4GE-24VDC, interface module with 4 10/100/1000Base-TX RJ45 ports 24VDC version

4GE48 = SM4.1-4GE-48VDC, interface module with 4 10/100/1000Base-TX RJ45 ports 48VDC version

S1-S6:Slot 1-Slot 6 100M Modules

XX = None

4T24 = SM4.1-4T-24VDC, interface module with 4 10/100Base-TX RJ45 ports, 24VDC version

4T48 = SM4.1-4T-48VDC, interface module with 4 10/100Base-TX RJ45 ports, 48VDC version

4D24 = SM4.1-4D-232/485-24VDC, interface module with 4 RS232/485 serial ports, 24VDC version

4D48 = SM4.1-4D-232/485-48VDC, interface module with 4 RS232/485 serial ports, 48VDC version

4SSC24 = SM4.1-4S-SC-1310-40-24VDC, interface module with 4 100Base-FX single mode fiber ports, 1310nm 40km, SC connector, 24VDC version

4SST24 = SM4.1-4S-ST-1310-40-24VDC, interface module with 4 100Base-FX single mode fiber ports, 1310nm 40km, ST connector, 24VDC version

4SFC24 = SM4.1-4S-FC-1310-40-24VDC, interface module with 4 100Base-FX single mode fiber ports, 1310nm 40km, FC connector, 24VDC version

4SSC6024 = SM4.1-4S-SC-1310-60-24VDC, interface module with 4 100Base-FX single mode fiber ports, 1310nm 60km, SC connector, 24VDC version

4SSC8024 = SM4.1-4S-SC-1550-80-24VDC, interface module with 4 100Base-FX single mode fiber ports, 1550nm 80km, SC connector, 24VDC version

4MSC24 = SM4.1-4M-SC-1310-5-24VDC, interface module with 4 100Base-FX multi mode fiber ports, 1310nm 5km, SC connector, 24VDC version

4MST24 = SM4.1-4M-ST-1310-5-24VDC, interface module with 4 100Base-FX multi mode fiber ports, 1310nm 5km, ST connector, 24VDC version

4MFC24 = SM4.1-4M-FC-1310-5-24VDC, interface module with 4 100Base-FX multi mode fiber ports, 1310nm 5km, FC connector, 24VDC version

4SSC48 = SM4.1-4S-SC-1310-40-48VDC, interface module with 4 100Base-FX single mode fiber ports, 1310nm 40km, SC connector, 48VDC version

4SST48 = SM4.1-4S-ST-1310-40-48VDC, interface module with 4 100Base-FX single mode fiber ports, 1310nm 40km, ST connector, 48VDC version

4SFC48 = SM4.1-4S-FC-1310-40-48VDC, interface module with 4 100Base-FX single mode fiber ports, 1310nm 40km, FC connector, 48VDC version

4SSC6048 = SM4.1-4S-SC-1310-60-48VDC, interface module with 4 100Base-FX single mode fiber ports, 1310nm 60km, SC connector, 48VDC version

4SSC8048 = SM4.1-4S-SC-1550-80-48VDC, interface module with 4 100Base-FX single mode fiber ports, 1550nm 80km, SC connector, 48VDC version

4MSC48 = SM4.1-4M-SC-1310-5-48VDC, interface module with 4 100Base-FX multi mode fiber ports, 1310nm 5km, SC connector, 48VDC version

4MST48 = SM4.1-4M-ST-1310-5-48VDC, interface module with 4 100Base-FX multi mode fiber ports, 1310nm 5km, ST connector, 48VDC version

4MFC48 = SM4.1-4M-FC-1310-5-48VDC, interface module with 4 100Base-FX multi mode fiber ports, 1310nm 5km, FC connector, 48VDC version

2SSC2T24 = SM4.1-2S-SC-1310-40-2T-24VDC, interface module with 2 100Base-FX single mode fiber ports, 1310nm 40km, SC connector, and 2 10/100Base-TX RJ45 ports, 24VDC version

2SST2T24 = SM4.1-2S-ST-1310-40-2T-24VDC, interface module with 2 100Base-FX single mode fiber ports, 1310nm 40km, ST connector, and 2 10/100Base-TX RJ45 ports, 24VDC version

2SFC2T24 = SM4.1-2S-FC-1310-40-2T-24VDC, interface module with 2 100Base-FX single mode fiber ports, 1310nm 40km, FC connector, and 2 10/100Base-TX RJ45 ports, 24VDC version

2SSC60T24 = SM4.1-2S-SC-1310-60-2T-24VDC, interface module with 2 100Base-FX single mode fiber ports, 1310nm 60km, SC connector, and 2 10/100Base-TX RJ45 ports, 24VDC version

2SSC802T24 = SM4.1-2S-SC-1310-80-2T-24VDC, interface module with 2 100Base-FX single mode fiber ports, 1310nm 80km, SC connector, and 2 10/100Base-TX RJ45 ports, 24VDC version

2MSC2T24 = SM4.1-2M-SC-1310-5-2T-24VDC, interface module with 2 100Base-FX multi mode fiber ports, 1310nm 5km, SC connector, and 2 10/100Base-TX RJ45 ports, 24VDC version

2MST2T24 = SM4.1-2M-ST-1310-5-2T-24VDC, interface module with 2 100Base-FX multi mode fiber ports, 1310nm 5km, ST connector, and 2 10/100Base-TX RJ45 ports, 24VDC version

SMFC2T24 = SM4.1-2M-FC-1310-5-2T-24VDC, interface module with 2 100Base-FX multi mode fiber ports, 1310nm 5km, FC connector, and 2 10/100Base-TX RJ45 ports, 24VDC version

2SSC2T48 = SM4.1-2S-SC-1310-40-2T-48VDC, interface module with 2 100Base-FX single mode fiber ports, 1310nm 40km, SC connector, and 2 10/100Base-TX RJ45 ports, 48VDC version

2SST2T48 = SM4.1-2S-ST-1310-40-2T-48VDC, interface module with 2 100Base-FX single mode fiber ports, 1310nm 40km, ST connector, and 2 10/100Base-TX RJ45 ports, 48VDC version

2SFC2T48 = SM4.1-2S-FC-1310-40-2T-48VDC, interface module with 2 100Base-FX single mode fiber ports, 1310nm 40km, FC connector, and 2 10/100Base-TX RJ45 ports, 48VDC version

2SSC602T48 = SM4.1-2S-SC-1310-60-2T-48VDC, interface module with 2 100Base-FX single mode fiber ports, 1310nm 60km, SC connector, and 2 10/100Base-TX RJ45 ports, 48VDC version

2SSC802T48 = SM4.1-2S-SC-1310-80-2T-48VDC, interface module with 2 100Base-FX single mode fiber ports, 1310nm 80km, SC connector, and 2 10/100Base-TX RJ45 ports, 48VDC version

2MSC2T48 = SM4.1-2M-SC-1310-5-2T-48VDC, interface module with 2 100Base-FX multi mode fiber ports, 1310nm 5km, SC connector, and 2 10/100Base-TX RJ45 ports, 48VDC version

2MST2T48 = SM4.1-2M-ST-1310-5-2T-48VDC, interface module with 2 100Base-FX multi mode fiber ports, 1310nm 5km, ST connector, and 2 10/100Base-TX RJ45 ports, 48VDC version

SMFC2T48 = SM4.1-2M-FC-1310-5-2T-48VDC, interface module with 2 100Base-FX multi mode fiber ports, 1310nm 5km, FC connector, and 2 10/100Base-TX RJ45 ports, 48VDC version

Example Order Codes

SICOM4000-MB24-24-XX-4T24-4T24-4T24-4T24-4T24

24 10/100Base-TX RJ45 ports, 24DC(18-36VDC) power supplypower supplies.