

SICOM3024P

24+4G Port Managed Industrial Ethernet Switch

KEMA, CE, FCC, ROHS
Chinese State Grid Certification**Overview**

SICOM3024P is a KEMA approved IEC61850 compliant managed industrial Ethernet switch specifically designed to operate stably in electrically harsh and climatically demanding utility substation and industrial environments. It offers up to 24 100Base TP/fiber ports, 4 Gigabit SFP slots or 10/100/1000Base-T(X) ports. The redundant function of optical fiber network, independent entire network management channel, redundant power supplies function, and entire network real-time management system provide multiplex guarantee for reliable operation of the system.

Features

1. Supports 4 Gigabit SFP slots or 10/100/1000Base-T(X) ports, 24 100Base TP/fiber ports
2. Low time delay and zero packet loss features while working with full load for a long period of time, specially designed for digital substations
3. Supports DT-Ring protocols (recovery time<50ms), RSTP/STP (IEEE802.1w/d)
4. Advanced ring topology protocol avoiding broadcast storm
5. Supports IGMP Snooping, port trunking, port mirroring, QoS, VLAN, ACL
6. Supports SSH/SSL to increase the network security
7. Real time temperature detecting and alarming, alarm value can be set
8. System operation log's writing and uploading function
9. Supports port speed limitation and special broadcast storm control
10. Precise real time clock
11. IP and MAC address confliction detection
12. Unicast attack detection
13. Safe MAC and port binding function, static FDB supported
14. Bandwidth configuration controls port bandwidth properly
15. Improves network monitoring ability through RMON (group 1, 2, 3 and 9)
16. Supports multiple management functions including CLI, TELNET, WEB, SNMP V1/V2/V3 and OPC
17. EMC industrial level 4, specially designed for harsh electromagnetic interference environment
18. Various power supply options, dual redundant power supplies (optional)
19. Relay alarm output for the failure of power
20. Operating temperature: -40 to 85°C (-40 to 185°F)
21. Ribbed aluminum case for heat dissipation (patent), fanless design
22. Rack-mounting (19 inch 1U) installation
23. IP40 protection class
24. Unified management software for SICOM series: Kyvision3.0.

Technical Specifications**Standard**

IEEE802.3
IEEE 802.3u
IEEE 802.3x
IEEE802.3z
IEEE802.3ab
IEEE802.1d
IEEE802.1w
IEEE802.1p
IEEE802.1q
IEEE802.1x
Store and forward switching mode

Network

Ring, chain, star and tangent ring network topology

Interface

Gigabit Ethernet Ports: One slot for Gigabit port. The slot supports 4 10/100/1000Base-T(X) ports, RJ45 or 4 Gigabit SFP slots for 1000Base-SX/LX/LH/ZX, LC interface modules
Fast Ethernet Ports: 3 slots for 100M ports. Each slot supports interface module with 8 100Base TP/fiber ports
CONSOLE Interface: RS232, RJ45
Alarm Contact: 3-Pin 3.81mm-spacing terminal block, 250VAC/220VDC Max; 2A Max; 60W Max
LED Indicator: RUN, ALARM, PWR1, PWR2; LINK, DPX (G1-G4); LINK/ACT, 10M/100M (1-24)

Performance

Backplane switching capacity: 12.8G
MAC Address Table Size: 8K

Cable

Twisted Pair: 0-100m (Standard CAT5, CAT5e network cable)
Multi Mode Fiber: 1310nm, 0-5km (100Mbps); 1310nm 0-2km (1000Mbps)
Single Mode Fiber: 1310nm, 0-40km; 1550nm, 0-80km

Power Requirements

Power input: 24VDC (18-36VDC), 48VDC (36-72VDC), 110VDC (82-185VDC), 110VAC/220VAC/220VDC (85-264VAC/120-370VDC), dual redundant power supplies (optional)
Power terminal: 3-Pin 9.5mm-spacing plug-in terminal block
Power consumption: <35W

Physical Characteristics

Casing: Ribbed aluminum case (fanless)
Protection Class: IP40
Installation: 19 inch 1U rack mounting
Dimensions (WxHxD): 482.6x44x420mm (19x1.73x16.53 in)
Weight: 5kg (11.023 pound)

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: 0 to 95% (non-condensing)

Approvals

IEC61000-4-2 (ESD): ±8KV contact discharge, ±15KV air discharge
IEC61000-4-3 (RS): 10V/M (80-1000MHz)

IEC61000-4-4 (EFT): power line $\pm 4\text{KV}$, data line $\pm 2\text{KV}$
 IEC61000-4-5 (Surge): power line $\pm 4\text{KV CM}/\pm 2\text{KV DM}$, data line $\pm 2\text{KV}$
 IEC61000-4-6 (CS): 3V (10KHZ-150KHZ), 10V (150KHZ-80MHz)
 IEC61000-4-8 (Power frequency magnetic field): 100A/m cont. 1000A/m, 1s to 3s
 IEC61000-4-12/18 (Damped oscillatory wave): 2.5KV CM, 1KV DM
 IEC61000-4-10 (Damped oscillatory): 30A/m
 IEC61000-4-16 (Common mode conduct): 30V cont. 300V, 1s
 FCC CFR47 Part 15/EN55022: Class A&B
 IEC61000-6-2 (Industrial Standards), IEC61850-3 (Substations), IEEE1613 (Electric Power Substations), EN50121-4 (Railway Applications)

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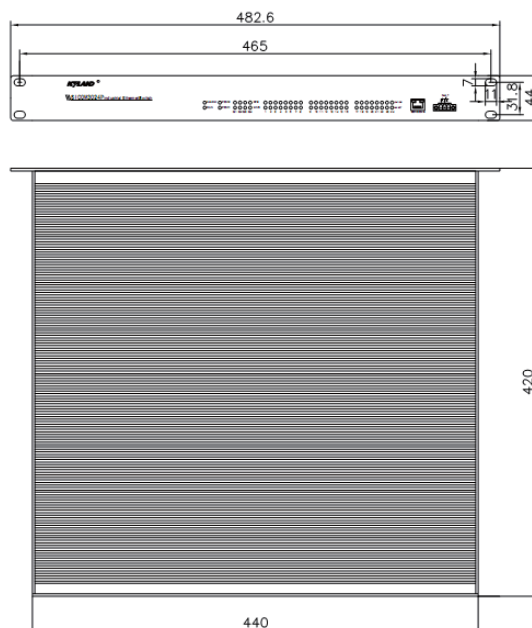
MTBF

35 years

Warranty

5 years

Mechanical Drawing



Ordering Information

Model	Description
SICOM3024P-4GX-4S-20T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 4 100Base-FX ports, single mode, FC/SC/ST connector and 20 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-4M-20T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 4 100Base-FX ports, multi mode, FC/SC/ST connector and 20 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-4S-20T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 4 100Base-FX ports, single mode, FC/SC/ST connector and 20 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-4M-20T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 4 100Base-FX ports, multi mode, FC/SC/ST connector and 20 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-8S-16T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 8 100Base-FX ports, single mode, FC/SC/ST connector and 16 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
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SICOM3024P-4GE-8S-16T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 8 100Base-FX ports, single mode, FC/SC/ST connector and 16 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-8M-16T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 8 100Base-FX ports, multi mode, FC/SC/ST connector and 16 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-12S-12T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 12 100Base-FX ports, single mode, FC/SC/ST connector and 12 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-12M-12T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 12 100Base-FX ports, multi mode, FC/SC/ST connector and 12 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature

Model	Description
SICOM3024P-4GE-12S-12T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 12 100Base-FX ports, single mode, FC/SC/ST connector and 12 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-12M-12T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 12 100Base-FX ports, multi mode, FC/SC/ST connector and 12 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-16S-8T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 16 100Base-FX ports, single mode, FC/SC/ST connector and 8 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-16M-8T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 16 100Base-FX ports, multi mode, FC/SC/ST connector and 8 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-16S-8T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 16 100Base-FX ports, single mode, FC/SC/ST connector and 8 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-16M-8T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 16 100Base-FX ports, multi mode, FC/SC/ST connector and 8 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-20S-4T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 20 100Base-FX ports, single mode, FC/SC/ST connector and 4 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-20M-4T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 20 100Base-FX ports, multi mode, FC/SC/ST connector and 4 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-20S-4T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 20 100Base-FX ports, single mode, FC/SC/ST connector and 4 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-20M-4T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 20 100Base-FX ports, multi mode, FC/SC/ST connector and 4 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-24S	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 24 100Base-FX ports, single mode, FC/SC/ST connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-24M	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 24 100Base-FX ports, multi mode, FC/SC/ST connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-24S	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 24 100Base-FX ports, single mode, FC/SC/ST connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-24M	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 24 100Base-FX ports, multi mode, FC/SC/ST connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GX-24T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 24 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4GE-24T	IEC61850-3 managed rack mounted Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 24 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4S-20T	IEC61850-3 managed rack mounted Ethernet switch with 4 100Base-FX ports, single mode, FC/SC/ST connector and 20 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-4M-20T	IEC61850-3 managed rack mounted Ethernet switch with 4 100Base-FX ports, multi mode, FC/SC/ST connector and 20 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-8S-16T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 8 100Base-FX ports, single mode, FC/SC/ST connector and 16 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature

Model	Description
SICOM3024P-8M-16T	IEC61850-3 managed rack mounted Ethernet switch with 8 100Base-FX ports, multi mode, FC/SC/ST connector and 16 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-12S-12T	IEC61850-3 managed rack mounted Ethernet switch with 12 100Base-FX ports, single mode, FC/SC/ST connector and 12 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-12M-12T	IEC61850-3 managed rack mounted Ethernet switch with 12 100Base-FX ports, multi mode, FC/SC/ST connector and 12 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-16S-8T	IEC61850-3 managed rack mounted Ethernet switch with 16 100Base-FX ports, single mode, FC/SC/ST connector and 8 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-16M-8T	IEC61850-3 managed rack mounted Ethernet switch with 16 100Base-FX ports, multi mode, FC/SC/ST connector and 8 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-20S-4T	IEC61850-3 managed rack mounted Ethernet switch with 20 100Base-FX ports, single mode, FC/SC/ST connector and 4 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-20M-4T	IEC61850-3 managed rack mounted Ethernet switch with 20 100Base-FX ports, multi mode, FC/SC/ST connector and 4 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-24S	IEC61850-3 managed rack mounted Ethernet switch with 24 100Base-FX ports, single mode, FC/SC/ST connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-24M	IEC61850-3 managed rack mounted Ethernet switch with 24 100Base-FX ports, multi mode, FC/SC/ST connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-24T	IEC61850-3 managed rack mounted Ethernet switch with 24 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-16T	IEC61850-3 managed rack mounted Ethernet switch with 16 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM3024P-8T	IEC61850-3 managed rack mounted Ethernet switch with 8 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature

Power supply: 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, dual redundant power supplies (optional)

SFP Modules:

SM-GSFP-TX/RJ45: SFP module with 1 x 10/100/1000M port, RJ45, 100m
 SM-GSFP-SX/LC-550: SFP module with 1 x 1000M multimode port, LC, 850nm, 550m
 SM-GSFP-LX/LC-550: SFP module with 1 x 1000M multimode port, LC, 1310nm, 550m
 SM-GSFP-LX/LC-10: SFP module with 1 x 1000M single mode port, LC, 1310nm, 10km
 SM-GSFP-LX/LC-15: SFP module with 1 x 1000M single mode port, LC, 1310nm, 15km
 SM-GSFP-LH/LC-40: SFP module with 1 x 1000M single mode port, LC, 1310nm, 40km
 SM-GSFP-ZX/LC-40: SFP module with 1 x 1000M single mode port, LC, 1550nm, 40km
 SM-GSFP-ZX/LC-60: SFP module with 1 x 1000M single mode port, LC, 1550nm, 60km
 SM-GSFP-ZX/LC-80: SFP module with 1 x 1000M single mode port, LC, 1550nm, 80km