

**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 and link aggregation
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)

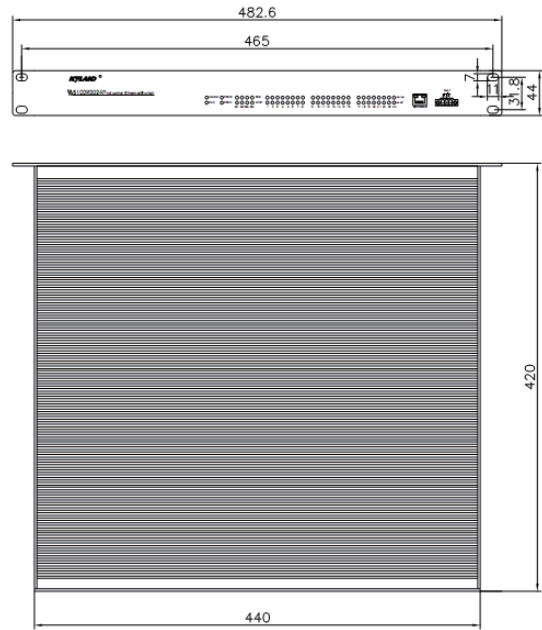
IEC61000-4-4 (EFT): power line  $\pm 4\text{KV}$ , data line  $\pm 2\text{KV}$   
 IEC61000-4-5 (Surge): power line  $\pm 4\text{KV CM}/\pm 2\text{KV DM}$ , data line  $\pm 2\text{KV}$   
 IEC61000-4-6 (CS): 3V (10KHZ-150KHZ), 10V (150KHZ-80MHZ)  
 IEC61000-4-8 (Power frequency magnetic field): 100A/m 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)

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

**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
SICOM3024P-4GX-8M-16T	IEC61850-3 managed rack mounted Ethernet switch with 4 Gigabit SFP slots, 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-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

## Order Codes

SICOM3024P -      -      -      -      -      -      -     

**G      FX      Connector      Distance      TX      PS1      PS2**

### G: Gigabit Ports

- 4GX=4 Gigabit SFP ports
- 4GE=4 10/100/1000Base-TX RJ45 ports
- None=No Gigabit ports

(Please refer to the order information on available port combinations.)

**FX: Fiber Ports**

4M= 4 multi mode fiber ports  
8M= 8 multi mode fiber ports  
12M= 12 multi mode fiber ports  
16M= 16 multi mode fiber ports  
20M= 20 multi mode fiber ports  
24M= 24 multi mode fiber ports  
4S= 4 single mode fiber ports  
8S= 8 single mode fiber ports  
12S= 12 single mode fiber ports  
16S= 16 single mode fiber ports  
20S= 20 single mode fiber ports  
24S= 24 single mode fiber ports  
(Total 24 100Base TX or FX ports, fiber ports + copper ports = 24)

**Connector: Fiber Connector**

FC= FC connector  
SC= SC connector  
ST= ST connector  
SD= single fiber bi-direction, only for single mode, only SC connector (different price)

**Distance: Fiber Distance**

2= multi mode, 850nm, 2km  
5 (or None)= multi mode, 1310nm, 5km (multi mode default)  
40 (or None)= single mode, 1310nm, 40km (single mode default)  
60= single mode, 1310nm, 60km (different price)  
60L= single mode, 1550nm, 60km (different price)  
80L= single mode, 1550nm, 80km (different price)  
5T3R= single fiber bi-direction, 1550T/1310R, 20km (different price)  
5R3T= single fiber bi-direction, 1550R/1310T, 20km (different price)  
40/5T3R= single fiber bi-direction, 1550T/1310R, 40km (different price)  
40/5R3T= single fiber bi-direction, 1550R/1310T, 40km (different price)  
80/5T3R= single fiber bi-direction, 1550T/1310R, 80km (different price)  
80/5R3T= single fiber bi-direction, 1550R/1310T, 80km (different price)

**TX: Copper Ports**

4T= 4 10/100Base-T(X) ports, RJ45 connector  
8T= 8 10/100Base-T(X) ports, RJ45 connector  
12T= 12 10/100BaseT(X) ports, RJ45 connector  
16T= 16 10/100BaseT(X) ports, RJ45 connector  
20T= 20 10/100BaseT(X) ports, RJ45 connector  
24T= 24 10/100BaseT(X) ports, RJ45 connector  
(Total 24 100Base TX or FX ports, fiber ports + copper ports = 24)

**PS1 and PS2: Power Supply 1 and 2**

24= 24VDC (18-36VDC)  
48= 48VDC (36-72VDC)  
110= 110VDC (82-185VDC)  
220A=110VAC/220VAC/220VDC(120-370VDC /85-265VAC)  
XX=No power supply (PS2 only)

**Example Order Codes**

SICOM3024P-4GX-4S-SC-20T-24-24  
4 Gigabit SFP ports, 4 single mode fiber ports with SC connector, 1310nm 40km, 20 10/100Base TX RJ45 ports, and dual redundant 18-36VDC power supplies.

Note: Please contact sales for different prices.