

**SICOM3016**20 Port Managed
Industrial Ethernet SwitchCE, FCC, RoHS
Chinese State Grid
Certification**Overview**

SICOM3016 is a high-performance network-managed industrial Ethernet switch specially designed by KYLAND for industrial applications. It's DIN-Rail installation and supports max 4 100Base-FX and 16 10/100Base-T(X) ports. Its high-performance switch engine, solid and closed case, high-efficient single-rib-shape case for heat dissipation without using fans, overcurrent, overvoltage and EMC protection at power input side, and excellent EMC protection of RJ45 port allow SICOM3016 to work in harsh and dangerous industrial environments. The redundant function of optical fiber network, independent entire network management channel, dual redundant power inputs function, and powerful entire network real-time management system provide multiplex guarantee for reliable operation of the system.

Features

- Supports 4 100Base-FX ports and 16 10/100Base-T(X) RJ45 ports
- Supports DT-Ring protocols (Recovery time<50ms), RSTP/STP (IEEE802.1w/d) redundant protocol
- Flexible network topologies: ring, chain, star and tangent ring
- Advanced ring topology protocol avoiding broadcast storm
- Supports IGMP Snooping, port trunking, port mirroring, QoS, VLAN, ACL and link aggregation
- Supports port speed limitation and special broadcast storm control
- Safe MAC and port binding function, static FDB supported
- Bandwidth configuration controls port bandwidth properly
- Improves network monitoring ability through RMON (group 1, 2, 3 and 9)
- Supports multiple management methods including CLI, TELNET, WEB, SNMP V1/V2/V3 and OPC
- EMC industrial level 4, specially designed for harsh electromagnetic interference environment
- Abundant power supply options, dual redundant DC power inputs
- Relay alarm output for the loss of power
- Operating temperature: -40 to 85°C (-40 to 185°F)
- Ribbed aluminum case for heat dissipation (patent), fanless design
- DIN-Rail and Wall mounting installation
- IP40 protection class
- Unified management software for SICOM series: Kyvision3.0.

Technical Specifications**Standard**

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

Network

Ring, chain, star and tangent ring network topology

Interface

100M Fiber Ports: 4 x 100Base-FX ports, FC/SC/ST
10/100M Copper Ports: 16 x 10/100Base-T(X) ports, RJ45
CONSOLE Interface: RS232, RJ45
Alarm Contact: 2-Pin 3.81mm-spacing plug-in terminal block, 250VAC/350VDC Max; 120mA Max
LED Indicator: RUN, ALARM, PWR1, PWR2; LINK/ACT (17-20); LINK/ACT, 10M/100M (1-16)

Performance

Backplane switching capacity: 8.8G
MAC Address Table Size: 8K

Cable

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

Power Requirements

Power input: 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs; 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC) single power input
Power terminal:
3-Pin 3.81mm-spacing plug-in terminal block (24VDC, 48VDC);
3-Pin 7.62mm-spacing plug-in terminal block (110VAC/110VDC, 220VAC/220VDC)
Power consumption: <15W

Physical Characteristics

Casing: Ribbed aluminum case (fanless)
Protection class: IP40
Installation: DIN-Rail
Dimensions (WxHxD): 75x165x123mm (2.95x6.50x4.84 in.)
Weight: 1.2kg (2.646 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 ±4KV, data line ±2KV
IEC61000-4-5 (Surge): power line ±4KV CM/±2KV DM, data line ±2KV
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)

CE, FCC, ROHS, Chinese State Grid Certification

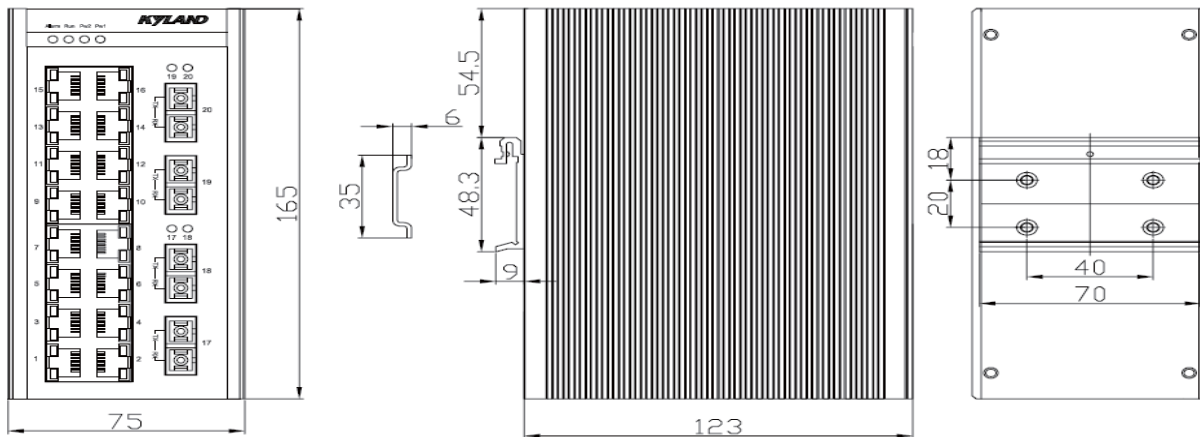
MTBF

35 years

Warranty

5 years

Mechanical Drawing



Ordering Information

Model	Description
SICOM3016-4S-16T	Managed Ethernet switch with 4 100Base-FX ports, single mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-4M-16T	Managed Ethernet switch with 4 100Base-FX ports, multi mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-3S-16T	Managed Ethernet switch with 3 100Base-FX ports, single mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-3M-16T	Managed Ethernet switch with 3 100Base-FX ports, multi mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-2S-16T	Managed Ethernet switch with 2 100Base-FX ports, single mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-2M-16T	Managed Ethernet switch with 2 100Base-FX ports, multi mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature

Model	Description
SICOM3016-1S-16T	Managed Ethernet switch with 1 100Base-FX ports, single mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-1M-16T	Managed Ethernet switch with 1 100Base-FX ports, multi mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-16T	Managed Ethernet switch with 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-4S-8T	Managed Ethernet switch with 4 100Base-FX ports, single mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-4M-8T	Managed Ethernet switch with 4 100Base-FX ports, multi mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-3S-8T	Managed Ethernet switch with 3 100Base-FX ports, single mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-3M-8T	Managed Ethernet switch with 3 100Base-FX ports, multi mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-2S-8T	Managed Ethernet switch with 2 100Base-FX ports, single mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-2M-8T	Managed Ethernet switch with 2 100Base-FX ports, multi mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-1S-8T	Managed Ethernet switch with 1 100Base-FX ports, single mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-1M-8T	Managed Ethernet switch with 1 100Base-FX ports, multi mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature
SICOM3016-8T	Managed Ethernet switch with 8 10/100Base-T(X) ports, RJ45 connector, 24VDC (18-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VAC/220VDC (132-300VAC/176-400VDC), single power input, -40 to 85°C operating temperature

Power supply: 24VDC, 48VDC, dual redundant power inputs,
110VAC/110VDC, 220VAC/220VDC, single power input

Order Codes

SICOM3016- _____ - _____ - _____ - _____ - _____
FX Connector Distance TX PS

FX: Fiber Ports

1M= 1 multi mode fiber port
2M= 2 multi mode fiber ports

3M= 3 multi mode fiber ports
4M= 4 multi mode fiber ports
1S= 1 single mode fiber port
2S= 2 single mode fiber ports
3S= 3 single mode fiber ports
4S= 4 single mode fiber ports

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

8T= 8 10/100Base-T(X) ports, RJ45 connector
16T= 16 10/100Base-T(X) ports, RJ45 connector

PS: Power Supply

24= 24VDC (18-36VDC), dual power inputs
48= 48VDC (36-72VDC), dual power inputs
110A= 110VAC/110VDC (85-165VAC/66-154VDC), single power input
220A= 220VAC/220VDC (132-300VAC/176-400VDC), single power input

Example order codes

SICOM3016-4M-SC-16T-24

4 100M multi mode 1310nm 5km fiber ports with SC connector, 16 10/100Base-TX RJ45 ports, 24VDC dual power inputs.

Note: Please contact sales for different prices.