KYLAND

Industrializing the Ethernet
Simplifying Industrial Communication

SICOM3016B
16+4G Port Managed Industrial Ethernet Switch

Version: 101214

SICOM3016B (Coming soon)

16+4G Port Managed
Industrial Ethernet Switch

CE, FCC, RoHS Chinese State Grid Certification

Overview

SICOM3016B 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 combo Gigabit SFP slots or 10/100/1000Base-T(X) ports 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 SICOM3016B 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 combo Gigabit SFP slots or 10/100/1000Base-T(X) 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
Gigabit Ports: 4 combo Gigabit SFP slots or 10/100/1000Base-T(X) RJ45 ports
10/100M Copper Ports: 16 x 10/100Base-T(X) ports, RJ45
CONSOLE Interface: RS232, RJ45
Alarm Port: 3-Pin 3.81mm-spacing plug-in terminal block, 250VAC/220VDC Max;2A Max; 60W Max
LED Indicator: RUN, ALARM, PWR1, PWR2; LINK/ACT (G1-G4); LINK/ACT, 10M/100M (1-16)

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 (9-36VDC), 48VDC (36-72VDC), dual redundant power inputs, 110VAC/110VDC (85-165VAC/66-154VDC), 220VDC/220VAC (132-300VAC/176-400VDC), single power input
Power terminal: 5-Pin 5.08mm-spacing plug-in terminal block
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

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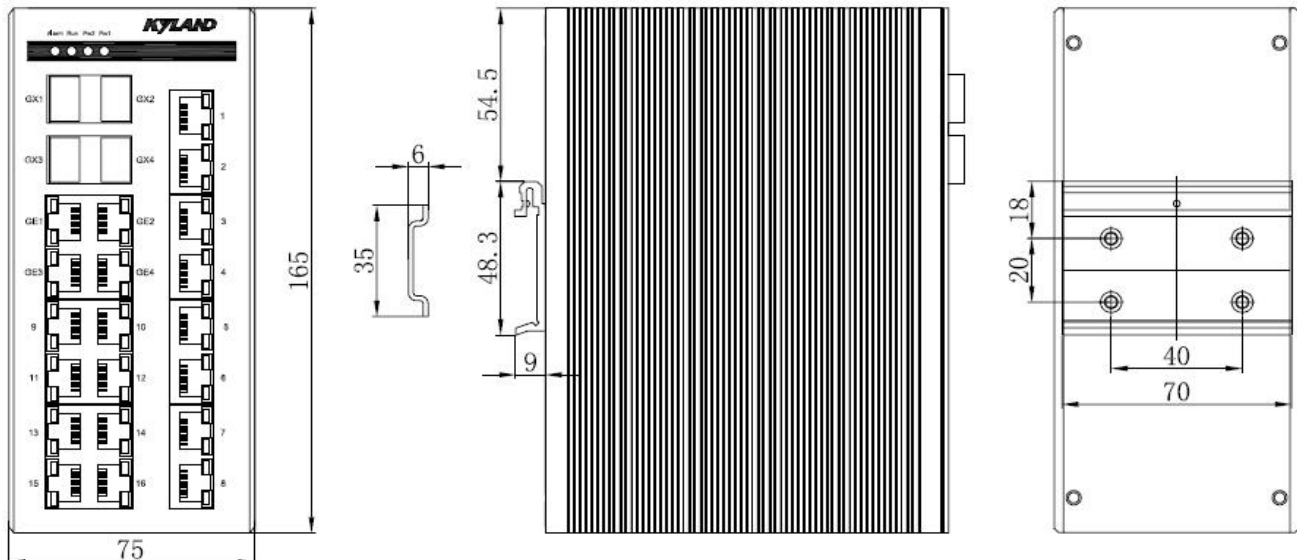Simplifying Industrial Communication

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
SICOM3016B-4GX/GE-16T	Managed Gigabit Ethernet switch with 4 combo 10/100/1000Base-T(X) ports or Gigabit SFP slots for adding Gigabit SFP modules, 16 10/100Base-T(X) ports, RJ45 connector, -40 to 85°C operating temperature
SICOM3016B-2GX/GE-16T	Managed Gigabit Ethernet switch with 2 combo 10/100/1000Base-T(X) ports or Gigabit SFP slots for adding Gigabit SFP modules, 16 10/100Base-T(X) ports, RJ45 connector, -40 to 85°C operating temperature
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

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

Please visit our website: www.kyland.cn for the latest updates.