

# SICOM3016B

Layer 2 16+4G Port Managed Din-Rail IEC61850 Switch



- 4 Gigabit ports and 16 10/100Base-TX ports
- Supports DT-Ring protocols and MSTP
- Compact DIN-Rail product
- Intelligent network management
- Advanced security features
- Provides power failure alarm
- EMC performance reaches industrial level 4
- CE, FCC certificates



## Overview

SICOM3016B is a high-performance network-managed industrial Ethernet switch specially designed by KYLAND for industrial applications. Its 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 & Benefits

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

## Technical Specifications

### Standard

IEEE802.3i, IEEE802.3u, IEEE802.3ab, IEEE802.3z, IEEE802.3x, IEEE802.1p, IEEE802.1Q, IEEE802.1s

### Protocols

DT-Ring, DT-Ring+, DT-VLAN, MSTP;  
IGMP Snooping, GMRP;  
VLAN, PVLAN;  
Telnet, HTTP, HTTPS, SNMPv1/v2/v3, RMON, LLDP, STNP, DHCP server;  
DT-Psec, SSH, SSL, ACL;  
FTP; ARP, 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: 8.3Mpps  
Switching Delay: <5μs

### Interface

Gigabit Ethernet Port Combinations:  
1) 4 combo 1000Base SFP slots or 10/100/1000Base-TX ports  
2) 2 combo 1000Base SFP slots or 10/100/1000Base-TX ports and 2 10/100/1000Base-TX ports  
Fast Ethernet Ports: 16 10/100Base-TX RJ45 ports  
Console Port: RS232 (RJ45 connector)  
Alarm Contact: 3-pin 3.81mm-spacing plug-in terminal block, 250VAC/220VDC Max, 2A Max, 60W Max

### LED

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

### Transmission Distance

Twisted Pair: 100m (Standard CAT5, CAT5e network cable)  
Multi Mode Fiber: 850nm, 550m (1000M)  
Single Mode Fiber: 1310nm, 10km/40km (1000M)  
1550nm, 60km/80km (1000M)

### Power Requirements

Power Input: 24VDC (18-36VDC), 48VDC (36-72VDC)  
Power Terminal: 5-pin 5.08mm-spacing plug-in terminal block  
Power Consumption: <13.3W  
Overload Protection: Support  
Reverse Connection Protection: Support  
Redundancy Protection: Support

### Physical Characteristics

Housing: Aluminum, fanless  
Protection Class: IP40  
Dimensions (W×H×D): 75×165×123mm (2.95×6.50×4.84 in.)  
Weight: 1.2kg (2.646 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

334,038 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)

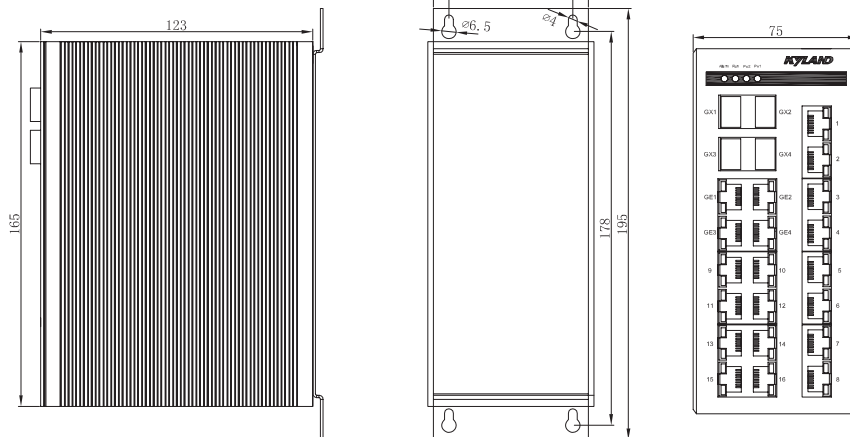
### Industry: IEC61000-6-2

Railway: EN50155, EN50121-4

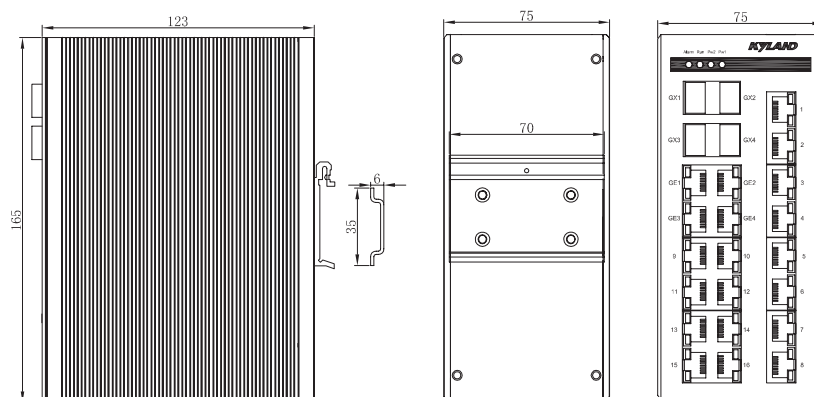
Traffic Control: NEMA TS-2

## Mechanical Drawing

### Panel Mounting



### DIN-Rail Mounting



## Ordering Information

| Model                     | Gigabit Ethernet Port |                    | Fast Ethernet Port | Power Supply |          |
|---------------------------|-----------------------|--------------------|--------------------|--------------|----------|
|                           | 1000M Combo           | 10/100/1000Base-TX | 10/100Base-TX      | 18-36VDC     | 36-72VDC |
| SICOM3016B-4GX/GE-16T     | 4                     | --                 | 16                 |              |          |
| SICOM3016B-2GX/GE-2GE-16T | 2                     | 2                  | 16                 |              |          |

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## Accessories

| Model              | Description                                 |
|--------------------|---------------------------------------------|
| Gigabit SFP module | Refer to Kyland industrial Gigabit SFP list |
| DT-BGAZ-05         | Panel mounting kit                          |
| DT-FCZ-RJ45-01     | RJ45 dustproof shield                       |

## Order Codes

SICOM3016B -      - 16T -       
                  G                  PS

### G: Gigabit Ports

4GX/GE: 4 Gigabit combo ports

2GX/GE-2GE: 2 Gigabit combo ports and 2 10/100/1000Base-TX RJ45 ports

### PS: Power Supply

24= 24VDC (18-36VDC), dual power inputs

48= 48VDC (36-72VDC), dual power inputs

### Example order codes

SICOM3016B-4GX/GE--16T-24

4 Gigabit combo ports, 16 10/100Base-TX RJ45 ports, 24VDC dual power inputs.