

SICOM3000BA

Layer 2 6+3G Port Managed Din-Rail Intrinsic Safety Switch



- Green Ethernet solution with ultra low full load power consumption of 5.2 watts
- 3 Gigabit SFP slots and 6 10/100Base-TX ports
- Supports DT-Ring protocols and RSTP
- Intrinsic safety design, meeting intrinsic safety requirements
- Ethernet ports can withstand 1500VAC power frequency voltage
- UL508 (pending), Class 1 Div 2 (pending), CE, FCC, coal mining safety certificates
- PCB coating is available



Overview

The SICOM3000BA series, intrinsically safe low power consumption Gigabit managed DIN-Rail industrial Ethernet switch, was developed by Kyland for industrial information layers in transport, power and mining applications. It offers 3 Gigabit SFP slots and 6 10/100Base-T(X) ports. Its fanless ribbed casing design and ability to handle a wide range of temperatures ensure high reliability in extreme industrial environments. Its full load power consumption is less than 5.4W, and it has passed Mine Safety Certification. Based on Kyvision3.0, CLI, WEB interface, it offers concentrative management. The state-of-the-art OPC software enables the switch's management embedded in various industrial systems.

Features & Benefits

- Redundancy Technology: supports DT-Ring protocols (recovery time < 50ms) and RSTP
- Multicast Protocol: supports IGMP Snooping and static multicast
- Network Partition: supports VLAN, GVRP, 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, SNMP, DHCP
- Network Security: supports MAC address binding with port, IEEE802.1X, SSH, SSL, TACACS+
- Device Management: supports FTP upgrade
- Device Maintenance: supports port mirroring
- Alarm Output: supports power, port and ring alarms
- Special Function: supports Link Check and Loop Status Check

Technical Specifications

Standard

IEEE802.3i, IEEE802.3ac, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.1p, IEEE 802.1Q, IEEE 802.1w, IEEE 802.1X

Protocols

DT-Ring, DT-Ring+, DT-VLAN, RSTP;
IGMP Snooping;
VLAN, GVRP, PVLAN;
Telnet, HTTP, HTTPS, SNMPv1/v2/v3, RMON, LLDP, SNMP, DHCP server;
SSH, SSL, TACACS+;
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: 1Mbit
Packet Forwarding Rate: 5.4Mpps
Switching Delay: < 5μs

Interface

Gigabit Ethernet Ports: 3 1000Base SFP slots
Fast Ethernet Ports: 6 10/100Base-TX RJ45 ports
Console Port: RS232 (RJ45 connector)
Alarm Output Contact: 2-pin 3.81mm-spacing plug-in terminal block, 250VAC/350VDC Max, 120mA Max (24VDC, 48VDC)
Alarm Input Contact: 6-pin 5.08mm-spacing plug-in terminal block, TTL level, offering alarm input for external power switching

LED

LEDs on Front Panel:
Running LED: Run1
Ring Redundant LED: Run2
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: 3.3VDC (3.14-3.47VDC), 12VDC (9-21VDC), 24VDC (18-36VDC), 48VDC (36-72VDC)

Power Terminal:

6-pin 5.08mm-spacing plug-in terminal block (3.3VDC, 12VDC)

3-pin 3.81mm-spacing plug-in terminal block (24VDC, 48VDC)

Power Consumption: <5.2W (full load)

Overload Protection: Support

Reverse Connection Protection: Support

Redundancy Protection: Support

Physical Characteristics

Housing: Aluminum, fanless

Protection Class: IP40

Dimensions (W×H×D):

75×140×123 mm (2.95×5.51×4.84 in.) (24VDC, 48VDC)

150×61.5×110 mm (5.91×2.42×4.33 in.) (3.3VDC, 12VDC)

Weight: 1.0kg (2.205 pound) (24VDC, 48VDC)

0.6kg (1.323 pound) (3.3VDC, 12VDC)

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

384,273 hrs

Warranty

5 years

Approvals

UL508 (pending), Class 1 Div 2 (pending), CE, FCC, Coal mining safety certificate

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

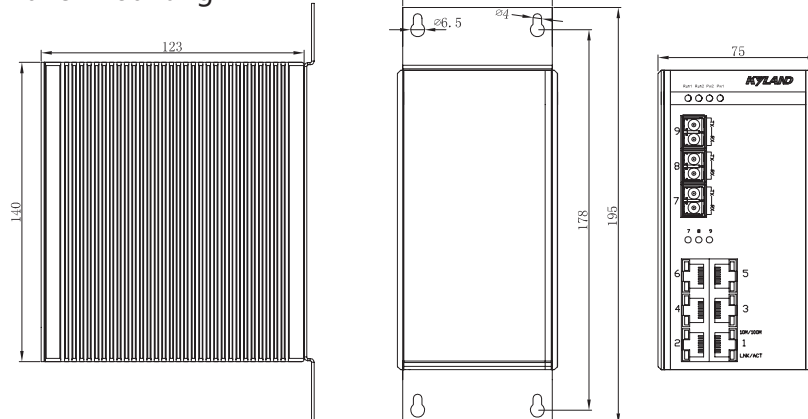
Railway: EN50155, EN50121-4

Traffic Control: NEMA TS-2

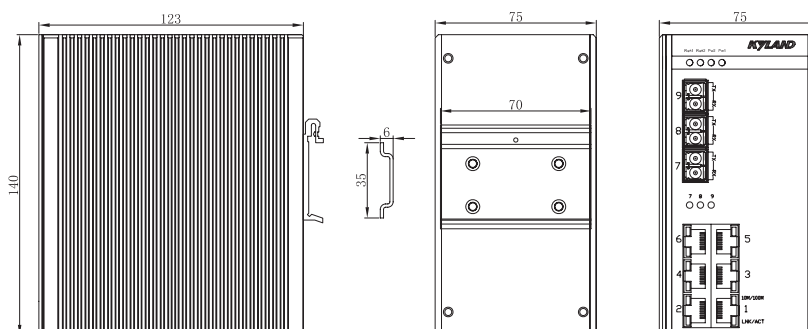
Coal Mining: GB/T3836.1, GB/T3836.2, GB/T3836.3, GB/T3836.4

Mechanical Drawing

Panel Mounting



DIN-Rail Mounting



Ordering Information

Model	Port		Device Form	Power Supply			
	1000Base SFP	10/100Base-TX		3.14-3.47VDC	9-21VDC	18-36VDC	36-72VDC
SICOM3000BA-3GX-6T	3	6	Standard switch with enclosure				
SICOM3000BA-EM-C-3GX-6T	3	6	Embedded card with PCB coating		--	--	--

Please Select

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

SICOM3000BA- - -3GX-6T -
 EM C PS

EM: Embedded Card

EM= Embedded card
None= Standard switch with enclosure

C: PCB Coating

C=PCB coating (only for embedded card)
None= Without PCB coating

PS: Power Supply

3.3=3.3VDC (3.14-3.47VDC), dual power inputs (Embedded card only supports 3.3VDC single power input)
12= 12VDC (9-21VDC), dual power inputs
24= 24VDC (18-36VDC), dual power inputs
48= 48VDC (36-72VDC), dual power inputs

Example order codes

SICOM3000BA-3GX-6T-24
3 Gigabit SFP ports, 6 10/100Base-TX RJ45 ports, 24VDC(18-36VDC) power supply, dual power inputs