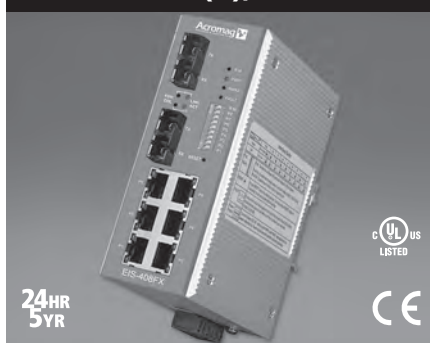




10/100Base-T(X), 100Base-FX



EIS-408FX Ethernet Industrial Switch

8 Ports (6 Cu, 2 Fiber), Web-Managed, with Redundancy

Description

The EIS-408 is an 8-port web-managed industrial switch. It supports many powerful industrial Ethernet features such as redundant ring technology, port VLAN, Quality of Service (QoS), Internet Group Management Protocol (IGMP) Snooping, and a media/power failure alarm.

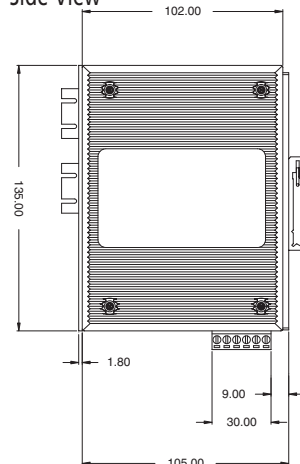
This switch has six 10/100Base-TX ports and two 100Base-FX ports for extending communication distance from 2,000 meters (multi-mode fiber) to 30 km (single-mode fiber). The EIS-408 also has redundant DC power inputs. With the web-based configuration interface, this switch ensures easy installation and management of your switches. The IP30 robust aluminum case and 300,000 hours of MTBF make the EIS-408 the best solution to enhance your industrial networking automation.

Redundant Ring Recovery Time < 300ms

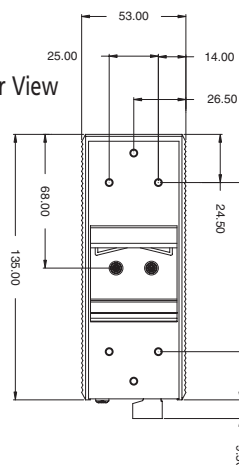
A critical criteria for industrial automation applications is the ability to ensure non-stop system operation. If a minor failure in the communication process occurs, you could suffer substantial damage in terms of extra time and monetary losses. EIS-408 Series switches are your ultimate solution. With self-healing redundant ring technology, the EIS-408 provides you with an automatic self-recovery mechanism. If any segment of your primary communication path is broken or

Dimensions

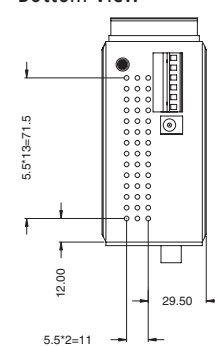
Side View



Rear View



Bottom View



Dimensions in millimeters.

Power

V2- V2+ N/A V1- V1+



disconnected, redundant ring technology allows this switch to self-reconfigure and to provide a redundant path in the network. With ultra-fast recovery time (less than 300ms), your mission-critical applications are protected from any network interruptions or temporary malfunctions. You won't even notice a network failure.

Advanced Management

In addition to redundant ring technology, the EIS-408 provides many advanced features for network management. The EIS-408 supports Quality of Service (QoS) which classifies the importance of each packet and prioritizes the tasks. Ethernet packets, such as control messages, are handled first followed by lower priority packets such as collected data. QoS provides an ideal solution for real-time systems.

With the port-based VLAN function, devices are put into logical subgroups within a local area network regardless of the physical LAN segment they are on. Devices from a different VLAN cannot communicate or access your LAN, providing extra security to the entire network. VLAN functions can also restrain the traffic within a VLAN to improve network performance in a large scale.

IGMP Snooping can manage multicasting traffic in a switched network. By filtering the multicasting traffic and sorting it to the corresponding group of devices, the EIS-408 forwards messages

only to the devices that are interested in the messages. It will reduce the total amount of traffic on the entire network substantially.

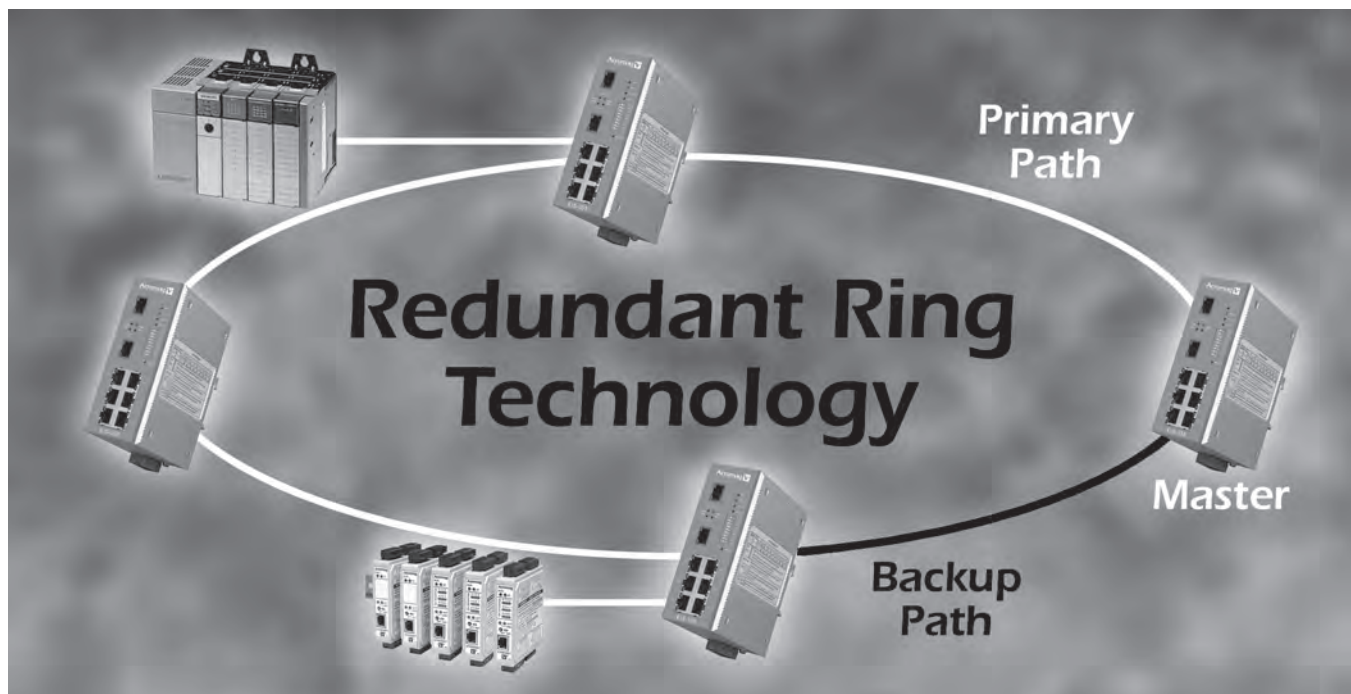
Special Features

Rugged Industrial-Grade

- 6 copper, 2 fiber port web managed redundant switch with media/power fault alarm relay
- IEEE 802.3, 3u, 3x compliant
- Fast redundant ring technology (<300ms)
- Supports open STP & RSTP redundant protocols
- Extended operating temperature -10 to 70°C
- Port-to-port isolation (1200V AC)
- Built-in RFI/EMI and surge/transient protection
- Wide range 12-48V DC redundant power with reverse polarity protection

High-Performance

- Supports VLAN/QoS/IGMP snooping
 - IGMP with query mode
 - VLAN/802.1Q Tag VLAN
 - Class of Service (COS) and (TOS)
 - STMP, online port mirroring & IP security
 - Broadcast packet filtering
- Rugged IP30 aluminum enclosure
- 5-year warranty



Performance

Ethernet Interface

Ports

Six copper 10/100Base-TX, auto-MDI/MDIX.
Two fiber optic 100Base-FX, SC connectors.

Standards

IEEE 802.3 10BaseT Ethernet.
IEEE 802.3u 100BaseTX Fast Ethernet.
IEEE 802.3x flow control and back pressure.
IEEE 802.1p class of service.
IEEE 802.1Q VLAN.

Processing

Non-blocking, store-and-forward switching architecture.

Packet Filter

Broadcast packet filtering.

Protocols

CSMA/CD.

Transmission Rate

14880pps 10Base-T, 148800pps 100Base-TX/FX.

Transfer packet size

64 bytes to 1522 bytes (with VLAN tag).

Packet Throughput

1.19 Mpps with 64 bytes/packet and 8 active ports.

MAC Address Table Size

2K MAC address table.

Memory Buffer

1 Mbits.

LEDs

Per port: Link/Activity (Green).
Full-Duplex/Collision (Orange/Yellow).

Per unit: Power, Power 1, and Power 2 (Green).
Fault (Orange). Ring Master (Green).

Network Cables

10Base-T: Twisted-pair UTP/STP Cat. 3, 4, 5 cable
EIA/TIA-568 100-ohm (100m maximum).

100Base-TX: Twisted-pair UTP/STP Cat. 5 cable
EIA/TIA-568 100-ohm (100m).

100Base-FX: Select multi-mode or single-mode cables.

Backplane

1.6 Gbps.

Relay Alarm Current/Voltage

Up to 1A and 24V DC.

Environmental

Port Isolation

Port-to-port isolation of 1200V AC.

Ambient Temperature

Operating: -10 to 70°C (14 to 158°F).
Storage: -40 to 85°C (-40 to 185°F).

Relative Humidity

5 to 95%, non-condensing.

Power Supply

12 to 48 VDC, redundant dual DC power inputs with reverse polarity protection and a removable terminal block.

Power consumption

6 Watts.

Installation

DIN-Rail kit (attached) and wall mounting plate (included accessory).

Electromagnetic Interference Immunity (EMI)

FCC Class A.

Electromagnetic Compatibility (EMC)

EN61000-4-2, EN61000-4-3, EN-61000-4-4,
EN61000-4-5, EN61000-4-6, EN61000-4-8,
EN61000-4-11.

Safety

UL, CUL, CE/EN60950, IP-30.

Stability

IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock),
IEC60068-2-6 (Vibration).

Ordering Info

Models

EIS-408FX-S

Ethernet switch with redundancy, 6 Cu / 2 FO, single-mode fiber (up to 30 km).

EIS408FX-M

Ethernet switch with redundancy, 6 Cu / 2 FO, multi-mode fiber (up to 2 km).

Accessories

See Page 36 for cables, power supplies, and mounting hardware.



Accessories

Cables

STRAIGHT CAT5 CABLE



CONNECTS 900EN-S005 SWITCH
TO 9XXEN ETHERNET I/O MODULE

Ordering Information

5035-355

Ethernet straight cable, CAT5, 3 feet long, shielded

5035-360

Ethernet crossover cable, CAT5E, 5 feet long, shielded

5035-365

Configuration cable for advanced features, DB-25 PC parallel port to dual row connector, 4 feet long

Mounting Hardware



DIN-Rail Mounting

For your convenience, Acromag offers several mounting accessories to simplify your system installation. Our 19" rack-mount kit provides a clean solution for mounting your I/O modules and a power supply. Or you can buy precut DIN rail strips for mounting on any flat surface.

Ordering Information

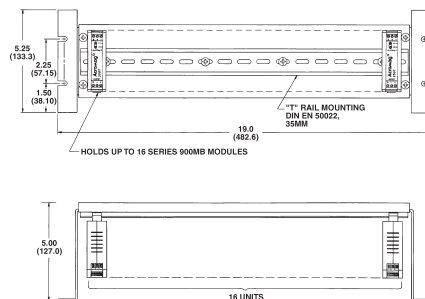
20RM-16-DIN

19" rack-mount kit with DIN rail.

DIN RAIL 3.0

DIN RAIL 16.7

DIN rail strip, Type T, 3 inches (75mm) or 16.7 inches (425mm)



Power Supplies



50W Supply

Input Power Requirement

85 to 264V AC or 105 to 370V DC

Output

24V DC, 2.1A (50W)

Ordering Information

PS5R-D24

Universal 50W power supply

See Page 199 for other models and more information.