SLX-8MS Industrial Ethernet Switches

Sixnet® Networking Series

red lion®

Red Lion's Sixnet® series SLX-8MS managed Fast Ethernet switches feature eight ports with up to four fiber ports and Modbus monitoring, providing reliable connectivity in harsh environments.

Rugged SLX-8MS managed switches feature 8 ports (up to 4 fiber ports) and are housed in slim, hardened metal DIN-rail enclosures with redundant 10-30 VDC power inputs. Designed to handle harsh environments, SLX-8MS switches offer wire-speed throughput, high MTBF and wide -40° to 75°C operating temperature ratings. Real-Time Ring, Modbus/TCP and HTTPS ensure reliable and secure operation in industrial applications.

APPLICATIONS

> Alternative Energy

> Maritime

> Oil & Gas

> Transportation

> Utility

> Water/Wastewater

PRODUCT HIGHLIGHTS

> Hardened Industrial Design

> Wide -40° to 75°C Operating Temperature

> Redundant 10 to 30 VDC Power Inputs

> Modbus/TCP Remote Monitoring

> Real-Time Ring and Rapid Spanning Tree Protocol for network redundancy

FEATURES & BENEFITS

> 8 Fast Ethernet Ports
  - Up to eight 10/100Base-T(X) copper ports
  - Up to four 100Base-FX fiber ports
> Redundant Power Inputs
  - 10-30VDC
  - Reverse polarity protection
> Robust Industrial Design
  - -40° to 75°C operating temperature
  - Hardened IP40 enclosure
  - Extended shock and vibration specs
  - Electrical noise and surge immunity
  - LED status indicators
  - Configurable alarm output
  - DIN-Rail or panel mount
  - >2 million hours MTBF
  - UL/CSA: Class 1, Div 2

> Fully Managed Features Include:
  - Web browser or CLI management
  - Secure web (HTTPS/SSL) and Telnet (SSH)
  - Broadcast and multicast storm protection
  - SNMP v1, v2, v3
  - DHCP Server
  - Real-Time Ring fast-healing ring technology
  - RSTP - 802.1w and 802.1D
  - 802.1p QoS/CoS/DS
  - IGMP multicast filtering
  - SNTP (Simple Network Time Protocol)
  - RMON & port mirroring for advanced diagnostics
  - Modbus/TCP monitoring for port, power and ring status

industrial networking

SWITCH PROPERTIES

Operation: Managed
Number of MAC Addresses: 2048
IEEE Compliance: 802.3, 802.3u, 802.3x, 802.1D/w, 802.1p and 802.1Q
Industrial Connectivity: Modbus registers for port, power and ring status
Latency (Typical): 5 µs + frame time
Switching Method: Store-and-Forward
LED Status Indicators
Configurable Alarm Contact
Supports Full/Half Duplex Operation
Maximum Throughput: Up to 1.6 Gb/s
MDIX Auto Sensing Cable
Auto Sensing Speed and Flow Control
Communications: Full Wire Speed
MTBF: > 2M hours GB @ 40°C per MIL HNDBK-217F2

POWER INPUT

Input Voltage Range: Dual 10-30 VDC power inputs
Input Power (Max): 7 W
Input Power (Typical):
    4.3 W (without fiber)
    6.3 W (with fiber)
Transient Protection (Peak): 15,000 watts
Spike Protection: 5,000 watts (10 times for 10 us)

CONNECTORS

10/100Base-T: Up to eight (8) RJ-45 ports
100Base-FX: Up to four (4) ST or SC duplex fiber ports
Configuration Port: One (1) RS-232 (RJ-45) and one (1) USB (mini)

NETWORK MEDIA

10BaseT: ≥ Cat3 cable
100BaseTX: ≥ Cat5 cable
100Base-FX Multimode: 50-62.5/125 µm
100Base-FX Singlemode: 9-10/125 µm

RECOMMENDED WIRING CLEARANCE

Front: 4" (10.2 cm)
Top: 4" (10.2 cm)

ENVIRONMENTAL

Operating Temperature: -40°C to 75°C
Storage Temperature: -40°C to 85°C
Operating Humidity: 5% to 95% (non condensing)
Operating Altitude: 0 to 30,000 ft.
Shock and Vibration: IEC 60068-2-6, -27

CERTIFICATION & COMPLIANCE

Electrical Safety: UL508/CSA C22.2/142; IEC61010-1, CE
EMI Emissions: FCC part 15, ICES-003; EN61000-6-4, CE
EMC Immunity: EN61000-6-2, CE
Hazardous Locations: ANSI/ISA 12.12.01, CSA C22.2/213 (Class 1, Division 2); EN60079-0, -15 (zone 2; category 3), CE (ATEX)
Marine: Offshore rated per ABS
Eye Safety (Fiber Models): IEC60825-1, Class 1; FDA 21 CFR 1040.10 and 1040.11
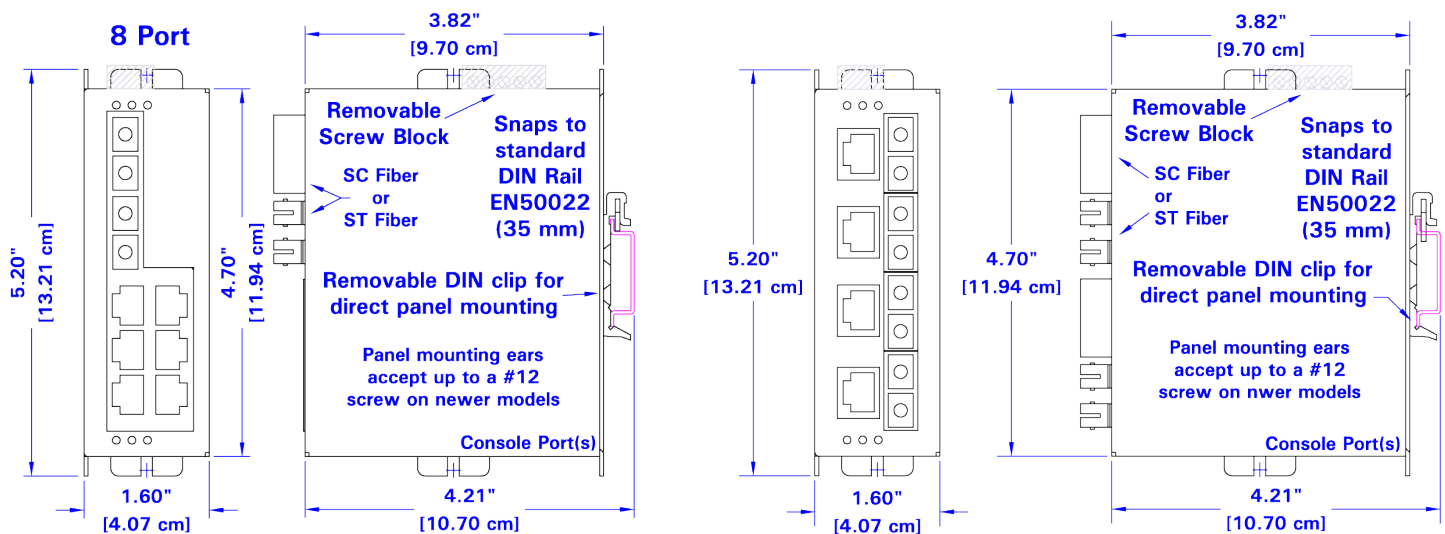
MECHANICAL

Case Dimensions:
    Height: 4.7" (11.94 cm)
    Width: 1.6" (4.07 cm)
    Depth: 3.82" (9.70 cm)
    Weight: 10.0 oz (0.28 kg) 8MS-4/5; 11.0 oz (0.31 kg) 8MS-8/9
Mount: DIN rail (35 mm) and panel mount

WARRANTY

5 Years on Design and Manufacturing Defects

DIMENSIONS *in inches (mm)*

ORDER GUIDE

PART NUMBER	PRODUCT LINE
SLX-8MS-1	8-Port Industrial Fast Ethernet Managed Switch (8 10/100Base-T Copper Ports)
SLX-8MS-4XX	8-Port Industrial Fast Ethernet Managed Switch (6 10/100Base-T, 2 100Base-FX, Multimode 4km Ports)
SLX-8MS-5XX	8-Port Industrial Fast Ethernet Managed Switch (6 10/100Base-T, 2 100Base-FX, Singlemode 20km Ports)
SLX-8MS-8XX	8-Port Industrial Fast Ethernet Managed Switch (4 10/100Base-T, 4 100Base-FX, Multimode 4km Ports)
SLX-8MS-9XX	8-Port Industrial Fast Ethernet Managed Switch (4 10/100Base-T, 4 100Base-FX, Singlemode 20km Ports)
ET-PS-024-02	Power supply – AC to 24VDC, 2A
SP-ETH-2	Dual port Ethernet surge & lightning protecton for the 10/100 ports only
RJ45-DB9F-CBL	Console port cable, DB9 to RJ45

Where XX = ST or SC connector

FIBER TRANSCEIVER CHARACTERISTICS

FIBER MODE	MM	SM	SM
Fiber Length	2 km	30 km	60 km
TX Power Min	-23.5 dBm	-15 dBm	-5 dBm
RX Sensitivity Max	-32 dBm	-34 dBm	-35 dBm
Wavelength	1310 nm	1310 nm	1310 nm

* Fiber Length distances represent typical performance. Link budgets should be evaluated based on specific application conditions.