

# SLX-5MS-MDM Dial-Up Ethernet Switch

Sixnet® Networking Series



## Managed Fast Ethernet Switch with Telephone Modem

Red Lion's Sixnet® series SLX-5MS-MDM managed Fast Ethernet switch features five Ethernet ports with built-in telephone modem and Modbus monitoring, providing easy and secure remote access over standard telephone lines.

The rugged SLX-5MS-MDM managed switch features 5 10/100Base-T(X) ports and an advanced 56K (V.90) PSTN modem. Designed to handle harsh environments, the SLX-5MS-MDM switch offers wire-speed throughput, redundant 10-30 VDC power inputs and a wide -40° to 75°C operating temperature rating. Real-Time Ring, Modbus/TCP, PPP and HTTPS ensure reliable and secure operation in industrial applications.



### APPLICATIONS

- > Alternative Energy
- > Maritime
- > Oil & Gas
- > Transportation
- > Utility
- > Water/Wastewater

### PRODUCT HIGHLIGHTS

- > Built-in 56K PSTN Modem
- > Modbus/TCP Remote Monitoring
- > Real-Time Ring Network Recovery
- > Wide -40° to 75°C Operating Temperature
- > Redundant 10 to 30 VDC Power Inputs

### FEATURES & BENEFITS

- > 5 Fast Ethernet Ports
  - Five 10/100Base-T(X) copper ports
- > Built-in telephone modem
  - Provides secure remote access via twisted copper telephone wire networks
  - Connection speeds up to 56K
- > 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
  - 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



# ▶▶▶ SLX-5MS-MDM Industrial Ethernet Switch Specifications

## 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  $\mu$ s + frame time  
Switching Method: Store-and-Forward  
LED Status Indicators  
Configurable Alarm Contact  
Supports Full/Half Duplex Operation  
Maximum Throughput: Up to 1 Gb/s  
MDIX Auto Sensing Cable  
Auto Sensing Speed and Flow Control  
Communications: Full Wire Speed  
MTBF: > 2M hours GB @ 40°C per MIL HNBK-217F2

## POWER INPUT

Input Voltage Range: Dual 10-30 VDC power inputs  
Input Power (Typical): 5 W  
Transient Protection (Peak): 15,000 watts  
Spike Protection: 5,000 watts (10 times for 10 us)

## CONNECTORS

10/100Base-T: Five (5) RJ-45 ports  
Configuration Port: One (1) RS-232 (RJ-45) and one (1) USB (mini)

## NETWORK MEDIA

10BaseT:  $\geq$  Cat3 cable  
100BaseTX:  $\geq$  Cat5 cable

## INDUSTRIAL PHONE MODEM

PSTN modem  
Maximum Data Rate: 56 Kbps  
Compatibility: V.90, V.34, V.32, V.32 bis, V.22, V.22 bis, V.21n  
Data Compression: V.42 bis  
Error Correction: V.42 MNP or LAP  
Ringer: 0.3  
Jacks 2 RJ-11 (phone and line)  
Standard AT and S register command sets  
Country Compatibility: World-wide (100+ countries)  
Telecom Ratings: FCC Part 68; Industry Canada S03-8; CTR21 (98/482/EC); ACA TS 001 and ACA TS 002

## 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, 2-27

## 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

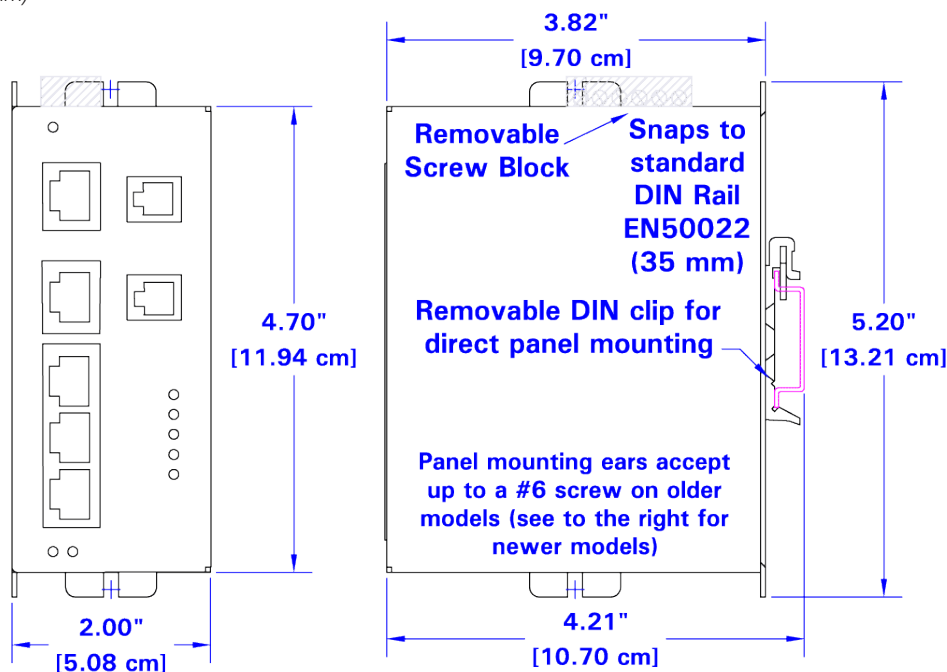
## MECHANICAL

Case Dimensions:  
Height: 4.7" (11.94 cm)  
Width: 2.0" (5.08 cm)  
Depth: 3.82" (9.70 cm)  
Weight: 10.0 oz (0.28 kg)  
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-5MS-MDM-1	5-Port Industrial Fast Ethernet Managed Switch (5 10/100Base-T Copper Ports with Integrated Modem)
ET-PS-024-02	Power supply – AC to 24VDC, 2A
SP-ETH-2	Dual port Ethernet surge & lightning protection for the 10/100 ports only
RJ45-DB9F-CBL	Console port cable, DB9 to RJ45



[www.redlion.net](http://www.redlion.net)

**Connect. Monitor. Control.**

**Americas**  
sales@redlion.net

**Asia-Pacific**  
asia@redlion.net

**Europe  
Middle East  
Africa**  
europe@redlion.net

**+1 (717) 767-6511**

As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our automation, Ethernet and cellular M2M technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. Red Lion is part of Spectris plc, the productivity-enhancing instrumentation and controls company. For more information, please visit [www.redlion.net](http://www.redlion.net).

ADLD0330 031416 © 2016 Red Lion Controls, Inc. All rights reserved. Red Lion, the Red Lion logo, N-Tron and Sixnet are registered trademarks of Red Lion Controls, Inc. All other company and product names are trademarks of their respective owners.