

# SLX-18MG Industrial Ethernet Switch

Sixnet® Networking Series



## Managed Gigabit Ethernet Switch

Red Lion's Sixnet® series SLX-18MG managed Gigabit Ethernet switch features 18 ports with two Gigabit SFP combination ports and Modbus monitoring, providing reliable connectivity options in harsh environments.

The rugged SLX-18MG managed switch features 18 ports (16 10/100Base-T(X) ports, and two SFP combo ports (supporting 100Base or 1000Base fiber transceivers). Designed to handle harsh environments, the SLX-18MG is housed in a slim, hardened metal DIN-rail enclosure, supports redundant 10-30 VDC power inputs, and offers wire-speed throughput, high MTBF and a wide -40° to 75°C operating temperature range. Real-Time Ring, self-healing ring technology, Modbus/TCP remote monitoring and advanced security features 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
- > Gigabit Speed (10/100/1000Base)
- > Modbus/TCP Remote Monitoring
- > Real-Time Ring and Rapid Spanning Tree Protocol for network redundancy

### FEATURES & BENEFITS

- > 18 Copper and Fiber Ports
  - 16 10/100Base-T(X) copper ports
  - Two dual-mode SFP combo slots; supports 100Base or 1000Base SFP transceivers
- > 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
  - MAC-based port security
  - Secure web (HTTPS/SSL) and Telnet (SSH)
  - IEEE 802.1x with RADIUS remote server authentication
  - Broadcast and multicast storm protection
  - SNMP v1, v2, v3
  - DHCP Server
  - Real-Time Ring fast-healing ring technology
  - RSTP/MSTP 802.1w, 802.1D, 802.1Q-2005
  - 802.1Q VLAN for traffic segregation
  - 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-18MG Industrial Ethernet Switch Specifications

## SWITCH PROPERTIES

Operation: Managed  
Number of MAC Addresses: 8192  
IEEE Compliance: 802.3, 802.3u, 802.3x, 802.1D/w, 802.1p, 802.1Q and 802.1x  
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 7.2 Gb/s  
MDIX Auto Sensing Cable  
Auto Sensing Speed and Flow Control  
Communications: Full Wire Speed  
MTBF: > 900k hours GB @ 40°C per MIL HNBK-217F2

## POWER INPUT

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

## CONNECTORS

10/100Base-T: Sixteen (16) RJ-45 ports  
10/100/1000Base-T: Two (2) RJ-45 port  
SFP Combo Ports:  
100Base SX/LX SFP: Up to two (2) LC fiber ports  
1000Base SX/LX SFP: Up to two (2) LC fiber ports  
Configuration Port: One (1) RS-232 (RJ-45) and one (1) USB (mini)

## NETWORK MEDIA

10BaseT:  $\geq$  Cat3 cable  
100BaseTX:  $\geq$  Cat5 cable  
1000BaseT:  $\geq$  Cat5e cable  
100Base, 1000BaseSX Multimode: 50-62.5/125 $\mu$ m  
100Base, 1000BaseLX Singlemode: 7-10/125 $\mu$ m

## 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 and -27

## CERTIFICATION & COMPLIANCE

Electrical Safety: UL508/CSA C22.2/142; EN61010-1, CE  
EMI Emissions: FCC part 15, ICES-003; EN6100-6-4, CE  
EMC Immunity: IEC6100-6-2, CE  
Hazardous Locations: ANSI/ISA 12.12.01, CSA C22.2/213 (Class 1, Division 2); EN60079-15 (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

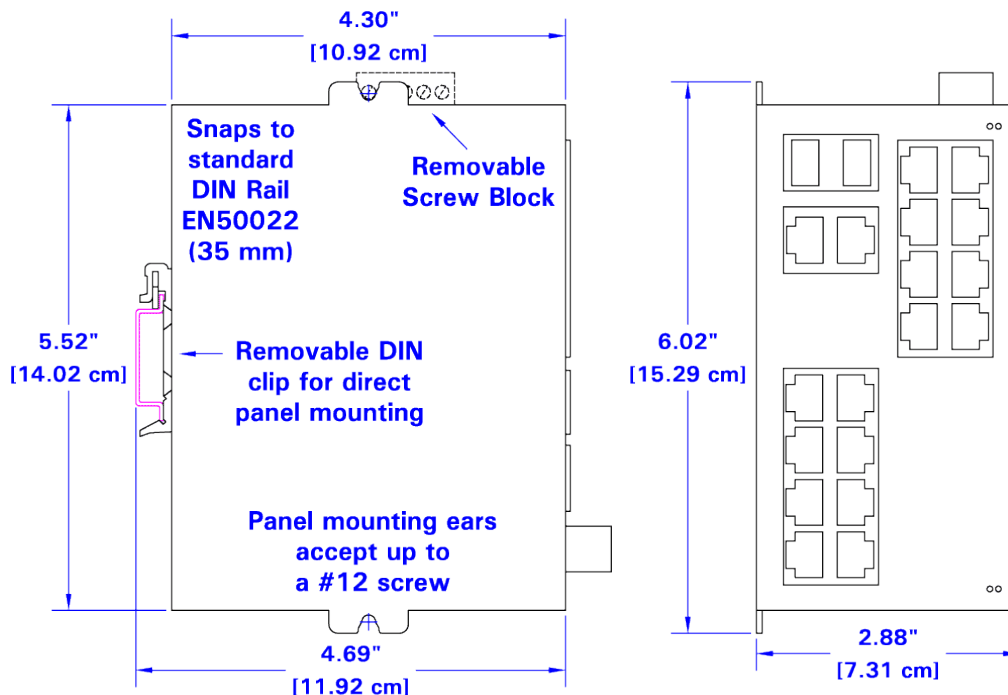
## MECHANICAL

Case Dimensions:  
Height: 5.52" (14.02 cm)  
Width: 2.88" (7.31 cm)  
Depth: 4.30" (10.92 cm)  
Weight: 12.0 oz (0.34 kg)  
Mount: DIN rail (35 mm) and panel mount

## WARRANTY

5 Years on Design and Manufacturing Defects

## DIMENSIONS in inches (mm)



# ▶▶▶ SLX-18MG Industrial Ethernet Switch Specifications

## ORDER GUIDE

PART NUMBER	PRODUCT LINE
SLX-18MG-1	18-Port Industrial Gigabit Ethernet Managed Switch (16 10/100Base-T, 2 Dual Mode (100/1000Base) SFP Combination Slots); SFP Transceivers Sold Separate
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

## FAST ETHERNET

PART NUMBER	FMFIBER-SFP-2K	FMFIBER-SFP-4K	FSFIBER-SFP-30K	FSFIBER-SFP-60K	FSFIBER-SFP-100
Fiber Mode	MM	MM	SM	SM	SM
Fiber Length	2 km	4 km	30 km	60km	100 km
TX Power Min	-9 dBm	-9 dBm	-15 dBm	-5 dBm	-5 dBm
RX Sensitivity Max	-19 dBm	-30 dBm	-34 dBm	-35 dBm	-35 dBm
Wavelength	1310 nm	1310 nm	1310 nm	1310 nm	1550 nm
Laser Type	FP	FP	FP	FP	DFB

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

## GIGABIT TRANSCEIVERS

PART NUMBER	GMFIBER-SFP-500	GMFIBER-SFP-2K*	GSFIBER-SFP-10K	GSFIBER-SFP-30K	GSFIBER-SFP-50K	GSFIBER-SFP-80K
Fiber Mode	MM	MM	SM	SM	SM	SM
Fiber Length	500 m	2 km	10 km	30 km	50 km	80 km
TX Power Min	-9.5 dBm	-9 dBm	-9.5 dBm	-2 dBm	-2 dBm	0 dBm
RX Sensitivity Max	-17 dBm	-19 dBm	-20 dBm	-23 dBm	-23 dBm	-24 dBm
Wavelength	850 nm	1310 nm	1310 nm	1310 nm	1550 nm	1550 nm
Laser Type	VCSEL	FP	FP	DFB	DFB	DFB

\* Use this special singlemode transceiver with multimode fiber cable for a nominal maximum link distance of 2km. This transceiver offsets the transmitted light (so no mode conditioning patch cord is required) and is specifically for use with multimode fiber cable. It is recommended that this transceiver be used on both ends of the cable for best performance. Do not use this transceiver with singlemode fiber cable.

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



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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).

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