

NT24k™-12GX4 Industrial Ethernet Switch

N-Tron® Networking Series



▶▶▶ Industrial Managed Gigabit Ethernet Switch

Red Lion's N-Tron series NT24k-12GX4 compact managed Gigabit Ethernet switch features eight 10/100/1000Base-T(X) ports and four 1000Base-FX fiber ports with SC connectors, providing a reliable and secure communication network to equipment in harsh environments.

The versatile NT24k-12GX4 managed switch features 12 ports (eight Gigabit copper ports and four 1000Base-FX fiber ports) and is housed in a compact, hardened metal DIN-rail enclosure with redundant 10-49 VDC power inputs. Designed to handle the most demanding environments, the NT24k-12GX4 offers wire-speed throughput, expanded shock and vibration ratings and wide -40° to 85°C operating temperature rating. IGMP auto-configuration, IEEE 802.1x with RADIUS remote server authentication and N-Ring™ fast healing ring technology ensure quick deployment and robust secure network communications in alternative energy, factory automation applications, transportation and water/wastewater.



APPLICATIONS

- > Alternative Energy
- > Manufacturing
- > Oil & Gas
- > Transportation
- > Water/Wastewater

PRODUCT HIGHLIGHTS

- > Copper & Fiber Ports
- > Smart Plug-and-Play Operation
- > 10 to 49 VDC Redundant Power Inputs
- > -40° to 85°C Wide Operating Temperature
- > Robust Remote Monitoring
- > N-Ring & N-Link™ Network Ring Technology

FEATURES & BENEFITS

- > 12 Copper and Fiber Ports
 - Eight 10/100/1000Base-T(X) copper ports
 - Four 1000Base-FX ports with SC connectors
- > Redundant 10 to 49 VDC Power Inputs
 - Keeps network running in the event of a power supply failure
- > Extended Environmental Specifications
 - -40° to 85°C operating temperature range
 - > 2M hours MTBF
 - UL/cUL: Class I, Div. 2 Groups A, B, C and D
- > Plug-and-Play Operation:
 - IGMP auto-configuration
 - MDIX auto-sensing cable
 - Simple network ring configuration
 - Backup and restore via recovery card or XML
- > Fully Managed Features Include:
 - Jumbo frame support
 - SNMP v1, v2, v3
 - Web browser management
 - Detailed ring map and fault location charting
 - RSTP - 802.1d, 802.1w, 802.1D
 - Trunking and port mirroring
 - 802.1Q tag VLAN and port VLAN
 - IEEE 802.1x with RADIUS remote server authentication
 - 802.1p QoS, port QoS and DSCP
 - DHCP client
 - SNTP (Simple Network Time Protocol)
 - Multi-Member N-Ring technology with ~30ms healing
 - N-Link redundant ring technology
 - N-View™ monitoring technology
 - EtherNet/IP™ CIP™ messaging

industrial
networking



▶▶▶ NT24k-12GX4 Specifications

SWITCH PROPERTIES

Operation: Managed
Number of MAC Addresses: 16,000
IEEE Compliance: 802.3, 802.3u, 802.3ab, 802.3x,
802.1d/D/w, 802.1p, 802.1Q, 802.1x
Latency (Typical): 1.6 μ s
Switching Method: Store-and-Forward
LED Status Indicators
Configurable Alarm Contact
Onboard Temperature Sensor
Supports Full/Half Duplex Operation
Maximum Throughput: Up to 24.0 Gb/s
MDIX Auto Sensing Cable
Auto Sensing Speed and Flow Control
Communications: Full Wire Speed
MTBF: >2 million hours

POWER INPUT

Input Voltage: 10-49 VDC
Steady Input Current: 780 mA @ 24 VDC
Inrush: 22.6 A / .3 ms @ 24 VDC
BTU/HR: 63.89

CONNECTORS

10/100/1000Base-T: Eight (8) RJ-45 ports
ESD and surge protection diodes on all copper ports
1000Base-FX: Four (4) SC duplex fiber ports
Configuration Port: One (1) USB Type B

NETWORK MEDIA

10BaseT: \geq Cat3 cable
100BaseTX: \geq Cat5 cable
1000BaseT: \geq Cat5e cable
1000Base-SX Multimode: 50-62.5/125 μ m
1000Base-LX Singlemode: 7-10/125 μ m

RECOMMENDED WIRING CLEARANCE

Front: 4" (10.16 cm)
Top: 4" (10.16 cm)

ENVIRONMENTAL

Operating Temperature: -40°C to 85°C
Storage Temperature: -40°C to 85°C
Operating Humidity: 10% to 95% (non condensing)
Operating Altitude: 0 to 10,000 ft.
Shock: 200 g @ 10 ms (bulkhead mounted)
Vibration: 50 g @ 5-20 Hz, Triaxial (bulkhead mounted)

CERTIFICATION & COMPLIANCE

Product Safety: UL/cUL ANSI/ISA 12.12.01-2013, Class I and II,
Division 2 and Class III, Division 1 and 2 Hazardous (Classified)
Locations Groups A, B, C and D, T4 and UL 508. Canadian Standards
C22.2 No. 213-M1987 Non-incendive Electrical Equipment for Use
in Class I, Division 2 Hazardous Locations and C22.2 No. 14-M1987
ABS Type Approval for Shipboard Applications
Designed to Comply with: IEEE 1613 (Electric Utility Substations),
NEMA TS1/TS2 (Traffic Control)
Immunity: CE, EN 61000-6-2/4, EN 61000-3-2/3,
IEC 61000-4-2/3/4/5/6/8/11
Emissions: EN 55011, ICES-003, FCC/CE (CFR 47, Part 15,
Subpart B, Class A)
RoHS Compliant

MECHANICAL

Case Dimensions:
Height: 5.88" (14.92 cm)
Width: 3.10" (7.87 cm)
Depth: 5.54" (14.07 cm)
Weight: 2.05 lbs (0.93 kg)
Mount: DIN Rail 35 mm

WARRANTY

3 Years on Design and Manufacturing Defects

▶▶▶ NT24k-12GX4 Specifications

FIBER TRANSCEIVER CHARACTERISTICS

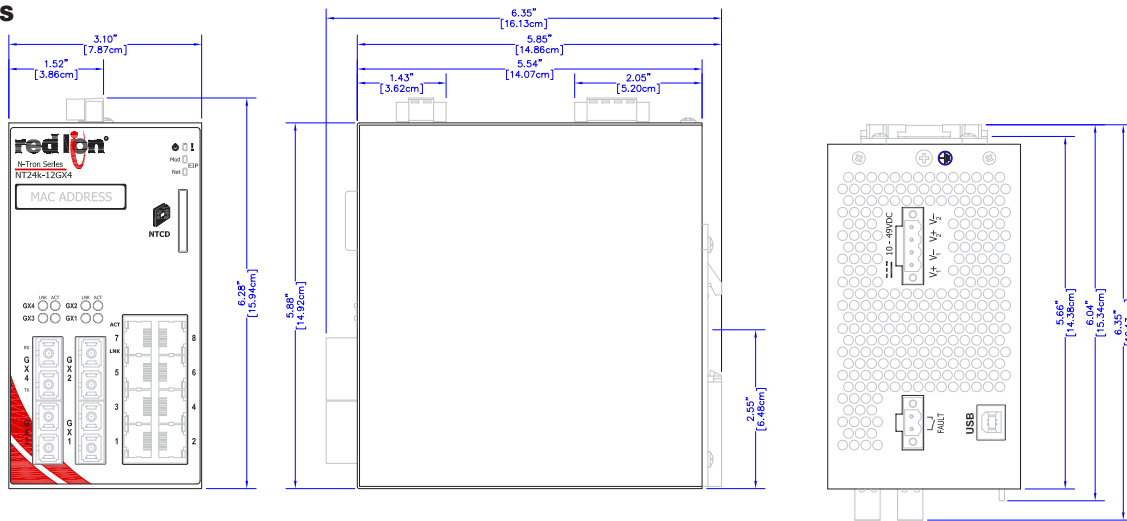
Fiber Mode	MM	SM	SM	SM
Fiber Length	550m @ 50/125µm 300m @ 62.5/125µm	10 km	40 km	80 km
TX Power Min	-9.5 dBm	-9.5 dBm	-5 dBm	0 dBm
RX Sensitivity Max	-17 dBm	-20 dBm	-23 dBm	-24 dBm
Wavelength	850 nm	1310 nm	1310 nm	1550 nm
Assumed Fiber Loss	3.5 to 3.75 dB/km	0.40 dB/km	0.40 dB/km	0.25 dB/km
Laser Type	VCSEL	FP	DFB	DFB

ORDERING GUIDE

PART NUMBER	DESCRIPTION
NT24K-12GX4-SC	12-Port Gigabit Managed Industrial Ethernet Switch (8 10/100/1000BaseT, 4 1000BaseSX, multimode 550m ports)
NT24K-12GX4-SC-ZZ	12-Port Gigabit Managed Industrial Ethernet Switch (8 10/100/1000BaseT, 4 1000BaseLX, singlemode ports)
NTCD-CFG	NT24k Configuration Recovery Device
NTPS-24-1.3	DIN-Rail Power Supply 1.3 Amp @ 24 VDC
NT24K-NM-PMK	NT24k Non-Modular Panel Mount Kit

Where ZZ=10, 40, or 80

DIMENSIONS



All specifications are subject to change. Consult the company website for more information.



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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.

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