

NT24k™-12FX4 Industrial Ethernet Switch

N-Tron® Networking Series



▶▶▶ Industrial Managed Gigabit Ethernet Switch

Red Lion's N-Tron series NT24k-12FX4 compact managed Gigabit Ethernet switch features eight 10/100/1000Base-T(X) ports and four 100Base-FX fiber ports with SC or ST connectors, providing a reliable and secure communication network to equipment in harsh environments.

The versatile NT24k-12FX4 managed switch features 12 ports (eight Gigabit copper ports and four 100Base-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-12FX4 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 100Base-FX ports with SC/ST 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-12FX4 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 16.8 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: 750 mA @ 24 VDC
Inrush: 21 A / .3 ms @ 24 VDC
BTU/HR: 61.44

CONNECTORS

10/100/1000Base-T: Eight (8) RJ-45 ports
ESD and surge protection diodes on all copper ports
100Base-FX: Four (4) ST or 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
100Base-FX Multimode: 50-62.5/125 μ m
100Base-FXE 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-12FX4 Specifications

FIBER TRANSCEIVER CHARACTERISTICS

| | | | | |
|--------------------|---------|---------|---------|---------|
| Fiber Mode | MM | SM | SM | SM |
| Fiber Length | 2 km | 15 km | 40 km | 80 km |
| TX Power Min | -19 dBm | -15 dBm | -5 dBm | -5 dBm |
| RX Sensitivity Max | -31 dBm | -31 dBm | -34 dBm | -34 dBm |
| Wavelength | 1310 nm | 1310 nm | 1310 nm | 1550 nm |

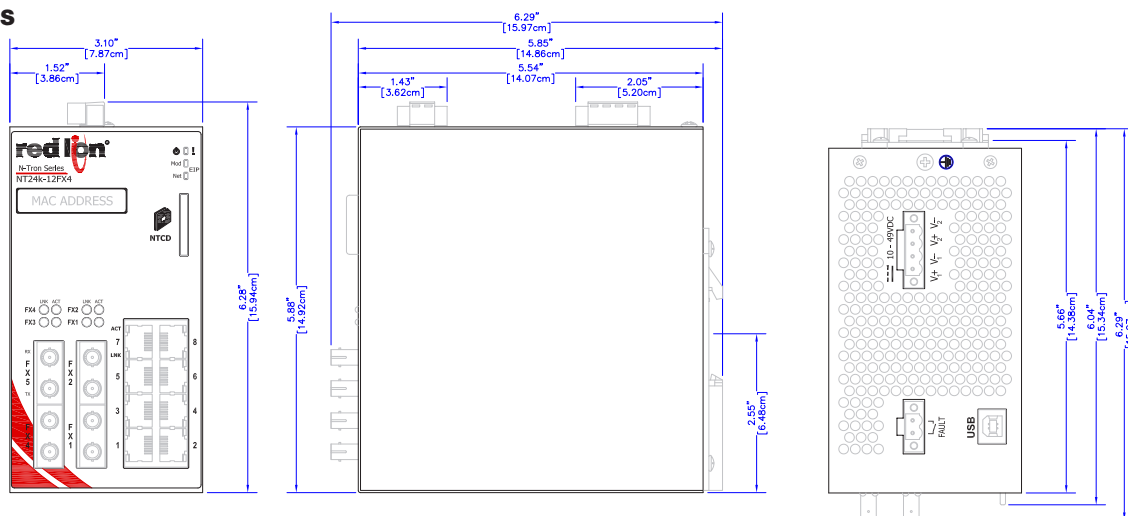
ORDERING GUIDE

| PART NUMBER | DESCRIPTION |
|--------------------|---|
| NT24K-12FX4-XX | 12-Port Gigabit Managed Industrial Ethernet Switch (8 10/100/1000BaseT, 4 100BaseFX, multimode 2km ports) |
| NT24K-12FXE4-XX-YY | 12-Port Gigabit Managed Industrial Ethernet Switch (8 10/100/1000BaseT, 4 100BaseFX, 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 XX=ST or SC connector

Where YY=15, 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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