

NT24k[®]-16TX Industrial Ethernet Switch

N-Tron[®] Networking Series



▶▶▶ Industrial Managed Gigabit Ethernet Switch

Red Lion's N-Tron[®] series NT24k[®]-16TX compact managed Gigabit Ethernet switch features sixteen 10/100/1000Base-T(X) ports providing a reliable and secure communication network to equipment in harsh environments.

The versatile NT24k-16TX managed switch features 16 ports (sixteen Gigabit copper 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-16TX 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 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

IEEE 1588v2 PTP OPTIONS

- Boundary Clock
- Transparent Clock

IEEE 1588v2 applications include

- Coordinated motion control
- Time-stamped data logging
- Time-stamped fault detection

PTP Models & Upgrade Kit Available

FEATURES & BENEFITS

- > 16 Copper Ports
 - Sixteen 10/100/1000Base-T(X) copper ports
- > 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:
 - SSH/SSL/HTTPS
 - 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
 - DHCP Server, Option 82 relay, Option 61, IP fallback
 - Port Security – MAC address based
 - 802.1p QoS, port QoS and DSCP
 - Event Log/Syslog
 - SNTP (Simple Network Time Protocol)
 - IEEE 1588v2 (PTP) models available
 - Multi-Member N-Ring technology with ~30ms healing
 - N-Link redundant ring technology
 - N-View™ monitoring technology
 - EtherNet/IP™ CIP™ messaging

industrial
networking



EtherNet/IP[®]

▶▶▶ NT24k-16TX 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
 IEEE 1588v2 Software-Based Option
 Latency (Typical): 1.6 µs
 Switching Method: Store-and-Forward
 LED Status Indicators
 Configurable Alarm Contact
 Onboard Temperature Sensor
 Supports Full/Half Duplex Operation
 Maximum Throughput: Up to 32 Gb/s
 MDIX Auto Sensing Cable
 Auto Sensing Speed and Flow Control
 Communications: Full Wire Speed
 MTBF: >2 million hours
 Jumbo Frame Support

POWER INPUT

Input Voltage: 10-49 VDC
 Steady Input Current: 710 mA @ 24 VDC
 Inrush: 22 A / .33 ms @ 24 VDC
 BTU/HR: 58.14

CONNECTORS

10/100/1000BaseT: Sixteen (16) RJ-45 ports
 ESD and surge protection diodes on all copper ports
 Configuration Port: One (1) USB Type B

NETWORK MEDIA

10BaseT: ≥ Cat3 cable
 100BaseTX: ≥ Cat5 cable
 1000BaseT: ≥ Cat5e cable

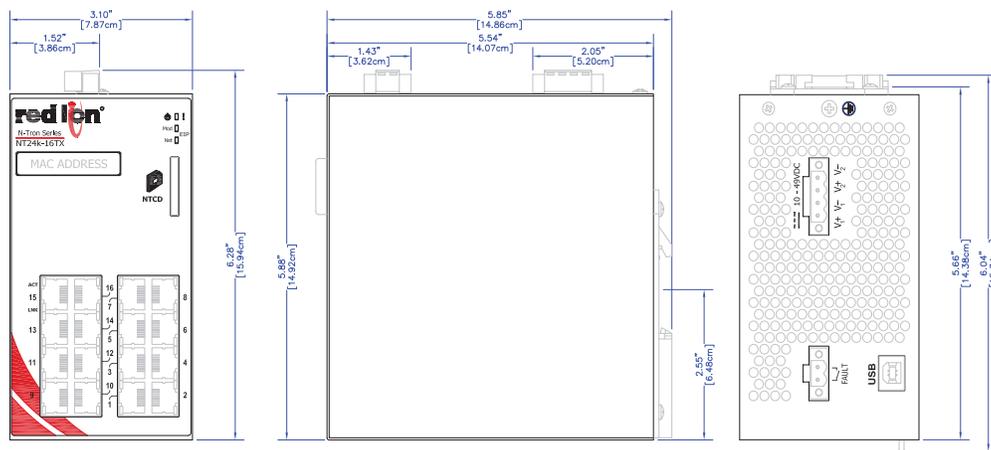
RECOMMENDED WIRING CLEARANCE

Front: 2" (5.08 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)

DIMENSIONS



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

CERTIFICATION & COMPLIANCE

Product Safety:
 ANSI/ISA 12.12.01-2013 Class I and II, Div. 2 and Class III, Div. 1 and 2, Groups A, B, C and D Hazardous Locations
 UL508 Industrial Control Equipment
 CAN/CSA-C22.2 No. 213-M1987 Class I Div. 2 Hazardous Locations
 CAN/CSA-C22.2 No. 14-M1987 Industrial Control Equipment
 Emissions:
 FCC Title 47, Part 15, Radio Frequency Devices, Subpart B ANSI C63.4-2009; Industry Canada ICES-003, EN 55011; EN 61000-6-4, EN 61000-3-2, EN61000-3-3, EN 55032
 Immunity:
 EN 55024, EN 61000-6-2; IEC 61000-4-2 (ESD); IEC 61000-4-3 (RFAM); IEC 61000-4-4 (EFT); IEC 61000-4-5 (SURGE); IEC 61000-4-6 (RFCM); IEC 61000-4-8 (PFMF); IEC 61000-4-11 (VDI)
 Rail:
 EN 50155, EN 50121 and EN 61373
 Designed to Comply with:
 IEEE 1613 (Electric Utility Substations), NEMA TS1/TS2 (Traffic Control)
 Other:
 ABS Type Approval for Shipboard Applications; EMC Directive 2014/30/EU; LV Directive 2014/35/EU GOST-R, RoHS Compliant

MECHANICAL

Case Dimensions:
 Height: 5.88" (14.92 cm)
 Width: 3.10" (7.87 cm)
 Depth: 5.54" (14.07 cm)
 Weight: 1.97 lbs (0.89kg)
 Mount: DIN Rail 35 mm

WARRANTY

3 Years on Design and Manufacturing Defects

ORDERING GUIDE

PART NUMBER	DESCRIPTION
NT24K-16TX	16 Port 10/100/1000BaseT Managed Industrial Ethernet Switch
NT24K-16TX-PT	16 Port 10/100/1000BaseT Managed Industrial Ethernet Switch, PTP Enabled
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
NT24K-KIT-PTP	NT24k Upgrade License to Enable IEEE 1588/PTP on Non-PT NT24k Switches



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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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