

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
 - 802.1AB-2005 LLDP (Link Layer Discovery Protocol)

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 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 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: \geq Cat3 cable
 100BaseTX: \geq Cat5 cable
 1000BaseT: \geq Cat5e cable

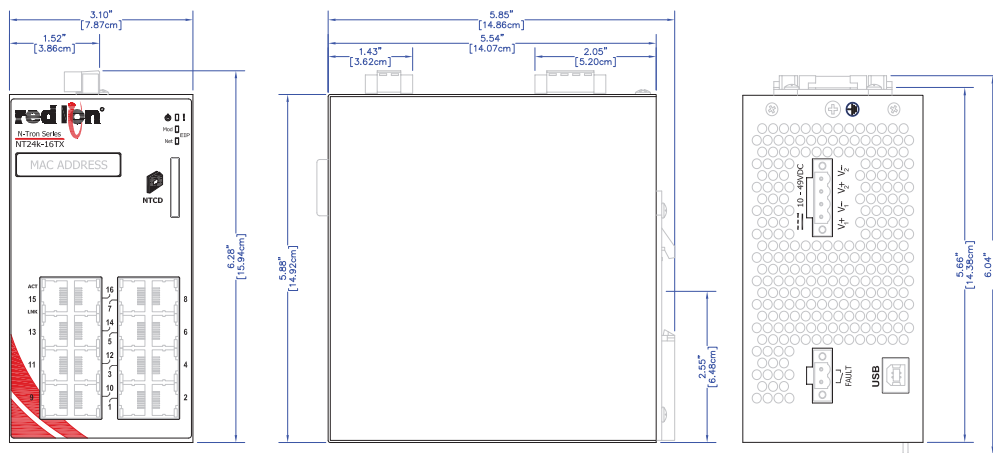
RECOMMENDED WIRING CLEARANCE

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 award-winning 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. For more information, please visit www.redlion.net. Red Lion is a Spectris company.

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