NT24k Modular Industrial Switch
N-Tron Ethernet Series

red lion®

▶▶▶ **Managed Gigabit Ethernet Industrial Switch**

The Red Lion N-Tron NT24k is a modular managed switch designed for factory automation, utilities, SCADA, security surveillance and other industrial applications.

The versatile N-Tron® NT24k Managed Industrial Ethernet Switch features connectivity for up to 24 Gigabit ports and offers a wide range of connectivity options—including 100Base, Gigabit, fiber optic and copper options—in a rugged 1U 19" rackmount enclosure. Designed to handle the most demanding environments, the NT24k delivers wire-speed throughput and includes dual power inputs, expanded shock and vibration tolerances, extreme operating temperature range and three slots to accommodate mix-and-match port modules. N-Ring™ technology restores network communication within ~30ms of fault detection. Robust remote monitoring capabilities make management easy.

APPLICATIONS

> Factory Automation
> Utilities
> SCADA
> Security Surveillance
> Transportation
> Alternative Energy

PRODUCT HIGHLIGHTS

> All Gigabit Modular Design
> Up to 24 Port Connections
> High Environmental Specifications
> N-Ring Advanced Ring Technology
> Robust Remote Monitoring
> Smart Plug-and-Play Operation

FEATURES & BENEFITS

> Supports up to three of the following port modules:
  - 8-port 10/100/1000BaseT(X) module
  - 8-port 100Base fiber module
  - 8-port 1000Base fiber module
  - 8-port Gigabit SFP module
  - 8-port dual mode SFP module (100Base or 1000Base SFP transceivers)
> -40°C to 85°C operating temperature
> Dual power input options:
  - Low Voltage: 18-49 VDC
  - High Voltage: 90-264 VAC or 90-300 VDC
> Onboard temperature sensor
> ESD and surge protection diodes on all copper ports
> Auto-sensing 10/100/1000BaseT(X), duplex and MDIX
> USB configuration port
> Configurable alarm contact

> Optional backup/restore configuration device
> 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
  - IGMP auto-configuration
  - Trunking and port mirroring
  - 802.1Q tag VLAN and port VLAN
  - 802.1p QoS, port QoS and DSCP
  - DHCP client
  - N-Ring technology with ~30ms healing
  - N-Link™ Redundant N-Ring Coupling
  - N-View™ OPC monitoring
  - EtherNet/IP™ CIP messaging

industrial networking

FC c(UL)us LISTED 65SN CE PC RoHS compliant

SWITCH PROPERTIES

Number of MAC Addresses: 16K
Aging Time: Programmable
Latency (typical): 1.6 µs
Switching Method: Store & Forward
MTBF: >1 million hours

POWER INPUT

Input Voltages:
    Low Voltage: 18-49 VDC
    High Voltage: 90-264 VAC or 90-300 VDC
Input Current (max): 2.26A @ 24VDC
Input Current (max): 790mA @120 VAC/450mA @ 124VDC
BTU/hr: 185 @ 24VDC
BTU/hr: 365 @ 120VAC/190 @ 124VDC

CONNECTORS

10/100/1000BaseT(X): Up to 24 RJ45 copper ports
100BaseFX: Up to 24 SC or ST fiber ports
1000BaseGX: Up to 24 SC fiber ports
100BaseSX/LX SFP: Up to 24 LC fiber ports
1000BaseGX SFP: Up to 24 LC fiber ports

RELIABILITY

MTBF: >1 million hours

NETWORK MEDIA

10BaseT: ≥Cat3 cable
100BaseTX: ≥Cat5 cable
1000BaseT: ≥Cat5 cable
100BaseFX, 1000BaseSX Multimode: 50-62.5/125µm
100BaseFXE, 1000BaseLX Singlemode: 7-10/125µm

RECOMMENDED WIRING CLEARANCE

Front and Back: 4" (10.2 cm)

CERTIFICATION & COMPLIANCE

Product Safety:
    Class I, Division 2, Groups A, B, C and D hazardous locations
    UL508
    ANSI/ISA 12.12.01-2012
    CAN/CSA-C22.2 No. 14
    CAN/CSA-C22.2 No. 213-M1987
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 (radiated and conducted)
Immunity: EN 61000-3-2; EN61000-3-3; 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)
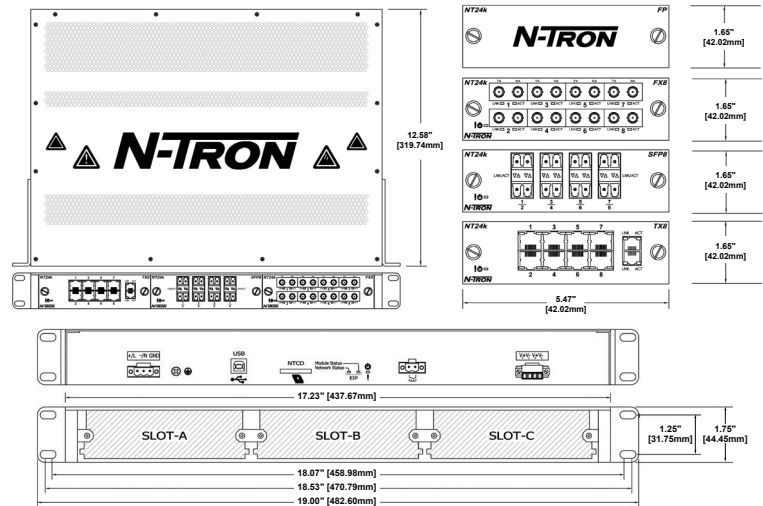Other: EMC Directive 2004/108/EC; GOST-R

ENVIRONMENTAL

Operating Temperature: -40° C to 85° C
Operating Humidity: 5% to 95% (Non Condensing)
Operating Altitude: 0 to 10,000 ft.
Shock: 50g @ 10ms
Vibration/Seismic: 30g, 10-200 Hz, triaxial

MECHANICAL

Case Dimensions
    Height: 1.9" (4.8 cm)
    Width: 17.5" (44.5 cm)
    Depth: 12.7" (32.0 cm)
Weight (maximum): 12.85 lbs (5.83 kg)
Mount: Rackmount 1U

DIMENSIONS

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

ORDERING GUIDE

PART NUMBER	DESCRIPTION
NT24K-DC1	1U rackmount 3-slot modular Gigabit switch with one redundant 18-49 VDC power input
NT24K-DC2	1U rackmount 3-slot modular Gigabit switch with two redundant 18-49 VDC power inputs
NT24K-AC1	1U rackmount 3-slot modular Gigabit switch with one 90-264 VAC/90-300 VDC power input
NT24K-AC2	1U rackmount 3-slot modular Gigabit switch with two 90-264 VAC/90-300 VDC power input
NT24K-AC1-DC1	1U rackmount 3-slot modular Gigabit switch with one each 90-264 VAC/90-300 VDC and 18-49 VDC power inputs
NT24K-FP	Filler panel (required to fill vacant module slots)
NT24-PMK	Panel mount kit
NTCD-CFG	Configuration recovery device
NTPC-AC-US	AC power cord
NTPS-24-3	DIN rail power supply 3.0 Amp@24 VDC
PORT MODULES & TRANSCEIVERS	
NT24K-TX8	8-port 10/100/1000BaseT module
NT24K-FX8-XX	Slide-in module with 8 100BaseFX multimode fiber ports, 2km (SC or ST)
NT24K-FXE8-XX-YY	Slide-in module with 8 100BaseFX singlemode fiber ports (SC or ST)
NT24K-GX8-SC	Slide-in module with 8 1000BaseFX multimode fiber ports, 550m (SC)
NT24K-GXE8-SC-ZZ	Slide-in module with 8 1000BaseFX singlemode fiber ports (SC)
NT24K-SFP8	Slide-in module with 8 SFP expansion slots; supports 1000Base SFP transceivers*
NT24K-SFP-DM8	Slide-in module with 8 dual mode SFP expansion slots; supports 100Base or 1000Base SFP transceivers*
NTSFP-FX	100BaseFX multimode fiber SFP pluggable mini-GBIC transceiver (LC style connector, 2km)**
NTSFP-FXE-YY	100BaseFX singlemode fiber SFP pluggable mini-GBIC transceiver (LC style connector)**
NTSFP-TX	1000BaseT copper SFP pluggable mini-GBIC transceiver
NTSFP-SX	1000BaseSX multimode fiber SFP pluggable mini-GBIC transceiver
NTSFP-LX-ZZ	1000BaseLX singlemode fiber SFP pluggable mini-GBIC transceiver

Where: XX = ST or SC connector (ST not available on some GX modules); YY = 15, 40, or 80 for FX singlemode, blank for multimode; ZZ = 10, 40, or 80 for GX singlemode. *SFP transceivers sold separately. **For use with SFP DM8 module only

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.