

# 116TX Unmanaged Ethernet Switch

N-Tron Networking Series



## ▶▶▶ Unmanaged Ethernet Switch

### BUILT FOR EXTREME CONDITIONS

The compact N-Tron® 116TX unmanaged Industrial Ethernet switch is ideal for industrial applications that demand dependable performance under harsh conditions. The compact 16-port device offers exceptional reliability and performance for a range of mission-critical applications including data acquisition, Ethernet I/O and process control.

Delivered in a rugged industrial metal enclosure, the 116TX provides 16 high-performance 10/100BaseTX copper ports with full wire speed communications—up to 3.2 Gb/s throughput—for robust network support. The unit boasts exceptional MTBF and extended tolerances to shock, vibration, temperature fluctuations and noise—common elements in factory floor control networks, utilities, wastewater treatment, wind turbines, rail car, intelligent traffic control and transportation applications.

### EASY TO USE

The compact 116TX is an excellent plug & play solution. For convenience, the unit configures itself on the network at connection and features auto sensing 10/100BaseTX ports that intuitively negotiate speed and data flow. Automatic features enable instant recognition of network changes and/or updates, adjusting communications on the fly.

### Excellent Network Support

Compact and powerful, the 116TX is designed with advanced communication processing, store-and-forward technology and high-speed processing that allows full wire speed on all ports simultaneously. The unit is optimized for increased determinism and eliminates virtually all network collisions. The 16 high-performance network ports instantly recognize and resolve 10/100BaseTX, MDIX and duplex conflicts. For added convenience, LEDs are provided to display link status and activity for each port.



### PRODUCT FEATURES

- Sixteen 10/100BaseTX RJ-45 ports
- Slim, space-saving design
- -40°C to 85°C operating temperature
- IEEE 802.3 compliance
- ESD and surge protection diodes on all ports
- Store-and-forward technology
- Supports full/half duplex operation
- Full wire speed communications
- Up to 3.2 Gb/s maximum throughput
- Auto negotiation, auto sensing speed, duplex, and flow control
- MDIX auto sensing cable
- Redundant power inputs (10-49 VDC)
- LED link/activity status indication
- Rugged DIN-rail enclosure
- >2M Hours MTBF

## SPECIFICATIONS

### Case Dimensions

Height: 5.8" (14.6 cm)  
Width: 2.0" (5.1 cm)  
Depth: 4.1" (10.2 cm)  
Weight: 1.1 lb. (.48 kg)  
DIN-Rail: 35mm

### Electrical

Redundant Input Voltage: 10-49 VDC (regulated)  
Input Current (max): 300 mA@24 VDC  
BTU/hr: 24.6@24 VDC  
N-TRON Power Supply: NTPS-24-1.3 (1.3A@24V)

### 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 and Vibration (Bulkhead Mounted)

Shock: 200g@10ms  
Vibration/Seismic: 50g, 5-200hz triaxial

### Reliability

MTBF: >2 million hours

### Network Media

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

### Connectors

10/100BaseTX: Sixteen (16) RJ-45 copper ports

### Recommended Wiring Clearance

Top: 1" (2.6 cm)  
Front: 2" (5.1 cm)

### Designed to comply with

- IEEE 1613 for electric utility substations
- NEMA TS1/ TS2 for traffic control

### Regulatory Certifications

- Safety: Class I, Division 2, Groups A, B, C and D, T4
- EMI: ANSI C63.4; FCC CFR Title 47, Part 15, Subpart B - Class A; ICES-003 – Class A
- EMC: EN61000-6-4 – Class A (Emissions), EN 55024 (Immunity), EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (RF), EN61000-4-8 (PFMF), EN61000-4-11 (VDI)
- Other: ABS Type Approval for Shipboard Applications; GOST-R certified; RoHS compliant

Further information regarding this product's regulatory conformity can be found on the N-Tron website at [www.n-tron.com/regulatory](http://www.n-tron.com/regulatory)



## ORDERING INFORMATION

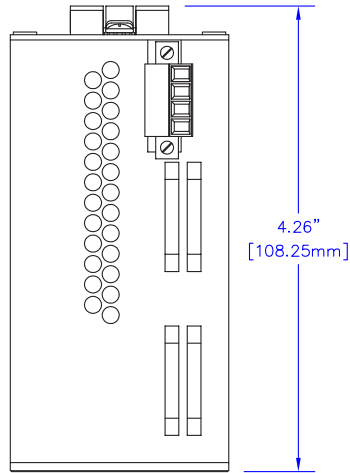
### PART NUMBER

### DESCRIPTION

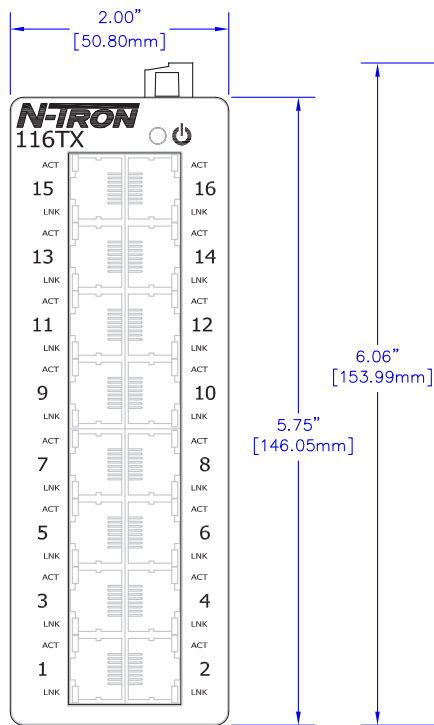
116TX ..... Sixteen-port (16 10/100BaseTX Ports) Industrial Ethernet switch

NTPS-24-1.3..... N-TRON DIN-rail power supply (1.3 amp@24VDC)

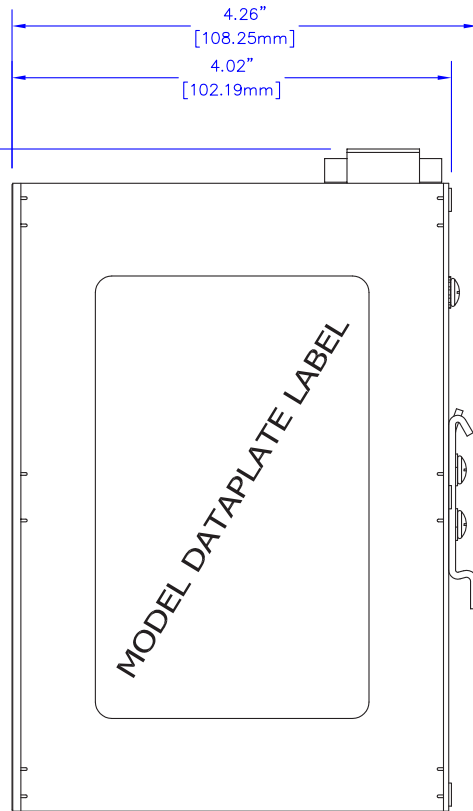
# ▶▶▶ 116TX Specifications



TOP



FRONT



RIGHT SIDE



[www.redlion.net](http://www.redlion.net)

**Connect. Monitor. Control.**

**Americas**  
sales@redlion.net

**Asia-Pacific**  
asia@redlion.net

**Europe  
Middle East  
Africa**  
europe@redlion.net

**+1 (717) 767-6511**

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](http://www.redlion.net). Red Lion is a Spectris company.