

<u>316TX-N</u>

The N-TRON[®] 316TX-N, an unmanaged Industrial Ethernet switch, is designed for use in industrial data acquisition, control, and Ethernet I/O applications. The rugged DIN-RAIL enclosure protects the switch from harsh environmental conditions, enabling flawless performance in extreme settings.

PRODUCT FEATURES

- Compact Size
- Full IEEE 802.3 and 1613 Compliance
- NEMA TS1/TS2 Compliance
- Extended Environmental Specifications
- Sixteen 10/100 BaseTX RJ-45 Ports
- Supports Full/Half Duplex Operation
- LED Link/Activity Status Indication
- Store-and-Forward Technology
- Auto Senses Speed and Flow Control
- MDIX Auto Cable Sensing (RJ-45)
- Up to 2.6 Gb/s Maximum Throughput
- Rugged Industrial DIN-Rail Enclosure
- Redundant Power Inputs (10-30 VDC)
- N-View[™] OPC Switch Monitoring Option
- Bi-Color Status LEDs For Link, Speed, Activity & Duplex
- Port Control

PRODUCT OVERVIEW

The 316TX-N switch is designed to meet and exceed the most demanding industrial communication requirements while providing high throughput and minimum downtime.

The 316TX-N provides sixteen RJ-45 auto sensing 10/100BaseTX ports. All ports are full/half duplex capable, using leading-edge Ethernet switching technology. The switch auto-negotiates the speed and flow control capabilities of the TX copper port connection, and configures itself automatically. Bi-color LEDs are provided to display the link status, speed and activity of each port as well as power on/off status.

The 316TX-N is auto sensing, so there is no need to make extensive wiring changes if upgrades are made to host computers, plant systems, or Ethernet I/O modules. The switching fabric simply scales up or down automatically to match network environments. The device supports up to 4,000 MAC addresses, enabling these products to support extremely sophisticated and complex network architectures.

The 316TX-N is an ideal candidate for upgrading existing hubs and repeaters to increase bandwidth and determinism by virtually eliminating network collisions. The product provides a cost-effective solution while maintaining the plug & play simplicity of an unmanaged hub.



The 316TX-N simplifies plant wiring by eliminating the need to bring data acquisition and control connections back to a climate controlled environment. The switch has extended operating specifications to meet the harsh needs of the industrial environment, including extended temperature rating, extended shock and vibration specs, redundant power inputs, and a high MTBF (greater than 2M hours).

For cost savings and convenience, the 316TX-N can be DIN-RAIL mounted alongside Ethernet I/O or other Industrial Equipment. It can also be panel mounted.

To increase reliability, the 316TX-N contains redundant power inputs. LED's are provided to display power on/off status as well as the link status and activity of each port.

N-VIEW OPC PORT MONITORING (With -N Option Only)

The N-TRON N-View OLE for Process Control (OPC) Server Software can be combined with popular HMI software packages to add network traffic monitoring, trending and alarming to any application using N-TRON switches configured with the N-View option. N-TRON's N-View OPC Server collects 41 different traffic variables per port and 5 system level variables per switch. This information can provide a complete overview of the network load, service quality, and packet traffic. OPC client software can use N-View OPC Server data to resolve network problems quickly and improve system reliability.



QUALITY MANAGEMENT SYSTEM CERTIFIED BY DNV

== ISO 9001:2008 =

316TX-N Specifications

Switch Properties

Number of MAC Addresses:
Latency Typ.:
Backplane Speed:
Switching Method:

4,000 2.1 μs 2.6Gb/s Store & Forward

Case Dimensions

Height:	7.4"	(18.8cm)
Width:	2.3"	(5.8cm)
Depth:	3.5"	(8.9cm)
Weight:	1.9 lbs	(0.9kg)
Din-Rail:	35mm	

Electrical

Redundant Input Voltage: Input Current: Inrush: BTU/hr: 10-30 VDC 400 mA@24V 7.0Amp/0.8ms@24V 21.3@24V

-40°C to 85°C

0 to 10,000 ft.

10% to 95% (Non Condensing)

Environmental

Operating and Storage Temp: Operating Humidity:

Operating Altitude:

Shock and Vibration (bulkhead mounting)

Shock:	200g @ 10ms
Vibration/Seismic:	50g, 5-200Hz, Triaxial

Reliability

MTBF:

>2 Million Hours

Network Media

10BaseT: 100BaseTX: 100BaseFX >Cat3 Cable >Cat5 Cable

Connectors

10/100BaseTX:

Sixteen (16) RJ-45 Copper Ports

Serial Configuration Port Com Parameters: 9600,n,8,1

Recommended Wiring Clearance

Front:	2" (5.08 cm)
Side:	1" (2.54 cm)

Regulatory Approvals

FCC (CFR 47, Part 15, Subpart B, Class A and ANSI C63.4) ICES-003 CE (IEC 60068: 2-1/2/6/30 and IEC 60533-7) UL/cUL: Class I, Div 2, Groups A, B, C, and D; T4 (ANSI/ISA 12.12.01-2007) GOST-R Certified, RoHS Compliant

Designed to comply with: EN 60079-0/15 ATEX IACS UR E10 (ABS Type-Approval) IEC 61850-3 and IEEE 1613 (Elec. Power Sub-stations) NEMA TS1/TS2 for Traffic Control

Contact Information

N-TRON Corp. 820 S. University Blvd., Suite 4E Mobile, AL 36609 USA TEL: (251) 342-2164 FAX: (251) 342-6353 Website: www.N-TRON.com Email: N-TRON_info@N-TRON.com N-TRON Asia Suite #: 2267, 22/F, One Lujiazui 68 Yin Cheng Road Center, Pudong New Area 200120 Shanghai, P.R. China TEL: +86 (0) 21 6194 6777 FAX: +86 (0) 21 6194 6699 N-TRON Europe GmbH Alte Steinhauserstr 19 6330 Cham/Zg Switzerland TEL: +41 41 7406636 FAX: +41 41 7406637

REV 100513

® 2010 N-TRON, Corp., N-TRON and the N-TRON logo are trademarks of N-TRON, Corp. Product names mentioned herein are for identification purposes only and may be trademarks and/or registered trademarks of their respective company. Specifications subject to change without notice. The responsibility for the use and application of N-TRONproducts rests with the end user. N-TRON makes no warranties as to the fitness or suitability of any N-TRON product for any specific application. N-TRON Corporation shall not be liable for any damage resulting from the installation, use, or misuse of this product. Printed in USA.

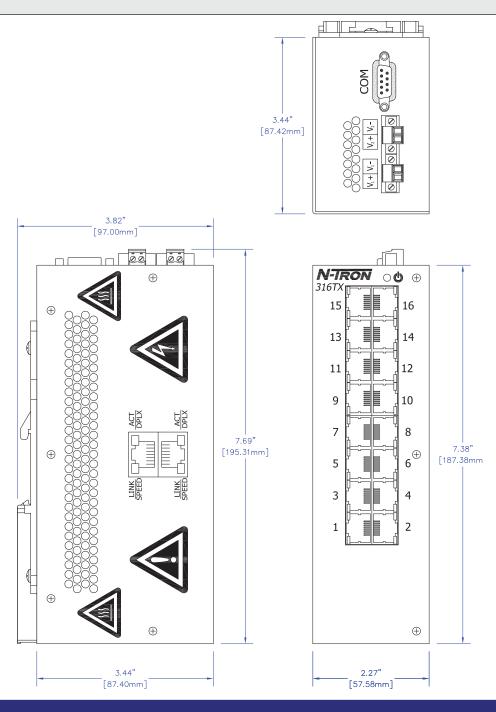


QUALITY MANAGEMENT SYSTEM CERTIFIED BY DNV

= ISO 9001:2008 ==

316TX Industrial Ethernet Switch Ordering Information

316TX	Sixteen 10/100BaseTX Ports
316TX-N	316-TX with N-View
URMK	19" Universal Rack Mount Kit
900-PM	Panel Mount Kit
NTPS-24.1.3	N-TRON Power Supply (1.3 amp@24VDC)



® 2010 N-TRON, Corp. N-TRON and the N-TRON logo are trademarks of N-TRON Corp. Specifications subject to change without notice. Printed in USA.