

The **N-TRON® 108TX** is a low cost unmanaged eight port Industrial Ethernet Switch. It is housed in a hardened, metal, DIN-Rail enclosure, and is designed for use in mission critical data acquisition, control, and Ethernet I/O applications.

## PRODUCT FEATURES

- Compact, Space Saving Package
- Full IEEE 802.3 Compliance
- American Bureau of Shipping(ABS) Type Approval
- EN50155 for Railway applications
- Eight 10/100BaseTX RJ-45 Ports
- Unmanaged Operation
- Extended Environmental Specifications
  - -40°C to 70°C Operating Temperature
  - >2M Hours MTBF
- Supports Full/Half Duplex Operation
- Up to 1.6 Gb/s Maximum Throughput
- MDIX Auto Sensing Cable
- Auto Sensing Speed and Flow Control
- Full Wire Speed Communications
- Store-and-forward Technology
- Redundant Power Inputs (10-30 VDC or 10-60 VDC)
- ESD Protection Diodes on all Ports
- Surge Protection Diodes on Power Inputs
- LED Link/Activity Status Indication
- Hardened Metal DIN-Rail Enclosure

## PRODUCT OVERVIEW

The **108TX** industrial network switch is designed to meet the most demanding industrial communications requirements while providing high throughput and minimum downtime.

The **108TX** provides eight RJ-45 auto sensing 10/100BaseTX ports. All ports are full/half duplex capable, using "state of the art" Ethernet switching technology. The **108TX** auto-negotiates the speed and flow control capabilities of the eight TX port connections, and configures itself automatically.

Since the **108TX** is auto sensing, there will be 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 specific network environments.



The **108TX** supports up to 2,000 MAC addresses, enabling these products to support extremely sophisticated and complex network architectures.

The **N-TRON 108TX** is an ideal candidate for upgrading existing hubs and repeaters to increase bandwidth and determinism by virtually eliminating network collisions. The **108TX** combines affordability and the plug & play simplicity of the unmanaged hub.

The **108TX** can simplify plant wiring by eliminating the need to bring data acquisition and control network connections back to a climate controlled environment. The **108TX** has extended operating environmental specifications to meet the harsh needs of the industrial environment. For cost savings and convenience the network switch can be DIN-Rail mounted alongside Ethernet I/O or other Industrial Equipment.

To increase reliability the **108TX** includes dual redundant power inputs. LEDs are provided to display the link status and activity of each port.

## 108TX SPECIFICATIONS

### Case Dimensions

Height:	3.5"	(8.9 cm)
Width:	1.5"	(3.8 cm)
Depth:	3.6"	(9.0 cm)
Weight:	0.7 lbs.	(0.4 kg)
DIN-Rail:	35mm	

### Electrical

Input Voltage:	10-30VDC
Steady Input Current:	250mA @24V
Inrush:	8.1Amp/0.7ms@24V

### Environmental

Operating Temperature:	-40°C to 70°C
Storage Temperature:	-40°C to 85°C
Operating Humidity:	10% to 95% (Non Condensing)
Operating Altitude:	0 to 10,000 ft.

### Reliability

MTBF:	>2 Million Hours
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### Network Media

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

### Connectors

10/100BaseTX:	Eight (8) RJ-45 Copper Ports
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### Recommended Wiring Clearance

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

### Ordering Information

108TX	Eight 10/100BaseTX Ports, 10-30VDC
NTPS-24-3	DIN-Rail Power Supply 24V@3 Amp

## BENEFITS

### Industrial Network Switch

- Compact Size / Small Footprint
- Extended Environmental Specifications
- Hardened Metal DIN-Rail Enclosure
- High Performance
- High MTBF >2M Hours
- ESD Protection Diodes on all Ports
- Surge Protection Diodes on Power Inputs

### Ease of Use

- Plug & Play Operation
- Auto Sensing 10/100BaseTX
- Auto Negotiation Full/Half Duplex
- MDIX Auto Cable Sensing
- Unmanaged Operation

### Increased Performance

- Full Wire Speed Capable
- Full Duplex Capable
- Eliminates Network Collisions
- Increases Network Determinism

### Regulatory Approvals

FCC Title 47 Part 15 Class A

ICES-003- Class A

CE: EN61000-6-2:2001; ,EN61000-6-4:2001  
EN61000-4-2,3,4,5,6

EN55011:1998+A1: 1999+A2: 2002 - Class A

UL Listed (US and Canada) 1604

ANSI/ISA-12.12.01-2000,  
Class I, Div 2, Groups A,B,C,D,T4A;

ABS Type Approval for Shipboard Applications

DNV Type Approval Certification

EN50155 for Railway Applications

GOST-R Certified; RoHS Compliant

Designed to comply with:

IEEE 1613 for Electric Utility Substations;

NEMA TS1/TS2 for Traffic Control Equipment

## Contact Information

Secure online  
ordering  
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