N-TRON
THE INDUSTRIAL NETWORK COMPANY

104TX

The *104TX* is a low cost unmanaged four 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
- Four 10/100BaseTX RJ-45 Ports
- Unmanaged Operation
- Extended Environmental Specifications
  - -40ºC to 80º Operating Temperature
  - >2M Hours MTBF
- Supports Full/Half Duplex Operation
- Up to 1.0 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)
- LED Link/Activity Status Indication
- Hardened Metal DIN-Rail Enclosure

PRODUCT OVERVIEW

The *N-TRON® 104TX* Industrial Network Switch is designed to solve the most demanding industrial communications requirements while providing high throughput and minimum downtime.

The *104TX* provides four RJ-45 auto sensing 10/100BaseTX ports. All ports are full/half duplex capable, using "state of the art" Ethernet switching technology. The *104TX* auto-negotiates the speed and flow control capabilities of the four TX port connections, and configures itself automatically.

Since the *104TX* is auto sensing, there will be no need to make extensive wiring changes if upgrades are made to the host computers, plant systems, or Ethernet I/O modules. The switching fabric simply scales up or down automatically to match your specific network environment.

The *104TX* supports up to 2,000 MAC addresses, thus enabling these products to support extremely sophisticated and complex network architectures.

The *N-TRON 104TX* is an ideal candidate for upgrading existing hubs and repeaters to increase bandwidth and determinism by virtually eliminating network collisions. The product also keeps the network affordable, while maintaining the plug & play simplicity of the unmanaged hub.

The *104TX* can simplify plant wiring by eliminating the need to bring data acquisition and control network connections back to a climate controlled environment. The *104TX* 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 *104TX* provides dual redundant power inputs. LED's are provided to display the link status and activity of each port.

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BENEFITS

Industrial Network Switch

- Compact Size / Smaller Footprint
- Extended Environmental Specifications
- Hardened Metal DIN-Rail Enclosure
- High Performance
- High MTBF >2M Hours
- ESD Protection Diodes on RJ-45 Ports
- Surge Protection Diodes on Power Inputs

Ease of Use

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

Increased Performance

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

Contact Information

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Ordering Information

104TX	Four 10/100BaseTX Ports
NTPS-24-1.3	DIN-Rail Power Supply 24V@1.3 Amp

SPECIFICATIONS

Physical

Height:	2.88" (7.31cm)
Width:	1.50" (3.81 cm)
Depth:	3.55" (9.02 cm)
Including DIN-Rail Mount:	4.25" (10.8 cm)
Weight:	0.54 lbs. (0.25 kg)
DIN-Rail:	35mm

Electrical

Input Voltage:	10-30 VDC
Steady Input Current:	215mA@24V
Inrush:	7.8Amp/0.7ms@24V

Environmental

Operating Temperature:	-40°C to 80°C
Storage Temperature:	-40°C to 85°C
Operating Humidity:	10% to 95% (Non Condensing)
Operating Altitude:	0 to 10,000 ft.

Reliablity

MTBF:	>2 Million Hours

Network Media

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

Connectors

10/100BaseTX:	Four (4) RJ-45 TX Copper Port

Recommended Wiring Clearance

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

Regulatory Approvals

FCC Title 47 Part 15 Class A,
CE: EN61000-6-2,4, EN55011, EN61000-4-2,3,4,5,6
UL Listed (US and Canada) per ANSI/ISA-12.12.01-2000
This apparatus is suitable for use in
Class I, Div 2, Groups A,B,C,D,T4A
Designed to comply with:
IEEE 1613 for Electric Utility Substations,
ABS Standards for Shipboard Applications,
and NEMA TS1/TS2 for Traffic Control Equipment

REV 070509