

## 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
  - -40°C to 80° Operating Temperature
  - >2M Hours MTBF
- Supports Full/Half Duplex Operation
- Up to 800 Mb/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.



# 104TX

#### **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 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

#### **Contact Information**



### PACIFIC PARTS & CONTROLS, INC.

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Electrical Supply Distributor

#### **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 070627