

# 304TX

The *304TX* is an unmanaged four port Industrial Ethernet Switch. It is housed in a ruggedized DIN-RAIL enclosure, and is designed for use in industrial data acquisition, control, and Ethernet I/O applications.

#### PRODUCT FEATURES

- Compact Size, Smaller Footprint
- Full IEEE 802.3 and 1613 Compliance
- NEMA TS1/TS2 Compliance
- American Bureau of Shipping (ABS)
   Type Approval
- Extended Environmental Specifications
- Four 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)
- Rugged Industrial DIN-RAIL Enclosure
- Redundant Power Inputs (10-30 VDC)
- N-View<sup>TM</sup> OPC Switch Monitoring Option

#### PRODUCT OVERVIEW

The *N-TRON*<sup>™</sup> 304TX Industrial Network Switch is designed to solve the most demanding industrial communications requirements while providing high throughput and minimum downtime.

The *304TX* 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 *304TX* autonegotiates the speed and flow control capabilities of the TX copper port connection, and configures itself automatically.

Since the *304TX* is auto sensing, there will be no need to make extensive wiring changes if upgrades are made to the host commputers, plant systems, or Ethernet I/O modules. The switching fabric simply scales up or down automatically to match your specific network environment.

The *304TX* supports up to 4,000 MAC addresses, thus enabling these products to support extremely sophisticated and complex network architectures.

The *N-TRON 304TX* 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 304TX can simplify plant wiring by eliminating the need to bring data acquisition and control network connections back to a climate controlled environment. The 304TX 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.

The unique compact size provides a smaller footprint, conserving space in the most critical dimension. In addition, as with other DIN-RAIL devices, the *304TX* can be panel mounted.

To increase reliability, the *304TX* contains redundant power inputs. LED's are provided to display the link status and activity of each port, as well as power on/off status.

#### N-VIEW OPC PORT MONITORING OPTION

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.



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#### **BENEFITS**

#### **Industrial Network Switch**

- Compact Size, Smaller Footprint
- High Reliability/Availability
- Extended Environmental Specifications
- Ruggedized DIN-RAIL Enclosure
- High Performance
- High MTBF >2M Hours (measured)

#### Ease of Use

- Plug & Play Operation
- 4 Auto Sensing 10/100BaseTX RJ-45 Ports
- Auto Sensing Duplex, Speed, and Cable Type
- Unmanaged Operation
- Compact DIN-RAIL Package

#### **Increased Performance**

- Full Wire Speed Capable
- Full Duplex Capable
- Eliminates Network Collisions
- Increases Network Determinism
- N-View Switch Viewing Option

#### **Contact Information**

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#### **Ordering Information**

304TX Four 10/100BaseTX Ports 304TX-N with N-View Firmware Option

## **SPECIFICATIONS**

### **Physical**

 Height:
 3.1"
 (7.874 cm)

 Width:
 2.0"
 (5.08 cm)

 Depth:
 3.4"
 (8.636 cm)

 Weight:
 0.75 lbs
 (0.3 kg)

#### **Electrical**

Input Voltage: 10-30 VDC Input Current: 250 mA@24V

Inrush: 8.0Amp/0.6ms@24V

#### **Environmental**

Operating Temperature: -20°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.

#### **Shock and Vibration (bulkhead mounting)**

Shock: 200g @ 10ms

Vibration/Seismic: 50g, 5-200Hz, Triaxial

#### **Network Media**

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

#### Connectors

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

# **Recommended Wiring Clearance**

Front: 4" (10.16 cm) Top: 1" (2.54 cm)

#### **Regulatory Approvals**

FCC Part 15 Class A UL 1604 (US and Canada)

CLASS I, DIV 2, GROUPS A,B,C,D,T4A

CE: EN61000-6-2,4, EN55011, EN61000-4-2,3,4,5,6