N-TRON
THE INDUSTRIAL NETWORK COMPANY

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™ OPC Switch Monitoring Option

PRODUCT OVERVIEW

The *N-TRON*™ *304TX* Industrial Network Switch is designed to solve the most demanding industrial communications requirements while providing high throuput 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* auto-negotiates 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.

304TX

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

REV 070205