# 508TX-A Industrial Ethernet Switch

N-Tron Networking Series



# **▶▶▶** Unmanaged Industrial Ethernet Switch

#### PRODUCT FEATURES

- Full IEEE 802.3 and 1613 Compliance
- NEMA TS1/TS2 Compliance
- American Bureau of Shipping (ABS) Type Approval
- Eight (8) 10/100 BaseTX RJ-45 Ports
- -40°C to 85°C Operating Temperature
- Auto Sensing 10/100BaseTX, Duplex, and MDIX
- · Store-and-Forward Technology
- · Up to 1.6 Gb/s Maximum Throughput
- · Rugged Industrial DIN-Rail Enclosure
- Redundant Power Inputs (10-30 VDC)
- · Bi-Color LEDs For Link, Speed, Activity & Duplex Status

Advanced Management Functions (With -A option only):

- IGMP Snooping
- VLAN
- QoS
- Trunking
- Mirroring
- N-View<sup>™</sup> (Remote Monitoring Using OPC Technology)

#### PRODUCT OVERVIEW

The N-TRON® 508TX Series Industrial Ethernet Switch offers outstanding performance and ease of use. It is ideally suited for connecting Ethernet enabled industrial and/or security equipment and can be optionally configured with advanced Ethernet communication management functions.

### Industrial Packaging and Specifications

The 508TX is designed to operate in industrial environments. It is housed in a rugged DIN-rail-mounted steel enclosure. Optional panel and rack mount kits are also available. The switch comes standard with extended temperature rating, extended shock and vibration specs, redundant power inputs, and a high MTBF (greater than 2M hours).

#### Ease of Use

The 508TX requires no setup unless the advanced port functions are utilized. The eight 10/100BaseTX ports are auto sensing and auto configuring. Each port automatically negotiates for maximum speed and performance by default. Bi-color LEDs are provided to display the link status, link speed and activity of each port as well as power on/off status.

#### Performance

The 508TX supports up to 4,000 MAC addresses and uses advanced IEEE 802.3 Fast Ethernet 10/100BaseTX switching technology to eliminate network collisions and increase network determinism. A high-speed processor and backplane allow full-wire speed capability on all ports simultaneously.



#### ADVANCED MANAGEMENT FEATURES

The 508TX-A offers several management functions that can be easily configured using the COM Port (DB 9 connector located on the right side of the switch).

**IGMP Snooping:** Internet Group Management Protocol allows the N-Tron switch to intelligently forward and filter multicast traffic.

**VLAN:** Virtual Local Area Network allows switch segmentation in order to create two or more separate local area network domains.

**QoS:** Quality of Service streamlines network operation by managing packet priority. The primary goal of QoS is to improve the latency of prioritized Ethernet packets required for ring management, real-time and other interactive applications.

**Trunking**: Trunking (aggregation) enables multiple physical ports to be linked together and function as one uplink to another identically configured trunking-capable switch. This feature increases the bandwidth between switches and creates redundancy for applications requiring high levels of fault tolerant operation.

**Port Mirroring:** Port mirroring allows traffic on one port to be duplicated and sent to a designated mirror port. This function can be used to monitor Ethernet traffic on the designated source port using the assigned mirror port.

**N-View OPC Switch Monitoring:** (With -A or -N Option Only) N-View OPC server software can be used with popular HMI software packages to transmit operational information from N-View-capable switches. This technology enables network traffic monitoring, as well as alarm and trending details. In all, the N-View OPC Server collects 41 different traffic variables per port and five system level variables per switch, providing a complete overview of network load, service quality, and packet traffic. Empowered with N-View OPC Server data, users can resolve network problems faster and make more informed decisions about overall system performance.



# ▶▶▶ 508TX-A Specifications

### **Specifications**

Switch Properties

Number of MAC Addresses: 4,000

Aging Time: 300s, Programmable (-A option)

Latency Typical: 2.1 µs

Switching Method: Store & Forward

**Case Dimensions** 

 Height:
 2.3"
 (5.8 cm)

 Width:
 5.5"
 (14 cm)

 Depth:
 3.5"
 (8.8 cm)

 Weight:
 1.6 lbs
 (0.8 kg)

Din-Rail: 35 mm

Electrical

 Redundant Input Voltage:
 10-30 VDC

 Input Current:
 200 mA @ 24 VDC

 Inrush:
 9.0 amp/0.6 ms @ 24 VDC

 N-Tron Power Supply:
 NTPS-24-1.3 (1.3A @ 24 VDC)

Environmental

Operating Temperature: -40°C to 85°C

Operating Humidity: 10% to 95% (Non Condensing)

Operating Altitude: 0 to 10,000 ft.

Shock and Vibration (bulkhead mounted)

Shock: 200 g @ 10ms Vibration/Seismic: 50 g, 5-200 Hz, Triaxial

Reliability

MTBF: >2 Million Hours

Serial Configuration Port

Com Parameters: 9600,n,8,1

Network Media

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

Connectors

10/100BaseTX: Eight (8) RJ-45 Copper Ports

Recommended Wiring Clearance

Front: 2" (5.1 cm) Side: 1" (2.6 cm) Regulatory Approvals

FCC/CE (CFR 47, Part 15, Subpart B, Class A); ICES-003

EMC Dir 89/336/EEC, EN 50204, EN 55011 EN61000-4-2, 3, 4, 5, 6, 8,11, EN61000-6-2, 4

ANSI C63.4

UL /cUL: Class I, Div 2, Groups A, B, C, D and T4

UL 508 and UL 1604

CAN/CSA-C22.2 No.213, ATEX II 3 G Ex nA IEEE 1613 for Electric Utility Substations ABS Type Approval for Shipboard Applications

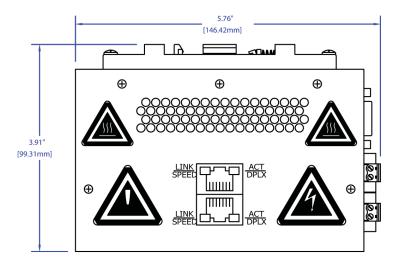
GOST-R Certified, RoHS Compliant

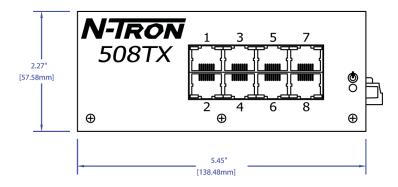
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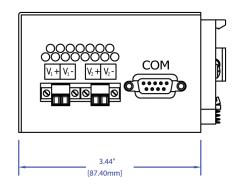
NEMA TS1/TS2 for Traffic Control

### **ORDERING INFORMATION**

PART NUMBER	DESCRIPTION
508TX-A	8-port 10/100BaseTX, Industrial Ethernet Switch, DIN-Rail with Advanced Management Features (includes N-View)
508TX-N	8-port 10/100BaseTX, Industrial Ethernet Switch, DIN-Rail with N-View OPC switch monitoring
508TX	8-port 10/100BaseTX, Industrial Ethernet Switch, DIN-Rail
NTPS-24-1.3	N-Tron Power Supply (1.3 amp @ 24 VDC)
900-PM	Panel Mount Kit - converts switch mounting from DIN-rail to panel mount
URMK	Universal Rack Mount Kit
500-UTA89	Metal DIN-Rail Clip









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