The N-TRON® 1005TX is a low cost unmanaged five port Gigabit 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 where gigabit capability is required.

PRODUCT FEATURES

- Compact, Space Saving Package
- Full IEEE 802.3, 802.3u, and 802.3ab Compliance
- Five 10/100/1000BaseT RJ-45 Ports
- Unmanaged Operation
- Extended Environmental Specifications
  - -40ºC to 85º Operating Temperature
  - >2M Hours MTBF
- Supports Full/Half Duplex Operation
- Up to 10.0 Gb/s Maximum Throughput
- MDIX Auto Sensing Cable
- Auto Sensing Speed and Flow Control
- Full Wire Speed Communications
- Supports up to 4,000 MAC Addresses
- Store-and-Forward Technology
- Jumbo Frame support
- Redundant Power Inputs (10-30 VDC)
- LED Link/Activity Status Indication
- Hardened Metal DIN-Rail Enclosure

PRODUCT OVERVIEW

The 1005TX Gigabit Industrial Network Switch is designed to solve the most demanding industrial communication requirements while providing high throughput and minimum downtime.

The 1005TX provides five RJ-45 auto sensing 10/100/1000BaseT ports. All ports are full/half duplex capable, using "state of the art" Ethernet switching technology. The 1005TX auto-negotiates the speed and flow control capabilities of the five TX port connections, and configures itself automatically.

Since the 1005TX is auto sensing, there will be no need to make extensive wiring changes if upgrades are made to 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 1005TX supports up to 4000 MAC addresses, thus enabling these products to support extremely sophisticated and complex network architectures.

The N-TRON 1005TX 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 1005TX can simplify plant wiring by eliminating the need to bring data acquisition and control network connections back to a climate controlled environment. The 1005TX 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, or panel mounted alongside Ethernet I/O or other Industrial Equipment.

To increase reliability the 1005TX provides dual redundant power inputs. LED's are provided to display the link status and activity of each port.

1005TX SPECIFICATIONS

Case Dimensions

Height:	4.0"	(10.2 cm)
Width:	1.0"	(2.6 cm)
Depth:	3.7	(9.4 cm)
Weight:	0.61 lbs.	(0.27 kg)
DIN-Rail:	35mm	

Electrical

Input Voltage:	10-30 VDC
Steady Input Current:	230mA @ 24V
Inrush:	13Amp/61us @ 24V

Environmental

Operating Temperature:	-40°C to 85°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
1000BaseT:	>Cat5e Cable

Connectors

10/100/1000BaseT:	Five (5) RJ-45 TX Copper Ports

Recommended Wiring Clearance

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

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 10/100/1000BaseT
- 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

Regulatory Approvals

FCC/CE (CFR 47, Part 15, Subpart B, Class A)
EN 61000-6-2/4, IEC 61000-4-2/3/4/5/6
EN 55011, ICES-003

UL/cUL: Class I, Division 2, Groups A, B, C and D; T4
UL 508, ICE and ANSI/ISA-12.12.01-2007

ABS Type Approval for Shipboard Applications
DNV Type Approval Certification
RoHS Compliant

Designed to comply with:
IEEE 1613 for Electric Utility Substations
NEMA TS1/TS2 for Traffic Control

Contact Information

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N-TRON
THE INDUSTRIAL NETWORK COMPANY

Ordering Information

1005TX	Five 10/100/1000BaseT Ports
1000-PM	Panel Mount Kit
NTPS-24-1.3	DIN-Rail Power Supply 24V@1.3 Amp

1.00"
[25.40mm]

3.85"
[97.71mm]

3.61"
[91.65mm]

3.85"
[97.77mm]

1.20"
[30.42mm]

4.37"
[110.97mm]

4.00"
[101.60mm]

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LNK ACT 1 SPD 1000
LNK ACT 2 SPD 1000
LNK ACT 3 SPD 1000
LNK ACT 4 SPD 1000
LNK ACT 5 SPD 1000
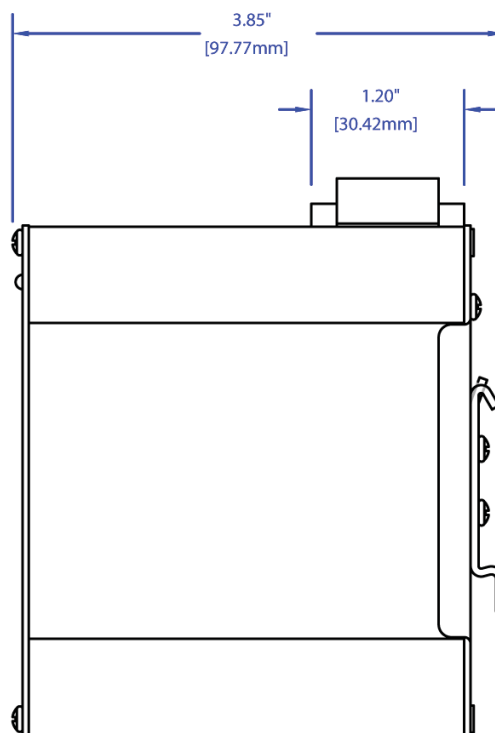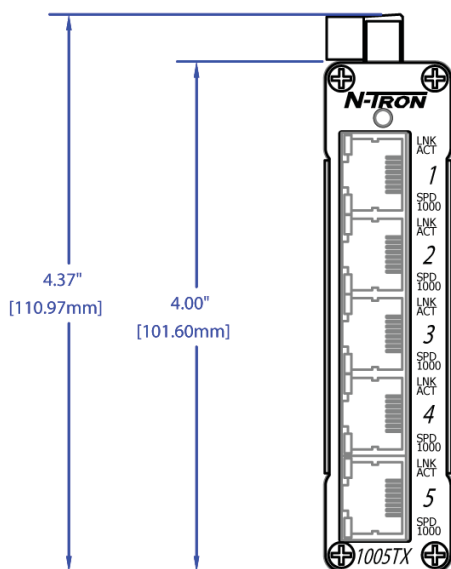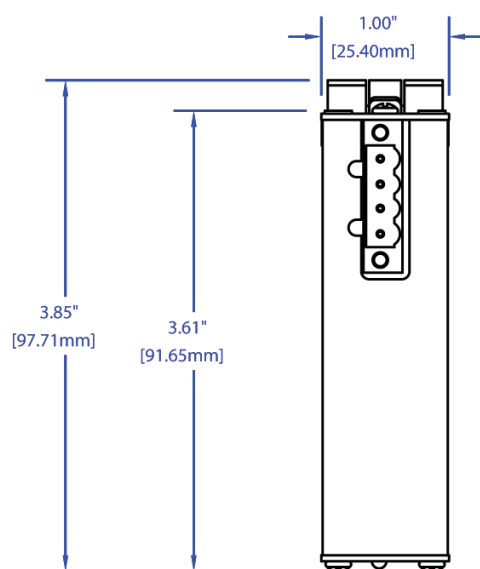
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