N-TRON
THE INDUSTRIAL NETWORK COMPANY

305FX-N

The *N-TRON®* *305FX* is an unmanaged five 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, Small 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
- One 100BaseFX Port ST (shown) or SC
- RJ-45 Ports Support Full/Half Duplex Operation
- LED Link/Activity Status Indication
- Store-and-forward Technology
- Auto Sensing Duplex, Speed and MDIX (RJ-45)
- Up to 1.0 Gb/s Maximum Throughput
- Rugged Industrial DIN-RAIL Enclosure
- Redundant Power Inputs (10-30 VDC)
- N-View™ OPC Switch Monitoring Option

PRODUCT OVERVIEW

The *305FX* Industrial Network Switch is designed to meet and exceed the most demanding industrial communication requirements while providing high throughput and minimum downtime.

The *305FX* provides four RJ-45 auto sensing 10/100BaseTX ports, plus a fiber based Fast Ethernet uplink port. All TX ports are full/half duplex capable, using "state of the art" Ethernet switching technology. The *305FX* auto-negotiates the speed and flow control capabilities of the four TX port connections, and configures itself automatically. The fiber optic port utilizes industry standard ST or SC duplex connectors and is configured for full duplex operation. Both multimode and singlemode fiber models are available.

The TX ports of the *305FX* are auto sensing, so there will be no need to make extensive wiring changes due to future upgrades of host computers, plant systems, or Ethernet I/O modules. The switching fabric simply scales up or down automatically to match network environments.

The *305FX* supports up to 4,000 MAC addresses, enabling these products to support extremely sophisticated and complex network architectures.

The *305FX* is an ideal candidate for upgrading existing hubs and repeaters to increase bandwidth and determinism by virtually eliminating network collisions. The product provides a cost effective solution while maintaining the plug & play simplicity of an unmanaged hub.

The *305FX* can simplify plant wiring by eliminating the need to bring data acquisition and control network connections back to a climate controlled environment. The *305FX* has extended operating environmental specifications to meet the harsh needs of the industrial environment. For cost savings and convenience the *305FX* can be DIN-Rail mounted alongside Ethernet I/O or other industrial equipment.

The unique compact size provides a small footprint, conserving space in the most critical dimension. The *305FX* can also be panel mounted if desired.

To increase reliability, the *305FX* includes 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 (With -N Option Only)

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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QUALITY MANAGEMENT SYSTEM
CERTIFIED BY DNV
ISO 9001:2000

305FX-N SPECIFICATIONS

Case dimensions

Height:	3.5"	(8.8 cm)
Width:	2.0"	(5.0 cm)
Depth:	3.4"	(8.6 cm)
Weight:	0.75 lbs	(0.34 kg)

Electrical

Input Voltage:	10-30 VDC
Input Current:	250 mA@24V
Inrush:	10Amp/0.9ms@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
100BaseFX	
Multimode:	50-62.5/125µm
Singlemode:	7-10/125µm

Connectors

10/100BaseTX:	Four (1) RJ-45 TX Ports
100BaseFX:	One (1) ST or SC Duplex Port

Recommended Wiring Clearance

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

Fiber Transceiver Characteristics

Fiber Length	*2km**	*15km***	*40km***	*80km***
TX Power Min	*-19dBm*	*-15dBm*	*-5dBm*	*-5dBm*
RX Sensitivity Max	*-32dBm*	*-29dBm*	*-34dBm*	*-34dBm*
Wavelength	*1310nm*	*1310nm*	*1310nm*	*1550nm*

* Multimode Fiber Optic Cable
** Singlemode Fiber Optic Cable

Regulatory Approvals

FCC Part 15 Class A

UL Listed 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

ABS Type Approval for Shipboard Applications

GOST-R Certified

RoHS Compliant

BENEFITS

Industrial Network Switch

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

Ease of Use

- Plug & Play Operation
- Four 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
- 100BaseFX Fiber Uplink
- Full Duplex Capable
- Eliminates Network Collisions
- Increases Network Determinism
- N-View Switch Viewing Option

Ordering Information

305FX-XX	100BaseFX multimode fiber
305FX-N-XX	with N-View Firmware Option
305FXE-XX-YY	100BaseFX singlemode fiber
305FXE-N-XX-YY	with N-View Firmware Option

Where "XX" is: ST for ST style fiber connector
SC for SC style fiber connector

Where "YY" is: 15 for 15km max. fiber segment length
40 for 40km max. fiber segment length
80 for 80km max. fiber segment length

Contact Information

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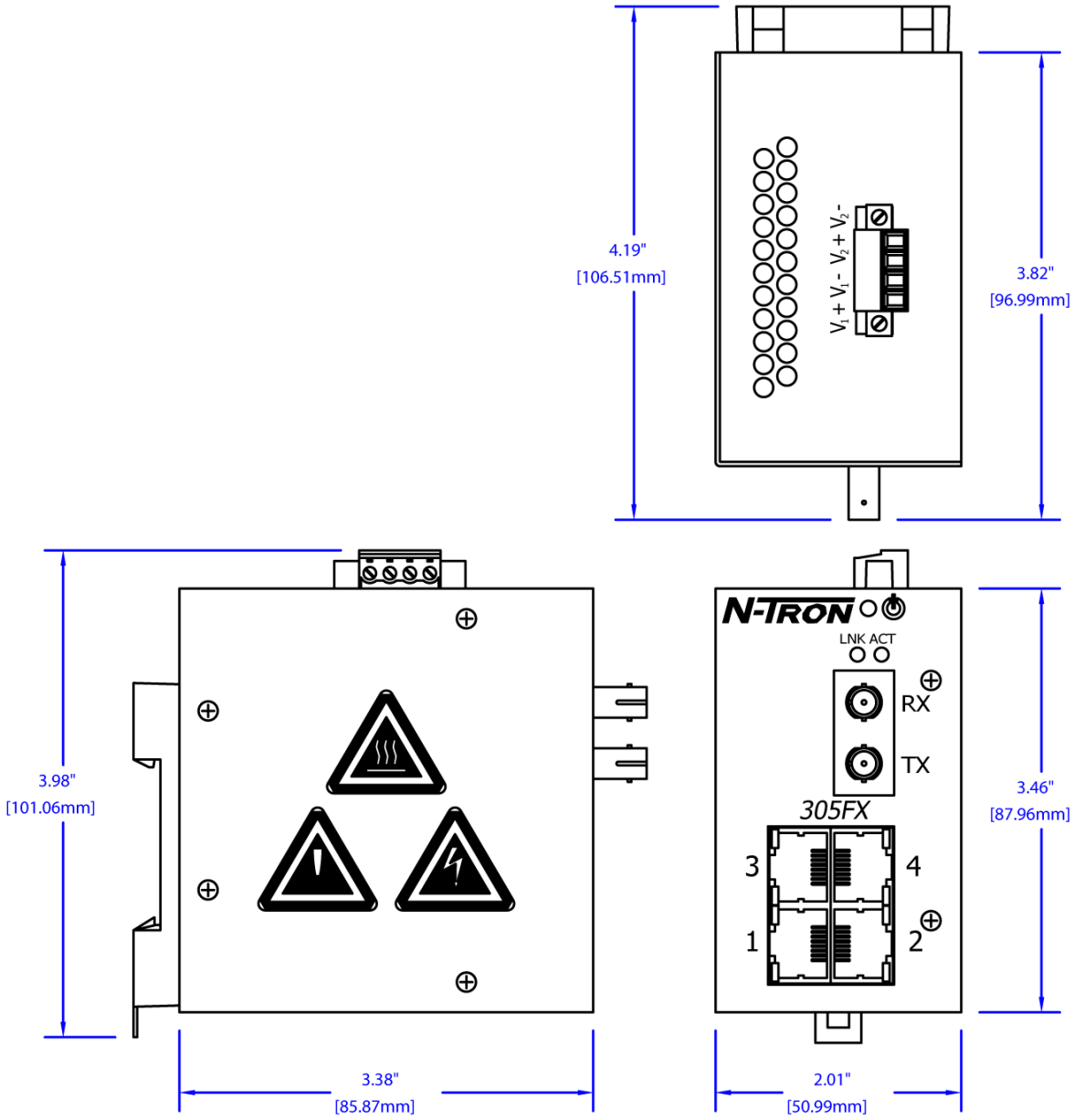

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