

# 305FX Industrial Ethernet Switch

N-Tron Networking Series



## ►►► Unmanaged Industrial Ethernet Switch

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.



### APPLICATIONS

- > Shipboard Applications
- > Electric Utility Substations
- > Traffic Control

### PRODUCT HIGHLIGHTS

- > Compact Size, Small Footprint
- > Full IEEE 802.3 and 1613 Compliance
- > NEMA TS1/TS2 Compliance
- > Extended Environmental Specifications
- > Store-and-Forward Technology
- > N-View monitoring option available

### FEATURES & BENEFITS

- > American Bureau of Shipping (ABS) Type Approval
- > 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
- > 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™ Monitoring Option

N-View capable models provide tools to remotely monitor network traffic and error conditions. Five switch level variables and forty-one traffic indicators per port are accessible using the N-View PC application provided with the switch. An OPC server, capable of delivering the data to OPC capable applications, is also provided.

# ▶▶▶ 305FX Industrial Ethernet Switch Specifications

## CASE DIMENSIONS

Height: 3.5" (8.9 cm)  
Width: 2.1" (5.4 cm)  
Depth: 3.4" (8.7 cm)  
Weight: 0.75 lbs (0.34 kg)

## ELECTRICAL

Input Voltage: 10-30 VDC  
Input Current: 250 mA@24V  
BTU/hr: 20.5@24 VDC  
Inrush: 10Amp/0.9ms@24V

## ENVIRONMENTAL

Operating Temperature: -40°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)

## 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

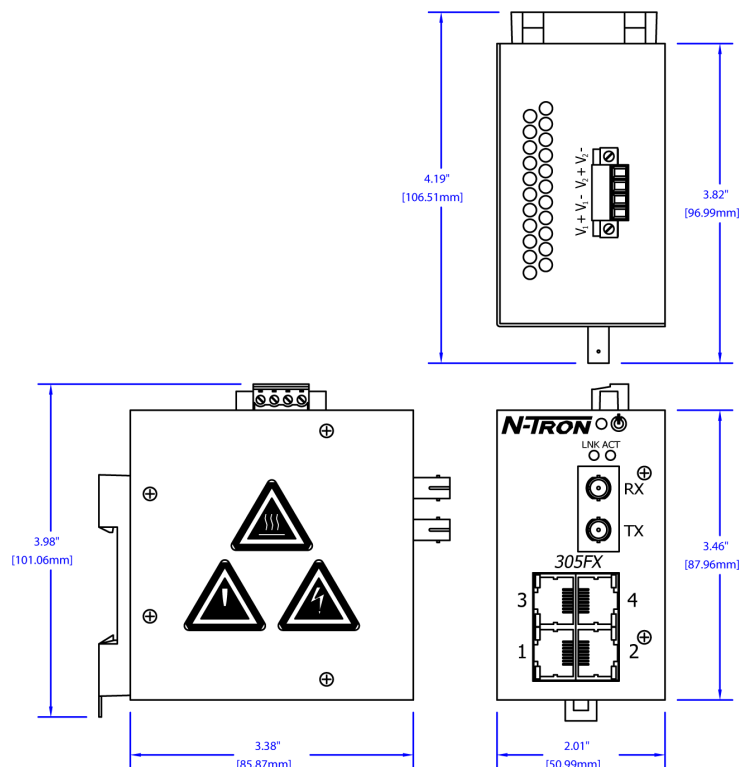
## INCREASED PERFORMANCE

Full Wire Speed Capable  
100BaseFX Fiber Uplink  
Full Duplex Capable  
Eliminates Network Collisions  
Increases Network Determinism  
N-View Monitoring option available

## REGULATORY APPROVALS

FCC Part 15 Class A  
US - UL Listed UL508, ANSI/ISA 12.12.01-2007 for use in Class I and II, Division 2 and Class III Division 1 and 2 Hazardous Locations Groups A,B,C,D,T4A  
Canada - C22.2 No. 142-M1987 and C22.2 No. 213-1987 for use in Class I, Division 2 Hazardous Locations  
CE: EN61000-6-2,4, EN55011, EN61000-4-2,3,4,5,6  
ABS Type Approval for Shipboard Applications  
EE 1613 for Electric Utility Substations  
GOST-R Certified  
RoHS Compliant

## DIMENSIONS in inches (mm)



## ORDERING GUIDE

| PART NUMBER    | DESCRIPTION                                                                                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| 305FX-XX       | 5-port (4 10/100BaseTX, 1 100Base Fiber Uplink) Industrial Ethernet Switch, DIN-Rail                        |
| 305FX-N-XX     | 5-port (4 10/100BaseTX, 1 100Base Fiber Uplink) Industrial Ethernet Switch, DIN-Rail with N-View Technology |
| 305FXE-XX-YY   | 5-port (4 10/100BaseTX, 1 100Base Fiber Uplink) Industrial Ethernet Switch, DIN-Rail                        |
| 305FXE-N-XX-YY | 5-port (4 10/100BaseTX, 1 100Base Fiber Uplink) Industrial Ethernet Switch, DIN-Rail with N-View Technology |

Where: N = N-View Option  
E = Singlemode  
XX = ST for ST style fiber connector, SC for SC style fiber connector  
YY = Segment length:  
15 for 15km max. fiber segment length  
40 for 40km max. fiber segment length  
80 for 80km max. fiber segment length

## FIBER TRANSCEIVER CHARACTERISTICS

| FIBER LENGTH       | 2km    | 15km   | 40km   | 80km   |
|--------------------|--------|--------|--------|--------|
| TX POWER MIN       | -19dBm | -15dBm | -5dBm  | -5dBm  |
| RX SENSITIVITY MAX | -31dBm | -31dBm | -34dBm | -34dBm |
| WAVELENGTH         | 1310nm | 1310nm | 1310nm | 1550nm |



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