

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

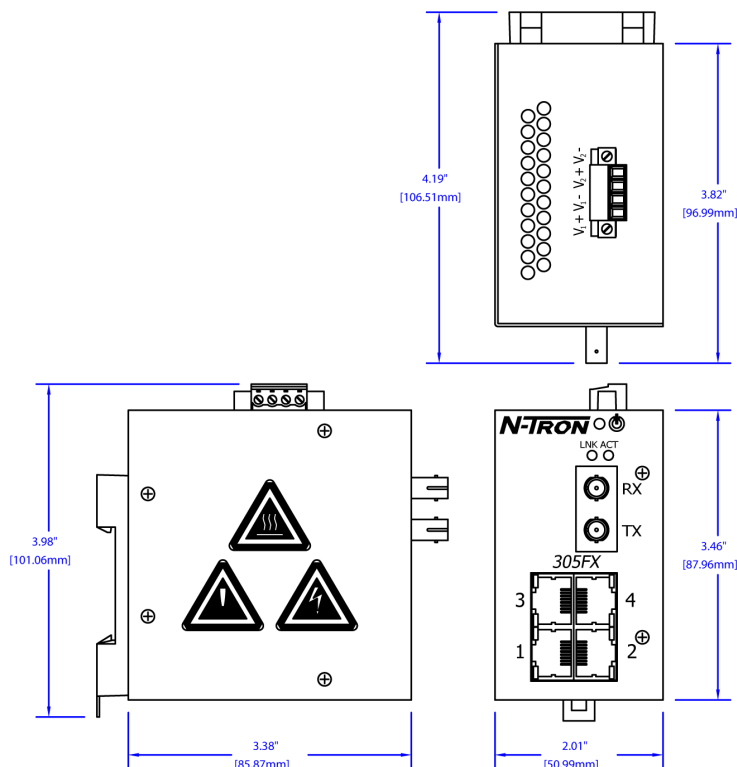
INCREASED PERFORMANCE

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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As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our award-winning technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. For more information, please visit www.redlion.net. Red Lion is a Spectris company.