Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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►►► Unmanaged Industrial Ethernet Switch

The N-TRON® 309FX-N, an unmanaged Industrial Ethernet switch, is designed for use in industrial data acquisition, control, and Ethernet I/O applications. The rugged DIN-RAIL enclosure protects the switch from harsh environmental conditions, enabling flawless performance in extreme settings.

PRODUCT FEATURES

• Compact Size

• Full IEEE 802.3 and 1613 Compliance

• NEMA TS1/TS2 Compliance

• Extended Environmental Specifications

• Eight 10/100 BaseTX RJ-45 Ports

• One 100BaseFX Ports, ST (shown) or SC

• Supports Full/Half Duplex Operation

• LED Link/Activity Status Indication

• Store-and-Forward Technology

• Auto Senses Speed and Flow Control

• MDIX Auto Cable Sensing (RJ-45)

• Up to 2.6 Gb/s Maximum Throughput

• Rugged Industrial DIN-Rail Enclosure

• Redundant Power Inputs (10-30 VDC)

• N-View™ OPC Switch Monitoring Option

• Bi-Color Status LEDs For Link, Speed, Activity & Duplex

• Port Control

PRODUCT OVERVIEW

The 309FX-N is designed to meet and exceed the most demanding industrial communication requirements while providing high throughput and minimum downtime. The unit provides eight RJ-45 auto sensing 10/100BaseTX ports. All ports are full/half duplex capable, using leading-edge Ethernet switching technology. The switch auto-negotiates the speed and flow control capabilities of the TX copper port connection and configures itself automatically. The fiber optic port supports full 200Mb/s communications via 100BaseFX. Bi-color LEDs are provided to display the link status, speed and activity of each port as well as power on/off status.

The 309FX-N is auto sensing, so there is 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 network environments. The device supports up to 4,000 MAC addresses, enabling these products to support extremely sophisticated and complex network architectures.

The 309FX-N 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 switch simplifies plant wiring by eliminating the need to bring data acquisition and control connections back to a climate controlled environment.

The switch has extended operating specifications to meet the harsh needs of the industrial environment, including extended temperature rating, extended shock and vibration specs, redundant power inputs, and a high MTBF (greater than 2M hours).

For cost savings and convenience, the 309FX-N can be DIN-RAIL mounted alongside Ethernet I/O or other Industrial Equipment. It can also be panel mounted. To increase reliability, the 309FX-N contains redundant power inputs. LED's are provided to display power on/off status as well as the link status and activity of each port.

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 five 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.

industrial networking

Specifications

Switch Properties

Number of MAC Addresses:	4,000
Latency (typical):	2.1 µs
Backplane Speed:	2.6 Gb/s
Switching Method:	Store & Forward

Case Dimensions

Height:	5.5"	(13.9cm)
Width:	2.3"	(5.8cm)
Depth:	3.5"	(8.9cm)
Weight:	1.6 lbs	(0.8kg)
Din-Rail:	35mm	

Electrical

Redundant Input Voltage:	10-30 VDC
Input Current:	260 mA@24V
Inrush:	8.5Amp/0.7ms@24V
BTU/hr:	21.3@24V

Environmental

Operating and Storage Temp:	-40ºC to 85ºC
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

Reliability

MTBF:	>2 Million Hours

Network Media

10BaseT:	≥Cat3 Cable
100BaseTX:	≥Cat5 Cable
100BaseFX:	
Multimode	50-62.5/125µm
Singlemode	7-10/125µm

Connectors

10/100BaseTX:	Eight (8) RJ-45 Copper Ports
100BaseFX:	One (1) SC or ST Duplex Port

Serial Configuration Port

Com Parameters:	9600,n,8,1

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	-31dBm	-31dBm	-34dBm	-34dBm
Wavelength	1310nm	1310nm	1310nm	1550nm

* Multimode Fiber Optic Cable
** Singlemode Fiber Optic Cable

Regulatory Approvals

FCC (CFR 47, Part 15, Subpart B, Class A and ANSI C63.4)
ICES-003
CE (IEC 60068: 2-1/2/6/30 and IEC 60533-7)
UL/cUL: Class I, Div 2, Groups A, B, C, and D; T4
(ANSI/ISA 12.12.01-2007)
EN 60079-0/15 ATEX
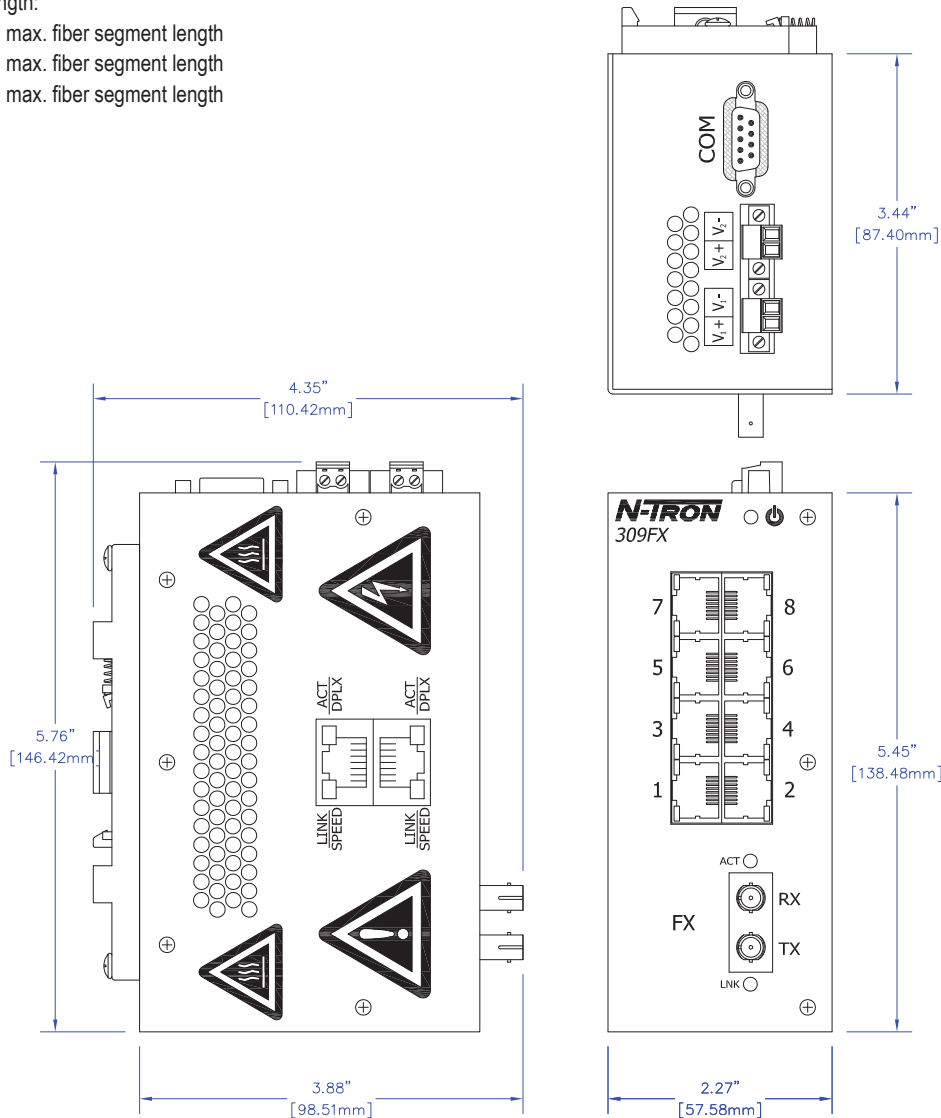GOST-R Certified, RoHS Compliant

Designed to comply with:
IACS UR E10 (ABS Type-Approval)
IEC 61850-3 and IEEE 1613 (Elec. Power Sub-stations)

PART NUMBER	DESCRIPTION
309FX-N-XX	9-port (8 10/100BaseTX, 1 100BaseFX Fiber Uplink) Industrial Ethernet Switch with N-View Option, DIN-Rail
309FXE-N-XX-YY	9 port (8 10/100BaseTX, 1 100BaseFX Fiber Uplink) Industrial Ethernet Switch with N-View Option, singlemode, DIN-Rail
309FX-XX	9-port (8 10/100BaseTX, 1 100BaseFX Fiber Uplink) Industrial Ethernet Switch, DIN-Rail
URMK	19" Universal Rack Mount Kit
NTPS-24.1.3	N-TRON Power Supply (1.3 amp@24 VDC)

Where: N = N-View Firmware 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

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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 automation, Ethernet and cellular M2M 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. Red Lion is part of Spectris plc, the productivity-enhancing instrumentation and controls company. For more information, please visit www.redlion.net.