![Chipsmall logo]

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!

Contact us

►►► Managed Industrial Ethernet Switch

The N-TRON® 712FX4 compact, fully managed industrial Ethernet switch is housed in a rugged industrial metal enclosure and offers a powerful combination of eight 10/100BaseTX copper ports and four 100Base fiber ports. It is ideally suited for use in industrial applications such as factory floor control networks, utilities, wind turbines, wastewater treatment facilities, rail car, intelligent traffic control and transportation applications, and any other application where high reliability, superior noise immunity, extreme ruggedness, and extended distance are required.

PRODUCT FEATURES

• Eight 10/100BaseTX RJ-45 Ports

• Four 100BaseFX Ports, ST or SC Style

• -40°C to 70°C Operating Temperature

• Onboard Temperature Sensor

• ESD and Surge Protection Diodes on all Ports

• Auto Sensing 10/100BaseTX, Duplex, and MDIX

• Store-and-Forward Technology

• Rugged DIN-Rail Enclosure

• Redundant Power Inputs (10-49 VDC)

• Configurable Bi-Color Fault Status LED

FULLY MANAGED FEATURES

• SNMP v1, v2, v3 and Web Browser Management

• Configuration backup via Optional SD card

• Detailed Ring Map and Fault Location Charting

• N-Ring™ Technology with ~30ms Healing

• N-Link™ Redundant N-Ring Coupling

• RSTP 802.1d, 802.1w, 802.1D

• N-View™ OPC Monitoring

• IGMP Auto configuration

• 802.1Q tag VLAN and Port VLAN

• 802.1p QoS, Port QoS, and DSCP

• EtherNet/IP™ CIP Messaging

• LLDP (Link Layer Discovery Protocol)

• Trunking

• Port Mirroring

• DHCP Server, Option 82 relay, Option 61, IP Fallback

• Local Port IP Addressing

• Port Security—MAC Address Based

Remote Monitoring Options

Web browser and N-View OPC (OLE for process control) server software provides configuration and monitoring capability. N-View software easily combines with HMI software to monitor network traffic, alarms, and trends. SNMP is also available for switch link and status monitoring. Status LEDs are configurable to indicate power failure and N-Ring status.

N-Ring Technology

N-Ring technology provides expanded ring capacity, detailed fault diagnostics, and fast 30ms healing time. The ring manager validates the integrity of the ring using health check packets and quickly converts the ring to a linear topology within ~30ms when an error is detected. The health status of a ring comprised of all N-TRON fully managed switches may be monitored. A detailed ring map and fault location chart may be accessed by the ring manager's web browser or the OPC server. N-Link allows the linking of two N-Rings. Up to 250 fully managed N-TRON switches are supported in an N-Ring topology.

Industrial Specifications

High MTBF, extended shock and vibration specifications, wide operating temperature range and redundant power inputs are standard features.

Ease of Use

The 10/100BaseTX ports are auto sensing and auto configuring. Each copper port is automatically negotiated for maximum speed and performance by default, but can also be hard coded through the user interface. A high-speed processor allows wire speed capability on all 10/100BaseTX ports simultaneously.

Specifications

Switch Properties

Number of MAC Addresses:	8000
Aging Time:	Programmable
Latency Typical:	2.6 µs
Switching Method:	Store-and-Forward

Case Dimensions

Height:	4.3"	(10.8 cm)
Width:	3.1"	(7.9 cm)
Depth:	4.6"	(11.5 cm)
Weight (max):	1.8 lbs	(0.8 kg)
DIN-Rail Mount:	35mm	

Electrical

Redundant Input Voltage:	10-49 VDC (Regulated)
Input Current (max):	505mA@24 VDC
BTU/hr:	41.37@24 VDC
N-TRON Power Supply:	NTPS-24-1.3 (1.3A@24V)

Environmental

Operating Temperature:	-40ºC to 70ºC
Storage Temperature:	-40ºC to 85ºC
Operating Humidity:	5% to 95% (Non Condensing)
Operating Altitude:	0 to 10,000 ft.

Shock and Vibration (bulkhead mounted)

Shock:	200g @ 10ms
Vibration/Seismic:	50g, 5-200Hz, Triaxial

Reliability

MTBF:	>2 Million Hours

Network Media

10BaseT:	≥Cat3 Cable
100BaseTX:	≥Cat5 Cable

Connectors

10/100BaseTX:	Eight (8) RJ-45 Copper Ports
100BaseFX:	Four (4) 100BaseFX Port, ST or SC Style

Recommended Wiring Clearance

Front:	4"	(10.16 cm)
Side:	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: Title 47, Part 15, Subpart B, Class A; ICES-003: Class A;
ANSI C63.4
CE: EN 61000-6-2, 4; IEC 61000-4-2, 3, 4, 5, 6, 8, 11
GOST-R Certified, RoHS Compliant
UL/cUL: UL 508 and ANSI/ISA-12.12.01-2007
Class I, Div 2, Groups A, B, C, and D; T4
Designed to comply with:
IEEE 1613 for Electric Utility Substations
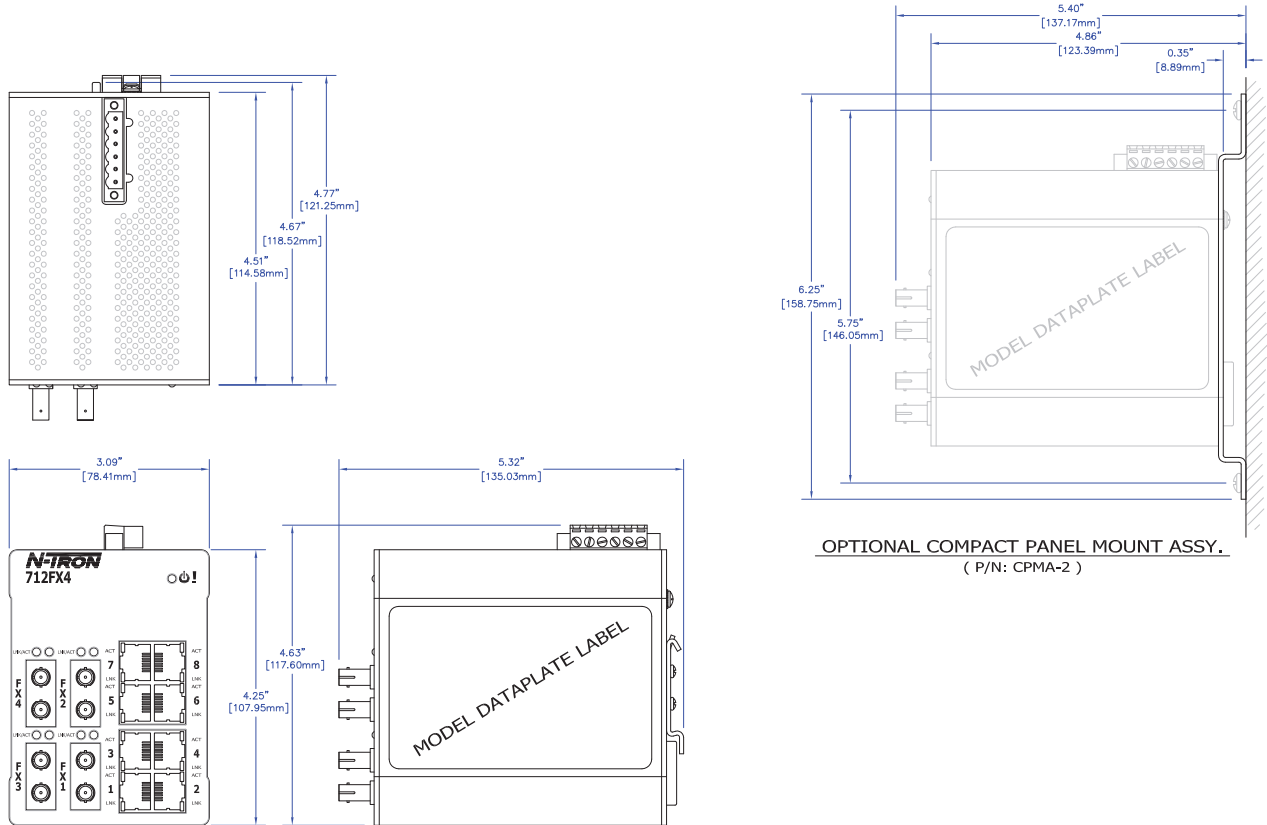NEMA TS1/ TS2 for Traffic control
IEC-61850

EtherNet/IP

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
712FX4-XX	12-Port (8 10/100BaseTX, 4 100BaseFX Fiber Ports), Fully Managed Industrial Ethernet Switch, DIN-Rail
712FXE4-XX-YY	12-Port (8 10/100BaseTX, 4 100BaseFX Fiber Ports), Fully Managed Industrial Ethernet Switch, singlemode, DIN-Rail
NTCD128	Optional configuration card for backup / restore
NTPS-24-1.3	N-TRON Power Supply - (1.3 Amp @ 24 VDC)
CPMA-2	Compact Panel Mount (factory installed option)
URMK	Universal Rack Mount Kit

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

Mixed fiber configurations available.

OPTIONAL COMPACT PANEL MOUNT ASSY.
(P/N: CPMA-2)

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.