N-TRON
THE INDUSTRIAL NETWORK COMPANY

714FX6

PRODUCT FEATURES

- Eight 10/100BaseTX RJ-45 Ports
- Six 100BaseFX Ports, ST or SC Style
- -40ºC to 70ºC 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 (10-49VDC)
- 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 - IEEE 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)
- Port Trunking
- Port Mirroring
- 802.1d, 802.1w, 802.1D RSTP
- DHCP Server, Option 82 relay, Option 61
- Local Port IP Addressing

The N-TRON® 714FX6 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 six 100Base fiber ports. It is ideally suited for use in industrial and utility applications such as factory floor control networks, electric power substations, wind turbines, wastewater treatment facilities, intelligent traffic control and transportation applications, and any other application where high reliability, superior noise immunity, extreme ruggedness, and extended distance are required.

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.

714FX6 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):	1.8lbs	(0.8 kg)
DIN-Rail Mount:	35mm	

Electrical
Redundant Input Voltage:	10-49 VDC (Regulated)
Input Current (max):	610mA max.@24VDC
BTU/hr:	49.96@24VDC
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

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

Connectors
10/100BaseTX:	Eight (8) RJ-45 Copper Ports
100BaseFX:	Six (6) SC or ST Fiber Duplex Ports

Recommended Wiring Clearance
Front:	4"	(10.16 cm)
Side:	1"	(2.54 cm)

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
Hazardous and Non-Hazardous Locations, Temp. Code T4A

Designed to comply with:
IEEE 1613 for Electric Utility Substations
NEMA TS1/ TS2 for Traffic control
IEC-61850

PACIFIC PARTS & CONTROLS, INC.
6255 PRESCOTT COURT • CHINO, CA 91710
909-465-1174 • FAX 909-465-1178
www.pacificparts.com
Electrical Supply Distributor

REV 100713

714FX6 Industrial Ethernet Switch Ordering Information

714FX6-XX	Eight 10/100BaseTX Ports, Six Multimode100BaseFX Fiber Optic Ports
714FXE6-XX-YY	Eight 10/100BaseTX Ports, Six Singlemode100BaseFX Fiber Optic Ports
NTCD128	Optional configuration card for backup / restore
NTPS-24-1.3	*N-TRON* Power Supply - (1.3 Amp @ 24VDC)
CPMA-2	Compact panel mount (factory installed option only)
URMK	Universal Rack Mount Kit

Where: XX = ST or SC
YY = 15, 40, or 80 for Singlemode, Blank for Multimode
E = Singlemode
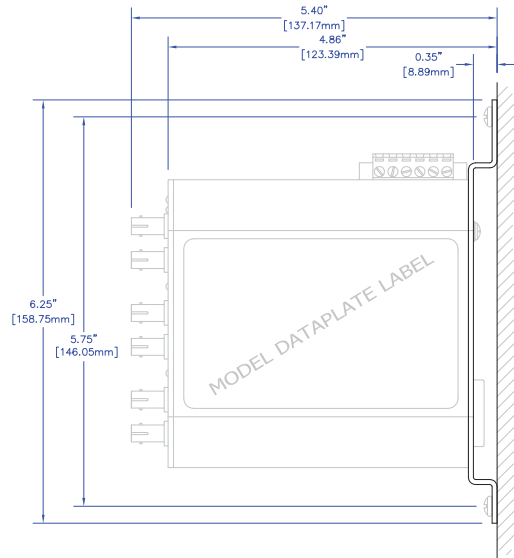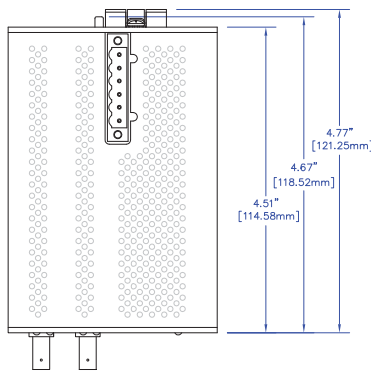
OPTIONAL COMPACT PANEL MOUNT ASSY.
(P/N: CPMA-2)