

The *N-TRON*® 405FX is an unmanaged five port Industrial Ethernet Switch. It is housed in a ruggedized DIN-Rail enclosure, and is designed for use in mission critical data acquisition, control, and Ethernet I/O applications.

PRODUCT FEATURES

- Full IEEE 802.3 Compliance
- Four 10/100BaseTX RJ-45 Ports
- One 100BaseFX Port ST (shown) or SC
- Extended Environmental Specifications
- Support for Full/Half Duplex Operation
- LED Link/Activity Status Indication
- Auto Sensing Speed and Flow Control
- Store-and-forward Technology
- Auto Sensing Cable Sensing (MDIX)
- Up to 1.0 Gb/s Maximum Throughput
- Compact, Space Saving Package
- Rugged Industrial DIN-Rail Enclosure
- Redundant Power Inputs (10-30 VDC)
- N-View Switch Monitoring Option

PRODUCT OVERVIEW

The 405FX Industrial Network Switch is designed to solve the most demanding industrial communications requirements while providing high throughput and minimum downtime.

The 405FX provides Four RJ-45 auto sensing 10/100BaseTX ports, plus a fiber based Fast Ethernet uplink port. All TX ports are full/half duplex capable, using "state of the art" Ethernet switching technology. The 405FX auto-negotiates the speed and flow control capabilities of the four TX port connections, and configures itself automatically.

Since the 405FX is auto sensing, there will be no need to make extensive wiring changes if upgrades are made to the host computers, plant systems, or Ethernet I/O modules. The switching fabric simply scales up or down automatically to match network environments.

The 405FX supports up to 4,000 MAC addresses, enabling these products to support extremely sophisticated and complex network architectures.

The *N-TRON* 405FX is an ideal candidate for upgrading existing hubs and repeaters to increase bandwidth and determinism by virtually eliminating network collisions.



The 405FX is affordable and maintains the plug & play simplicity of an unmanaged hub. It can simplify plant wiring by eliminating the need to bring data acquisition and control network connections back to a climate controlled environment. The 405FX has extended operating environmental specifications to meet the harsh needs of the industrial environment. For cost savings and convenience the network switch can now be DIN-Rail mounted alongside Ethernet I/O or other industrial equipment.

A unique feature of the packaging allows horizontal or vertical mounting on the rail, conserving space in the most critical dimension. In addition, as with other DIN-Rail devices, the 405FX can be panel mounted.

To increase reliability, the 405FX contains redundant power inputs. LED's are provided to display the link status and activity of each port, as well as power on/off status and any controller detected errors.

N-VIEW OPC SWITCH MONITORING OPTION

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 5 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.

SPECIFICATIONS

Case Dimensions

Height:	2.3"	(5.8 cm)
Width:	5.1"	(13.0 cm)
Depth:	3.2"	(8.0 cm)
Weight:	1.25 lbs	(0.6 kg)

(note: can be mounted horizontally or vertically)

Electrical

Input Voltage:	10-30 VDC
Input Current:	0.25A@24V

Environmental

Operating Temperature:	-20°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.

Network Media

10BaseT:	>Cat3 Cable
100BaseTX:	>Cat5 Cable
100BaseFX:	One (1) ST or SC Duplex Port

Connectors

10/100BaseT:	Four (4) RJ-45 TX ports
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Recommended Wiring Clearance:

Front:	2" (5.08 cm)
Side:	1" (2.54 cm)

Emissions and Safety Approvals:

FCC Part 15 Class A, CE
UL Listed (US & Canada)
CLASS I, DIV 2, GROUPS A,B,C,D,T4A

BENEFITS

Industrial Network Switch

- High Reliability/Availability
- Extended Environmental Specifications
- Ruggedized DIN-Rail Enclosure
- High Performance
- High MTBF - >2M Hours (measured)

Ease of Use

- Plug & Play Operation
- Auto Sensing 10/100BaseTX
- Auto Sensing Full/Half Duplex
- Auto Cable Sensing (MDIX)
- Unmanaged Operation
- Compact DIN-Rail Package

Increased Performance

- Full Wire Speed Capable
- Full Duplex Capable
- Eliminates Network Collisions
- Increases Network Determinism
- N-View Switch Viewing Option

Ordering Information

405FX-XX	100BaseFX multimode fiber
405FX-N-XX	with N-View Firmware Option
405FXE-XX-YY	100BaseFX singlemode fiber
405FXE-N-XX-YY	with N-View Firmware Option

Where "XX" is: ST for ST style fiber connector
SC for SC style fiber connector

Where "YY" is: 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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