

The **405TX** 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
- Five 10/100BaseTX RJ-45 Ports
- 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 **N-TRON™ 405TX** Industrial Network Switch is designed to solve the most demanding industrial communications requirements while providing high throughput and minimum downtime.

The **405TX** provides Five RJ-45 auto sensing 10/100BaseTX ports. All ports are full/half duplex capable, using "state of the art" Ethernet switching technology. The **405TX** auto-negotiates the speed and flow control capabilities of the 5 TX port connections, and configures itself automatically.

Since the **405TX** 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 your specific network environment.

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

The **N-TRON 405TX** is an ideal candidate for upgrading existing hubs and repeaters to increase bandwidth and determinism by virtually eliminating network collisions. The product also keeps the network affordable, while maintaining the plug & play simplicity of the unmanaged hub.



The **405TX** can simplify plant wiring by eliminating the need to bring data acquisition and control network connections back to a climate controlled environment. The **405TX** 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 **405TX** can be panel mounted.

To increase reliability, the **405TX** 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.

## 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

### Contact Information

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### Ordering Information

405TX            Five 10/100BaseTX Ports  
405TX-N        with N-View Option

## SPECIFICATIONS

### Physical

*Height:*                    2.3"                    (5.84 cm)  
*Width:*                    5.1"                    (12.95 cm)  
*Depth:*                    3.1"                    (7.87 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  
*Inrush:*                    14.0Amp/0.9ms@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

### Connectors

*10/100BaseT:*                Five (5) RJ-45 TX ports

### 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