N-TRON
THE INDUSTRIAL NETWORK COMPANY

108TX-HV

The **N-TRON**® **108TX-HV** is a low cost unmanaged eight port Industrial Ethernet Switch. It is housed in a hardened, metal, DIN-Rail enclosure, and is designed for use in railway, mission critical data acquisition, control, and Ethernet I/O applications.

PRODUCT FEATURES

- Compact, Space Saving Package
- Full IEEE 802.3 Compliance
- EN50155 for Railway applications
- Eight 10/100BaseTX RJ-45 Ports
- Unmanaged Operation
- Extended Environmental Specifications
  - -40°C to 70°C Operating Temperature
  - >2M Hours MTBF
- Supports Full/Half Duplex Operation
- Up to 1.6 Gb/s Maximum Throughput
- MDIX Auto Sensing Cable
- Auto Sensing Speed and Flow Control
- Full Wire Speed Communications
- Store-and-forward Technology
- Redundant Power Inputs 10-60 VDC
- ESD Protection Diodes on all Ports
- Surge Protection Diodes on Power Inputs
- LED Link/Activity Status Indication
- Hardened Metal DIN-Rail Enclosure

PRODUCT OVERVIEW

The *108TX-HV* industrial network switch is designed to solve the most demanding industrial communications requirements while providing high throughput and minimum downtime.

The *108TX-HV* provides eight RJ-45 auto sensing 10/100BaseTX ports. All ports are full/half duplex capable, using "state of the art" Ethernet switching technology. The *108TX-HV* auto-negotiates the speed and flow control capabilities of the eight TX port connections, and configures itself automatically.

Since the *108TX-HV* 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 specific network environments.

The *108TX-HV* supports up to 2,000 MAC addresses, enabling these products to support extremely sophisticated and complex network architectures.

The **N-TRON 108TX-HV** is an ideal candidate for upgrading existing hubs and repeaters to increase bandwidth and determinism by virtually eliminating network collisions. The *108TX-HV* provides an affordable network solution and maintains the plug & play simplicity of the unmanaged hub.

The *108TX-HV* can simplify plant wiring by eliminating the need to bring data acquisition and control network connections back to a climate controlled environment. The *108TX-HV* has extended operating environmental specifications to meet the harsh needs of the industrial environment. For cost savings and convenience the network switch can be DIN-Rail mounted alongside Ethernet I/O or other Industrial Equipment.

To increase reliability the *108TX-HV* provides dual redundant power inputs. LEDs are provided to display the link status and activity of each port.

108TX-HV SPECIFICATIONS

Case Dimensions
Height:	3.5"	(8.9 cm)
Width:	1.5"	(3.8 cm)
Depth:	3.6"	(9.0 cm)
Weight:	0.7 lbs.	(0.4 kg)
DIN-Rail:	35mm	

Electrical
Input Voltage:	10-60VDC
Steady Input Current:	250mA @ 24V
Inrush:	8.1Amp/0.7ms @ 24V

Environmental
Operating Temperature:	-40°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.

Reliability
MTBF:	>2 Million Hours

Network Media
10BaseT:	>Cat3 Cable
100BaseTX:	>Cat5 Cable

Connectors
10/100BaseTX:	Eight (8) RJ-45 Copper Ports

Recommended Wiring Clearance
Front:	2" (5.08 cm)
Top:	1" (2.54 cm)

Ordering Information

108TX-HV	Eight 10/100BaseTX Ports, 10-60VDC
NTPS-48-2	N-TRON Power Supply - (2 Amp @ 48VDC)

BENEFITS

Industrial Network Switch
- Compact Size / Small Footprint
- Extended Environmental Specifications
- Hardened Metal DIN-Rail Enclosure
- High Performance
- High MTBF >2M Hours
- ESD Protection Diodes on all Ports
- Surge Protection Diodes on Power Inputs

Ease of Use
- Plug & Play Operation
- Auto Sensing 10/100BaseTX
- Auto Negotiation Full/Half Duplex
- MDIX Auto Cable Sensing
- Unmanaged Operation

Increased Performance
- Full Wire Speed Capable
- Full Duplex Capable
- Eliminates Network Collisions
- Increases Network Determinism

Regulatory Approvals
FCC/CE CFR 47 Part 15, Subpart B, Class A
EN55022, ICES-003
EN 61000-4-3/4/5/6
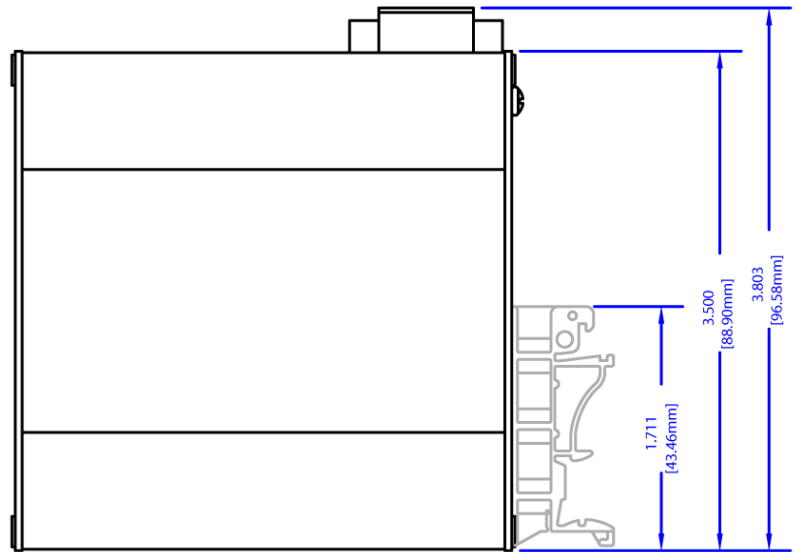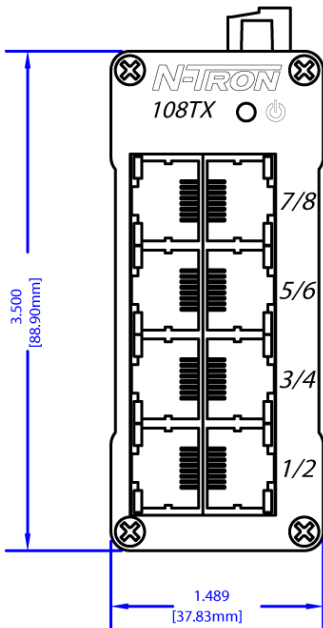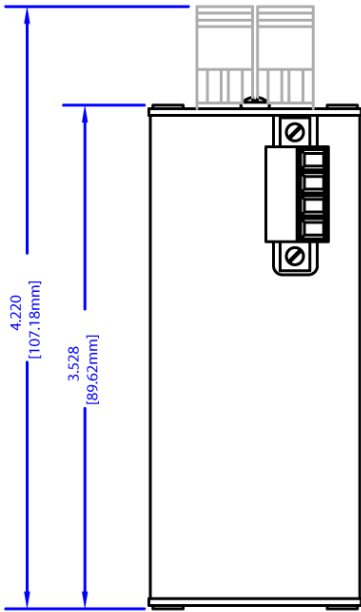*EN50155 for Railway Applications*
GS/CE: EN60950-1

Contact Information

N-TRON

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4.220
[107.18mm]

3.528
[89.62mm]

N-TRON
108TX

7/8
5/6
3/4
1/2

3.500
[88.90mm]

1.489
[37.83mm]

3.500
[88.90mm]

3.803
[96.58mm]

1.711
[43.46mm]

NOTE: These drawings reference the 108TX.
The 108TX-HV dimensions are identical