108TX-HV Industrial Ethernet Switch

N-Tron Networking Series

RED LION™
a spectris company

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.
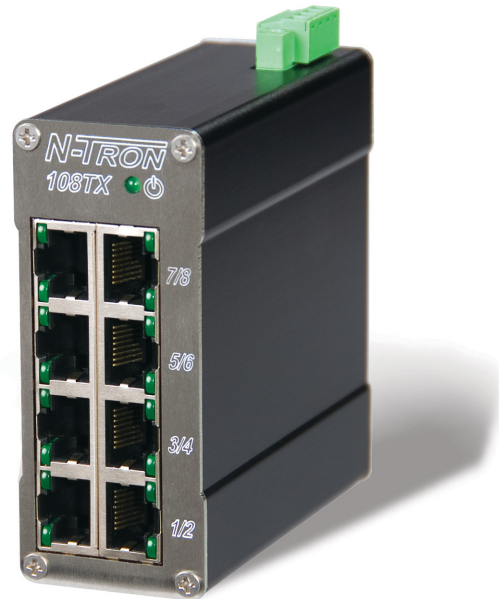
PRODUCT FEATURES

- Compact, Space Saving Package
- Full IEEE 802.3 Compliance
- EN50155 for Railway applications
- Eight 10/100BaseTX RJ-45 Ports
- Unmanaged Operation
- Extended Environmental Specifications
  - -40ºC to 70ºC 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.

industrial networking

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)

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
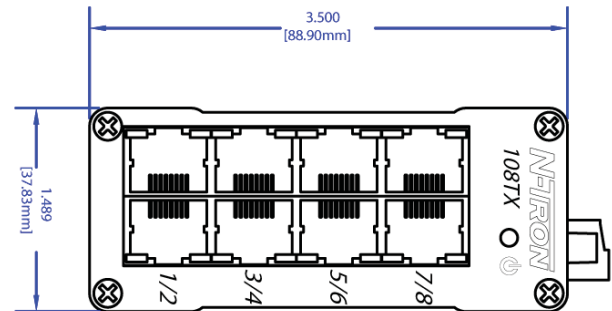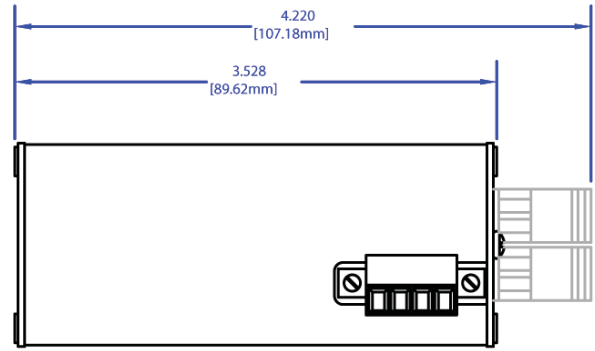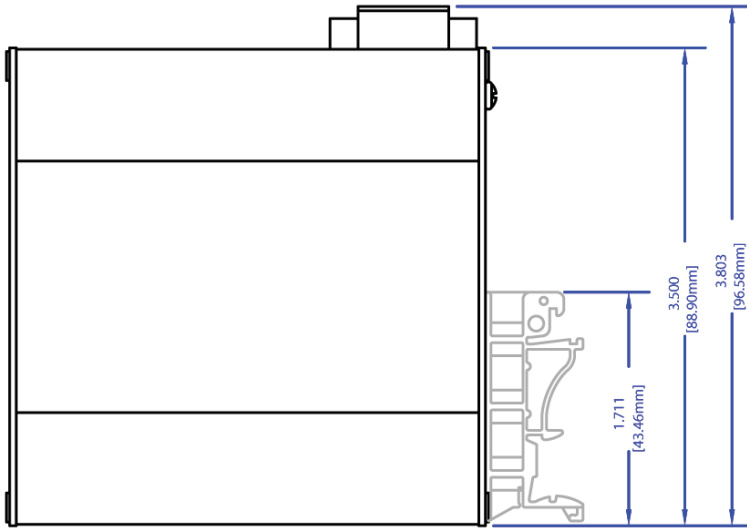*EN50155 for Railway Applications*
GS/CE: EN60950-1

Ordering Information

108TX-HV	Eight 10/100BaseTX Ports, 10-60VDC
100-MDR-2	Metal Din Rail Option*
NTPS-24-3	DIN-Rail Power Supply 24V@3 Amp
NTPS-48-2	DIN-Rail Power Supply 48V@2 Amp

* MDR option must be specified with switch order - not field upgradable

108TX-HV with Standard DIN rail Mount

Optional 100-MDR-2 Metal DIN Rail Mount

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