

# 1003GX2 Industrial Ethernet Switch

N-Tron Networking Series



## ▶▶▶ Unmanaged Gigabit Industrial Ethernet Switch

The N-TRON® 1003GX2 is an unmanaged three port Gigabit Industrial Ethernet Switch.

It is housed in a hardened, metal DIN-Rail enclosure, and is designed for use in industrial data acquisition, control, and Ethernet I/O applications. The 1003GX2 Gigabit Industrial Ethernet Switch is designed to solve the most demanding industrial communications requirements while providing high throughput and minimum downtime.



### APPLICATIONS

- > Factory Automation
- > Utilities
- > SCADA
- > Security Surveillance
- > Transportation
- > Alternative Energy

### PRODUCT HIGHLIGHTS

- > Compact, Industrial Design
- > Up to 3 port connections
- > High Environmental Specifications
- > N-Ring Advanced Ring Technology
- > Increased Networking Performance
- > Plug-and-Play Operation

### FEATURES & BENEFITS

- > Compact Size, Small Footprint
- > Unmanaged Operation
- > Full IEEE 802.3, 802.3u, 802.3z, and 802.3ab Compliance
- > One 10/100/1000BaseT RJ-45 Port
- > Two 1000BaseSX/LX SFP (Mini-GBIC) Ports
- > Mix-and-Match Multimode and Singlemode
- > LC Style SFP Gigabit Fiber Transceivers
- > > 2m Hours MTBF
- > RJ-45 Port Supports Full/Half Duplex Operation
- > Up to 6.0 Gb/s Maximum Throughput
- > Supports up to 1,024 MAC Addresses
- > Store-and-forward Technology
- > RJ-45 Port Auto Senses Speed and Flow Control
- > Full Wire Speed Communications
- > MDIX Auto Cable Sensing (RJ-45)
- > Hardened Metal DIN-Rail Enclosure
- > LED Link/Activity Status Indication
- > Redundant Power Inputs (10-30 VDC)

industrial  
networking



# 1003GX2 Specifications

## SWITCH PROPERTIES

Compact Size, Small Footprint  
 Unmanaged Operation  
 Full IEEE 802.3, 802.3u, 802.3z, and 802.3ab Compliance  
 One 10/100/1000BaseT RJ-45 Port  
 Two 1000BaseSX/LX SFP (Mini-GBIC) Ports  
 Mix-and-Match Multimode and Singlemode  
 LC Style SFP Gigabit Fiber Transceivers  
 > 2m Hours MTBF  
 RJ-45 Port Supports Full/Half Duplex Operation  
 Up to 6.0 Gb/s Maximum Throughput  
 Supports up to 1,024 MAC Addresses  
 Store-and-forward Technology  
 RJ-45 Port Auto Senses Speed and Flow Control  
 Full Wire Speed Communications  
 MDIX Auto Cable Sensing (RJ-45)  
 Hardened Metal DIN-Rail Enclosure  
 LED Link/Activity Status Indication  
 Redundant Power Inputs (10-30 VDC)

## POWER INPUT

Input Voltage: 10-30 VDC  
 Steady Input Current: 200mA@24V  
 BTU/hr: 16.4@24V  
 Inrush: 13Amp/0.8ms@24V

## CONNECTORS

10/100/1000BaseT: One (1) RJ45 TX Port  
 1000BaseSX/LX SFP: Two (2) SFP LC Duplex Gigaabit Fiber Ports

## NETWORK MEDIA

10BaseT: >Cat3 cable  
 100BaseT: >Cat5 cable  
 1000BaseT: >Cat5e cable  
 1000BaseSX Multimode: 50-62.5/125µm  
 1000BaseLX Singlemode: 7-10/125µm

## RECOMMENDED WIRING CLEARANCE

Front: 4" (10.16 cm)  
 Top: 1" (2.54 cm)

SFP Gigabit Fiber Transceiver Characteristics

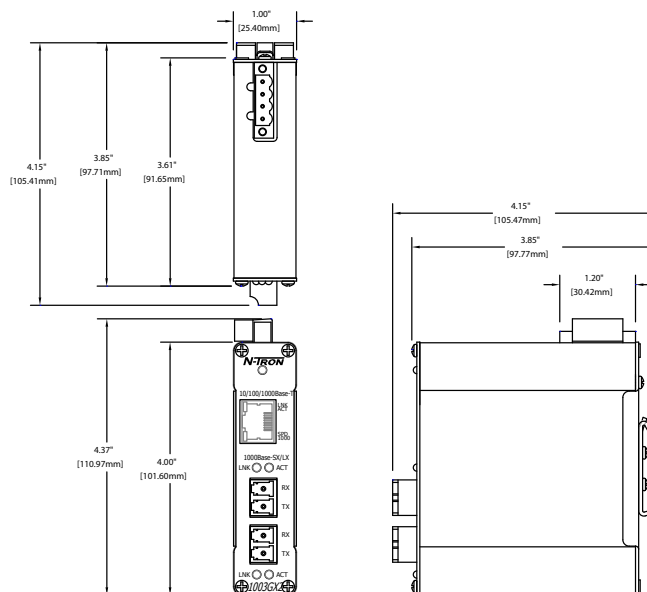
Fiber Length	550m for 50/125µm 275m @62.5/125µm	10km**	40km**	80km**
TX Power Min	-9.5dBm	-9.5dBm	-2dBm	0dBm
RX Sensitivity Max	-17dBm	-20dBm	-22dBm	-24dBm
Wavelength	850nm	1310nm	1310nm	1550nm
Assumed Fiber Loss	3.5 to 3.75 dB/km	.45dB/km	.35dB/km	.25dB/km

\* SX Fiber Optic Cable, \*\* LX Fiber Optic Cable

## CERTIFICATION & COMPLIANCE

Product Safety: UL/cUL: Class I, Division 2, Groups A, B, C and D;  
 T4 UL 508, ICE and ANSI/ISA-12.12.01-2007  
 Emissions: EN 55011, ICES-003, FCC/CE (CFR 47, Part 15,  
 Subpart B, Class A)  
 Immunity: EN 61000-6-2/4, IEC 61000-4-2/3/4/5/6  
 Other: ABS type approval for shipboard applications  
 DNV-GL Type Approval Certification  
 RoHS Compliant  
 IEEE 1613 for Electric Utility Substations  
 NEMA TS1/TS2 for Traffic Control

## DIMENSIONS



## ENVIRONMENTAL

Operating Temperature: -40°C to 85°C  
 Storage Temperature: -40°C to 85°C  
 Operating Humidity: 10% to 95%(Non Condensing)  
 Operating Altitude: 0 to 10,000 ft.  
 > 2m Hours MTBF

## MECHANICAL

Case Dimensions  
 Height: 4.0" (10.2 cm)  
 Width: 1.0" (2.6 cm)  
 Depth: 3.7 (9.4 cm)  
 Weight: 0.76 lbs. (0.27 kg)  
 Mount: DIN Rail 35mm

All specifications are subject to change. Consult the company website for more information.

## ORDERING GUIDE

PART NUMBER	DESCRIPTION
1003GX2-B	One 10/100/1000BaseT Port; Two 1000BaseSX/LX Ports with mix-and-match SFP Transceivers*
1003GX2-SX	One 10/100/1000BaseT Port; Two 1000BaseSX SFP Transceivers
1003GX2-LX-10	One 10/100/1000BaseT Port; Two 1000BaseLX-10 SFP Transceivers
1003GX2-LX-40	One 10/100/1000BaseT Port; Two 1000BaseLX-40 SFP Transceivers
1003GX2-LX-80	One 10/100/1000BaseT Port; Two 1000BaseLX-80 SFP Transceivers
1000-PM	Panel Mount Kit
NTPS-24-1.3	DIN-Rail Power Supply 24V@1.3 Amp
NTSFP-SX	One 1000BaseSX Multimode SFP Gigabit Transceiver (two required per unit)
NTSFP-LX-ZZ	One 1000BaseLX Singlemode SFP Gigabit Transceiver (two required per unit)

ZZ = 10, 40, or 80 for GB Singlemode SFP Transceiver  
 \*Unit must be fully populated with two SFP transceivers upon shipment.



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