

# 1002MC Industrial Media Converter

N-Tron Networking Series



## ▶▶▶ Industrial Media Converter

The N-Tron® 1002MC is an unmanaged 10/100/1000BaseT to 1000BaseSX/LX industrial media converter.

The N-Tron 1002MC media converter is housed in a hardened, metal, DIN-rail enclosure, and is designed for use in industrial data acquisition, control, and Ethernet I/O applications. It is designed to allow the connection of 10/100/1000BaseT ethernet devices to your 1000BaseSX/LX fiber cabling infrastructure.



### APPLICATIONS

- > Factory Automation
- > Oil & Gas
- > Security Surveillance
- > Transportation
- > Mining
- > Maritime

### PRODUCT HIGHLIGHTS

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

### FEATURES & BENEFITS

- > Unmanaged operation
- > Full IEEE 802.3, 802.3u, 802.3z, and 802.3ab compliant
- > Converts 10/100/1000BaseT to 1000BaseSX/LX
- > Choose from multimode or singlemode LC Style SFP (Mini-GBIC) Gigabit fiber transceivers
- > >2M Hours MTBF
- > RJ-45 port supports full/half duplex operation
- > Up to 2.0 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



# 1002MC Industrial Media Converter Specifications

## SWITCH PROPERTIES

Compact size, small footprint  
 Unmanaged operation  
 Full IEEE 802.3, 802.3u, 802.3z, and 802.3ab Compliant  
 Converts 10/100/1000BaseT to 1000BaseSX/LX  
 Choose from multimode or singlemode LC Style SFP (Mini-GBIC)  
 Gigabit fiber transceivers  
 >2M Hours MTBF  
 RJ-45 port supports full/half duplex operation  
 Up to 2.0 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) RJ-45 TX Port  
 1000BaseSX/LX SFP: One (1) SFP LC Duplex Gigaabit Fiber Port

## 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)

## CERTIFICATION & COMPLIANCE

Product Safety:  
 UL/cUL – UL 508 Industrial Control Equipment, ANSI/ISA-12.12.01  
 Class I and II, Div. 2 Groups A, B, C and D, and Class III, Div. 1 and 2  
 Hazardous Locations. T4A.

C22.2 No. 14-M05, Industrial Control Equipment, C22.2 No. 213-  
 M1987 Class I Div. 2 Hazardous Locations.

### Emissions:

FCC/CFR Title 47, Part 15, Subpart B Class A Device, ANSI C63.4,  
 Industry Canada ICES-003: Digital Apparatus, EN 55011, EN 61000-  
 6-4.

### Immunity:

EN 61000-6-2, IEC 61000-4-2/3/4/5/6. Other:

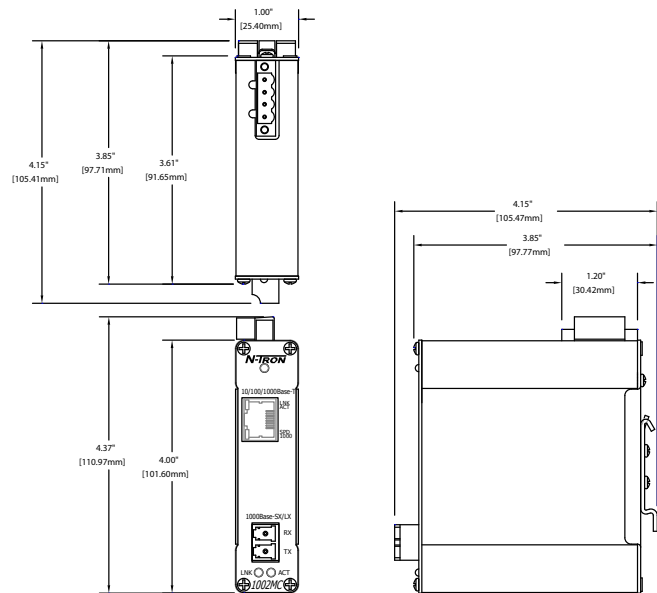
### Other:

ABS Type Approval for Shipboard Applications  
 DNV-GL Type Approval Certification  
 RoHS Compliant

### Designed to comply with:

IEEE 1613 for Electrical 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: 0.60 lbs. (0.27 kg)  
 Mount: DIN Rail 35mm

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

### 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

## ORDERING GUIDE

PART NUMBER	DESCRIPTION
1002MC-SX	1000BaseSX multimode fiber
1002MC-LX-ZZ	1000BaseLX singlemode fiber
1000-PM	Panel Mount Kit
NTPS-24-1.3	DIN-Rail Power Supply 24V@1.3 Amp

ZZ please specify: 10 for 10km max. fiber segment length  
 40 for 40km max. fiber segment length  
 80 for 80km max. fiber segment length



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