

IMPORTANT SAFEGUARDS

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

PRECAUTIONS

Read and understand all instructions before beginning installation.

NOTICE: For installation by a licensed electrician in accordance with National and/or Local Electrical Codes and the following instructions.

- **Confirm device ratings are suitable for application prior to installation. Use of this device in applications beyond its specified ratings other than its intended use may cause an unsafe condition and will void manufacturer's warranty.**
- **Use only approved materials and components (i.e. wire nuts, electrical box, etc.) as appropriate for installation.**

NOTICE: DO NOT INSTALL IF PRODUCT APPEARS TO BE DAMAGED.

NOTICE: Do not use outdoors.

NOTICE: Do not use this equipment for anything other than its intended use.

SAVE THESE INSTRUCTIONS AND PROVIDE TO OWNER AFTER INSTALLATION IS COMPLETED

The NXMC Media Converter is a hardened industrial 1000BASE-LX Multi-Mode SC Fiber Converter that features a gigabit RJ45 port and a 1000BASE-LX SC interface port for NX Network segments that need to go from building-to-building or for long-distance fiber optic cable runs of up to 1km (0.62 mi).

FEATURES

- 1 x Gigabit RJ45 Auto-MDIX port (Note: NX Network Segments operate at 10 Mbps)
- LED Indicators: PWR, Port 1 (RJ45 Ethernet Port), Port 2 (SC Fiber Port)
- DIP Switches:
 - DIP 1: Link Fault Passthrough – Enabled/Disabled, Default: On (Enabled)
 - DIP 2: Mode – Converter/Switch, Default: On (Converter mode)

The NX Media Converter works with the NX Power Supply, p/n NXPWRSPLY (not included—sold separately).

INSTALLATION

1. Mount the media converter in a dry location on DIN rail using the attached DIN rail clip.
For wall mounting, use the included wall mount kit.
2. Mount the power supply (sold separately) according to the power supply's mounting instructions.
It is recommended to mount the power supply adjacent to the switch.
3. Wire power supply to switch according to wire diagram below.

Branching a Single NX Network Segment Over Fiber to Another Media Converter

1. Connect a Cat5 or better ethernet cable from an NX Network device (e.g. NX Site Manager's Port 2 (NX Network), or from an NX Site Manager Adapter's Port 2 (NX Network), or from an NX Network Bridge, or from the network port on an NXP2 Panel, or from one of the network ports on the NX Network Switch), to the RJ45 port on the NX Media Converter.
1. Attach the fiber port of the NX Media Converter to the fiber port of the receiving NX Media Converter via an OM3 Multi-Mode Duplex fiber cable with SC-to-SC connectors of appropriate length. (NOTE: The sending NX Media Converter's transmitter (TX) port must attach to the receiving NX Media Converter's receiving (RX) port and the receiving NX Media Converter's transmitter (TX) port must attach to the sending NX Media Converter's receiving (RX) port.

NOTE: The NX Media Converter has 2 DIP switches on the front of the device. Switch 1 enables (ON) / disables (OFF) the Link Fault Pass-through function and Switch 2 changes the operational mode of the device from Converter mode to Network Switch mode. Both switches should be left in the default ON position. Do not change.

SPECIFICATIONS

CONSTRUCTION

- 1 x Gigabit RJ45 Auto-MDIX port
- 1 x 1000BASE-LX SC-type multi-mode fiber optic port
- 2 x DIP Switches (1: LFPT, 2: Switch/Converter mode)
- 3-Pin removable terminal block
- LED indicators
- IP50 metal case
- Size: 2.4"L x 2.3"W x 1.1"H (62mm x 58mm x 27mm)
- Weight: 5.2 oz. (148g)
- Mounting
- DIN-rail mount
- Wall mount

ELECTRICAL

- Power
 - Input: 12–60V DC
 - Compatible power supply: NXPWRSPLY (sold separately)
 - Max. consumption: 2.148W
- Removable Terminal Block
 - 3-pin
 - Wire range: 1.52mm²
 - Solid wire (AWG): 16–28
 - Stranded wire (AWG): 16–28
 - Torque: 3 lb. - In / 0.2 Nm / 0.56 Nm
 - Wire strip length: 6–7mm.
- Grounding point
- 6kV ESD protection
- 6kV RJ45 surge protection

PERFORMANCE ¹

- Data Transfer Rate
 - Ethernet: 10Mbps (half duplex), 20Mbps (full duplex)
 - Fast Ethernet: 100Mbps (half duplex), 200Mbps (full duplex)
 - Gigabit: 2Gbps (full duplex)
 - Fiber: 2Gbps (full duplex)
- Data RAM Buffer: 64KB
- Switching Capacity: 4Gbps
- MAC Address Table: 1K entries
- Jumbo Frame: 16KB
- Forwarding rate: 2.98Mpps (64-byte packet size)
- MTBF: 5,109,029 hours @ 77°F (25°C)

FIBER

- Media: Multi-mode SC fiber optic connector
- Cable: 50 / 125 µm
- Wavelength: 1310 nm
- Optical Output Power (dBm): -9 ~ -3
- Optical Input Power (dBm): -24 ~ -3
- Power Budget: 15 dBm
- Distance: 1km (0.62 mi)

OPERATING ENVIRONMENT

- Operating Temperature: -40° to 167°F (-40° to 75°C)
- Operating Humidity: Max 95% non-condensing

STANDARDS

- IEEE 802.3
- IEEE 802.3u
- IEEE 802.eab
- IEEE 802.3x
- IEEE 802.3z

CERTIFICATIONS

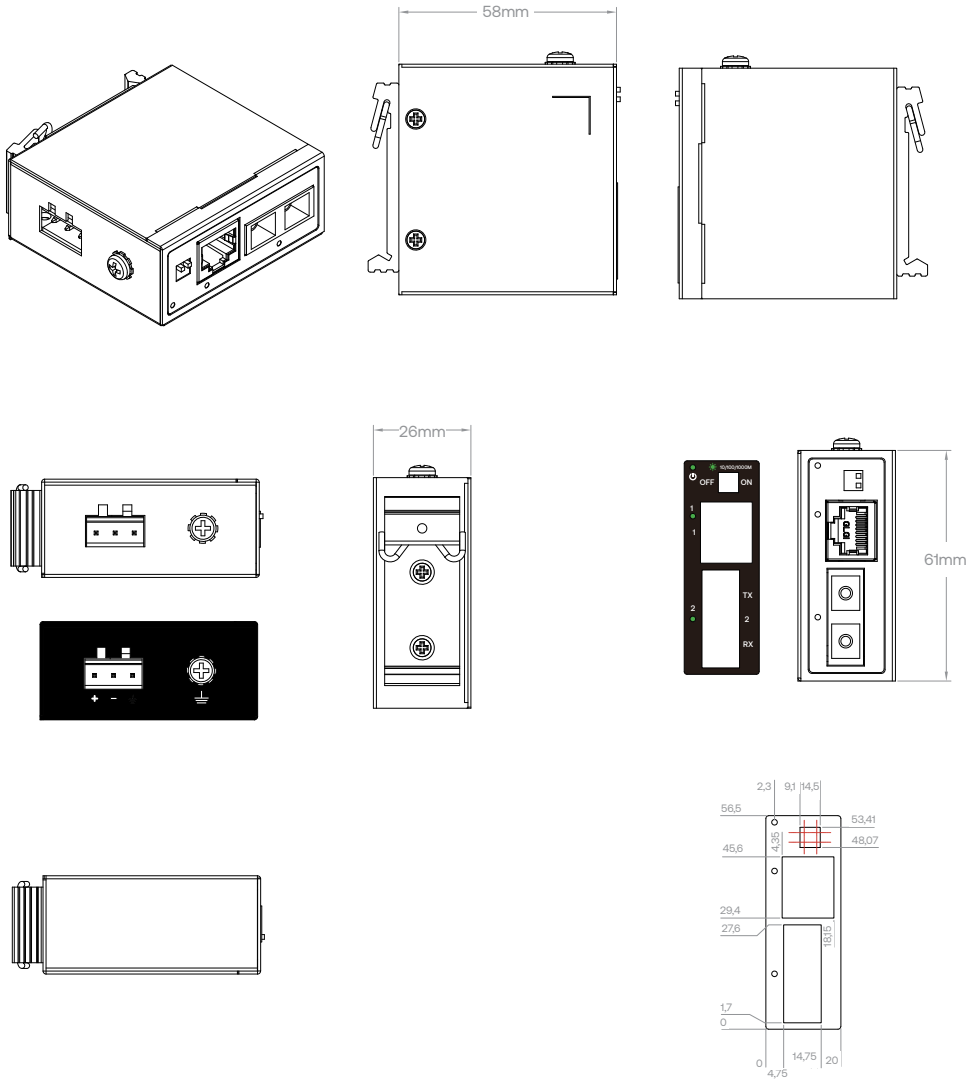
- CE
- FCC
- LVD
- Shock (IEC 60068-2-27)
- Freefall (IEC 60068-2-31)
- Vibration (IEC 60068-2-6)
- IEC 61000-4-2
- IEC 61000-4-4
- IEC 61000-4-5

WARRANTY

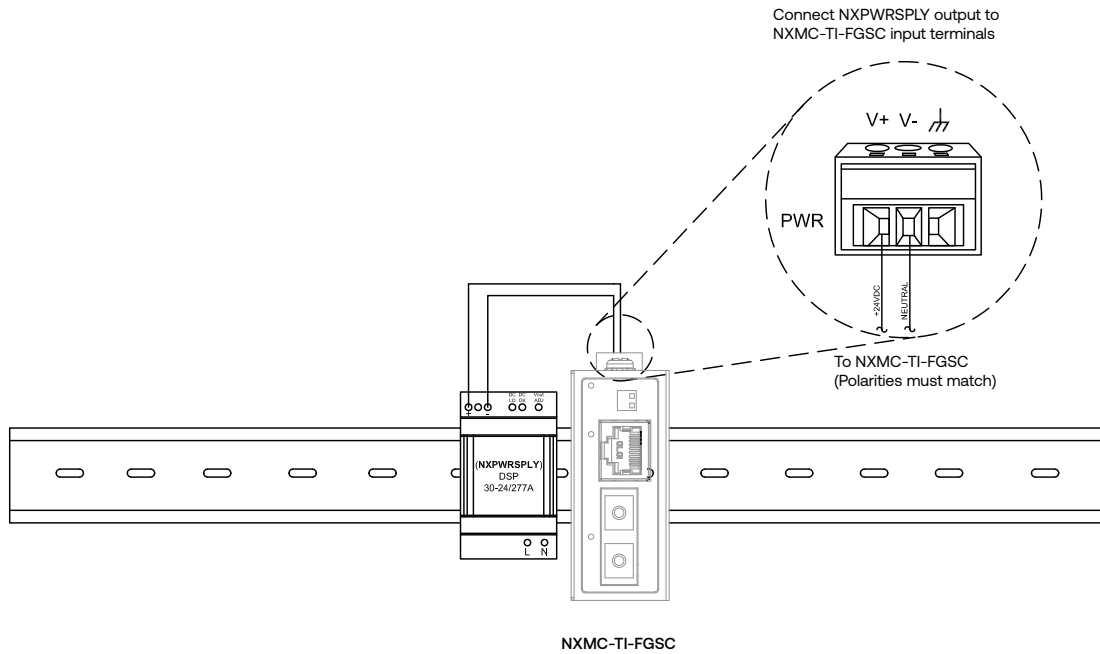
- 5-year limited warranty
- See website for additional information

¹ All references to speed are for comparison purposes only.

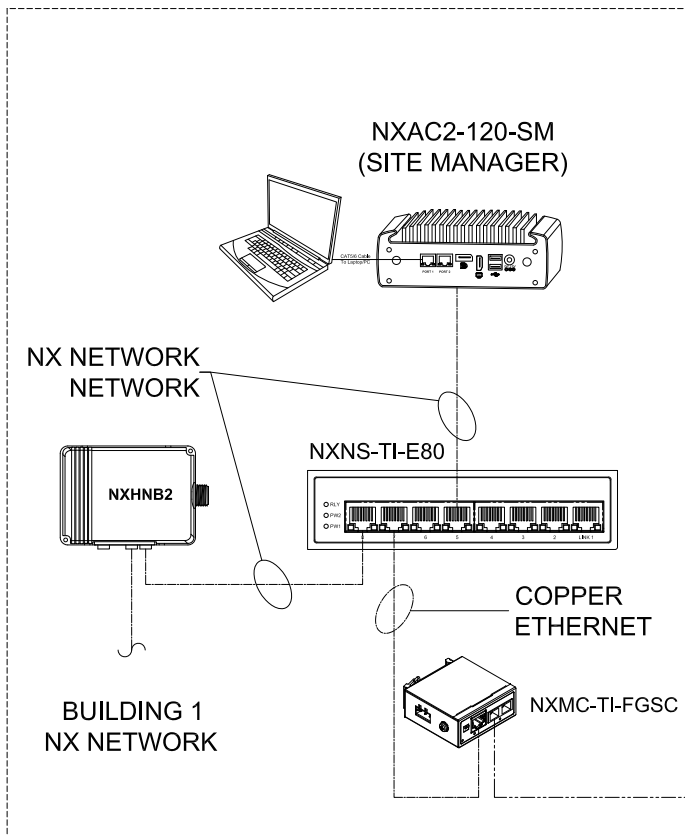
DIMENSIONS



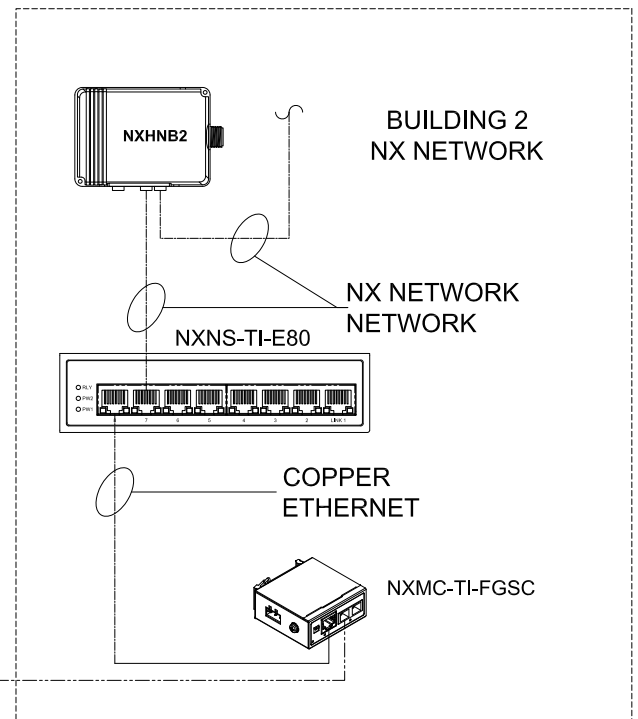
WIRING & APPLICATION DIAGRAMS



BUILDING 1



BUILDING 2



ADDITIONAL INFORMATION

LED Indicators

LED	Status	Description
PWR	Green - Solid	Device is powered on.
	Off	Device is powered off or not receiving power.
Port 1 (RJ-45 Ethernet Port)	Green - Solid	RJ-45 Ethernet connection established at 10Mbps/100Mbps/1Gbps.
	Green - Blinking	Data transmission.
Port 2 (SC Fiber Port)	Green - Solid	SC Fiber connection established at 100Mbps/1Gbps
	Green - Blinking	Data transmission.

DIP Switch

DIP	Status	Description
DIP 1 (LFPT)	ON	Link fault passthrough function enabled.
	OFF	Link fault passthrough function disabled.
DIP 2 (Mode)	ON	Converter mode.
	OFF	Switch mode.