



The ComNet™ Ethernet CNFE100X media converter series are one-channel Ethernet electrical to optical media converters. These auto-negotiating devices accept a 10/100 Mbps electrical input and convert this to a 100 Mbps optical output. This series of media converters use multimode and single-mode optical fiber and one and two fiber SC and ST optical connectors. LED indicators confirm operational status. All models are environmentally hardened with no electrical or optical adjustments (Plug and Play). Packaged in the exclusive ComNet ComFit housing, the standard size units may be either wall or rack mounted. Models within the series are also available in a small size. The units are powered by an included DC power supply.

## FEATURES

- › 10/100 Mbps Ethernet
  - 10/100 BASE-T/TX electrical port
  - 100 BASE-FX optical port
- › Electrical port supports Auto-Negotiation for 10 Mbps or 100 Mbps, full duplex or half duplex data.
- › Optical port supports 100 Mbps full duplex data
- › Automatic MDI/MDI-X crossover
- › Distances up to: 3 km (2 mi) Multimode  
20 km (12 mi) Single Mode
- › Transparent to data encoding/compatible with major data protocols
- › Tested and certified by an independent laboratory for full compliance with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions and transient voltage protection) of NEMA TS-1/TS-2 and CALTRANS Traffic Signal Control Equipment Specifications
- › ST or SC optical connectors
- › 1 or 2 fiber design
- › AC/DC powered
- › Voltage transient protection on all power and signal input/output lines provides protection from power surges and other voltage transient events.
- › No in-field optical adjustments required
- › LED Indicators
- › Standard size is hot-swappable rack module
- › Standard size is interchangeable between stand-alone or rack mount use - ComFit
- › IEEE 802.3 compliant
- › Lifetime Warranty

## APPLICATIONS

- › 10/100 Mbps Ethernet Media Converter
- › High Speed Computer Links

SPECIFICATIONS

Ethernet

Data Rate 10/100 Mbps  
 IEEE 802.3 Compliant  
 Full Duplex or Half Duplex Electrical Port/Full Duplex Optical Port

Connectors

Optical ST or SC, 1 or 2 Fibers  
 Power Terminal Block  
 Electrical RJ45

LED Indicators

- Optical Link/Data Activity
- Electrical Link/Data Activity
- Power

Power

Operating Voltage Range Mini AC: 22 to 27 VAC  
 Mini DC: 8 to 24 VDC  
 Standard: 8 to 24 VDC  
 Power Consumption Mini AC: 3W  
 Mini DC: 6W  
 Standard: 6W

Electrical & Mechanical

Current Protection Automatic Resettable Solid-State Current Limiters  
 Circuit Board Meets IPC Standard  
 Size (L×W×H) Standard: 6.1 × 5.3 × 1.1 in (15.5 × 13.5 × 2.8 cm)  
 Mini: 3.3 × 2.5 × 1.1 in (8.4 × 6.4 × 2.8 cm)  
 Shipping Weight: <2 lbs./0.9 kg

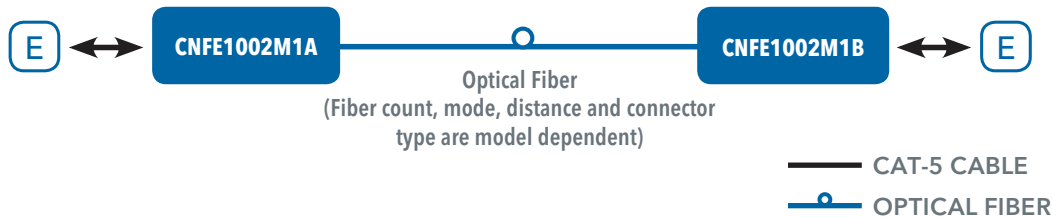
Environmental

MTBF >100,000 hours  
 Operating Temp -40° C to +75° C  
 Storage Temp -40° C to +85° C  
 Relative Humidity 0% to 95% (non-condensing)<sup>1</sup>

[1] May be extended to humidity with condensation conditions by adding suffix '/C'



TYPICAL APPLICATION



## ORDERING INFORMATION – Standard Mount DC-Only Media Converter

Part Number	Description	Connector	Fibers Req'd	Fiber	Optical Pwr Budget	Max Distance	# Rack Slots
CNFE1002M1A	10/100 Mbps Ethernet 1310/1550nm	ST	1	Multimode	10 dB	3 km (2 miles)	1
CNFE1002M1B	10/100 Mbps Ethernet 1550/1310nm	ST	1	Multimode	10 dB	3 km (2 miles)	1
CNFE1002S1A	10/100 Mbps Ethernet 1310/1550nm	ST	1	Singlemode	15 dB	20 km (12 miles)	1
CNFE1002S1B	10/100 Mbps Ethernet 1550/1310nm	ST	1	Singlemode	15 dB	20 km (12 miles)	1
CNFE1003M2	10/100 Mbps Ethernet 1310nm	SC	2	Multimode	10 dB	3 km (2 miles)	1
CNFE1003S2	10/100 Mbps Ethernet 1310nm	SC	2	Singlemode	15 dB	20 km (12 miles)	1
CNFE1004M1A	10/100 Mbps Ethernet 1310/1550nm	SC	1	Multimode	10 dB	3 km (2 miles)	1
CNFE1004M1B	10/100 Mbps Ethernet 1550/1310nm	SC	1	Multimode	10 dB	3 km (2 miles)	1
CNFE1004S1A	10/100 Mbps Ethernet 1310/1550nm	SC	1	Singlemode	15 dB	20 km (12 miles)	1
CNFE1004S1B	10/100 Mbps Ethernet 1550/1310nm	SC	1	Singlemode	15 dB	20 km (12 miles)	1
CNFE1005M2	10/100 Mbps Ethernet 1310nm	ST	2	Multimode	10 dB	3 km (2 miles)	1
CNFE1005S2	10/100 Mbps Ethernet 1310nm	ST	2	Singlemode	15 dB	20 km (12 miles)	1
Accessories Options	DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included) Add 'C' for Conformally Coated Circuit Boards (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT1 or DINBKT4)						

## ORDERING INFORMATION – Mini AC/DC Power Media Converter

Part Number	Description	Connector	Fibers Req'd	Fiber	Optical Pwr Budget	Max Distance	# Rack Slots
CNFE1002MAC1A-M	10/100 Mbps Ethernet 1310/1550nm	ST	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1002MAC1B-M	10/100 Mbps Ethernet 1550/1310nm	ST	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1002SAC1A-M	10/100 Mbps Ethernet 1310/1550nm	ST	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1002SAC1B-M	10/100 Mbps Ethernet 1550/1310nm	ST	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1003MAC2-M	10/100 Mbps Ethernet 1310nm	SC	2	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1003SAC2-M	10/100 Mbps Ethernet 1310nm	SC	2	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1004MAC1A-M	10/100 Mbps Ethernet 1310/1550nm	SC	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1004MAC1B-M	10/100 Mbps Ethernet 1550/1310nm	SC	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1004SAC1A-M	10/100 Mbps Ethernet 1310/1550nm	SC	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1004SAC1B-M	10/100 Mbps Ethernet 1550/1310nm	SC	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1005MAC2-M	10/100 Mbps Ethernet 1310nm	ST	2	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1005SAC2-M	10/100 Mbps Ethernet 1310nm	ST	2	Singlemode	15 dB	20 km (12 miles)	N/A
Accessories Options	DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included) Add 'C' for Conformally Coated Circuit Boards (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT1 or DINBKT4)						

