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
CNFE100(X) Series

10/100 Mbps Ethernet Electrical To Optical Media Converter

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)

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

TYPICAL APPLICATION

<table>
<thead>
<tr>
<th>E</th>
<th>CNFE1002M1A</th>
<th>Optical Fiber</th>
<th>CNFE1002M1B</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Fiber count, mode, distance and connector type are model dependent)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CAT-5 CABLE
OPTICAL FIBER
## CNFE100(X) Series

### 10/100 Mbps Ethernet Electrical To Optical Media Converter

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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Connector</th>
<th>Fibers Req’d</th>
<th>Fiber</th>
<th>Optical Pwr Budget</th>
<th>Max Distance</th>
<th># Rack Slots</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNFE1002M1A</td>
<td>10/100 Mbps Ethernet 1310/1550nm</td>
<td>ST</td>
<td>1</td>
<td>Multimode</td>
<td>10 dB</td>
<td>3 km (2 miles)</td>
<td>1</td>
</tr>
<tr>
<td>CNFE1002M1B</td>
<td>10/100 Mbps Ethernet 1550/1310nm</td>
<td>ST</td>
<td>1</td>
<td>Multimode</td>
<td>10 dB</td>
<td>3 km (2 miles)</td>
<td>1</td>
</tr>
<tr>
<td>CNFE1002S1A</td>
<td>10/100 Mbps Ethernet 1310/1550nm</td>
<td>ST</td>
<td>1</td>
<td>Singlemode</td>
<td>15 dB</td>
<td>20 km (12 miles)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNFE1003S2</td>
<td>10/100 Mbps Ethernet 1310nm</td>
<td>SC</td>
<td>2</td>
<td>Singlemode</td>
<td>15 dB</td>
<td>20 km (12 miles)</td>
<td>1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Connector</th>
<th>Fibers Req’d</th>
<th>Fiber</th>
<th>Optical Pwr Budget</th>
<th>Max Distance</th>
<th># Rack Slots</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNFE1002MAC1A-M</td>
<td>10/100 Mbps Ethernet 1310/1550nm</td>
<td>ST</td>
<td>1</td>
<td>Multimode</td>
<td>10 dB</td>
<td>3 km (2 miles)</td>
<td>N/A</td>
</tr>
<tr>
<td>CNFE1002MAC1B-M</td>
<td>10/100 Mbps Ethernet 1550/1310nm</td>
<td>ST</td>
<td>1</td>
<td>Multimode</td>
<td>10 dB</td>
<td>3 km (2 miles)</td>
<td>N/A</td>
</tr>
<tr>
<td>CNFE1002SAC1A-M</td>
<td>10/100 Mbps Ethernet 1310/1550nm</td>
<td>ST</td>
<td>1</td>
<td>Singlemode</td>
<td>15 dB</td>
<td>20 km (12 miles)</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNFE1003SAC2-M</td>
<td>10/100 Mbps Ethernet 1310nm</td>
<td>SC</td>
<td>2</td>
<td>Singlemode</td>
<td>15 dB</td>
<td>20 km (12 miles)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Accessories

- 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 DINBK1 or DINBK4)