



The ComNet CNFE100(X)POE/M Series media converters provide full-duplex fiber optic transmission of a single channel of 10/100 Mbps Ethernet data (10/100 BASE-TX) through multimode or single mode optical fiber. They provide full compliance with IEEE 802.3at as Power Sourcing Equipment (PSE), with a maximum power of 30 watts in Mode A or Mode B, making them ideal for those applications where the remote equipment draws significant power. A higher output 60 watt model is available. Mode A and mode B are selected by the media converter automatically. Plug-and-play design ensures ease of operation, and no optical adjustments are ever required.

## FEATURES

- › Exceeds the requirements of the latest PoE+ standard (IEEE 802.3at)
- › The Ethernet electrical interface auto-negotiates to either 10 or 100 Mbps without the need for any user selection
- › The optical interface operates at 100 Mbps (100-FX)
- › Power Sourcing Equipment (PSE): Provides 30 watts in two modes, for high output demand applications of remote Ethernet equipment
- › 60 watt higher output version available
- › SC, ST or SFP optical connectors available
- › Automatic resettable solid state current limiters for modem protection
- › Indicating LEDs provided for rapidly ascertaining the operating status of the device
- › Lifetime Warranty

## APPLICATIONS

- › PoE+ operation of IP Cameras, with pan-tilt-zoom capability
- › PoE+ operation of IP cameras with heated/cooled housings
- › PoE+ operation of remote telemetry and sensing devices for industrial/SCADA networks
- › PoE+ operation of transportation-specific/ITS field equipment
- › PoE+ operation of any 10/100 Mbps Ethernet-compatible field device where high power consumption is required

\* Small Form-Factor Pluggable Module. Sold separately.

SPECIFICATIONS

Data

|                |   |
|----------------|---|
| Data Interface | Ethernet  |
| Data Rate      | 10/100 Mbps   |
|                | IEEE 802.3 Compliant  |
|                | Full Duplex or Half Duplex Electrical Port/Full Duplex Optical Port   |
| Fibers         | ST, SC, or SFP-Dependent (Requires selection of sold-separately SFP modules. See ComNet data sheet for number and description of SFP module options.) |

Connectors

|                    |  |
|--------------------|--|
| Optical            | ST, SC, or SFP <sup>3</sup>  |
| Power              | Terminal Block   |
| Electrical         | RJ-45  |
| PoE Pin Assignment | RJ-45 port supports IEEE802.3at  |
|                    | End-point Positive (VCC+): RJ45 pin 1, 2 (RJ45 pin 1,2 and 4,5 on 60W ports) |
|                    | Negative (VCC-): RJ45 pin 3, 6 (RJ45 pin 3,6 and 7,8 on 60W ports)           |

Power

|                    |   |
|--------------------|---|
| Operating Voltage  | 48 to 57 VDC                                      |
| Power Consumption  | 3W (without PoE)                                  |
| Current Protection | Automatic Resettable Solid-State Current Limiters |

Electrical & Mechanical

|                 |  |
|-----------------|--|
| LED Indicators  | Optical Link/Data Activity               |
|                 | Power PoE                                |
| Circuit Board   | Meets IPC Standard                       |
| Size (L×W×H)    | 4.0 × 3.7 × 1.0 in (10.4 × 9.5 × 2.7 cm) |
| Shipping Weight | <1 lb / 0.5 kg                           |

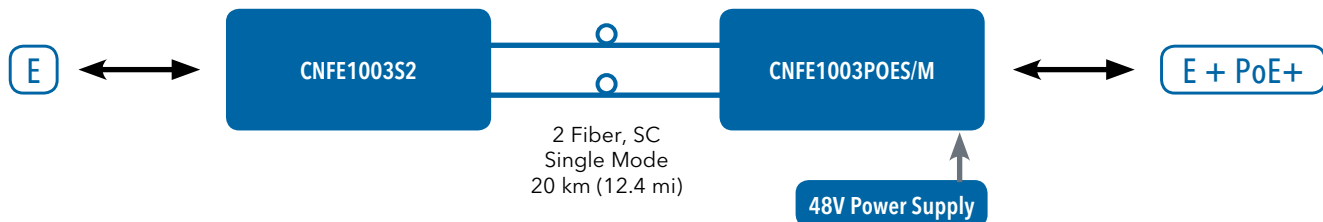
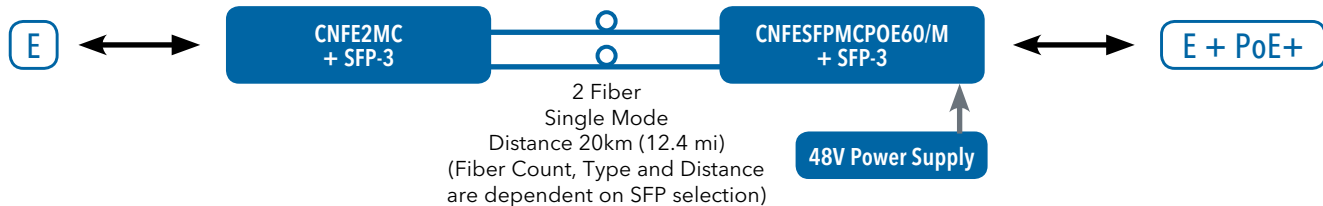
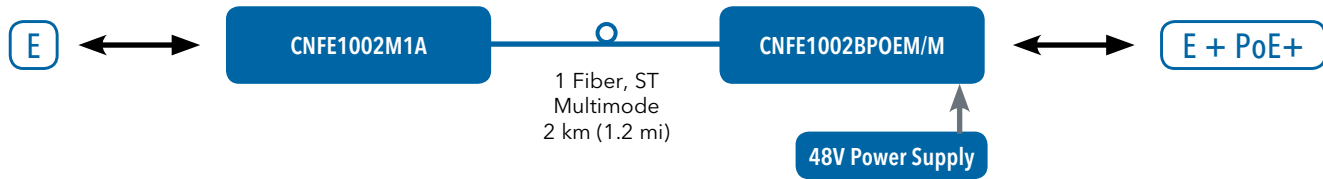
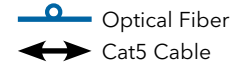
Environmental

|                   |   |
|-------------------|---|
| 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> |

AGENCY COMPLIANCE



TYPICAL APPLICATION



## ORDERING INFORMATION

| Part Number          | Description  | Fibers Required | Cable       | Optic | PSE Output |
|----------------------|--|-----------------|-------------|-------|------------|
| CNFE1003POEM/M       | Industrially Hardened 100Mbps Media Converter with PoE+, Mini  | 2               | Multimode   | SC    | 30W        |
| CNFE1003POEMHO/M     | Industrially Hardened 100Mbps Media Converter with PoE++, Mini   | 2               | Multimode   | SC    | 60W        |
| CNFE1003POES/M       | Industrially Hardened 100Mbps Media Converter with PoE+, Mini  | 2               | Single Mode | SC    | 30W        |
| CNFE1003POESHO/M     | Industrially Hardened 100Mbps Media Converter with PoE++, Mini   | 2               | Single Mode | SC    | 60W        |
| CNFE1005POEM/M       | Industrially Hardened 100Mbps Media Converter with PoE+, Mini  | 2               | Multimode   | ST    | 30W        |
| CNFE1005POEMHO/M     | Industrially Hardened 100Mbps Media Converter with PoE++, Mini   | 2               | Multimode   | ST    | 60W        |
| CNFE1005POES/M       | Industrially Hardened 100Mbps Media Converter with PoE+, Mini  | 2               | Single Mode | ST    | 30W        |
| CNFE1005POESHO/M     | Industrially Hardened 100Mbps Media Converter with PoE++, Mini   | 2               | Single Mode | ST    | 60W        |
| CNFE1004APOEM/M      | Industrially Hardened 100Mbps Media Converter with PoE+, Mini, "A" Unit <sup>2</sup>   | 1               | Multimode   | SC    | 30W        |
| CNFE1004BPOEM/M      | Industrially Hardened 100Mbps Media Converter with PoE+, Mini, "B" Unit <sup>2</sup>   | 1               | Multimode   | SC    | 30W        |
| CNFE1004APOEMHO/M    | Industrially Hardened 100Mbps Media Converter with PoE++, Mini, "A" Unit <sup>2</sup>  | 1               | Multimode   | SC    | 60W        |
| CNFE1004BPOEMHO/M    | Industrially Hardened 100Mbps Media Converter with PoE++, Mini, "B" Unit <sup>2</sup>  | 1               | Multimode   | SC    | 60W        |
| CNFE1004APOES/M      | Industrially Hardened 100Mbps Media Converter with PoE+, Mini, "A" Unit <sup>2</sup>   | 1               | Single Mode | SC    | 30W        |
| CNFE1004BPOES/M      | Industrially Hardened 100Mbps Media Converter with PoE+, Mini, "B" Unit <sup>2</sup>   | 1               | Single Mode | SC    | 30W        |
| CNFE1004APOESHO/M    | Industrially Hardened 100Mbps Media Converter with PoE++, Mini, "A" Unit <sup>2</sup>  | 1               | Single Mode | SC    | 60W        |
| CNFE1004BPOESHO/M    | Industrially Hardened 100Mbps Media Converter with PoE++, Mini, "B" Unit <sup>2</sup>  | 1               | Single Mode | SC    | 60W        |
| CNFE1002APOEM/M      | Industrially Hardened 100Mbps Media Converter with PoE+, Mini, "A" Unit <sup>2</sup>   | 1               | Multimode   | ST    | 30W        |
| CNFE1002BPOEM/M      | Industrially Hardened 100Mbps Media Converter with PoE+, Mini, "B" Unit <sup>2</sup>   | 1               | Multimode   | ST    | 30W        |
| CNFE1002APOEMHO/M    | Industrially Hardened 100Mbps Media Converter with PoE++, Mini, "A" Unit <sup>2</sup>  | 1               | Multimode   | ST    | 60W        |
| CNFE1002BPOEMHO/M    | Industrially Hardened 100Mbps Media Converter with PoE++, Mini, "B" Unit <sup>2</sup>  | 1               | Multimode   | ST    | 60W        |
| CNFE1002APOES/M      | Industrially Hardened 100Mbps Media Converter with PoE+, Mini, "A" Unit <sup>2</sup>   | 1               | Single Mode | ST    | 30W        |
| CNFE1002BPOES/M      | Industrially Hardened 100Mbps Media Converter with PoE+, Mini, "B" Unit <sup>2</sup>   | 1               | Single Mode | ST    | 30W        |
| CNFE1002APOESHO/M    | Industrially Hardened 100Mbps Media Converter with PoE++, Mini, "A" Unit <sup>2</sup>  | 1               | Single Mode | ST    | 60W        |
| CNFE1002BPOESHO/M    | Industrially Hardened 100Mbps Media Converter with PoE++, Mini, "B" Unit <sup>2</sup>  | 1               | Single Mode | ST    | 60W        |
| CNFESPMCPOE30/M      | Industrially Hardened 100Mbps Media Converter with PoE+, Mini, SFP Required  | See [3]         | See [3]     | SFP   | 30W        |
| CNFESPMCPOE60/M      | Industrially Hardened 100Mbps Media Converter with PoE++, Mini, SFP Required   | See [3]         | See [3]     | SFP   | 60W        |
| Included Accessories | Power Supply: Model-appropriate 30 W (ComNet PS48VDC-84A) or 60 W (ComNet PS48VDC-1.25A) Included, for benign 0 to 50°C applications only. Hardened power supply available, consult factory)   |                 |             |       |            |
| Options              | [1] Add suffix 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory)<br>DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT2 or DINBKT4) |                 |             |       |            |

[2] "A" units must be paired with corresponding "B" units, and "B" units paired with "A" units.

[3] Multimode fiber needs to meet or exceed fiber standard ITU-T G.651. Single mode fiber needs to meet or exceed fiber standard ITU-T G.652.

NOTE: This product requires a fiber installation with a minimum 30 dB connector return loss. The use of Super Polish Connectors is recommended. Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J.

In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

