10/100 Mbps Ethernet Media Converter Electrical to ST/SC/SFP* Optical with PoE+

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.

HARDENED	SFP	PoE 60W PoE++	PoE 30W PoE+	TX ⟷ FX ELECTRICAL TO OPTICAL	10/100 ⟷ ETHERNET
-40° TO +75°C	FLEXIBILITY	IEEE802.3at	IEEE802.3at	CONVERTER	1

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

AGENCY COMPLIANCE FC PART 15 COMPLIANT CE cULus RoHS MADE IN THE USA TAA COMPLIANT NDAA Compliance

Key Features

- 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
- A power supply providing 48 VDC is provided with each converter (NA Only)
- Indicating LEDs provided for rapidly ascertaining the operating status of the device
- Made in the USA
- Limited Lifetime Warranty

* 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)

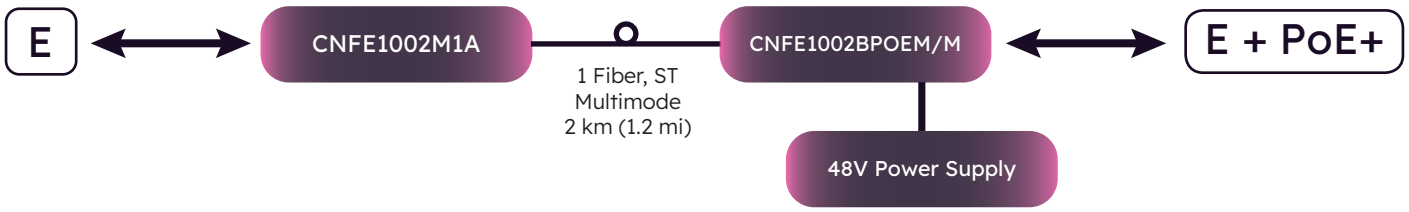
CONNECTORS	
OPTICAL	ST, SC, OR SFP[3]
POWER	TERMINAL BLOCK
ELECTRICAL	RJ-45
POE PIN ASSIGNMENT	RJ-45 PORT SUPPORTS IEEE802.3AT END-POINT POSITIVE (VCC+): RJ45 PIN 1, 2 (RJ45 PIN 1,2 AND 4,5 ON 60W PORTS) NEGATIVE (VCC-): RJ45 PIN 3, 6 (RJ45 PIN 3,6 AND 7,8 ON 60W PORTS)
MAX. POE CURRENT	625 MA CONTINUOUS PER MODE

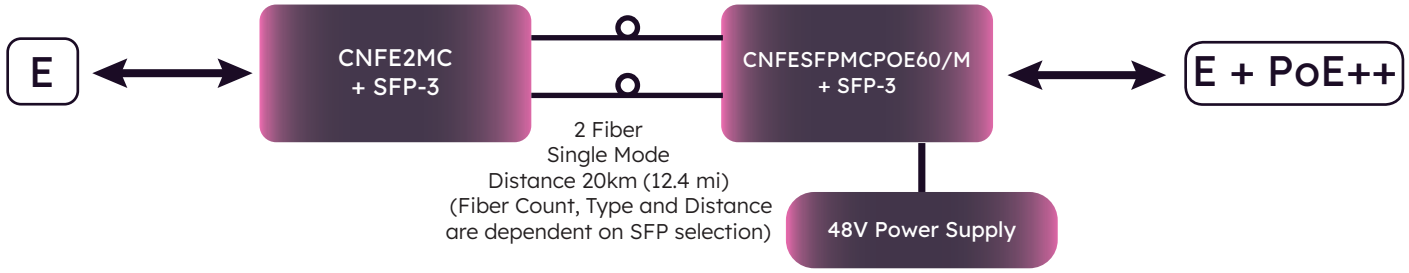
POWER	
OPERATING VOLTAGE	48 TO 56 VDC
POWER CONSUMPTION	1.35A MAX
CURRENT PROTECTION	AUTOMATIC RESETTABLE SOLID-STATE CURRENT LIMITERS

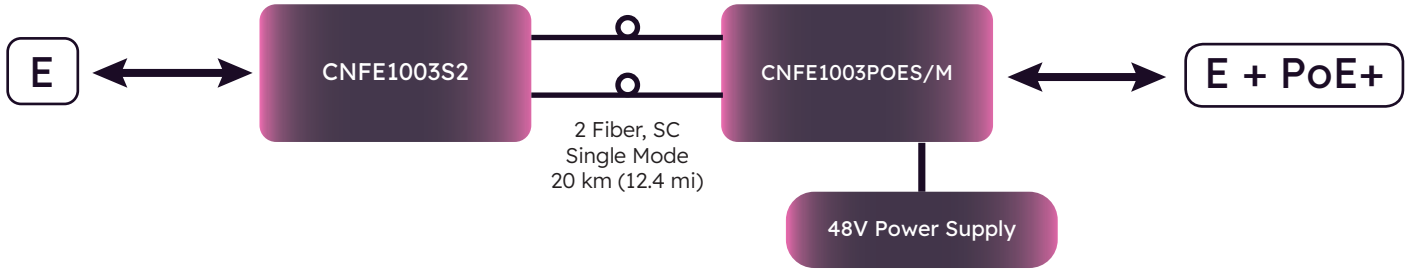
ELECTRICAL & MECHANICAL	
LED INDICATORS	OPTICAL LINK/DATA ACTIVITY POWER POE
CIRCUIT BOARD	MEETS IPC STANDARD
SIZE (L×W×H)	4.0 × 3.7 × 1.0 IN (10.4 × 9.5 × 2.7 CM)
SHIPPING WEIGHT	<1 LB / 0.5 KG

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)[1]

Typical Applications







ORDERING INFORMATION

PART NUMBER	DESCRIPTION	FIBERS REQ'D	FIBER	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	SINGLEMODE	SC	30W
CNFE1003POESHO/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE++, MINI	2	SINGLEMODE	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	SINGLEMODE	ST	30W
CNFE1005POESHO/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE++, MINI	2	SINGLEMODE	ST	60W
CNFE1004APOEM/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE+, MINI, "A" UNIT[2]	1	MULTIMODE	SC	30W
CNFE1004BPOEM/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE+, MINI, "B" UNIT[2]	1	MULTIMODE	SC	30W
CNFE1004APOEMHO/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE++, MINI, "A" UNIT[2]	1	MULTIMODE	SC	60W
CNFE1004BPOEMHO/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE++, MINI, "B" UNIT[2]	1	MULTIMODE	SC	60W
CNFE1004APOES/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE+, MINI, "A" UNIT [2]	1	SINGLEMODE	SC	30W
CNFE1004BPOES/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE+, MINI, "B" UNIT[2]	1	SINGLEMODE	SC	30W
CNFE1004APOESHO/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE++, MINI, "A" UNIT[2]	1	SINGLEMODE	SC	60W
CNFE1004BPOESHO/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE++, MINI, "B" UNIT[2]	1	SINGLEMODE	SC	60W
CNFE1002APOEM/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE+, MINI, "A" UNIT[2]	1	MULTIMODE	ST	30W
CNFE1002BPOEM/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE+, MINI, "B" UNIT[2]	1	MULTIMODE	ST	30W
CNFE1002APOEMHO/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE++, MINI, "A" UNIT[2]	1	MULTIMODE	ST	60W
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CNFE1002BPOESHO/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE++, MINI, "B" UNIT[2]	1	SINGLEMODE	ST	60W
CNFESFPMCPOE30/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE+, MINI, SFP REQUIRED	SEE [3]	SEE [3]	SFP	30W
CNFESFPMCPOE60/M	INDUSTRIALLY HARDENED 100MBPS MEDIA CONVERTER WITH PoE++, MINI, SFP REQUIRED	SEE [3]	SEE [3]	SFP	60W

OPTIONS	DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT2 or DINBKT4)

[1] Add suffix '/C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory)
[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.