

### CNGE2MC[M] & CNGE22MC



The ComNet™ CNGE2MC and CNGE22MC are one-channel and two-channel, Gigabit Ethernet electrical to optical media converters. These auto-negotiating devices accept a 10/100/1000 Mbps electrical input and convert this to a 1000 Mbps (1Gbps) optical output. These units use ComNet SFPs\* (small form-factor pluggable) modules for fiber and connector type, and distance. 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. The CNGE2MCM is available in a small size package. The units are powered by an included 8-15VDC power supply.

## FEATURES

- › Lifetime Warranty
- › Full-duplex transmission of 10/100/1000 Mbps Ethernet
  - 10/100/1000 BASE-TX electrical port
  - 1000 BASE-FX optical port when used with suitable ComNet SFPs
- › IEEE 802.3 compliant
- › 10/100/1000 BASE-TX port supports auto-negotiation and automatic MDI/MDI-X crossover for full and half-duplex operation
- › Uses customer-installed ComNet SFPs for compatibility with a wide range of optical fibers, optical connector types, and optical transmission distances of up to 120 km (SFPs ordered separately)
- › Designed for installation in harsh out-of-plant/unconditioned industrial or roadside operating environments (-40° to +75°C ambient). Fully compliant with the environmental requirements of NEMA TS-2 for Traffic Signal Control Equipment
- › Voltage transient protection on all power and signal input/output line provide protection from voltage surges and other transient events
- › CNGE2MC and CNGE22MC are packaged in the exclusive ComNet ComFit housing, and may be shelf, rack, or DIN-rail mounted, and are hot-swappable when rack-mounted

- › The 4-port count of the CNGE22MC makes this unit ideal for those applications where rack density or shelf-space may be limited.
- › Mini-package size of the CNGE2MC-M allows the unit to be installed in those locations where space is at a premium.
- › LED status indicators for rapidly ascertaining the operating status of the media convertor and the link
- › Made in the USA

## APPLICATIONS

- › Optical transmission of Ethernet-compatible industrial security access control systems, intercom systems, VOIP (Voice over IP) telephony networks, and IP-compatible CCTV camera surveillance networks
- › Optical Ethernet transmission to wireless LAN access points
- › Industrial Security, Transportation/ITS, and Industrial Control/Factory Automation IP Networks
- › Optical transmission of any Ethernet-compatible equipment with a maximum data rate of 1000 Mbps

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

SPECIFICATIONS

<b>Data</b>	
Data Interface	Ethernet
Data Rate	10/100/1000 Mbps IEEE 802.3 Compliant Full Duplex or Half Duplex Electrical Port/Full Duplex Optical Port
<b>Fibers</b>	
	SFP Dependent
<b>Fiber Connectors<sup>1</sup></b>	
	Requires selection of sold-separately SFP modules. See ComNet data sheet for number and description of SFP modules
<b>Connectors</b>	
Power	Terminal Block
Electrical	RJ45
<b>Indicating LEDs</b>	
	- Optical Link/Data Activity - Power
<b>Power</b>	
Operating Voltage Range	CNGE2MC[M]: 8-15 VDC CNGE22MC: 8-15 VDC
Power Consumption	CNGE2MC[M]: 6W CNGE22MC: 11W

<b>Electrical &amp; Mechanical</b>	
Current Protection	Automatic Resettable Solid-State Current Limiters
Circuit Board	Meets IPC Standard
Size	ComFit: 6.1 × 5.3 × 1.1 in. (15.5 × 13.5 × 2.8 cm) Small Size: 3.3 × 2.5 × 1.1 in. (8.4 × 6.4 × 2.8 cm)
Shipping Weight	<2 lbs./0.9 kg
<b>Environmental</b>	
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>2</sup>

[1] 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



ORDERING INFORMATION

Part Number	Description
CNGE2MC	2 Port (1 Channel) 10/100/1000 Mbps Ethernet Media Converter
CNGE2MCM	Small Size 2 Port (1 Channel) 10/100/1000 Mbps Ethernet Media Converter
CNGE22MC	4 Port (2 Channel) 10/100/1000 Mbps Ethernet Media Converter
Included	DC Plug-in Power Supply, 90-264 VAC, 50-60 Hz (Included)
Options	[2] Add suffix 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit - With Mounting Hardware (Optional, order model DINBKT1)

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.

TYPICAL APPLICATION



Low Power Consumption