

## 10/100 Mbps Ethernet media converter for Aigis Dome



### Description

The ComNet™ series of Ethernet media converters are designed to transmit and receive 10/100 Mbps data over one or two multimode or single mode optical fibers. They are designed to be mounted within an Aigis dome and provide optical Ethernet connectivity. The electrical interface will Auto-Negotiate to a 10 Mbps, or 100 Mbps Ethernet rate without any adjustments. The optical interface operates at a 100 Mbps Ethernet rate. The series is environmentally hardened to operate in extreme temperatures. An LED indicator confirms equipment operating status.

### Applications

- 10/100 Mbps Ethernet Media Converter
- Electrical to Optical Media Converter for Aigis Dome

### 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
- Distances up to 45 km (28 miles)
- Designed to meet 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 the Caltrans Specification for Traffic Signal Control Equipment.
- SC and ST optical connectors available
- Voltage transient protection on power input lines provides unconditional protection from power surges and other voltage transient events
- No in-field optical adjustments required
- LED Indicators
- IEEE 802.3 compliant
- Lifetime Warranty

## specifications

## DATA

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

## LED INDICATOR

- Power/FX Link

## CONNECTORS

CNFE1002(M,S)1A-A ST  
 CNFE1003(M,S)2-A SC  
 CNFE1004(M,S)(1,2)A-A SC  
 CNFE1005(M,S)2-A ST  
 Power: Terminal Block  
 Ethernet Data: RJ-45

## ELECTRICAL &amp; MECHANICAL

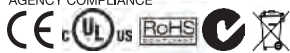
Power: 8-15 VDC @ 220 mA  
 Current Protection: Automatic Resettable  
 Solid-State Current Limiters  
 Circuit Board: Meets IPC Standard  
 Size (in./cm) (LxWxH) 2.9 x 2.8 x 1.5 in.,  
 (7.4 x 7.1 x 3.8 cm)  
 Shipping Weight: <1 lb/0.45 kg

## 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>†</sup>

<sup>†</sup> May be extended to condensation conditions by adding suffix '/C' to model number for conformal coating.

## AGENCY COMPLIANCE



MADE IN THE  
**USA**

PART NUMBER	DESCRIPTION	WAVELENGTH	FIBERS REQUIRED	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE
CNFE1002M1A-A	10/100 Mbps Ethernet	1310/1550 nm	1	Multimode 62.5/125µm	10 dB	3 km (1.9 miles)
CNFE1002S1A-A	10/100 Mbps Ethernet	1310/1550 nm	1	Single Mode 9/125µm	15 dB	37 km (23 miles)
CNFE1003M2-A	10/100 Mbps Ethernet	1310 nm	2	Multimode 62.5/125µm	10 dB	3 km (1.9 miles)
CNFE1003S2-A	10/100 Mbps Ethernet	1310 nm	2	Single Mode 9/125µm	15 dB	37 km (23 miles)
CNFE1004M1A-A	10/100 Mbps Ethernet	1310/1550 nm	1	Multimode 62.5/125µm	10 dB	3 km (1.9 miles)
CNFE1004S1A-A	10/100 Mbps Ethernet	1310/1550 nm	1	Single Mode 9/125µm	15 dB	37 km (23 miles)
CNFE1005M2-A	10/100 Mbps Ethernet	1310 nm	2	Multimode 62.5/125µm	10 dB	3 km (1.9 miles)
CNFE1005S2-A	10/100 Mbps Ethernet	1310 nm	2	Single Mode 9/125µm	15 dB	37 km (23 miles)

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.

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