



Product Description

The KBC MCLN1 series is an industrial 10/100M Ethernet media converter (MC). It supports transmission of one channel 10/100Base-T Ethernet over either one or two, multimode or single mode optical fibers with full duplex operation. Plug-and-play design makes installation straightforward, with no electrical or optical adjustment needed. LED indicators are provided to show the operational status of the unit. Rugged design in both enclosure and electrical protection makes it suit for application in harsh environment.

The series is available in wall, DIN, and 2U passive rack FR2-12, or card version in 2U chassis FR2-16.



Wall&DIN Rail Mount
Media Converter

Card Version

FR2-12 W/12 Slots

FR2-16 W/16 Slots & Power Supply

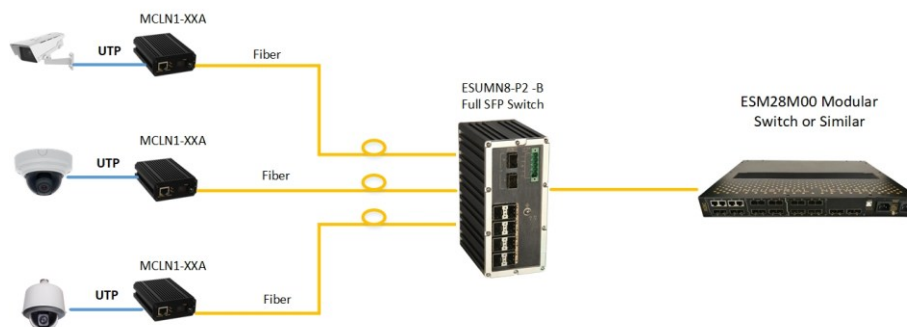
Product Features

- 10/100M auto sensing
- 2kV Surge Protection on RJ45 electrical Port
- Compatible with SFP version of MCLN1 series, PoE version of MCLN1 series, and two channel 10/100M media converter MCLN2 series
- SM(Single Mode) and MM(Multi Mode)
- 1 fiber or 2 fibers
- SM&MM: 1310nm/1550m for 1 fiber, 1310nm for 2 fibers
- Typical SM and MM transmission distance are 20km and 2 km respectively, longer distance is available
- IP40 enclosure
- DIN, Wall Mount or 2U Card version
- FR2-12 passive Rack with 12 slots or Chassis card in FR2-16 with 16 slots

Typical System Configuration



Typical Application -1: Point to Point connection



Typical Application -2 : Media converters directly connect to SFP switch

Specifications

Standards

IEEE Standards
IEEE802.3 10Base-TX
IEEE802.3u 100Base-TX
IEEE802.3u 100Base-FX

Electrical

Data Port 1
Data Rate 10/100Mbps Auto-Sensing
Half & Full Duplex
Surge Protection 2kV

Optical

Port 100 Mbps
Wavelength 1 fiber SM&MM: 1310nm/1550nm
2 fibers SM&MM: 1310nm
1 or 2
Fiber MM (50/62.5/125µm)
SM (9/125µm)

Typical Loss Budget 12dB
Typical Distance ⁽¹⁾ Multimode: 2km
Singlemode: 20km
Longer distance is available

Power

Power Input +12Vdc
Power consumption < 3W
Power Supply ⁽²⁾ Input: 100 ~ 240Vac
Output: +12Vdc
Supplied from FR2 PSU
Chassis Card

Environmental

Operating Temperature -40° ~ +75° C
Storage Temperature -40° ~ +85° C
Operating Humidity 0 to 95% non-condensing
Mean Time Between Failure (MTBF) > 100,000 Hours

Enclosure Protection

IP40

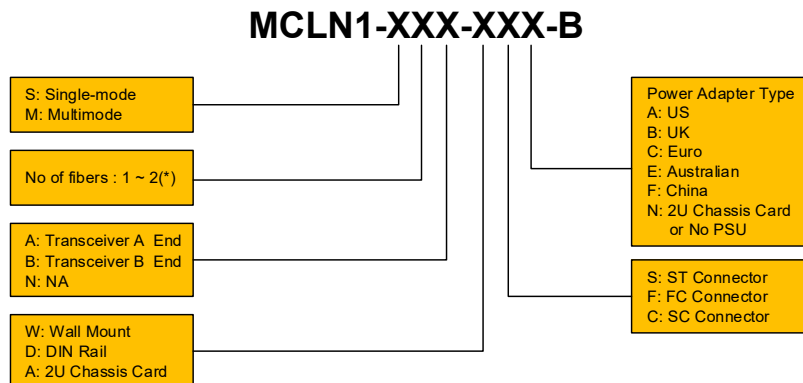
Connectors

10/100M Electrical RJ-45
Fiber ⁽³⁾ SC, FC or ST
Power ⁽⁴⁾ Wall Mount/DIN Rail Screw Block Terminal

Others

Cable CAT5 or CAT6, direct or cross cable
LEDs Connection status
data sending & receiving

Part Number Configurator

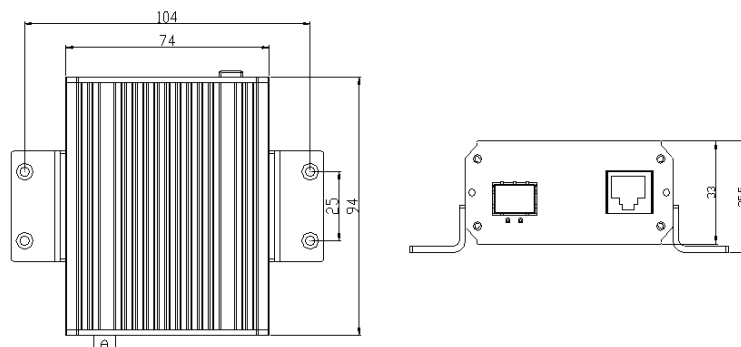


*: For two fibers, both ends are same, that is MCLN1-X2N-XXX-B

Dimension

L x W x H

94mm x 74mm x 33 mm



1. Transmission distance is limited by optical loss of the total fiber connection and fiber dispersion (fiber bandwidth).
2. Please select the power plug type when placing order.
3. Please select the fiber connector when placing order.
4. Power lines are crimped and fitted to screw block connector in factory.

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