



## Product Description

The KBC MCGN1 series is an industrial 10/100/1000M Ethernet media converter. It supports transmission of one channel 10/100/1000Base-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 mount, DIN mount, 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

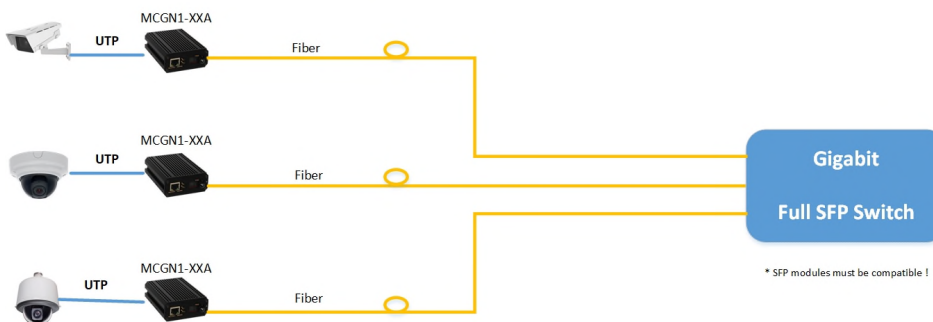
## Product Features

- 10/100/1000M auto sensing
- 2kV Surge Protection on RJ45 electrical Port
- Compatible with SFP version of one channel MCGN1 series and two channels MCGN2 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 500m respectively. Longer distance is available
- IP40 enclosure
- DIN, Wall Mount
- 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, IEEE802.3u  
IEEE802.3ab,IEEE802.3z

### Electrical

Data Port 1  
Data Rate 10/100/1000Mbps Auto-Sensing  
Half & Full Duplex  
Surge Protection 2kV

### Optical

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

Typical Loss Budget 12dB  
Typical Distance <sup>(1)</sup> MM: 500m  
SM: 20km  
Longer distance is available

### Power

Power Input +12Vdc  
Power consumption <3W  
Power Supply <sup>(2)</sup> 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

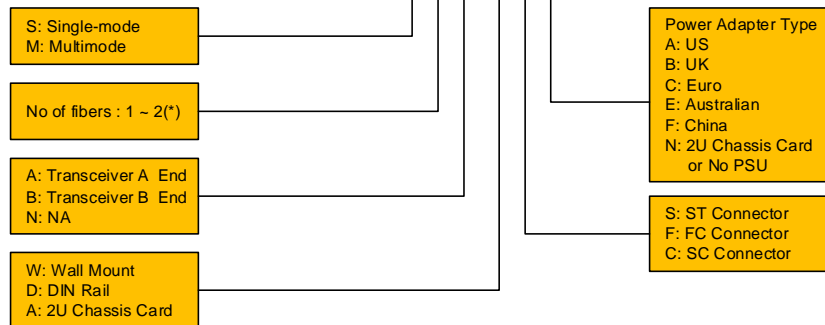
10/100/1000M Electrical RJ-45  
Fiber <sup>(3)</sup> SC,FC or ST  
Power <sup>(4)</sup> Wall Mount/DIN Rail Screw Block Terminal

### Others

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

# Part Number Configurator

## MCGN1-XXX-XXX-B

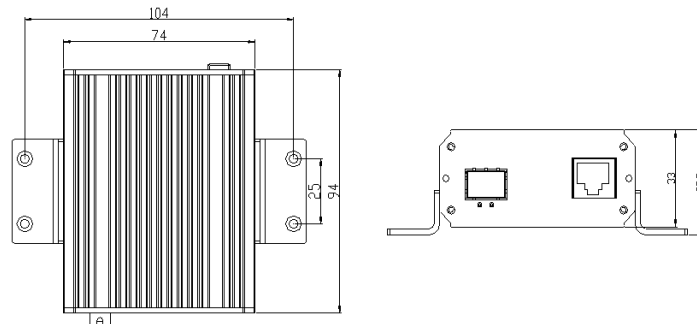


\*: For two fibers,both ends are same , that is MCGN1-X2N-XXX-B

# 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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