

Industrial media converters 10/100/1000

Distance extending Slim Type with more Practicability and Convenience

10/100/1000Base-TX to 1000Base-FX Industrial Media Converter, extends communication distance with stable performance via fiber optic wire, in which the extended distance could be up to 2km with the MC2FM1000/13/2ING, up to 20km with the MC2FS1000/13/2ING .

Converters are specifically equipped with durable components and strong housing case to operate reliably in electrically harsh and climatically demanding environments. The industrial level media converter provides a high level of immunity to electromagnetic interference and heavy electrical surges which are usually found on plant floors or traffic control cabinets on sidewalk. Being able to operate under the temperature range from -40°C to 80°C allows the converter series to be placed in almost any difficult environment.

10/100/1000Base-TX to 1000Base-FX Industrial Media Converter series efficiently converts data between 10/100/1000Base-TX and 1000Base-FX network and provides the flexibility to all kinds of 10/100/1000Mbps Ethernet Media on RJ-45 port and performs highly stable fiber performance.

MC converter series packaged in a compact IP40 case that allows either DIN rail or panel mounting to have efficient usage of cabinet space. It provides an integrated power supply with a wide range of voltages for worldwide operation. It also offers dual-redundant, reversible polarity 12V DC to 52V DC power supply inputs for high availability applications requiring dual or backup power inputs.

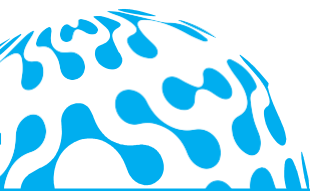


Interface

- 1-port 10/100/1000Base-Tx RJ-45 with auto negotiation and auto-MDI/ MDI-X function
- 1-port 1000Base-Fx interface SC/FC/ST/SFP
- Multi-Mode up to 2km
- Single-Mode up to 20km/40km/60km/80km

Industrial conformance

- 12V to 52V DC, redundant power input
- -40°C to 80°C operating temperature
- IP40 aluminum housing
- Supports 6KV DC Ethernet ESD protection
- Supports 6KV DC EFT protection for power line
- Free Fall, Shock and Vibration Stability
- DIN-rail and wall-mountable hardware design

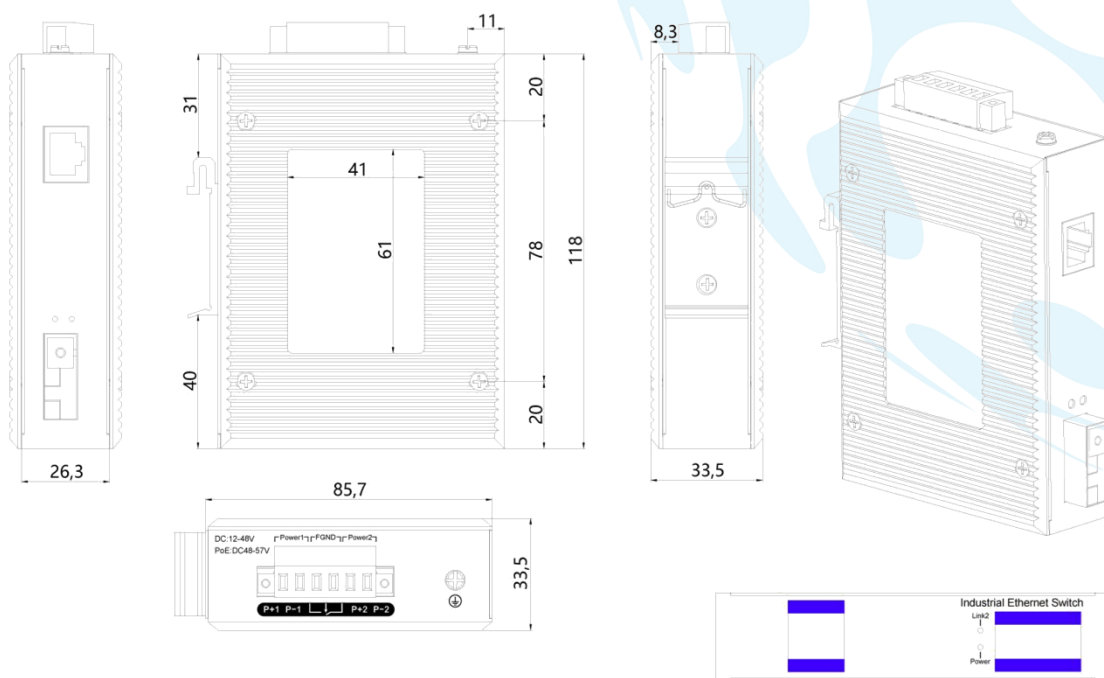


Technical specifications

Model No.	MC2FM1000/13/2ING / MC2FS1000/13/2ING / MCSFP1100/20ING
10/100/1000Base-TX Port	1 port RJ-45 auto-MDI / MDI-X
1000Base-FX Port	MC2FM1000/13/2ING: 1 SC interface MC2FS1000/13/2ING: 1 SC Interface MCSFP1100/20ING: 1 SFP Slot
Fiber Port Type	MC2FM1000/13/2ING: SC / multi-mode ,up to distance 2km ; MC2FS1000/13/2ING: SC / single-mode ,up to distance 20km ; MCSFP1100/20ING: Vary on module
Optical Frequency	MC2FM1000/13/2ING: 1310nm MC2FS1000/13/2ING: 1310nm MCSFP1100/20ING: Vary on module
Performance Specification	Bandwidth: 14Gbps Packet Buffer Memory:1.2Mbit Packet Forwarding Rate:10.5Mpps MAC Address Table: 2K
Installation	DIN rail
Maximum Frame Size	9000bytes packet size
Flow Control	Back pressure for half duplex, IEEE 802.3x pause frame for full duplex
Enclosure	IP40 aluminum housing
LED Indicator	Power: Red Fiber: Link 2(Green) Ethernet: Yellow
Power Input	12 to 52V DC redundant power
Power Consumption	< 3 watts
Surge protection	±4KV
Network Protocols	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T; IEEE802.3u;100Base-TX/FX; IEEE802.3ab 1000Base-T; IEEE802.3z 1000Base-X; IEEE802.3x;

Network cables	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤10meter) 1000BASE-TX: Cat6 or later UTP(≤100 meter)
Industry Standard	FCC CFR47 Part 15,EN55022/CISPR22, Class A IEC61000-4-2 (ESD): ±8kV (contact), ±12kV (air) IEC61000-4-3 (RS): 10V/m (80~1000MHz) IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz) IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s)
Certification	CE FCC Rohs compliance
MTBF	>300,000hours
Dimensions (W x D x H)	118 x 85.7 x 33.5 mm
Weight	Product Weight: 0.36KG Packing Weight: 0.46KG
Working Environment	Working temperature: -40~80°C ; Storage temperature: -40~80°C Relative Humidity: 5%~95 %(no condensation)
Warranty	1-year replacement with new item; 3-years for main parts.

Drawing



Typical application



Ordering informations

Fiber type	Twisted pair ports	Part Number	Description
Multi mode	1	MC2FM1000/13/2ING	Industrial 10/100/1000M converter, 1310nm, 1 RJ45 port , 2 SC ports, MM 2km, DIN Rail type, DC10~52V
	2	MC2FM1000/13/2ING+2	Industrial 10/100/1000M converter, 1310nm, 2 RJ45 ports , 2 SC ports, MM 2km, DIN Rail type, DC10~52V
	4	MC2FM1000/13/2ING+4	Industrial 10/100/1000M converter, 1310nm, 4 RJ45 ports , 2 SC ports, MM 2km, DIN Rail type, DC10~52V
Single Mode 2 fibers	1	MC2FS1000/13/2ING	Industrial 10/100/1000M converter, 1310nm, 1 RJ45 port , 2 SC ports, SM 20km, DIN Rail type, DC10~52V
	2	MC2FS1000/13/2ING+2	Industrial 10/100/1000M converter, 1310nm, 2 RJ45 ports , 2 SC ports, SM 20km, DIN Rail type, DC10~52V
	4	MC2FS1000/13/2ING+4	Industrial 10/100/1000M converter, 1310nm, 4 RJ45 ports , 2 SC ports, SM 20km, DIN Rail type, DC10~52V
Single Mode Bi-Directional	1	MC1FS1000/15/20ING	Industrial 10/100/1000M BI-DI converter, TX1550nm, RX1550nm, 1 RJ45 port , 1 SC port, SM 20km, DIN Rail type, DC10~52V
	1	MC1FS1000/13/20ING	Industrial 10/100/1000M BI-DI converter, TX1310nm, RX1310nm, 1 RJ45 port , 1 SC port, SM 20km, DIN Rail type, DC10~52V
	2	MC1FS1000/15/20ING+2	Industrial 10/100M BI-DI converter, TX1550nm, RX1550nm, 2 RJ45 ports , 1 SC port, SM 20km, DIN Rail type, DC10~52V
	2	MC1FS1000/13/20ING+2	Industrial 10/100/1000M BI-DI converter, TX1310nm, RX1310nm, 2 RJ45 ports , 1 SC port, SM 20km, DIN Rail type, DC10~52V
	4	MC1FS1000/15/20ING+4	Industrial 10/100/1000M BI-DI converter, TX1550nm, RX1550nm, 4 RJ45 ports , 1 SC port, SM 20km, DIN Rail type, DC10~52V
	4	MC1FS1000/13/20ING+4	Industrial 10/100/1000M BI-DI converter, TX1310nm, RX1310nm, 4 RJ45 ports , 1 SC port, SM 20km, DIN Rail type, DC10~52V