

Network Transmission Products

Industrial 4 Port Ethernet to Fiber Media Converter

Overview

GE Security's MC-4TX is an entry-level industrial Ethernet to Fiber Media Converter, specifically designed for stable operation in electrically harsh and climatically demanding environments. Industrially hardened for reliable operation, the slim-type unit offers practical and convenient performance. Available in a multi-mode or single-mode interface, the MC-4TX delivers a fiber transmit distance of 2km or 15km for link to remote backbone.

The MC-4TX provides a high level of immunity against electromagnetic interference and heavy electrical surges. Able to operate in extreme conditions ranging from -10°C to 60° C, these units can be placed in almost any environment. In addition, an integrated power supply source (12 to 48V DC) accommodates multiple applications requiring dual or backup power inputs.

The MC-4TX boasts high-performance switch architecture capable of providing non-blocking switch fabric and wire-speed throughput as high as 1Gbps or 1.2Gbps. With its 2K MAC address table, this switch offers wire-speed packets transfer performance without risk of packet loss. The Flow Control function allows the MC-4TX to deliver fast and reliable data transfer. MC-4TX2FX provides for fiber drop and insert.

MC-4TX Series

Industrial 4 Port Ethernet to Media Converter



Standard Features

- Slim-type IP-30 metal case
- Operating temperature from -10°~60°
- DIN-rail and wall-mount design
- 12 to 48VDC, redundant power with polarity-reverse protect function and connective removable terminal block for master and slave power
- Supports EFT protection 6000 VDC for power line
- Supports 6000 VDC Ethernet ESD protection
- Complies with the IEEE 802.3, IEEE 802.3u, Fast Ethernet standard
- Auto-MDI/MDI-X detection and Auto-negotiation with half-duplex/full-duplex modes for all 10 /100Base-TX RJ-45 ports
- Store-and-Forward switching architecture and mode with wire-speed filtering and forwarding rates
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x PAUSE frame-flow control (full-duplex)
- Integrated address-lookup engine supports 2K absolute MAC addresses
- CSMA/CD Protocol
- Automatic source-address learning and aging
- Support to handle up to 1522 bytes packet size
- 4-Port 10/100Base-TX RJ-45
- 1-Port 100Base-FX interface for up to 2km (multi-mode fiber 50/125µm)
- 1-Port 100Base-FX interface for up to 15km (single-mode fiber 9/125µm)
- 2-Port 100Base-FX interface for up to 2km (multi-mode fiber 50/125µm)



MC-4TX1FXMM-2Km

MC-4TX1FXSM-15Km

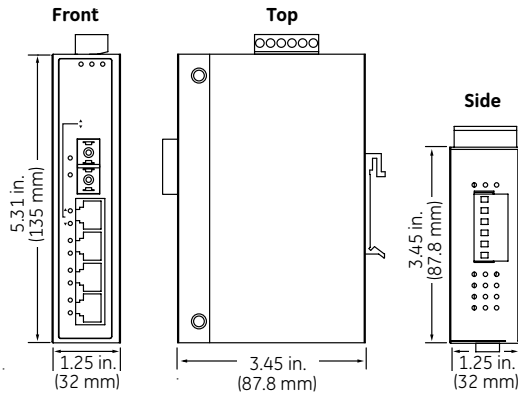
MC-4TX2FX

MC-4TX Series Industrial 4 Port Ethernet to Media Converter Comparisons

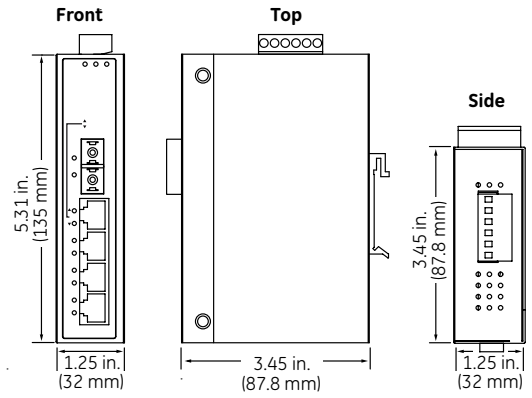
GE SKU	MC-4TX1FXMM-2Km	MC-4TX1FXSM-15Km	MC-4TX2FX
GE Description			

Hardware Specifications	10/100Base-TX Ports	4 RJ-45 Auto-MDI/MDI-X ports		
	100Base-FX SC Port	1	1	2
	Fiber Port Type	SC / Multi-mode	SC / Single-mode	SC / Multi-mode
	Cable Distance	2km	15km	2km
	Optical Frequency	1300nm	1310nm	1300nm
	Launch Power (dBm)	Max:-14 Min: -19.0	Max:-7 Min: -20	Max:-14 Min: -19.0
	Receive Sensitivity (dBm)	-34.5	-28	-34.5
	Maximum Input Power (dBm)	-14	-8	-14
	Installation	DIN-rail kit and wall-mount ear		
	Dimension (W x D x H)	5.31 x 3.42 x 1.26 inch / 135 x 87 x 32mm		
	Weight (lbs.)	0.965 lbs. /436g	0.965 lbs. / 436g	0.977 lbs. / 442g
	EFT (Ethernet)	6KV DC		
	ESD (Power)	6KV DC		
	Enclosure	IP-30 slim-type metal case		
	Power Connector	6-pin removable screw terminal		
	Reliability	MTBF > 100,000Hrs @ 25°C		
Physical Port	<ul style="list-style-type: none"> • 4-Port 10/100Base-TX RJ-45 • 1-Port 100Base-FX interface for up to 2km (multi-mode fiber 50/125µm) 	<ul style="list-style-type: none"> • 4-Port 10/100Base-TX RJ-45 • 1-Port 100Base-FX interface for up to 15km (single-mode fiber 9/125µm) 	<ul style="list-style-type: none"> • 4-Port 10/100Base-TX RJ-45 • 2-Port 100Base-FX interface for up to 2km (multi-mode fiber 50/125µm) 	
Power requirement	12~48 VDC, Redundant power with polarity-reverse protection function			
Power Consumption	9.1Watts / 31BTU max.	9.1Watts / 31BTU max.	11.6Watts / 40BTU max.	
Switch Specification	Switch Architecture	Store-and-Forward		
	Switch Fabric	1Gbps / non-blocking	1Gbps / non-blocking	1.2Gbps / non-blocking
	Switch Throughput	0.744Mpps@64bytes	0.744Mpps@64bytes	0.892Mpps@64bytes
	Address Table	2K entries		
	Share Data Buffer	1Mbit on-chip frame buffer		
	Maximum Frame Size	1522 Bytes packet		
Flow Control	Back pressure for Half-Duplex IEEE 802.3x PAUSE Frame for Full-Duplex			
Environment Specification	Operating Temperature	-10°C~60°C	-10°C~60°C	-10°C~60°C
	Operating Humidity	5%~95% (non-condensing)		
	Storage Temperature	-40°C~85°C	-40°C~85°C	-40°C~85°C
	Storage Humidity	5%~95% (non-condensing)		
Standards Conformance	Standards Compliance	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX /100Base-FX IEEE 802.3x Flow Control and Back pressure		
	Stability testing	IEC60068-2-32(Free fall) IEC60068-2-27(Shock) IEC60068-2-6(Vibration)		
	Network cables: 10/100Base-TX	2-Pair UTP Cat. 3, 4, 5 (100meters, max.) EIA/TIA-568 100-ohm STP (100meters, max.)		
	Network cables: 100Base-FX	<ul style="list-style-type: none"> • Multi-mode optic fiber 50/125µm(2km, max.). • Single-mode optic fiber 9/125µm (15km, max.) 		

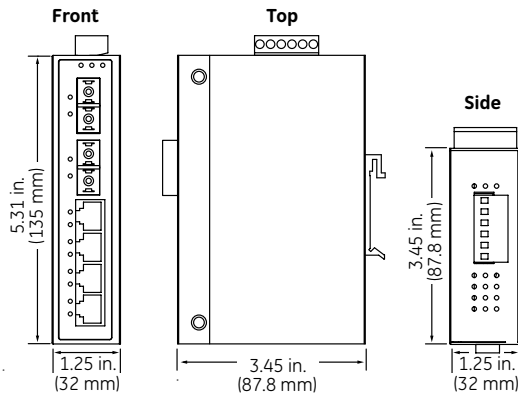
Dimensional Diagrams



MC-4TX1FXMM-2Km5



MC-4TX1FXSM-15Km



MC-4TX2FX

Ordering Information

MC-4TX1FXMM-2Km5-Port	4 Port Ethernet to Fiber Media Converter (with drop and insert capabilities)
MC-4TX1FXSM-15Km	8-Port 10/100/1000-T Industrial Ethernet Switch
MC-4TX2FX	8-Port 10/100/1000-T Industrial Ethernet Switch

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