

FMCI Series Ethernet Optical Fiber Media Converters

10/100 MBPS ETHERNET TO OPTICAL MEDIA CONVERTER

Product Features

- 10/100 Mbps Ethernet
 - 10Base-T/100Base-TX Electrical Port
 - 100Base-FX Optical Port
- Electrical Port Supports Autonegotiation for 10 Mbps or 100 Mbps, Full-Duplex or Half-Duplex Data
- Optical Port Supports 100 Mbps Full-Duplex Data
- Automatic MDI/MDI-X (medium dependent interface/medium dependent interface crossover) Operation
- Multimode Fiber Support for Distances up to 3 km (2 mi)
- Single-Mode Fiber Support for Distances up to 20 km (12 mi)
- Transparent to Data Encoding/Compatible with Major Data Protocols
- Designed to Meet NEMA TS 1/TS 2, and Caltrans Traffic Signal Control Equipment Environmental Standards
- ST Optical Connectors
- 1-Fiber Design
- Flexible Option for Operating AC/DC Power
- Voltage Transient Protection on All Power and Signal Input/Output Lines Provides Protection from Power Surges and Other Voltage Transient Events
- No Performance Adjustments Required
- LED Status Indicators for Monitoring All Critical and Normal Operating Parameters
- Standard Size is Hot-Swappable in the Card Cage
- Compliant with IEEE 802.3 Standards

FMCI Series Ethernet media converters are designed to transmit and receive 10/100 Mbps data over multimode or single-mode optical fiber with ST optical connectors. The electrical interface will autonegotiate to a 10 Mbps or 100 Mbps Ethernet rate without any adjustments. The optical interface operates at a 100 Mbps Ethernet rate.

FMCI Series media converters are environmentally hardened to operate in extreme temperatures. LED indicators are provided for rapidly ascertaining equipment operating status and monitoring critical operating parameters.



FMCI-AF1MM1ST

FMCI-AF1SM1STM

(BOTH PAIR WITH FULL-SIZE OR MINI B-SIDE)

Standard size **FMCI Series** units can be either surface- or rack-mounted; mini units are surface-mount only. Either type can be DIN-rail mounted by the addition of an adapter plate.



TECHNICAL SPECIFICATIONS

MODELS

Converter Type	Transmitter	Compatible Receiver	Fiber Optical Connector Type	Number of Fibers	Wavelength	Number of Rack Slots	Optical Power Budget	Maximum Transmission Distance
Standard Mount DC-Only Media	Multimode (62.5/125 μm)							
	FMCI-AF1MM1ST	FMCI-BF1MM1ST	ST	1	1310/1550 nm	1	10 dB	3 km (2 mi)
	FMCI-AF1SM1ST	FMCI-BF1SM1ST	ST	1	1310/1550 nm	1	15 dB	20 km (12 mi)
Mini AC/DC Media	Multimode (62.5/125 μm)							
	FMCI-AF1MM1STM	FMCI-BF1MM1STM	ST	1	1310/1550 nm	NA	10 dB	3 km (2 mi)
		FMCI-BF1MM1ST	ST	1	1310/1550 nm	1	10 dB	3 km (2 mi)
	Single Mode (9/125 μm)							
	FMCI-AF1SM1STM	FMCI-BF1SM1ST	ST	1	1310/1550 nm	1	15 dB	20 km (12 mi)

ELECTRICAL

Power Input	
Standard Size	8 to 24 VDC
Mini AC/DC	22 to 27 VAC or 8 to 24 VDC
Current Protection	Automatic resettable (solid state current limiter)
MTBF	>100,000 hours
LED Indicators	Optical Link, Data; Electrical Link, Data; Power

DATA

Number of Channels	1
Data Interface	Ethernet
Data Rate	10/100 Mbps
Operating Mode	Electrical port, full duplex or half duplex Optical port, full duplex

MECHANICAL

Connectors	
Optical	ST, 1 fiber
Power	Terminal block
TCP/IP	Port RJ-45
Number of Rack Slots	1 (standard mount, DC-only media models)

GENERAL

Dimensions	
Standard	15.5 × 13.5 × 2.8 cm (6.1" D × 5.3" W × 1.1" H)
Mini	8.4 × 6.4 × 2.8 cm (3.3" D × 2.5" W × 1.1" H)
Operating Temperature	-40° to 75°C (-40° to 167°F)
Storage Temperature	-40° to 85°C (-40° to 185°F)
Relative Humidity	0 to 95%, noncondensing
Weight	
Unit	0.45 kg (1.00 lb)
Shipping	0.90 kg (2.00 lb)

CERTIFICATIONS/RATINGS

- CE, Class A
- FCC, Class A
- UL/cUL Listed
- C-Tick
- RoHS
- IEEE 802.3
- Designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards

RECOMMENDED ACCESSORIES

EURACK	Rack-mount chassis for up to 14 fiber optic modules, internal power supply, European power cord
USRACK	Rack-mount chassis for up to 14 fiber optic modules, internal power supply, North American power cord
FEXTPS	Fiber external power supply with multiple plug adapters (North American, Australian, United Kingdom, and European); 100 to 240 VAC, 50 to 60 Hz input, 9 VDC output