

## FDX4100 Series



### Description

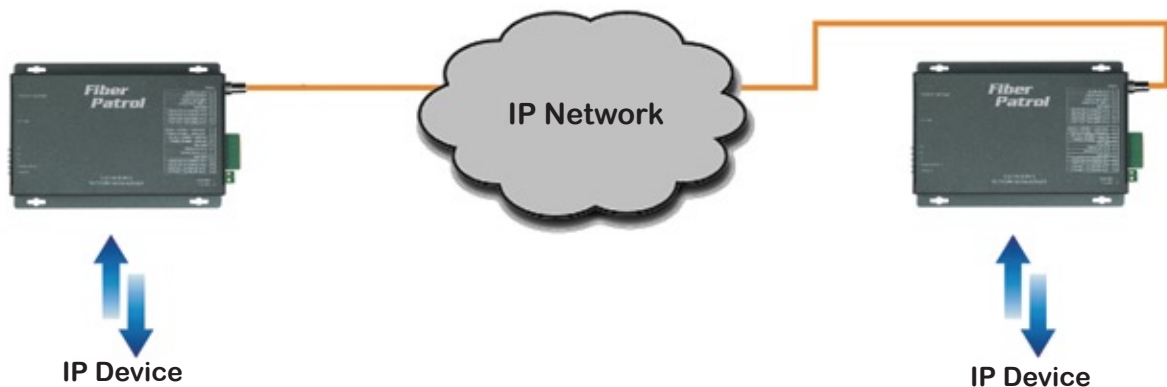
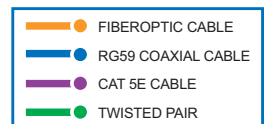
In applications where the expanded feature set and cost of a fully managed Ethernet switch are not required, FiberPatrol® offers an alternative for implementing an ethernet network over fiber. These Layer 2 switches are ideal for applications where robustness, ease of use, and mounting flexibility are the main considerations. Products can be mounted in a stand alone enclosure or in the RMC Communications Chassis.

The FDX4100 Series is a hardened ethernet media converter, providing conversion from twisted pair copper to optical fiber. Units support standard 802.3 operation for 10/100 Base-T and 100 Base-FX and enables auto-MDI/MDI-X. Operating in the enhanced mode, this product provides a back-off algorithm (binary exponential to aggressive), enables half-duplex back-pressure and disables excessive collision drop, and supports jumbo frames for streaming media.

Contact closures are provided for loss of fiber on each fiber port. Units meet FCC Part 15, Class B requirements for radiated emissions and feature automatically resettable polymer fuses on all power rails. As with all FiberPatrol® communication units, no optical or electrical adjustments are required.

### Features

- 10/100 Base-T to 100 Base-FX conversion
- 1 or 2 fiber operation, single mode or multimode
- Auto MDI/MDI-X (may be forced ON)
- Stand alone enclosure or card cage
- Environmentally hardened
- Automatically resettable polymer fuses on all power rails
- Contact closure notification for optical lock



**Data**

Protocol:	Ethernet
Compliance:	IEEE 802.3, 802.3u, 802.3x
Connectors	
Electrical:	RJ-45 (10/100Base-T)
Optical:	ST (SC optional)
Contact Closure:	Spring Cage Terminal Block
Interface:	Auto-MDI/MDI-X
Operating Mode:	Half or Full Duplex
Ethernet Isolation:	1500 VRMS, 1 minute

**Environmental**

MTBF:	>100,000 hours
Operating Temperature:	-40 C to + 74 C, ambient
Storage Temperature:	-40 C to + 85 C, ambient
Relative Humidity:	0% to 95% (non-condensing)

**Certifications & Compliance**

Radiated Emissions:	FCC Part 15, Class A
---------------------	----------------------

**Electrical & Mechanical**

Input Voltage:	8-18 VDC or from RMC (<250 mA @ 12 VDC), < 3W
Protection:	Automatic resettable polymer fuses
Circuit Board:	Meets IPC Standard
Size (LxWxH)	
Stand Alone Module:	7.0 x 4.9 x 1.0 in. (17.8 x 12.4 x 2.5 cm)
RMC Module:	7.7 x 5.0 x 1.0 in. (19.6 x 12.5 x 2.5 cm)
Shipping Weight:	<2lbs (.9 kg)

**Ordering Information**

**FDX4100 Series - Ethernet Media Converters**

Description	Part Number	Fiber	# Fibers per port	Power Budget (dB)	Maximum Fiber Distance	# RMC-RJ Slots
Fiberoptic Ethernet Media Converter	FDX4122	Multimode	2 (1310 nm)	13	3 miles (5 km)	1
	FDX4131A FDX4131B		1 (1310/1550 nm)			
	FDX4152	Single Mode	2 (1310 nm)	16	30 miles (48 km)	
	FDX4171A FDX4171B		1 (1310/1550 nm)			

Note: A and B versions required for single fiber pair