comnet
Communication Networks

INSTALLATION AND OPERATION MANUAL

FDC1 / FDC2

FIBER OPTIC CABLE BREAKAGE MONITOR/DETECTOR

The FDC1 single-channel and FDC2 dual-channel modems are designed to detect and report a breakage or the loss of optical signal in either multimode or single-mode fiber plants. The dual-channel version contains two independent transmitter and receiver units in one compact package, and is ideal for continuously monitoring the optical status of two separate fiber loops.

The solid-state non-latching relays default to a normally open state in the event of power loss or loss of optical signal. See **Figure 5** on **Page 4** for contact settings.

Each module incorporates power and individual status indicating LED's for monitoring confirmation of contact closure of each of the eight channels. See **Figures 6 and 7** on **Page 4** for an explanation of the LED indicators.

Packaged in the exclusive ComNet ComFit housing, these units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate. See **Figure A** on **Page 5** for mounting instructions.

See **Figures 1 – 7** for complete installation information.

FIGURE 1 – FDC1 TRANSCEIVER

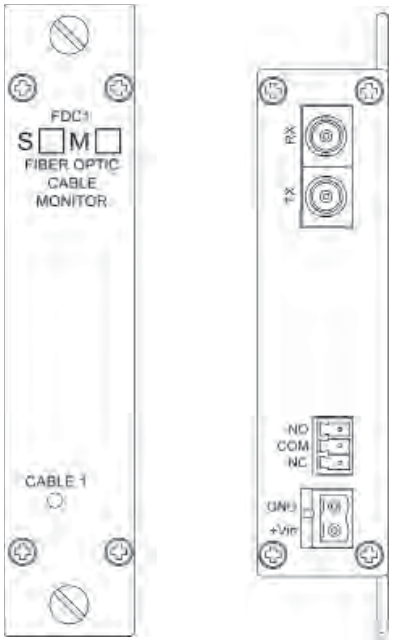
MULTIMODE OR
SINGLE MODE
OPTICAL FIBER

BLACK
BLACK WITH WHITE STRIPE

Power Supply:
Surface Mount: 8–27 VDC @ 150mA
Rack Mount: From Rack

FIGURE 2 – FDC1 TRANSCEIVER

FRONT PANEL REAR PANEL



NOTE: Remove Electrical Connector for Rack Mount Units

FIGURE 3 – FDC2 TRANSCEIVER

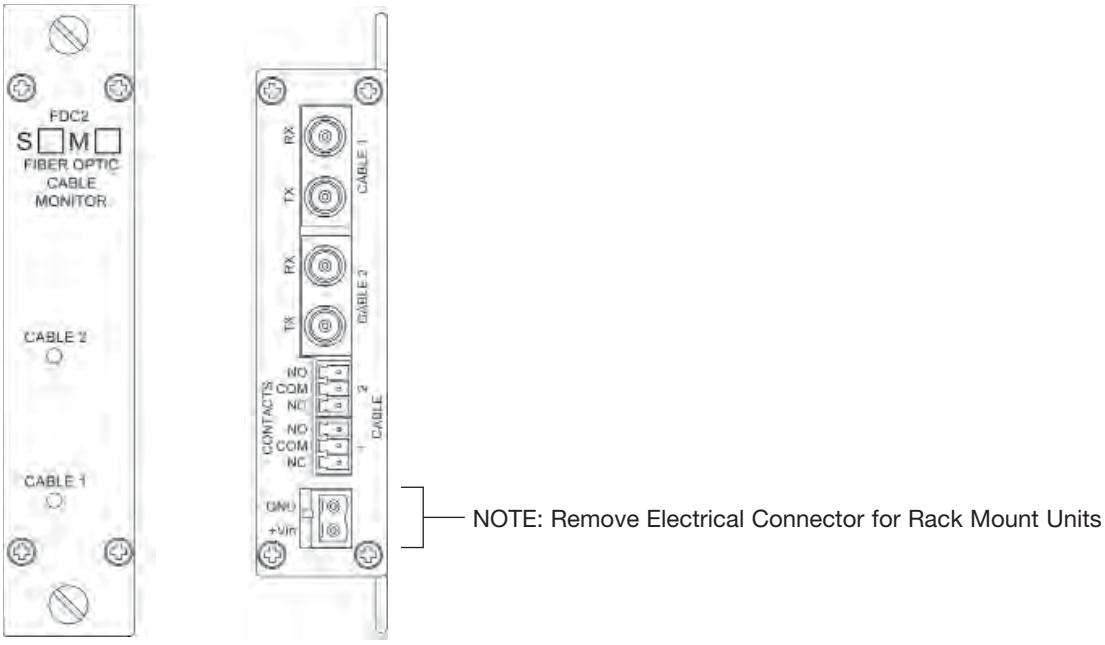
MULTIMODE OR
SINGLE MODE
OPTICAL FIBER

BLACK
BLACK WITH WHITE STRIPE

Power Supply:
Surface Mount: 8–27 VDC @ 150mA
Rack Mount: From Rack

FIGURE 4 – FDC2 TRANSCEIVER

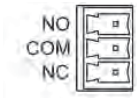
FRONT PANEL REAR PANEL



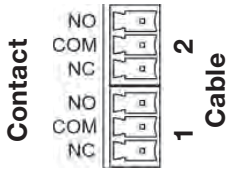
NOTE: Remove Electrical Connector for Rack Mount Units

FIGURE 5 – TYPICAL RELAY SETTINGS

Single Channel FDC1



Dual Channel FDC2



NO = Normally Open*
NC = Normally Closed*

* Note: Power On, cable intact state.

FIGURE 6 – LED INDICATORS (FDC1)

	CABLE 1
GREEN	Fiber Loop Intact
RED	Fiber Loop Broken
OFF	Unit powered down

FIGURE 7 – LED INDICATORS (FDC2)

	CABLE 1	**CABLE 2**
GREEN	Fiber Loop Intact	Fiber Loop Intact
RED	Fiber Loop Broken	Fiber Loop Broken
OFF	Unit powered down	

MECHANICAL INSTALLATION INSTRUCTIONS

INSTALLATION CONSIDERATIONS

This fiber-optic link is supplied as a Standalone/Rack module. Units should be installed in dry locations protected from extremes of temperature and humidity.

STANDALONE: Connect Earth Ground Lead to a nearby Earth Ground.

C1-US, C1-EU, C1-AU OR C1-CH CARD CAGE RACKS

CAUTION: Although the units are hot-swappable and may be installed without turning power off to the rack, ComNet recommends that the power supply be turned off and that the rack power supply is disconnected from any power source.

Note: Remove electrical connector and Earth Ground screw, nuts and lock washers before installing in card cage rack.

1. Make sure that the card is oriented right side up, and slide it into the card guides in the rack until the edge connector at the back of the card seats in the corresponding slot in the rack's connector panel. Seating may require thumb pressure on the top and bottom of the card's front panel.

CAUTION: Take care not to press on any of the LEDs.

2. Tighten the two thumb screws on the card until the front panel of the card is seated against the front of the rack.

WARNING: Unit is to be used with a Listed Class 2 or LPS power supply rated 9-12 VDC @ 1A.

IMPORTANT SAFEGUARDS:

A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

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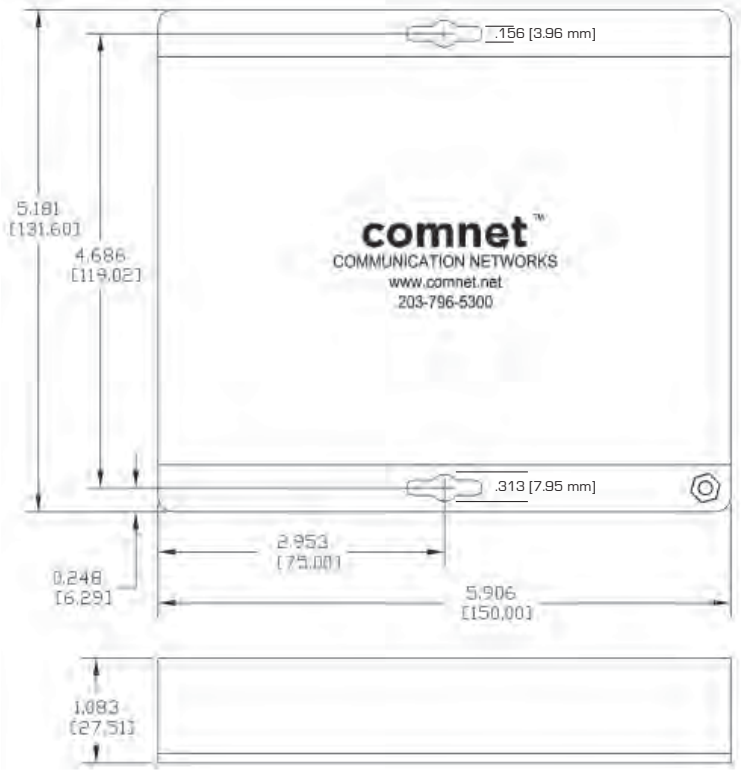
FIGURE A

Dimensions are for a standard ComNet™ one slot module



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