comnet
Communication Networks

INSTALLATION AND OPERATION MANUAL

FVT/FVR10D1E(M,S)[M]

10-BIT DIGITALLY ENCODED VIDEO TRANSMITTER WITH 1 BI-DIRECTIONAL DATA CHANNEL AND 10/100MB ETHERNET

The FVT/FVR10D1E is a single (1) channel ten (10) bit video transmission system along with one channel of bi-directional data and one full duplex 10/100 Mbps Fast Ethernet port.

The data channel is configured using a two position switch to operate as RS232, RS422 or RS485, either two (2) wire or four (4) wire. See **Figure 7** for details.

The video channel also supports "up-the-coax" reverse data that is enabled automatically.

The Ethernet uses a RJ45 data connector. The data input/output also uses an RJ45 data connector and a "breakout box" to facilitate attachment of the external wires. The breakout box and connecting cable are supplied with the FVT/FVR10D1E module.

The FVT/FVR10D1E may be directly plugged into the ComNet Rack (Part #C1) or operated as a standalone module powered by the PS-9VDC power supply also provided with the module.

The FVT/FVR10D1E requires one optical fiber and may be supplied in a multimode (M) or singlemode (S) version.

See **Figures 1 – 11** for complete installation details.

FIGURE 1 – FVT/FVR10D1E TRANSMITTER AND RECEIVER

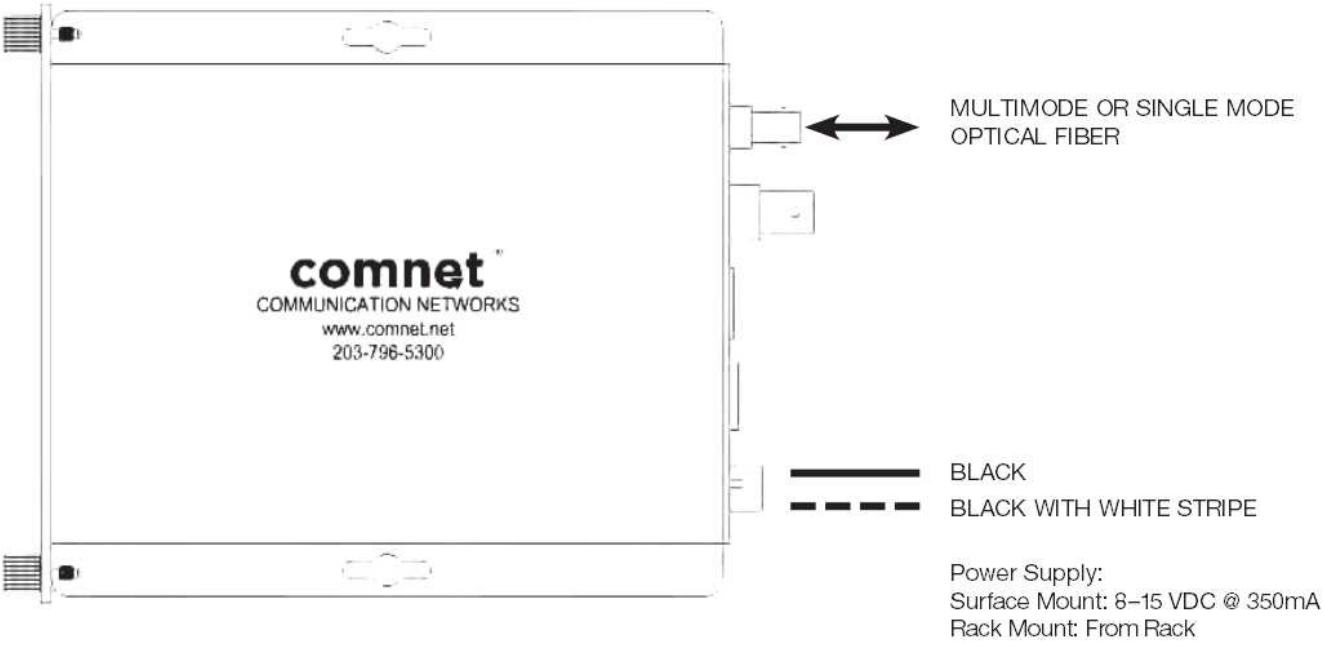


FIGURE 2 – FVT10D1E TRANSMITTER

FRONT PANEL

REAR PANEL

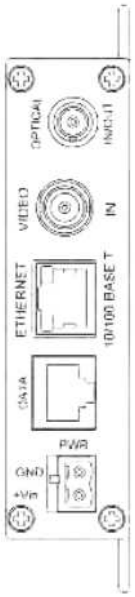


FIGURE 3 – FVR10D1E RECEIVER

FRONT PANEL

REAR PANEL

NOTE: Remove Electrical Connector for Rack Mount Units

FIGURE 4 – FVT10D1EM MINI TRANSMITTER

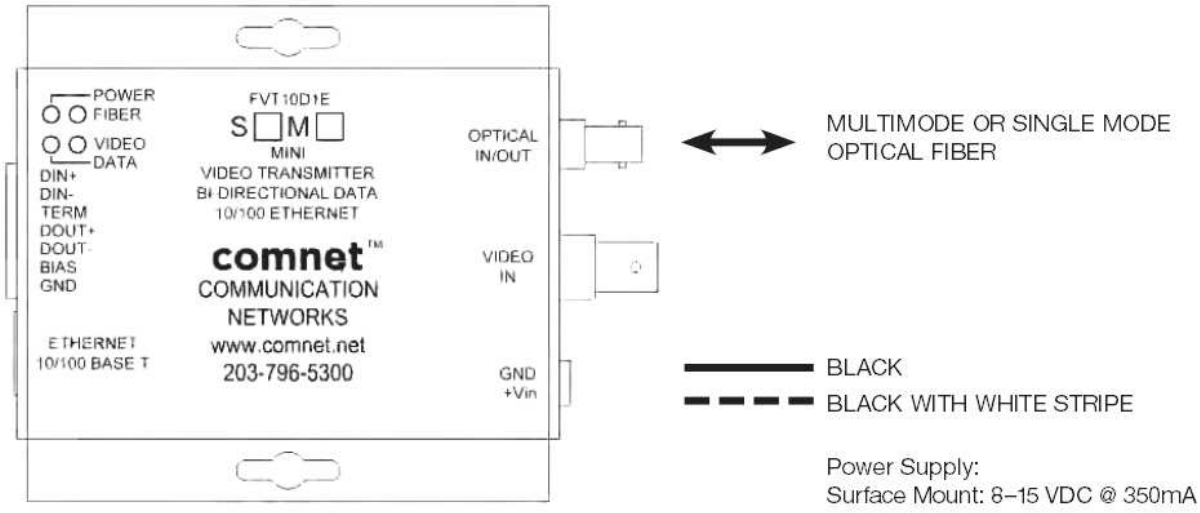


FIGURE 5 – FVT10D1E TRANSMITTER

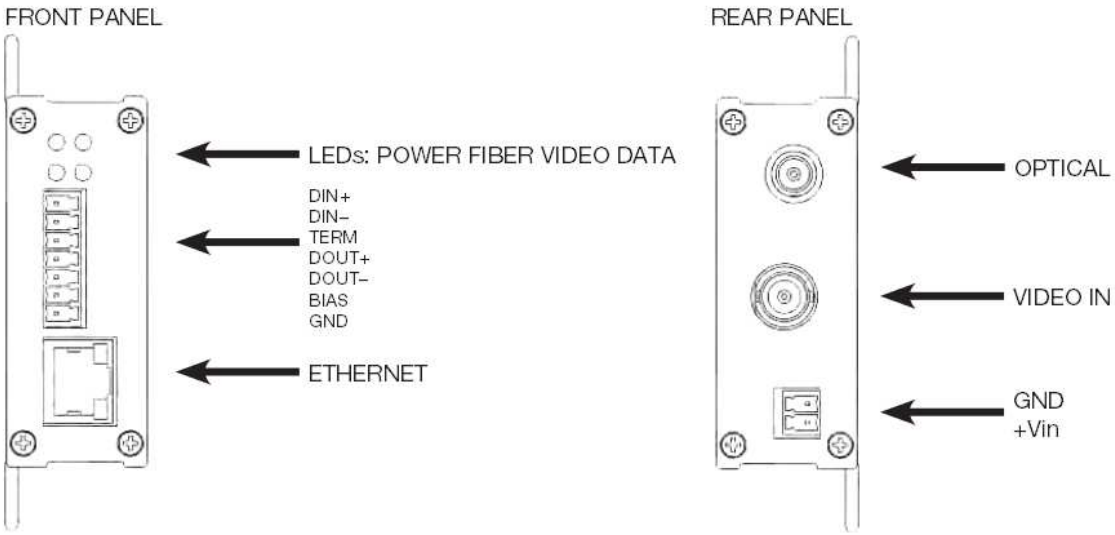


FIGURE 6 – RJ45 BREAK-OUT

Factory Supplied

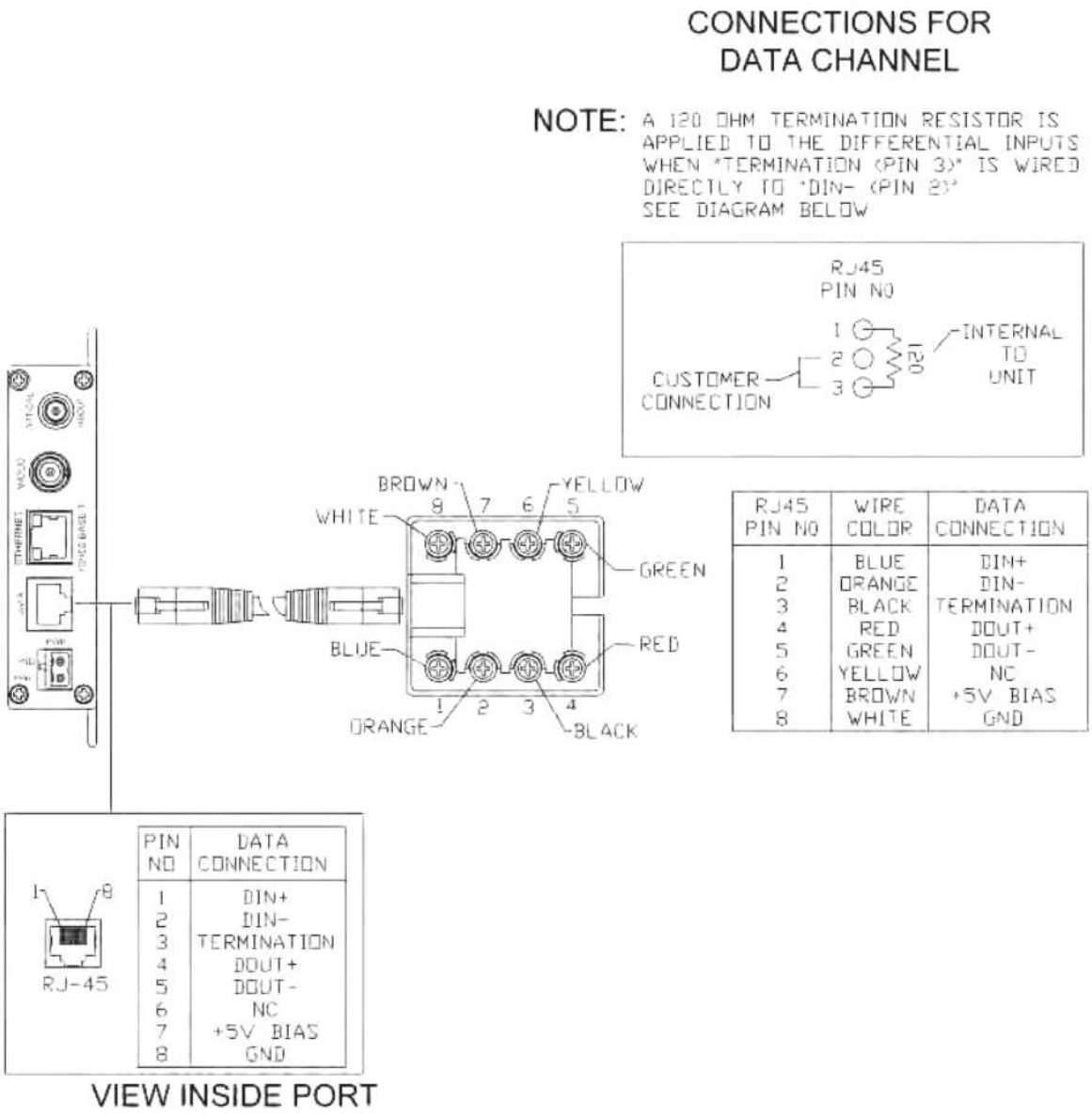


FIGURE 7 – SWITCH POSITIONS

The mode for each data channel is configured using a set of two switches on the front panel of the unit.
The mode for the data on the FVT10D1E(M,S)M small size unit is set by the receiving unit it is connected to.

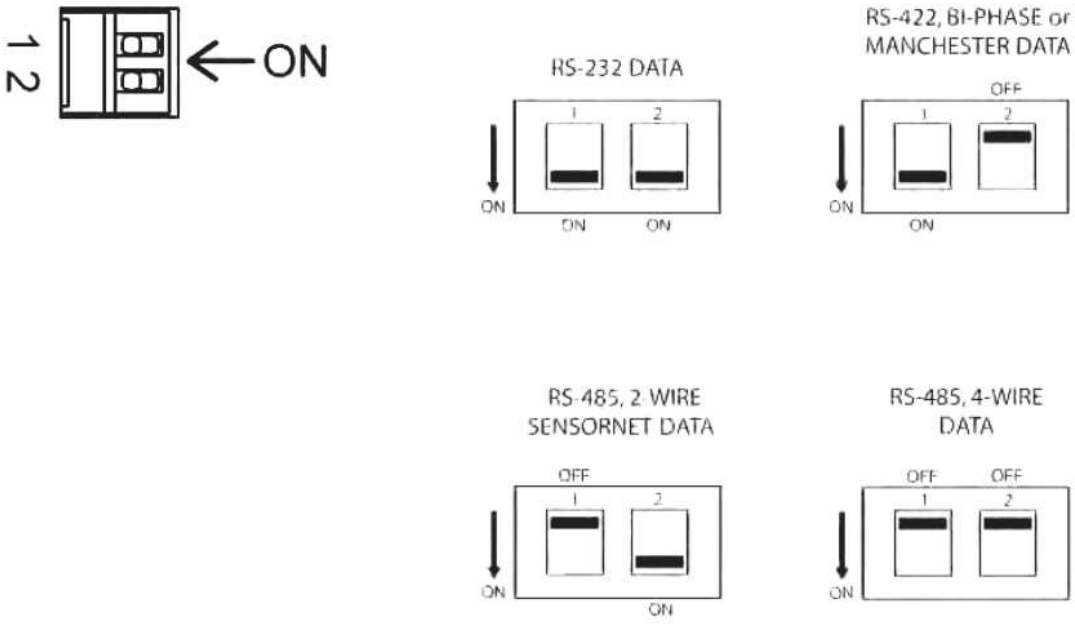
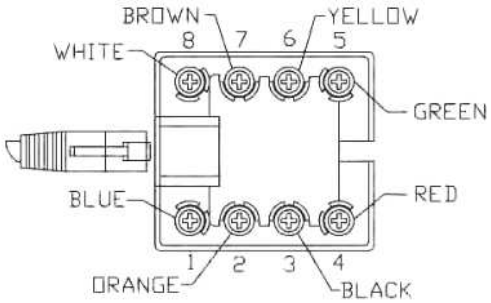


FIGURE 8 – SWITCH SETTINGS



RJ45 PIN NO	WIRE COLOR	DATA CONNECTION
1	BLUE	DIN+
2	ORANGE	DIN-
3	BLACK	TERMINATION
4	RED	DOUT+
5	GREEN	DOUT-
6	YELLOW	NC
7	BROWN	+5V BIAS
8	WHITE	GND

RS232
1 NC
2 IN (-)
3 Ground
4 NC
5 OUT (-)
6 NC
7 NC
8 NC

RS485 (2W) & SENSORNET
1 IN/OUT (+) A
2 IN/OUT (-) B
3 Ground
4 NC
5 NC
6 NC
7 NC
8 NC

RS422, RS485 (4W), Manchester & Bi-Phase
1 IN (+)
2 IN (-)
3 Ground
4 OUT (+)
5 OUT (-)
6 NC
7 NC
8 NC

NC = No Connection

FIGURE 9 – DATA CONNECTIONS

See Page 5 for Switch Settings

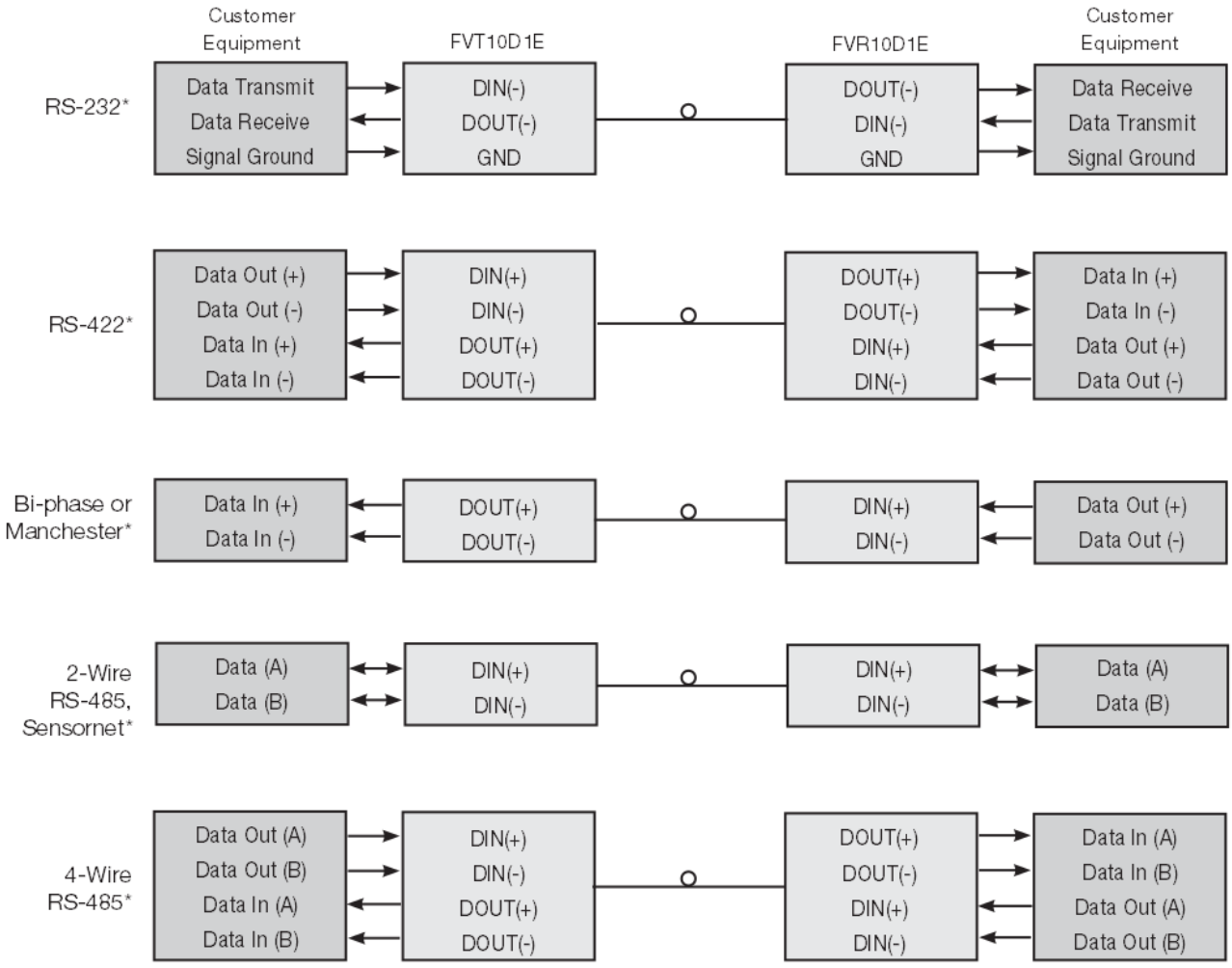


FIGURE 10 – ETHERNET CONFIGURATION

Ethernet IEEE 802.3 Network Element determined by user.

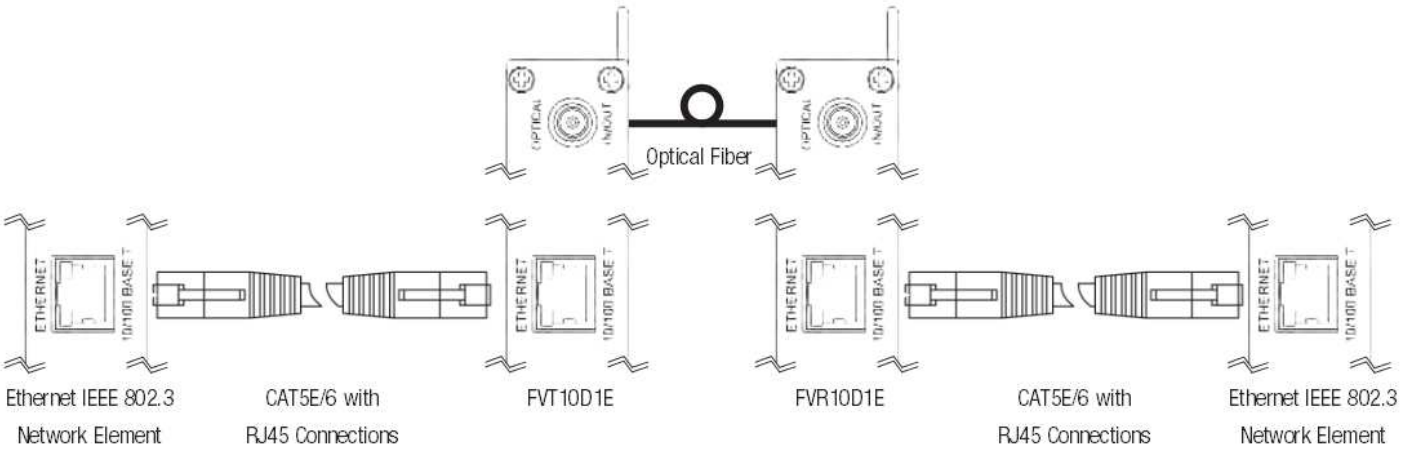


FIGURE 11 – LED INDICATORS

	FIBER	VIDEO	10/100 LINK	DATA	POWER
GREEN	Communication link has been established over optical fiber	An active video signal is present on the BNC connector.	Ethernet link has been established at the RJ45 connector.	An active data signal is present on the input pins of the data connector.	Unit powered up
RED	Communication link has not been established.	No video signal	–	–	–
OFF	Not powered up correctly	–	–	No data signal	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.

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 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.

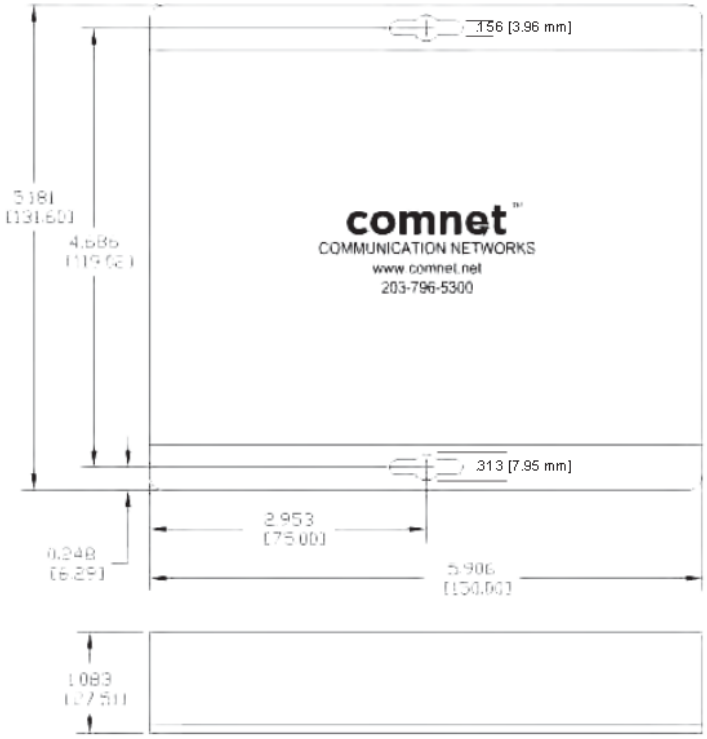
IMPORTANT SAFEGUARDS:

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.

FIGURE A

Dimensions are for a standard ComNet one slot module



FVT/FVR10DIE(M,S)[M] Part Ordering Options:

(M,S): Fiber Type
M: Multimode
S: Singlemode
[M]: Mini Enclosure (optional)

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