



The ComNet™ FVT10C1(M,S)1/M series video transmitters transmit one channel of video plus one contact closure over one optical fiber. The FVT10C1M transmitter is available in multimode and single-mode versions.

This FVT10C1M is compatible with the FVR10C1(M,S)1, FVR20C2(M,S)2 and FVR40C4(M,S)4 series of receivers. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. Bi-color (Red/Green) LED indicators are provided for rapidly ascertaining equipment operating status. These units have a small footprint and are ideal for mounting where space is limited or can be mounted inside equipment housing.

FEATURES

- › 12VDC or 24VAC - can be powered directly from camera
- › 10-bit Digitally Encoded Video for High-Quality transmission over a Single Fiber
- › Supports one Contact Closure in the direction of video, ideal for tamper switch, etc.
- › Distances up to 4 km (2.5 mi) over Multimode Fiber
- › Distances up to 54 km (33.6 mi) over Single Mode Fiber
- › Exceeds All Requirements for EIA RS-250C Short-Haul Transmission Specifications
- › Laser Diode for Transmission of Optical Signals
- › Compatible with NTSC, PAL, or SECAM Video Standards
- › Designed to meet NEMA TS 1/TS 2 and Caltrans Traffic Signal Control Equipment Environmental Standards
- › Voltage Transient Protection on All Power and Signal Input/Output Lines
- › LED Status Indicators for Monitoring All Critical Operating Parameters
- › Lifetime Warranty

SPECIFICATIONS

Video

Video Input	1 volt pk-pk (75 ohms)
Overload	>1.5V pk-pk
Bandwidth	5 Hz - 10 MHz
Differential Gain	<2%
Differential Phase	<0.7°
Tilt	<1%
Signal-to-Noise Ratio (SNR)	>67 dB typical @ Maximum Optical Loss Budget
Max. RG-59 COAX	100m (300ft) Camera to Fiber Optic Module to maintain bandwidth

Wavelength

1310 nm, MM and SM

Optical Emitter

Laser Diode

LED Indicators

- Video - Contact

AGENCY COMPLIANCE



Connectors

Optical	ST
Power	Terminal Block
Video	BNC
Contact	Terminal Block

Electrical & Mechanical

Operating Voltage Range	9 - 36VDC or 12 - 24 VAC
Power Consumption	2W
Current Protection	Automatic Resettable Solid-State Current Limiters
Circuit Board	Meets IPC Standard
Size	4.5 × 2.2 × 1.1 in (11.7 × 5.5 × 2.7 cm)
Shipping Weight	<2 lb./0.9 kg

Environmental

MTBF	>100,000 hours
Operating Temp	-40° C to +75° C
Storage Temp	-40° C to +85° C
Relative Humidity	0% to 95% (non-condensing) ¹

ORDERING INFORMATION

Part Number	Description	Fibers Required	Fiber	Optical Power Budget	Maximum Distance ²
FVT10C1M1/M	Mini Video Transmitter	1	Multimode - 62.5/125µm	12 dB	4 km (2.5 mi)
FVT10C1S1/M	Mini Video Transmitter	1	Single Mode - 9/125µm	16 dB	54 km (33 mi)
Options	DC Plug-in Power Supply (Included) Mounting Bracket (Included) 12-inch Coax Jumper (Optional, consult factory) [1] Add suffix 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory)				

NOTE: This product requires a fiber installation with a minimum 30 dB connector return loss. The use of Super Polish Connectors is recommended.

Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J

In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

[2] Transmission distance will be diminished if additional losses are introduced by the optical connectors, splices and other factors regarding the quality of the fiber. Operating distance of multimode is limited by the characteristics of the fiber bandwidth. For additional information or support, contact the ComNet Applications Engineering Department.

TYPICAL APPLICATION

