comnet
Communication Networks

Single, Dual or Quad-Channel 10-Bit Digitally Encoded Short-Haul Video and Contact Closure

FVT/FVR10C1(M,S)1[/M], FVR20C2(M,S)2, and FVR40C4(M,S)4

POWER SUPPLY INCLUDED

CONTACT CLOSURE 1, 2 OR 4

VIDEO 1, 2 OR 4

The ComNet™ series video transmitters and receivers support the transmission of one, two, or four independent short-haul quality 10-bit digital video signals and one, two, or four contact closures in the direction of the video over multimode or single mode optical fibers. This module is universally compatible with major CCTV camera manufacturers. The receivers are compatible with the FVT10C1(M,S)1[/M] series or FVT1(M,S)1/M* single channel transmitters. Plug-and-play design ensures ease of installation and no electrical or optical adjustments are ever required.

FEATURES

› 10-bit Digital Video, Contact Closure Transmission: Receives one, two, or four real-time color video signals over one, two, or four optical fibers

› Supports one, two or four Contact Closures in the direction of video, ideal for tamper switch, etc.

› Exceptionally low video distortion with zero performance variation vs. optical path

› 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

› › Compatible with NTSC, PAL, or SECAM Video Standards

› NTCIP compatible

› 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 provides protection from power surges and other voltage transient events.

› Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters

› Automatic resettable fuses on all power lines

› Hot-Swappable Modules

› 12VDC or 24VAC powered FVT10C1/M mini unit can be powered directly from camera

› ComFit units are interchangeable between stand-alone or rack mount use

› Lifetime Warranty

** FVT1(M,S)1/M not available in North America.*

FVT/FVR10C1(M,S)1[/M],
FVR20C2(M,S)2, and FVR40C4(M,S)4

Single, Dual or Quad-Channel 10-Bit Digitally Encoded Short-Haul Video and Contact Closure

SPECIFICATIONS

Video[1]

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)	>60 dB typical @ Max. Optical Loss Budget
Max. RG-59 COAX	100m (300ft) Camera to Fiber Optic Module to maintain bandwidth

Contact

Interface Response time	0.5msec
Input	Dry Contact Closure
Output	SPST Relay, 0.5A Contact Rating - normally open

Optics

Wavelength	1310 nm, MM and SM
Optical Emitter	Laser Diode
Number of Fibers	1, 2 or 4 (see table below)

Connectors

Optical	ST
Power	Terminal Block
Video	BNC
Contact	Terminal Block

LED Indicators

– Video – Contact – Link (Receivers only)

Power

Operating Voltage Range	FVT10C1(M,S)1/M: 9 – 36VDC or 12 – 24 VAC ComFit units: 8 to 15VDC
Power Consumption	2W (1 & 2 Channel Version) 4W (4 Channel Version)

Electrical & Mechanical

Current Protection	Automatic Resettable Solid-State Current Limiters
Circuit Board	Meets IPC Standard
Size (FVT10C1(M,S)1/M)	4.5 × 2.2 × 1.1 in (11.7 × 5.5 × 2.7 cm)
Size (ComFit Units)	6.1 × 5.3 × 1.1 in (15.5 × 13.5 × 2.8 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)[2]

AGENCY COMPLIANCE
PART 15 COMPLIANT · E322911 · N24621

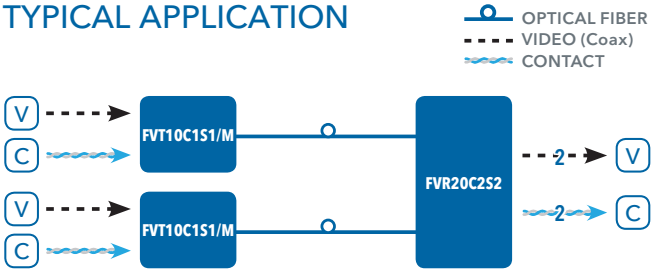
MADE IN THE USA

ORDERING INFORMATION

Part Number	Description	Fibers Required	Fiber	Optical Power Budget	Maximum Distance[3]	# Rack Slots
FVT10C1M1/M	Mini Video Transmitter	1	Multimode – 62.5/125µm	12 dB	4 km (2.5 mi)	N/A
FVT10C1S1/M	Mini Video Transmitter	1	Single Mode – 9/125µm	16 dB	54 km (33 mi)	N/A
FVT10C1M1	1-Channel ComFit Video/Contact Transmitter	1	Multimode – 62.5/125µm	12 dB	4 km (2.5 mi)	1
FVT10C1S1	1-Channel ComFit Video/Contact Transmitter	1	Single Mode – 9/125µm	16 dB	54 km (33 mi)	1
FVR10C1M1	1-Channel ComFit Video/Contact Receiver	1	Multimode – 62.5/125µm	12 dB	4 km (2.5 mi)	1
FVR10C1S1	1-Channel ComFit Video/Contact Receiver	1	Single Mode – 9/125µm	16 dB	54 km (33 mi)	1
FVR20C2M2	2-Channel ComFit Video/Contact Receiver	2	Multimode – 62.5/125µm	12 dB	4 km (2.5 mi)	1
FVR20C2S2	2-Channel ComFit Video/Contact Receiver	2	Single Mode – 9/125µm	16 dB	54 km (33 mi)	1
FVR40C4M4	4-Channel ComFit Video/Contact Receiver	4	Multimode – 62.5/125µm	12 dB	4 km (2.5 mi)	1
FVR40C4S4	4-Channel ComFit Video/Contact Receiver	4	Single Mode – 9/125µm	16 dB	54 km (33 mi)	1
Accessories	DC Plug-in Power Supply (Included) Mounting Bracket (Included with FVT10C1(M,S)1/M mini transmitter only)					
Options	12-inch Coax Jumper (Optional, consult factory) [2] Add suffix '/C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT1 or DINBKT4)					

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.
[3] 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



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