



The ComNet™ FVT1D1[/M] video transmitter, along with the FVR1D1 and FVR2D2, supports the transmission of digital video transmission and bi-directional RS422 or 2- or 4-wire RS485 data channel over multimode or single mode optical fiber(s). When the unit is operated in the return RS422 2-wire data mode, a simplex contact closure channel is available in the video direction. This module is universally compatible with major CCTV camera manufacturers. Plug-and-play design ensures ease of installation and no electrical or optical adjustments are ever required. Bi-color (red/green) LED indicators are provided for confirming operating status. The small-size FVT1D1/M transmitters are ideal for locations where space is at a premium. Packaged in the exclusive ComNet ComFit housing, the full size transmitter and receiver units may be rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate.

FEATURES

- › Digitally Encoded Video
- › Bi-directional RS422 or RS485 data
- › Contact Closure available in return RS422 2-wire data mode
- › Compatible with all NTSC, PAL, or SECAM CCTV camera systems
- › Full Color Compatibility
- › No In-field electrical or optical adjustments
- › Distances up to 33 miles (54 km) without repeaters
- › Voltage transient protection on all power and signal input/output lines provides protection from power surges and other voltage transient events.
- › Designed to meet full compliance with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions and transient voltage protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- › Automatic resettable fuses on all power lines
- › Receivers are hot-swappable rack modules
- › Receivers are interchangeable between stand-alone or rack mount use - ComFit
- › Lifetime Warranty

APPLICATIONS

- › CCTV

* Contact Closure is only available when data is used in return RS422 2-wire mode

SPECIFICATIONS

Video

Video Input	1 volt pk-pk (75 ohms)
Overload	>1.5V pk-pk
Bandwidth	5 Hz - 6.5 MHz
Differential Gain	<2%
Differential Phase	<0.7°
Tilt	<1%
Signal-to-Noise Ratio (SNR)	>60 dB @ Maximum Optical Loss Budget
Max. RG-59 COAX Distance	100m (300ft) Camera to Fiber Optic Module to maintain 6Mhz Bandwidth

Data

Data Format	RS422, 2 or 4-wire RS485 w/Tri-State, Manchester and bi-phase
Data Rate	DC-115 Kbps (NRZ)

Contact (available in return RS422 2-wire mode only)

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

Connectors

Optical	ST
Power	Terminal Block
Video	BNC
Data	Terminal Block
Contact	Terminal Block

Wavelength
LED Indicators
Power

1310 nm / 1550 nm
- Optical - Video - Data

Mini Size	9 to 36 VDC @ 3W, 24VAC
1CH Full Size/Rack Mount	8 to 15VDC @ 3W
2CH Full Size/Rack Mount	8 to 15VDC @ 6W

Electrical & Mechanical

FVT1D1(M,S)1/M (Mini Long)	
Size (LxWxH)	3.3 x 2.5 x 1.1 in. (8.4 x 6.4 x 2.8 cm)
Shipping Weight:	<1 lb./0.45 kg
FVT/FVR1D1(M,S)1 and FVR2D2(M,S)2 (ComFit)	
Size (LxWxH)	6.1 x 5.3 x 1.1 in. (15.5 x 13.5 x 2.8 cm)
Shipping Weight:	<2 lb./0.9 kg
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard

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



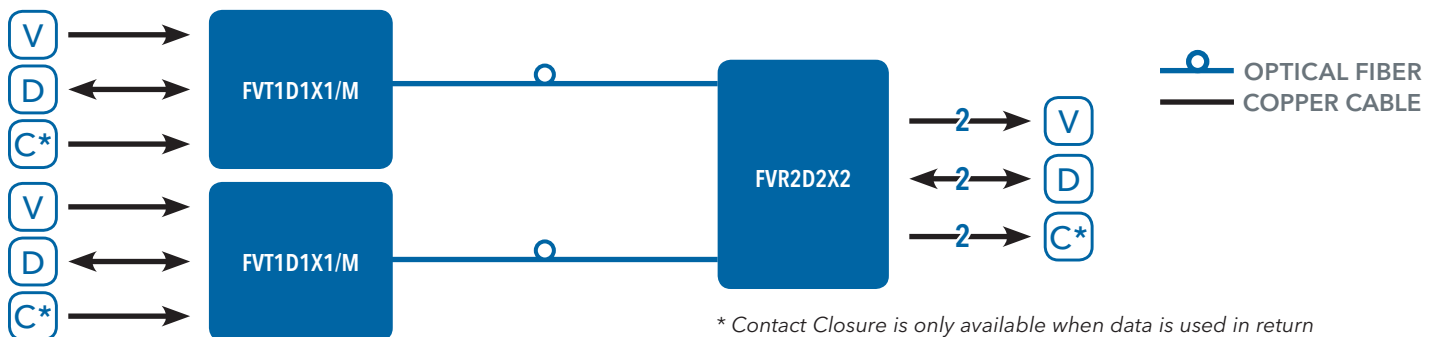
ORDERING INFORMATION

Part Number	Description	# of Fibers	Fiber Type	Optical Power Budget	Max Distance	# of Rack Slots
FVT1D1M1/M	Mini Video Transmitter, Bi-directional Data	1	Multimode 62.5/125µm	16 dB	4km (2.5mi)	NA
FVT1D1M1	Video Transmitter, Bi-directional Data	1	Multimode 62.5/125µm	16 dB	4km (2.5mi)	1
FVR1D1M1	Video Receiver, Bi-directional Data	1	Multimode 62.5/125µm	16 dB	4km (2.5mi)	1
FVR2D2M2	Dual Video Receiver with Bi-directional Data	2	Multimode 62.5/125µm	16 dB	4km (2.5mi)	1
FVT1D1S1/M	Mini Video Transmitter, Bi-directional Data	1	Single mode 9/125µm	16 dB	54km (33mi)	NA
FVT1D1S1	Video Transmitter, Bi-directional Data	1	Single mode 9/125µm	16 dB	54km (33mi)	1
FVR1D1S1	Video Receiver, Bi-directional Data	1	Single mode 9/125µm	16 dB	54km (33mi)	1
FVR2D2S2	Dual Video Receiver with Bi-directional Data	2	Single mode 9/125µm	16 dB	54km (33mi)	1

Accessories	DC Plug-in Power Supply (Included)
Options	[1] 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)

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.

TYPICAL APPLICATION



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