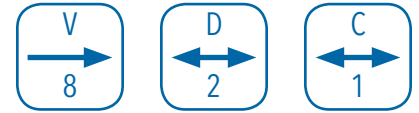


## APPEARANCE



## DESCRIPTION

The ComNet™ FVT/FVR8012(M)(S)1 Series transmits eight (8) channels of video utilizing state of the art 10-bit digital encoding and decoding for very high quality video transmission, along with two (2) channels of bi-directional data and one (1) bi-directional contact closure over one single mode or multimode optical fiber. This equipment is environmentally hardened and suitable for use in unconditioned roadside or out-of plant installations. The FVT/FVR8012 is compatible with NTSC, PAL and SECAM video transmission protocols and supports bi-directional RS232, 422 and 485 (2 & 4 Wire) data. Plug-and-play design ensures ease of installation and no electrical or optical adjustments are required.

Bi-Color LED indicators are provided to indicate the status of the system, video and data. 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. No additional parts or power supplies are required.

## APPLICATIONS

- › Multiple CCTV with PTZ

## FEATURES

- › 10-bit digitally encoded video transmission: transmits 8 real-time color video signals and 2 bi-directional data signals on one optical fiber
- › Exceeds all requirements for RS-250C Short Haul transmission: high quality video performance
- › Supports RS232, RS422, and 2- or 4-wire RS485
- › One bi-directional contact closure
- › Compatible with all NTSC, PAL, or SECAM CCTV camera systems
- › Tested and certified by an independent laboratory for 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.
- › Voltage transient protection on all power and signal input/output lines provides unconditional protection from power surges and other voltage transient events.
- › Robust design ensures extremely high reliability in unconditioned out-of-plant environments
- › Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- › Hot-swappable rack modules
- › Interchangeable between stand-alone or rack mount use - ComFit
- › Lifetime warranty

**SPECIFICATIONS**

**Video**

Video Input: 1 volt pk-pk (75 ohms)  
 Overload: >1.5V pk-pk  
 # Input/Output Channels: 8  
 Bandwidth (minimum): 10 Hz - 6.5 MHz per channel  
 Differential Gain: <2%  
 Differential Phase: <0.7°  
 Tilt: <1%  
 Signal-to-Noise Ratio (SNR): 67 dB Typical  
 Max. RG-59 COAX Distance: 100m (300ft) Camera to Fiber Optic Module to maintain 6Mhz Bandwidth

**Data**

Data Channels: 2  
 Data Interface: RS232, RS422 and RS485 (2W/4W)  
 Data Format: NRZ, NRZI, Manchester, Bi-Phase and Sensornet  
 Data Rate: DC-250 Kbps (NRZ)  
 Bit Error Rate: <1 in 10-9 @ Maximum Optical Loss Budget  
 Operating Mode: Simplex or Full-Duplex  
 Wavelength: 1310/1550 nm, Multimode and Single Mode

**Contact Closure**

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

**Number Of Fibers**

1

**LED Indicators**

- Video Sync Presence for Each Video Channel
- Received Data - Transmitted Data
- Optical Carrier Detect

**Optical Emitter**

Laser Diode

**Connectors**

Optical: ST  
 Power: Terminal Block  
 Video: BNC (Gold Plated Center-Pin)  
 Data: Terminal Block

**Electrical & Mechanical**

Power:  
 Surface Mount: 8-15 VDC @ 4W  
 Rack Mount: From Rack  
 Number of Rack Slots: 2  
 Current Protection: Automatic Resettable Solid-State Current Limiters  
 Circuit Board: Meets IPC Standard  
 Size (in./cm) (L×W×H): 6.1 × 5.3 × 3.3 in., 15.5 × 13.5 × 8.3 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)<sup>†</sup>

<sup>†</sup> May be extended to condensation conditions by adding suffix '/C'

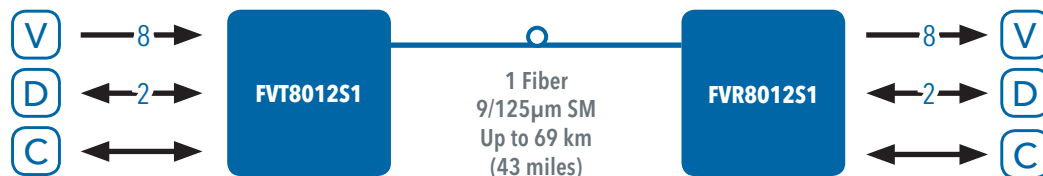


**ORDERING INFORMATION**

Part Number	Description	Fibers Required	Fiber	Optical Pwr Budget	Max Distance	# Rack Slots
FVT8012M1	Transmitter 8 Video / 2 Bi-directional Data / 1 Contact Closure	1	Multimode 62.5/125µm	16 dB	2 km (1.2 mi)	3
FVR8012M1	Receiver 8 Video / 2 Bi-directional Data / 1 Contact Closure					
FVT8012S1	Transmitter 8 Video / 2 Bi-directional Data / 1 Contact Closure	1	Single Mode 9/125µm	23 dB	69 km (43 mi)	3
FVR8012S1	Receiver 8 Video / 2 Bi-directional Data / 1 Contact Closure					
Accessories	9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included)					
Options	Add suffix '/C' for Conformally Coated Circuit Boards (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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