

# FTV80/FRV80 Fiber Transmitter and Receiver

## 8-CHANNEL DIGITALLY ENCODED VIDEO

### Product Features

- 10-Bit Digitally Encoded Video for High-Quality Multichannel Video Transmission over a Single Fiber
- Multimode Fiber Support for Distances up to 3 km (1.9 mi)
- Single-Mode Fiber Support for Distances up to 48 km (29.8 mi)
- Exceeds All Requirements for EIA RS-250C Short-Haul Transmission Specifications
- Compatible with NTSC, PAL, or SECAM Video Standards
- Designed to Meet NEMA TS 1/TS 2 and Caltrans Traffic Signal Control Equipment Environmental Standards
- Laser Diode for Transmission of Optical Signals
- Voltage Transient Protection on All Power and Signal Input/Output Lines
- LED Status Indicators for Monitoring All Critical Operating Parameters
- Stand-Alone or Rack-Mountable Modular Design

The **FTV80/FRV80** fiber transmitter and receiver transmit eight channels of video over one optical fiber in a two-slot wide design. The **FTV80** transmitter and **FRV80** receiver are available in multimode and single-mode versions.

The **FTV80/FRV80** plug-and-play design ensures ease of installation by requiring no electrical or optical adjustments. Modular in design, **FTV80** and **FRV80** units can be rack-mounted using the EURACK/USRACK chassis, or stand-alone modules can be placed on a desktop or mounted to a wall (wall mount kit not required).

For stand-alone and wall mount installations, external power is required for the **FTV80/FRV80** units. The units can be powered with the recommended FEXTPS fiber external power supply.



FRV80M1ST

# TECHNICAL SPECIFICATIONS

## MODELS

Transmitter	Compatible Receiver	Fiber Optical Connector Type	Number of Fibers	Wavelength	Optical Power Budget	Maximum Transmission Distance*
<b>Multimode (62.5/125 µm)</b>						
FTV80M1ST	FRV80M1ST	ST	1	1310 nm	16 dB	3 km (1.9 mi)
<b>Single Mode (9/125 µm)</b>						
FTV80S1ST	FRV80S1ST	ST	1	1310 nm	16 dB	48 km (29.8 mi)
FTV80S1FC	FRV80S1FC	FC	1	1310 nm	16 dB	48 km (29.8 mi)
<p><b>Note:</b> This product requires a fiber installation with a minimum 30 dB connector return loss.</p> <p>*Distance may be limited by optical dispersion. High bandwidth 50/125 µm fiber is required to achieve maximum multimode distance. Contact Pelco Product Support before using these units for distances greater than 2 km (1.2 mi).</p>						

## VIDEO

Number of Channels	8
Video Input (FTV80/ Video Output (FRV80)	1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM
Overload	>1.5 Vp-p
Bandwidth (minimum)	10 to 6.5 MHz
Differential Gain	<2%
Differential Phase	<0.7°
Tilt	<1%
Signal-to-Noise Ratio	67 dB typical
Max. Coaxial Cable (RG59)	100 m (300 ft) camera to fiber optic module to maintain 6 Mhz bandwidth

## ELECTRICAL

Power	
Surface Mount	8 to 15 VDC at 4 W
Rack Mount	Provided by rack
MTBF	>100,000 hours
Current Protection	Automatic resettable solid-state current limiters
Circuit Board	Meets IPC standards
LED Indicators	Video Sync, Power

## MECHANICAL

Connectors	
Power	Terminal block
Optical	ST or FC
Video	BNC (gold-plated center pin)
Number of Rack Slots	2

## GENERAL

Dimensions	15.5 × 13.5 × 5.6 cm (6.1" D × 5.3" W × 2.2" H)
Operating Temperature	-40° to 75°C (-40° to 167°F)
Storage Temperature	-40° to 85°C (-40° to 185°F)
Relative Humidity	0 to 95%, noncondensing
Unit Weight	0.7 kg (1.5 lb)
Shipping Weight	0.9 kg (2.0 lb)

## CERTIFICATIONS/RATINGS

- CE, Class A
- FCC, Class A
- UL/cUL Listed
- C-Tick
- Designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards

## RECOMMENDED ACCESSORIES

EURACK	4 RU rack accessory with European power supply
USRACK	4 RU rack accessory with North American power supply
FEXTPS	Fiber External Power Supply with multiple plug adaptors (North American, Australian, United Kingdom, and European); 100 to 240 VAC, 50 to 60 Hz input, 9 VDC output

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