FTV160/FRV160, FTV320/FRV320 Fiber Transmitter and Receiver
16- OR 32-CHANNEL DIGITALLY ENCODED VIDEO

Product Features

- 10-Bit Digitally Encoded Video for High-Quality Multichannel Video Transmission over a Single Fiber
- Single-Mode Fiber Support for Distances up to 54 km (33.6 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
- Rack-Mountable Modular Design

The FTV160/FRV160 and FTV320/FRV320 fiber transmitter and receiver transmit 16 or 32 channels of video, respectively, over one optical fiber. All models support single-mode fiber distances up to 54 km (33.6 mi).

The FTV160/FRV160 and FTV320/FRV320 plug-and-play design ensures ease of installation by requiring no electrical or optical adjustments. All models are shipped rack-mounted in the EURACK/USRACK chassis.
# TECHNICAL SPECIFICATIONS

## MODELS

<table>
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<th>Transmitter</th>
<th>Compatible Receiver</th>
<th>Fiber Optical Connector Type</th>
<th>Number of Fibers</th>
<th>Wavelength</th>
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<td>FRV160S1ST</td>
<td>ST</td>
<td>1</td>
<td>1310 nm</td>
<td>18 dB</td>
<td>54 km (33.6 mi)</td>
</tr>
<tr>
<td>FTV160S1FC</td>
<td>FRV160S1FC</td>
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<td>1</td>
<td>1310 nm</td>
<td>18 dB</td>
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<tr>
<td>FTV320S1ST</td>
<td>FRV320S1ST</td>
<td>ST</td>
<td>1</td>
<td>1310 nm</td>
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<td>54 km (33.6 mi)</td>
</tr>
<tr>
<td>FTV320S1FC</td>
<td>FRV320S1FC</td>
<td>FC</td>
<td>1</td>
<td>1310 nm</td>
<td>18 dB</td>
<td>54 km (33.6 mi)</td>
</tr>
</tbody>
</table>

**Note:** This product requires a fiber installation with a minimum 30 dB connector return loss.

*Distance may be limited by optical dispersion.

## VIDEO

- **Number of Channels:** 16 or 32
- **Video Input/Video Output:** 1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM
- **Overload:** >1.5 Vp-p
- **Bandwidth:** 10 to 6.5 MHz per channel
- **Differential Gain:** <2%
- **Differential Phase:** <0.7°
- **Tilt:** <1%
- **Signal-to-Noise Ratio:** 67 dB at maximum optical loss budget
- **Max. Coaxial Cable (RG59):** 100 m (300 ft) camera to fiber optic module to maintain 6 MHz bandwidth

## ELECTRICAL

- **MTBF:** >100,000 hours
- **Input Power:**
  - FTV/FRV160: 90 to 264 VAC at 10 W maximum
  - FTV/FRV320: 90 to 264 VAC at 20 W maximum
- **Rack Power Supply Output:** 9 VDC at 6.5 A
- **Fusing:** 1.25 A slow blow (rack power supply; plug-in modules are individually electronically fused)
- **Current Protection:** Automatic resettable solid-state current limiters
- **Circuit Board:** Meets IPC standards
- **LED Indicators:** Video, Link, Power

## MECHANICAL

- **Connectors:**
  - **Optical:** ST or FC
  - **Power:** Terminal block
  - **Video:** BNC (gold-plated center pin)

## GENERAL

- **Dimensions:** 48 × 19 × 15 cm (19” D × 7.5” W × 6” H)
- **Operating Temperature:** –40°F to 75°C (–40°F to 167°F)
- **Storage Temperature:** –40°F to 85°C (–40°F to 185°F)
- **Relative Humidity:** 0 to 95%, noncondensing
- **Unit Weight:**
  - FTV160/FRV160: 4.0 kg (8.8 lb)
  - FTV320/FRV320: 5.3 kg (11.7 lb)
- **Shipping Weight:**
  - FTV160/FRV160: 5.08 kg (11.2 lb)
  - FTV320/FRV320: 6.40 kg (14.1 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

† At the time of this printing, all certifications are pending. Please consult the factory, our Web site (www.pelco.com), or the most recent B.O.S.S.® update for the current status of certifications.

## RECOMMENDED MOUNTS

- **EURACK:** 4 RU rack accessory with European power supply
- **USRACK:** 4 RU rack accessory with North American power supply

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