

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



FTV160S1ST

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

| Transmitter | Compatible Receiver | Fiber Optical Connector Type | Number of Fibers | Wavelength | Optical Power Budget | Maximum Transmission Distance* |
|---|---------------------|------------------------------|------------------|------------|----------------------|--------------------------------|
| Single Mode (9/125 µm) | | | | | | |
| FTV160S1ST | FRV160S1ST | ST | 1 | 1310 nm | 18 dB | 54 km (33.6 mi) |
| FTV160S1FC | FRV160S1FC | FC | 1 | 1310 nm | 18 dB | 54 km (33.6 mi) |
| FTV320S1ST | FRV320S1ST | ST | 1 | 1310 nm | 18 dB | 54 km (33.6 mi) |
| FTV320S1FC | FRV320S1FC | FC | 1 | 1310 nm | 18 dB | 54 km (33.6 mi) |
| 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° 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 | |
| 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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