

FTV40/FRV40 Fiber Transmitter and Receiver

4-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 2 km (1.2 mi)
- Single-Mode Fiber Support for Distances up to 69 km (42.9 mi)
- Exceeds All Requirements for EIA RS-250C Short-Haul Transmission Specifications
- Laser Diode for Transmission of Optical Signals
- Compatible with NTSC, PAL, or SECAM Video Standards
- Designed to Meet NEMA TS 1/TS 2 and Caltrans Traffic Signal Control Equipment Environmental Standards
- 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



FRV40M1ST

The **FTV40/FRV40** fiber transmitter and receiver transmit four channels of video over one optical fiber. The **FTV40** transmitter and **FRV40** receiver are available in multimode and single-mode versions.

The **FTV40/FRV40** plug-and-play design ensures ease of installation by requiring no electrical or optical adjustments. Modular in design, **FTV40** and **FRV40** 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 **FTV40/FRV40** units. The units can be powered with the recommended FEXTPS fiber external power supply.

TECHNICAL SPECIFICATIONS

MODELS

| Transmitter | Compatible Receiver | Fiber Optical Connector Type | Number of Fibers | Wavelength | Optical Power Budget | Maximum Transmission Distance |
|-----------------------------------------------------------------------------------------------------|---------------------|------------------------------|------------------|------------|----------------------|-------------------------------|
| Multimode (62.5/125 µm) | | | | | | |
| FTV40M1ST | FRV40M1ST | ST | 1 | 1310 nm | 16 dB | 2 km (1.2 mi) |
| Single Mode (9/125 µm) | | | | | | |
| FTV40S1ST | FRV40S1ST | ST | 1 | 1310 nm | 23 dB | 69 km (42.9 mi) |
| FTV40S1FC | FRV40S1FC | FC | 1 | 1310 nm | 23 dB | 69 km (42.9 mi) |
| Note: This product requires a fiber installation with a minimum 30 dB connector return loss. | | | | | | |

VIDEO

| | |
|-----------------------------------------|-------------------------------------------------------------------------|
| Number of Channels | 4 |
| Video Input (FTV40/Video Output (FRV40) | 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 | 8 to 15 VDC at 3 W |
| Surface Mount | 8 to 15 VDC at 3 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 | 1 |

GENERAL

| | |
|-----------------------|----------------------------------------------------|
| Dimensions | 15.5 × 13.5 × 2.8 cm (6.1" D × 5.3" W × 1.1" 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 | 0.4 kg (0.9 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

*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 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 |

Pelco by Schneider Electric

3500 Pelco Way, Clovis, California 93612-5699 United States

USA & Canada Tel (800) 289-9100 Fax (800) 289-9150

International Tel +1 (559) 292-1981 Fax +1 (559) 348-1120

www.pelco.com

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