

FRV20 Fiber Receiver

2-CHANNEL DIGITALLY ENCODED VIDEO



Product Features

- Accepts Two 10-Bit Digitally Encoded Video Channels over Two Fibers
- Compatible with FTV10 and FTV10M Fiber Transmitters
- Multimode Fiber Support for Distances up to 3 km (1.9 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
- 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



FRV20S2ST

The **FRV20** fiber receiver accepts two channels of video over two optical fibers. The **FRV20** receiver is compatible with the FTV10 and FTV10M transmitters. Each of the two transmitters can send a single independent video channel to one **FRV20** receiver.

The **FRV20** receiver is available in multimode and single-mode versions. When using single-mode fiber, the **FRV20** receiver and compatible transmitter offer an optical power budget of 23 dB and provide a transmission distance of up to 69 km (42.9 mi).

The **FRV20** plug-and-play design ensures ease of installation by requiring no electrical or optical adjustments. Modular in design, **FRV20** 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 **FRV20** units. The units can be powered with the recommended FEXTPS fiber external power supply.



TECHNICAL SPECIFICATIONS

MODELS

Receiver	Compatible Transmitter	Fiber Optical Connector Type	Number of Fibers	Wavelength	Optical Power Budget	Maximum Transmission Distance
Multimode (62.5/125 μm)						
FRV20M2ST	FTV10M1ST	ST	2	1310 nm	16 dB	3 km (1.9 miles)
Single Mode (9/125 μm)						
FRV20S2ST	FTV10S1ST	ST	2	1310 nm	23 dB	69 km (42.9 miles)
FRV20S2FC	FTV10S1FC	FC	2	1310 nm	23 dB	69 km (42.9 miles)
Note: This product requires a fiber installation with a minimum 30 dB connector return loss.						

VIDEO

Number of Channels	2
Video Input	1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM
Number of Input Channels	2
Overload	>1.5 Vp-p
Bandwidth (minimum)	5 to 10 MHz
Differential Gain	<2%
Differential Phase	<0.7°
Tilt	<1%
Signal-to-Noise Ratio	>67 dB typical at maximum optical loss
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 2 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, Link, 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	0.38 kg (0.85 lb)
Shipping Weight	0.90 kg (2.00 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

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