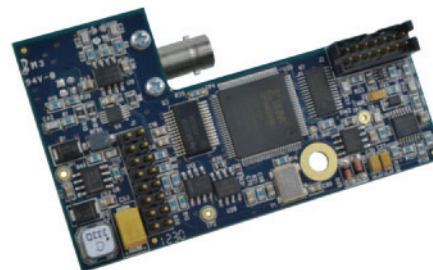


FSV10D1 Fiber Transmitter

SINGLE-CHANNEL DIGITALLY ENCODED VIDEO WITH BIDIRECTIONAL DATA

Product Features

- Designed for Use in Spectra® IV Domes
- 10-Bit Digitally Encoded Video for High-Quality Video Transmission over a Single Fiber
- Bidirectional RS-422 Data Channel or Coaxitron® Communication
- Supports Pelco Coaxitron "Up-the-Coax" Control Signals for a Distance up to 69 km (43 mi)
- Multimode Fiber Support for Distances up to 4 km (2.5 mi)
- Single-Mode Fiber Support for Distances up to 60 km (37 mi)
- Exceeds All Requirements for the RS-250C Medium-Haul Transmission Specification
- Laser Diode for Transmission of Optical Signals
- Compatible with NTSC, PAL, and SECAM Video Standards
- Designed to Meet NEMA TS-1/TS-2 and Caltrans Traffic Signal Control Equipment Environmental Standards
- LED Status Indicators for Monitoring All Critical Operating Parameters



The **FSV10D1** fiber transmitter is designed for quick and easy installation into the back box of Spectra® IV domes. The **FSV10D1** transmitter allows transmission of one unidirectional composite video channel and one bidirectional RS-422 data channel over one optical fiber. In addition, the "up-the-coax" technology allows Coaxitron® pan/tilt/zoom (PTZ) control data to be transmitted the full distance of the fiber. Available in multimode and single-mode versions, the **FSV10D1** transmitter is compatible with the FRV10D1 receiver.

The **FSV10D1** transmitter allows the user to choose bidirectional data or up-the-coax through use of a dip switch on the compatible FRV10D1 receiver unit. The selection of RS-422 data communication allows PTZ control of the Spectra IV dome. With Coaxitron control, PTZ control signals are transmitted over video coaxial cable from the controller to the FRV10D1 receiver. The receiver then transmits the Coaxitron data onto the fiber to the **FSV10D1** transmitter. The Coaxitron data is transmitted from the controller to the Spectra IV dome during the vertical blanking interval of the video signal.

The **FSV10D1** transmitter includes a corresponding 13-inch fiber cable for easier pre-wiring installation. The unit operates using power supplied from the Spectra IV dome.

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)						
FSV10D1M1ST	FRV10D1M1ST	ST	1	1310/1550 nm	16 dB	4 km (2.5 mi)
Single Mode (9/125 μm)						
FSV10D1S1ST	FRV10D1S1ST	ST	1	1310/1550 nm	20 dB	60 km (37 mi)
FSV10D1S1FC	FRV10D1S1FC	FC	1	1310/1550 nm	20 dB	60 km (37 mi)
Note: This product requires a fiber installation with a minimum 30 dB connector return loss.						

VIDEO

Video Input	1.0 V _{p-p} , 75 ohms
Overload	>1.5 V _{p-p}
Bandwidth	5 Hz to 6.5 MHz
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

DATA

Interface	RS-422
Rate	DC-115 Kbps (NRZ)

ELECTRICAL

Wavelength	1310/1550 nm, multimode and single-mode
Number of Fibers	1
Optical Emitter	Laser diode
LED Indicators	Link
Connectors	
Optical	ST or FC
Power	8 to 15 VDC at 350 mA from dome

GENERAL

Dimensions	10.16 × 6.4 cm (4.0" L × 2.5" W)
MTBF	>100,000 hours
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	0.210 kg (0.460 lb)
Shipping Weight	0.225 kg (0.500 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

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