

FTV80D2/FRV80D2 Fiber Transmitter and Receiver

8-CHANNEL VIDEO WITH BIDIRECTIONAL DATA AND CONTACT CLOSURE

Product Features

- 10-Bit Digitally Encoded Video for High-Quality Transmission over a Single Fiber
- 2 Bidirectional Data Channels Support RS-232, RS-422, RS-485 (2-wire/4-wire), Manchester, and Bi-Phase Communication
- 1 Bidirectional Contact Closure
- Multimode Fiber Support for Distances up to 2 km (1.2 mi)
- Single-Mode Support for Distances up to 69 km (42.9 mi)
- Exceeds All Requirements for the EIA RS-250C Short-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
- Voltage Transient Protection on All Power and Signal Input/Output Lines
- LED Status Indicators for Monitoring All Critical Operating Parameters
- Hot-Swappable Rack Modules
- Stand-Alone or Rack-Mountable Modular Design



FRV80D2M1ST

The **FTV80D2/FRV80D2** transmitter and receiver transmit eight channels of unidirectional video, two channels of bidirectional data, and one bidirectional contact closure over one optical fiber in a three-slot wide design. The **FTV80D2** transmitter and **FRV80D2** receiver are available in multimode and single-mode versions.

The **FTV80D2/FRV80D2** plug-and-play design ensures ease of installation and no electrical or optical adjustments are required. Modular in design, **FTV80D2** and **FRV80D2** 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 **FTV80D2/FRV80D2** 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)						
FTV80D2M1ST	FRV80D2M1ST	ST	1	1310/1550 nm	16 dB	2 km (1.2 mi)
Single Mode (9/125 μm)						
FTV80D2S1ST	FRV80D2S1ST	ST	1	1310/1550 nm	23 dB	69 km (42.9 mi)
FTV80D2S1FC	FRV80D2S1FC	FC	1	1310/1550 nm	23 dB	69 km (42.9 mi)
Note: This product requires a fiber installation with a minimum 30 dB connector return loss.						

VIDEO/ELECTRICAL

Number of Channels	8
Video Input (FTV80D2)/ Video Output (FRV80D2)	1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM
Overload	>1.5 Vp-p
Bandwidth	10 Hz 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 maintains 6 Mhz bandwidth
Power	
Surface Mount	8 to 15 VDC at 4 W
Rack Mount	Supplied by rack
MTBF	>100,000 hours
LED Indicators	Link, Video, Data

DATA

Number of Channels	2
Data Communication	RS-232, RS-422, and RS-485 (2-wire/4-wire), Manchester, and Bi-Phase
Maximum Baud Rate	250 Kbps

CONTACT CLOSURE

Number of Channels	1
Contact Interface	0.5 ms response time
Input	Dry
Output	SPST relay, 0.5 contact rating

MECHANICAL

Connectors	
Optical	ST or FC
Power	Terminal block
Video	BNC (gold-plated center pin)
Data	Terminal block
Number of Rack Slots	3

GENERAL

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
Dimensions	15.5 × 13.5 × 8.3 cm (6.1" D × 5.3" W × 3.3" H)
Unit Weight	0.75 kg (1.65 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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