FS85011A Fiber Transmitter

SINGLE-CHANNEL DIGITALLY ENCODED VIDEO WITH BIDIRECTIONAL DATA

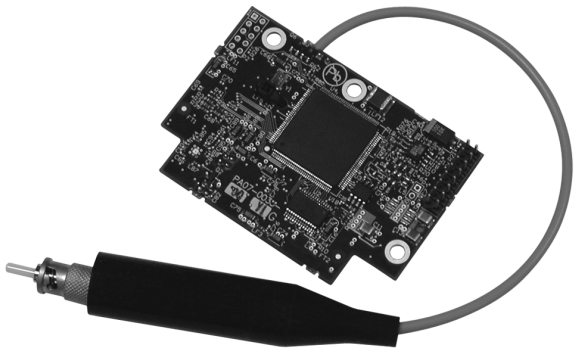
Product Features

- Designed for Use in Spectra III™ and Spectra® IV Domes and in the ExSite® Explosionproof Positioning System
- 8-Bit Digitally Encoded Video for High-Quality Video Transmission over a Single Fiber
- Bidirectional RS-422 Data Channel or Coaxitron® Communication
- Patent-Pending Transmission Technology Allowing Coaxitron Control at Full-Distance Capabilities
- Compatible with the FR85011A/FR85011 Fiber Receiver
- Integrated Wavelength Division Multiplexing (WDM) in a Single Fiber
- Multimode Fiber Support for Distances up to 6 km
- Single-Mode Fiber Support for Distances up to 46 km
- Laser Diode for Transmission of Optical Signals
- Exceeds All Requirements for the RS-250C Medium-Haul Transmission Specification
- Compatible with NTSC, PAL, and SECAM Video Standards
- No Performance Adjustments Required
- LED Indicator for Monitoring of Signal Status

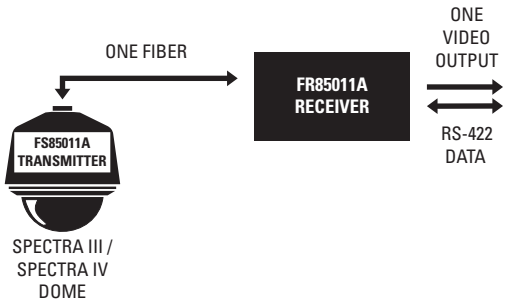
The **FS85011A** fiber transmitter is designed for quick and easy installation into the back box of Spectra III™ and Spectra® IV domes or can be included as part of an ExSite® explosionproof positioning system at the factory. The **FS85011A** transmitter provides the ability to send one unidirectional composite video channel and one bidirectional RS-422 data channel over one optical fiber. In addition, patent-pending technology provides the solution for allowing Coaxitron® pan/tilt/zoom (PTZ) control data to be transmitted the full distance of the fiber. Available in multimode and single-mode versions, the **FS85011A** transmitter is compatible with the FR85011A/FR85011 receiver.

A jumper on the **FS85011A** transmitter provides the unique capability to select RS-422 or Coaxitron data communication. The selection of RS-422 data communication allows PTZ control of the Spectra III/ Spectra IV dome or of the ExSite positioning system. With Coaxitron control, PTZ control signals are transmitted over video coaxial cable from the controller to the FR85011A/FR85011 receiver. The receiver then transmits the Coaxitron data onto the fiber to the **FS85011A** transmitter. The Coaxitron data is transmitted from the controller to the Spectra III/Spectra IV dome or to the ExSite positioning system during the vertical blanking interval of the video signal.

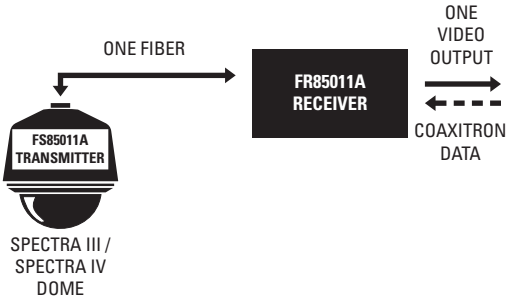
The **FS85011A** transmitter operates using power supplied from the Spectra III/Spectra IV dome or from the ExSite positioning system.



FS85011A FIBER TRANSMITTER WITH 6-INCH CABLE



SINGLE-CHANNEL VIDEO AND RS-422 DATA APPLICATION



SINGLE-CHANNEL VIDEO AND COAXITRON DATA APPLICATION

TECHNICAL SPECIFICATIONS

MODELS

Model Number		Fiber Optic Connector Type	Wavelength (Video/Data)	Optical Power Budget	Maximum Transmission Distance	Cable Length
FS85011A Transmitter	Compatible Receiver*					
Multimode (62.5/125 µm)						
FS85011AMST	FR85011AMSTR	ST	1310/850 nm	26 dB†	6 km (3.7 mi)‡	6 inches (15.24 cm)
	FR85011MSTR	ST	1310/850 nm	20 dB†	6 km (3.7 mi)‡	6 inches (15.24 cm)
FS85011AMSTEX	FR85011AMSTR	ST	1310/850 nm	26 dB†	6 km (3.7 mi)‡	6 ft (1.83 m)
	FR85011MSTR	ST	1310/850 nm	20 dB†	6 km (3.7 mi)‡	6 ft (1.83 m)
Single-Mode (9/125 µm)						
FS85011ASST	FR85011ASSTR	ST	1310/1550 nm	28 dB	46 km (28.6 mi)§	6 inches (15.24 cm)
	FR85011SSTR	ST	1310/1550 nm	20 dB	30 km (18.6 mi)§	6 inches (15.24 cm)
FS85011ASSTEX	FR85011ASSTR	ST	1310/1550 nm	28 dB	46 km (28.6 mi)§	6 ft (1.83 m)
	FR85011SSTR	ST	1310/1550 nm	20 dB	30 km (18.6 mi)§	6 ft (1.83 m)
FS85011ASFC	FR85011ASFCR	FC	1310/1550 nm	28 dB	46 km (28.6 mi)§	6 inches (15.24 cm)
	FR85011SFCR	FC	1310/1550 nm	20 dB	30 km (18.6 mi)§	6 inches (15.24 cm)

*Single-channel fiber optic video receiver/data transceiver.
†When using 50/125 µm multimode fiber, subtract 3 dB from the optical power budget.
‡Maximum transmission distance is limited by fiber bandwidth.
§Maximum transmission distance is based on attenuation of 0.5 dB/km plus a 5 dB buffer for connector and splice losses.
Note: For models with higher optical power budgets, contact the factory.

Supplied Accessories

Fiber optic adapter (ST to ST, FC to ST, or FC to FC)

VIDEO

Number of Channels	1
Modulation Type	Pulse code modulation, 8-bit resolution
Video Input	1.0 Vp-p, 75 ohms; NTSC, PAL, and SECAM
Bandwidth	6.5 MHz
Gain	Unity
Differential Gain	<2%
Differential Phase	<1°
Tilt	<1%
Signal-to-Noise Ratio	>60 dB (CCIR weighted)

DATA

Number of Channels	1
Data Communication	RS-422, Coaxitron

GENERAL

Operating Temperature	Refer to the Spectra III, Spectra IV, or ExSite product specification sheet as appropriate.
Input Power Requirements	12 VDC, 160 mA
LED Indicator	Optic Fault
Dimensions	2.9" L x 2.0" W (7.37 x 5.08 cm)
Unit Weight	0.08 lb (0.04 kg)
Shipping Weight	1.0 lb (0.45 kg)

MECHANICAL

Connectors

Video/Data/Power	16-pin header
Data Selection	2-pin header
Fiber Optic	ST for multimode fiber ST or FC for single-mode fiber

CERTIFICATIONS

- CE, Class A
- FCC, Class A
- UL/cUL Listed
- C-Tick
- Complies with FDA requirements for Class 1 laser products

Pelco, Inc. Worldwide Headquarters:
3500 Pelco Way, Clovis, California 93612-5699 USA
USA & Canada Tel: (800) 289-9100 • FAX: (800) 289-9150
International Tel: +1 (559) 292-1981 • FAX: +1 (559) 348-1120
www.pelco.com