



# GE Interlogix Fiber Options



# S764DAV S7764DAV

## One-Way Video with Two-Way Audio, Multi-protocol Data and Contact Closure Product Specification



### Features

- ✓ One-way video and two-way audio/data transmission over one or two fibers
- ✓ 9-bit A/D video processing
- ✓ 24-bit A/D audio processing
- ✓ Multi-protocol data: RS-232, RS-422, RS-485, Manchester, Biphasic, TTL, and SensorNet
- ✓ Unique data translation function
- ✓ Local or remote user-configurable data format
- ✓ Relay/contact closure - 2 duplex channels
- ✓ SMARTS™ Diagnostics, including on-screen monitor displays
- ✓ Built-in video and audio test pattern generators
- ✓ Forever Warranty™

### Description

The S764DAV/S7764DAV fiber link provides one-way video transmission combined with two-way 2-channel audio, 2-channel multi-protocol data, and 2-channel contact closures.

Digital processing of the video signal along with a video signal-to-noise ratio of >65 dB assures clean, noise-free video at the receiver.

Digital processing of the audio signal along with an audio signal-to-noise ratio of >90 dB allows the audio output to drive balanced or unbalanced loads and maintain constant audio levels.

The data functions include the unique data translation feature, which allows one data format to be input and a different data format to be output.

Fiber Options' unique SMARTS™ diagnostic technology provides an extensive set of built-in diagnostic tools including a video test pattern generator that allows failures to be diagnosed from the monitor, and LED displays for monitoring video, data, audio, contact, and optical signals.

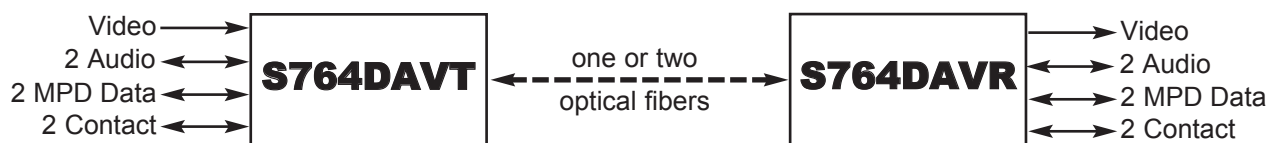
### Basic Multimode Models

- S764DAV-1** 1-Fiber link, 850/1300 nm
- S764DAV-2L** 2-Fiber link, 1300 nm

### Basic Single-Mode Models

- S7764DAV-1** 1-Fiber link, 1310/1550 nm
- S7764DAV-2** 2-Fiber link, 1310 nm
- S7764DAV-2L** 2-Fiber link, 1550 nm

### SYSTEM DIAGRAM



## SERIES S764DAV AND S7764DAV

### VIDEO

Number of Channels: 1  
Standards Supported: All major formats  
Video Input/Output Signal: 1.0 V p-p composite  
Input/Output Impedance: 75  $\Omega$

Signal-to-Noise Ratio: >65 dB  
Video Bandwidth: 8 MHz  
Video Resolution: 640 TV lines  
Differential Phase: 0.7°  
Differential Gain: <1%

### DATA

Number of Channels: 2, bi-directional, format independent  
I/O Data Formats: RS-232 (3-wire and 5-wire), TTL, RS-422, Manchester, Biphasic, Sensornet™, RS-485 (2-wire and 4-wire) with 200 mV, 1 V and 2 V offsets and forward/reverse relay/contact closure

Baud Rate:  
RS-232: 250 kbps  
Manchester, Biphasic: 250 kbps  
RS-422, RS-485, TTL: 512 kbps  
Relay/Contact Closures: 2 duplex channels  
Relay/Contact Rating: 1 A @ 30 VDC  
Bit Error Rate: <10<sup>-9</sup>  
Maximum Distance: The maximum distance from the CCTV control system components to the fiber units is governed by the control system.

### AUDIO

Channels: 2, bi-directional  
Input Signal: 17.4 V p-p, +18 dBu max.  
Input Impedance: 600  $\Omega$  or 100 k $\Omega$   
Output Signal Level: 17.4 V p-p, +18 dBu max.  
Output Impedance: 30  $\Omega$  single-ended or 60  $\Omega$  balanced

Bandwidth: 20 Hz to 20 kHz  
Sampling Rate: 52 kHz  
Signal-to-Noise Ratio: > 90 dB  
Total Harmonic Distortion: <0.006%

### ELECTRICAL

Input Voltage: 13.5 VDC, regulated  
Current Requirement: 500 mA  
Rack Module  
Power Factor: 4  
Power Consumption: 6.75 W

Protection: Solid-state short circuit protection (no fuse required)  
Card Replacement: Cards are hot swappable  
Power Supply: 613P

### OPTICAL

Optical Mode:  
S764DAV: Multimode  
S7764DAV: Single Mode  
Optical Budget:  
S764DAV: 13 dB\*  
S7764DAV: 18 dB

Wavelength:  
S764DAV-1: 850/1300 nm  
S764DAV-2L: 1300 nm  
S7764DAV-1: 1310/1550 nm  
S7764DAV-2: 1310/1330 nm  
S7764DAV-2L: 1550 nm

Operating Distance\*\*:  
S764DAV-1: 2.5 mi (4.0 km)  
S764DAV-2L: 11 mi (18 km)  
S7764DAV-1: 28 mi (45 km)  
S7764DAV-2: 28 mi (45 km)  
S7764DAV-2L: 37 mi (60 km)

Emitter Type: Laser  
Fiber Type: Multimode: 62.5  $\mu$ m  
Single Mode: 8.3  $\mu$ m  
Gain Control: Optical automatic (OAGC)

### ENVIRONMENTAL

Temperature Range  
in Operation: -40° to +167° F (-40° to +75° C)  
in Storage: -40° to +185° F (-40° to +85° C)  
Humidity Range in Operation and Storage:  
0 to 95% relative, noncondensing

### MECHANICAL

Module Width: 2 slots, 2.0 in. (51 mm)  
Weight: 0.7 lb (0.32 kg)  
Construction: Aluminum  
Finish: Black semigloss paint

### SMARTS™ INDICATORS

Level/Loss™, Video, Audio Input/Output, Data Input/Output, Contact Input/Output, Enable Configuration, Laser

### AGENCY COMPLIANCE AND MTBF

Emissions: FCC Part 15, ICES-003, AS/NZS 3548, EN55022  
Immunity: EN50130-4  
Safety: UL1950, CAN/CSA 22.2, NO.950-95  
Laser Safety: 21CFR1040; EN 60825-1,2  
MTBF: >100,000 hours

\*Optical Budget based on 62.5/125  $\mu$ m fiber, for 50/125  $\mu$ m fiber subtract 3 dB.

\*\*Operating distance is approximate and assumes best fiber. It will be affected by the type and number of splices in the fiber. Refer to update no. TB00-005, which can be found at [www.fiberoptions.com](http://www.fiberoptions.com).

FCC PART 15  
COMPLIANT



For additional information about this product, refer to the Fiber Options Web site at [www.fiberoptions.com](http://www.fiberoptions.com).