GE Interlogix
Fiber Options

S760DAV
S7760DAV

VIDEO

AUDIO 2

DATA

CONTACT CLOSURE 2

One-Way Video, Audio, Multi-protocol Data and Contact Closure

Product Specification
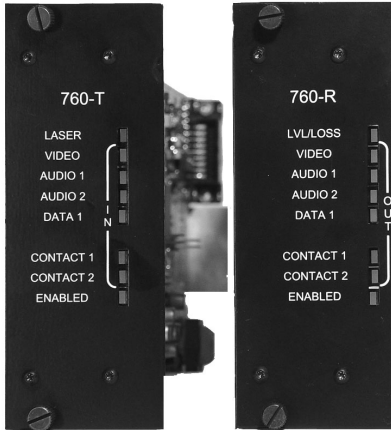
Features

✔ **One-way transmission over a single fiber**

✔ **9-bit A/D video processing**

✔ **24-bit A/D audio processing**

✔ **Multi-protocol data: RS-232, RS-422, RS-485, Manchester, Biphase, TTL, and SensorNet**

✔ **Unique data translation function**

✔ **Local or remote user-configurable data format**

✔ **Relay/contact closure - 2 forward channels**

✔ **SMARTS™ Diagnostics, including on-screen monitor dispays**

✔ **Forever Warranty™**

Description

The S760DAV/S7760DAV fiber link provides one-way video transmission combined with two audio channels, a multi-protocol data channel, and two two contact closure channels.

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, audio, data, contact, and optical signal.
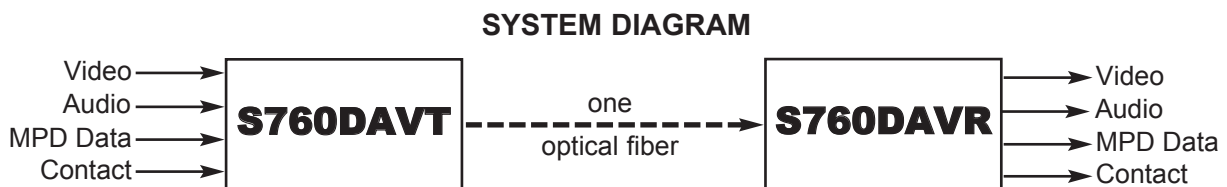
Basic Multimode Models
S760DAV-L   1-Fiber link, 1300 nm

Basic Single-Mode Models
S7760DAV   1-Fiber link, 1310 nm
S7760DAV-L   1-Fiber link, 1550 nm

SYSTEM DIAGRAM

Video →
Audio →
MPD Data →
Contact →
S760DAVT
- - - - - one optical fiber - - - - - →
S760DAVR
→ Video
→ Audio
→ MPD Data
→ Contact

VIDEO

Number of Channels:	1
Standards Supported:	All major formats
Video Input/Output Signal:	1.0 V p-p composite
Input/Output Impedance:	75 Ω
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:	1, simplex
I/O Data Formats:	RS-232 (3-wire and 5-wire), TTL, RS-422, Manchester, Biphase, Sensornet™, RS-485 (2-wire and 4-wire) with 200 mV, 1 V and 2 V offsets and forward relay/contact closure
Baud Rate:	
RS-232:	250 kbps
Manchester, Biphase:	250 kbps
RS-422, RS-485, TTL:	512 kbps
Relay/Contact Closures:	2 forward channels (TX to RX)
Relay/Contact Rating:	1 A @ 30 VDC
Bit Error Rate:	$<10^{-9}$

Maximum Distance: The maximum distance from the CCTV control system components to the fiber units is governed by the control system.

AUDIO

Channels:	2, simplex
Input Signal:	17.4 V p-p, +18 dBu max.
Input Impedance:	600 Ω or 100 kΩ
Output Signal Level:	17.4 V p-p, +18 dBu max.
Output Impedance:	30 Ω single-ended or 60 Ω 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

*Optical Budget based on 62.5/125 um fiber, for 50/125 um 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.

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

OPTICAL

Optical Mode:	
S760DAV:	Multimode
S7760DAV:	Single Mode
Wavelength:	
S760DAV-L:	1300 nm
S7760DAV:	1310 nm
S7760DAV-L:	1550 nm
Optical Budget:	
S760DAV:	13 dB*
S7760DAV:	18 dB
Operating Distance**:	
S760DAV-L:	11 mi (18 km)
S7760DAV:	28 mi (45 km)
S7760DAV-L:	37 mi (60 km)
Emitter Type:	Laser
Fiber Type:	Multimode: 62.5 µm Single Mode: 8.3 µm
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

Rack Modules

Module Width:	2 slots, 2.0 in. (51 mm)
Weight:	0.6 lb (0.27 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

FCC PART 15 COMPLIANT   CE   c UL us

For additional information about this product, refer to the Fiber Options Web site at www.fiberoptions.com.