



GE Interlogix Fiber Options

Core Product



251D



2251D

Single-Channel Contact Closure



Product Specification

Features

- ✓ Single channel contact closure
- ✓ One-way FM transmission over one fiber
- ✓ SMARTS™ Diagnostics
- ✓ Optical AGC circuitry
- ✓ Operates up to 20 mi (32 km)
- ✓ Standalone modules or rack cards
- ✓ Forever Warranty™

Description

The 251D and 2251D systems transmit a single channel of switch/status information or control-function signals. Outputs are Normally Open (NO) or Normally Closed (NC) reed relays. The 251D may be ordered either in standalone or rack modules, which can be mounted easily in Fiber Options' Series 515R1 Card Cage System or Series 517R1 Racking System.

The system design also includes optical AGC circuitry as well as SMARTS™ (Status Monitoring And Reliability Test System) diagnostic technology.

Basic Multimode Models

251D 1-Fiber link, 850 nm

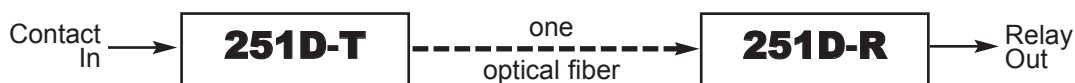
251DL 1-Fiber link, 1300 nm

Basic Single-Mode Models

2251D 1-Fiber link, 1310 nm

For a complete list of models, see the Fiber Finder™ or price list at the back of this book.

SYSTEM DIAGRAM



DATA

Number of Channels: 1
 I/O Data Formats: Contact closure
 Contact Closure to Relay Output Time: 5 ms
 Baud Rate: 200 bps
 Operating Mode: Asynchronous

Bit Error Rate: <math><10^{-9}</math>
 Maximum Distance: The maximum distance from the CCTV control system components to the fiber units is governed by the control system.

SERIES 251D AND 2251D

ELECTRICAL

Input Voltage:	
Standalone Modules:	12 - 16 VAC 12 - 16 VDC
Rack Modules:	13.5 - 16 VDC
Current Requirement:	75 mA
Rack Module	
Power Factor:	1
Power Consumption:	1 W
Contact Rating:	0.5 A @ 24 VAC/VDC
Protection:	Solid-state short circuit protection (no fuse required)
Card Replacement:	Cards are hot swappable
Power Supply:	610P (AC) 613P (DC)

OPTICAL

Wavelength:	
251D:	850 nm
251DL:	1300 nm
2251D:	1310 nm
Optical Mode:	
251D:	Multimode
251DL:	Multimode
2251D:	Single Mode
Optical Budget:	
251D:	13 dB*
251DL:	13 dB*
2251DL:	13 dB
Operating Distance**:	
251D:	3.2 mi (5.2 km)
251DL:	11 mi (18 km)
2251D:	20 mi (32 km)
Emitter Type:	Multimode: LED Single Mode: Laser
Fiber Type:	Multimode: 62.5 μ m Single Mode: 8.3 μ m
Gain Control:	Optical automatic (OAGC)
Launch Power:	-15 dBm
Receiver Sensitivity:	-28 dBm

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

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

Standalone Modules

Dimensions:	Length: 3.75 in (95 mm) Width: 2.81 in (71 mm) Height: 1.10 in (28 mm)
Weight:	0.26 lb (0.12 kg)
Construction:	Aluminum
Finish:	Black semigloss paint
Mounting Method:	4 No. 6 (3 mm) screws

Rack Modules

Module Width:	1 slot, 1.0 in. (25.4 mm)
Weight:	0.51 lb (0.23 kg)
Finish:	Black semigloss paint

SMARTS™ INDICATORS

Status

AGENCY COMPLIANCE AND MTBF

Emissions:	FCC Part 15, ICES-003, AS/NZS 3548, EN55022
Immunity:	ENV50204, EN61000-4-2,3,4,5,6,11
Safety:	UL1950, CAN/CSA 22.2, NO.950-95
Laser Safety:	21CFR1040; EN 60825-1, 2
MTBF:	>100,000 hours

FCC PART 15
COMPLIANT



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