

FLD-1

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DESCRIPTION

The Fiber Optic Line Driver module (FLD-1) provides fiber optic cable communications between system modules that will be free of ground faults, transients, or noise interference. This affords greater reliability and is a more robust application for those installations requiring communications running outdoors between structures. It connects to the RS-232 and RS-485 ports of the FCI 7100 and 7200 Series fire alarm control panels.

The FLD-1 converts either RS-232 or RS-485 signals to a powerful optical signal that can tolerate a signal loss of up to 10 dB. It uses half duplex data flow, an asynchronous protocol, and runs at speeds of up to 19.2 KBps for RS-232 and 128 KBps for RS-485 communications.

The FLD-1 is equipped with ST connectors that will support standard fiber optic cable up to 200 microns (multimode). Optimal results can be achieved with 62.5/125 micron cable.

The FLD-1 provides two modes of operation, the Network Mode or the Point-to-Point Mode, selectable through DIP Switch settings on board the FLD-1.

Network Mode

Using this mode the following configurations are possible:

•The FCI 7200 RS-485 FCINET® can be exported via Panel Bus Adapter (PBA) or local Keyboard Display Unit (KDU\L) from the main panel containing the System Control Unit (SCU) to up to fifteen remotely located KDUs, Remote Annunciator Units (RAUs), and sub-panels containing the Distributed Intelligent Unit (DIU). Each location requires one FLD-1.

• The RS-485 communication output of the FCI 7100 can be converted to an optical link and brought to as many as five remotely located LCD-7100 alphanumeric displays or LDM-7100 remote annunciator drivers. Each location requires an FLD-1.

Point-to-Point Mode

When configured in the Point-to-Point Mode, a single 7100 or 7200 Series control panel may use its RS-232 port to connect to a single printer, video terminal or personal computer (PC) via a fiber optic link. Each location requires an FLD-1.

INSTALLATION

The FLD-1 module mounts inside its own steel cabinet, which can be located up to 15 feet (4.6 meters) away, using rigid conduit. The dimensions of the cabinet are 10 $^{1/4}$ " W x 10" H x 3" D (26.04 x 25.40 x 7.62 cm).

Operating power for the FLD-1 is obtained from the 7200 or 7100 panel, and is connected to the FLD-1 via terminal block. RS-485 connections are also made via terminal block, and RS-232 connections are made using a standard RJ-11 cable.

FEATURES

- Can be used to transmit the FCINET® RS-485 data between a 7200 fire alarm control panel, and up to fifteen (15) Distributed Intelligent Units (DIU) via Fiber Optic Cable
- Provides a Fiber Optic connection between the 7100 and 7200 Series fire alarm control panel and multiple annunciators
- Allows a Fiber Optic cable link between a Personal Computer, Printer or Video Terminal to 7100 and 7200 Series Fire Alarm Control Systems over long distances
- Tolerates up to 10 dB signal loss between each FLD-1 module
- Fiber Optic Cable offers High Immunity from Interference, Transients and Voltage Spikes
- Automatically adjusts to different RS-232 Baud rates
- Uses Industry Standard ST Connectors

FIBER OPTIC LINE DRIVER MODULE







An ISO 9001 Company

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Module layout showing connection points

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SPECIFICATIONS

DESCRIPTION

Operating voltage Operating temperature Relative humidity Protocol Speed

ST connectors Dimensions

APPROVALS

U.L. 864 File S1949 FMApproved CSFM 07300-0694:251 FCC Part 15

OPERATING VOLTAGE 24 VDC (nominal) @ 0.045 amp (all modes) 32° to 120° F (0° to 49° C) 0 to 85% (non-condensing) Asynchronous with half-duplex data flow RS-232 up to 64 KBps RS-485 up to 128 KBps Up to 200 microns (multimode), optimized for 62.5/125 microns 10 $^{1}/_{4}$ " W x 10" H x 3" D (26.04 x 25.40 x 7.62 cm)

ORDERING INFORMATION

PART NUMBER 1100-0429

MODEL FLD-1 **DESCRIPTION** Fiber Optic Line Driver Module with Back Box

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