



For reliable full-duplex four channel serial data communications, use the Model 532A Fiberoptic Modem/Multiplexer.

Model 532A Features

- **Plug-in optical modules for varying distances between modems**
- **All standard RS-232 handshake signals supported (for one channel)**
- **Conforms to all RS-232 electrical specifications**
- **Vastly superior for noise immunity and electrical isolation**
- **Fiberoptic extension for MAS RTU radios such as Motorola's DARCOMTM radios**
- **Four channel serial data communications modem**
- **DB-25F DCE RS-232 connector**

Fiberoptic Modem/Multiplexer

Overview

For electric utilities and other industries that require environmentally robust point-to-point RS-232 data communication, H&L Instruments developed the Model 532A Fiberoptic Modem/Multiplexer. The Model 532A, with its self-contained, surge-protected power supply and extended temperature operation of -40°C to +85°C, ensures that you will have reliable serial data communications.

Multiplexing makes it possible to send signals from up to four remote RS-232 devices simultaneously at speeds up to 20 kb/s via a single pair of fibers thus lowering the cost per channel. The Model 532A can be ordered for use with multimode or singlemode optical fiber. The presence or absence of a constant light carrier signal allows users to quickly verify the integrity of the fiber cables and to measure received power levels. All H&L fiberoptic products have optical light carriers for ease of testing.

Fiberoptic Modem/Multiplexers are often used as galvanically isolating extension cords to link Remote Terminal Units (RTUs) or Programmable Logic Controllers (PLCs) to radios or to connect remote devices to a SCADA master computer.

Model 532A

Model 532A Specifications

Data Rate:

Dc to 20Kbps

Receive Delay:

<8msec

Rise/Fall Time:

<3msec

Environmental/Mechanical:

Operating Temperature: -40°C to +85°C

5% to 95% RH

Net Weight: 3lbs

Fiberoptic Connector Options:

ST

Power Options (5.5 Watts):

12Vdc, 24Vdc, 48Vdc, 125Vdc/120Vac 50-60Hz,

250Vdc/230Vac 50-60 Hz

Optical Budget:

20 dB multimode LED @ 850nm (62/125 fiber)

16 dB singlemode LED @ 1310nm

32 dB singlemode Laser @ 1310nm

Optical Output Power:

LED> -18dBm @ 850nm multimode (62/125 fiber)

LED> -24dBm @ 1310nm singlemode

Laser> -8dBm @ 1310nm singlemode

Optical Receiver Sensitivity:

> -38 dBm multimode or > -42 dBm singlemode

@ 1310nm (1 x 10⁻⁹ BER)

“We needed to do two projects and got another bid, but wanted to do it right! We’ve learned our lesson and use the H&L modems.”

- Bonneville Power Administration

Other H&L Fiberoptic Products:

Model 508B Fiberoptic TransNet Extender
(fiberoptic isolation)

Model 531-8 Fiberoptic Digital I/O
(transfer-trip relaying)

Model 542B Fiberoptic Transceiver
(multi-drop loop communications)

Model 561 Fiberoptic Transceiver
(FiberLoop II™ multi-drop self-healing system)

Model 570E Fiberoptic Transceiver
(FiberLoop III™ multi-drop self-healing system with Ethernet option)

Model 561-16 and 570-16 Transceivers
(16 serial port transceivers)

Model 570X Fiberoptic DNP3 Gateway Transceiver

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