

MDL500

DEDICATED WIRE FSK MODEM



FEATURES

- Ideal for private lines or any dedicated wire pair
- Versatile, reliable and durable—designed especially for industrial applications
- Exceptional immunity to EMI/RFI
- Easily interfaces with PLCs, RTUs and PCs
- Supports multi-drop polling applications and point-to-point installations
- Factory or field configured for your applications—ensuring trouble-free installation
- Protocol and baud rate transparent
- Optional long range version available (up to 7.5 miles or 40,000 ft.)

APPLICATIONS

- Stacking cranes
- Material handling equipment
- Rotating molds or any mobile robotic equipment
- Hydroelectric generators
- Railroad signaling controls
- Mine safety monitoring
- Flow meter pulse train transmission
- Various manufacturing applications

The Data Linc Group MDL500 Frequency Shift Key (FSK) series offers maximum versatility and reliability. With simplex, half-duplex and full-duplex capability, the MDL500 FSK series provides unsurpassed flexibility for private lines or any dedicated wire pair (twisted, untwisted, or unshielded) industrial application. Shielded wire is not recommended in longer range applications.

The MDL500 incorporates a special filter section in the FSK receiver. This filter eliminates out-of-band electromagnetic interference (EMI). As a result, the MDL500 can utilize most untwisted and unshielded wires with error-free operation.

When the MDL500 FSK modem is configured for multipoint operation, the carrier is controlled by the RTS line of the connected addressable device. The turn around time (RTS to send delay time) is only 20 milliseconds, permitting high system data throughput. The MDL500 has unique circuitry that stabilizes the received carrier rapidly and eliminates any false triggering by the Master's receiver when any Remote's transmitter is turned on or off.

The MDL500 FSK series is factory pre-configured for simple installation. This series range is up to eight miles, based on 24-gauge wire. Larger wire gauges can increase range.

The MDL500 FSK is ideal for applications where only dedicated twisted pair connect the locations requiring data transfer. It can also be used to communicate data over sliding contacts with high reliability, including slip rings and rolling wheels, as well as shoes on conductor bars.

The MDL500, used with High Voltage Interface (HVI) and Power Line Isolators (PLI), permits full-duplex data transmission over in-use power lines at up to 9600 baud. Line voltage and current can be up to 600 volts and 200 amps. Data-Linc Group's PLI500 Power Line Isolators block outside noise produced by the power grid from interfering with data reliability. Used as a power line modem, its range is typically 4,000 feet.

MDL500 SPECIFICATIONS

Data Format

Standard. RS232

Optional. RS422/AE485 (4/2 wire)

Operation

Two-wire, full-duplex or half-duplex controlled carrier, asynchronous data

Four-wire, long range version available

Mode

Point-to-Point or Multipoint

Data Transmission Speed

Up to 9600 baud

Modulation

Frequency shift key (FSK); carrier signal transformer and capacitively isolated

Interface

DTE/DCE jumper selectable; female DB25 connector for RS232; two position pluggable terminal block for carrier; 2.5 mm x 5.5 mm barrel jack (center positive) for 24 VDC power

Distance

Two-conductor wire. Up to 20,000 feet (6.1 km)

Four-wire, long-range unit. Up to 40,000 feet (12.2 km)

Power

21 to 28 VDC or 120 VAC (wall transformer provided)

Operating Environment

Temperature Range. 32° to 140°F (0° to +60°C)

Humidity. 0 to 95%, non-condensing

Enclosure

Standard. 16-gauge steel with mounting flanges

Weight. 3.5 lbs (1.6 kg)

MDL500/MRM (Medium Range Master unit)

Medium range (<20,000ft or 6.096 km) Master, 2 wire

MDL500/MRR (Medium Range Remote unit)

Medium range (<20,000ft or 6.096 km) Remote, 2 wire

MDL500/LRM (Long Range Master unit)

Long range (<40,000ft or 12.192 km) Master, 4 wire

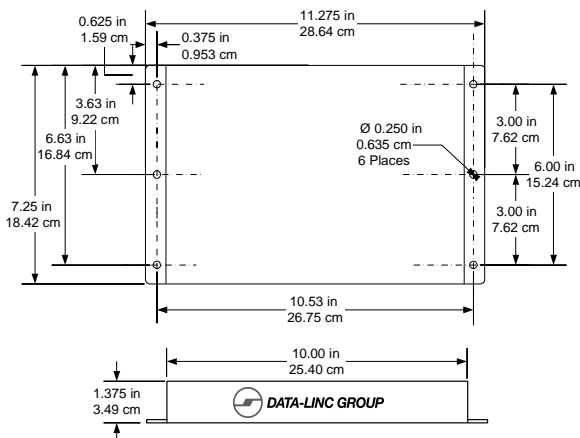
MDL500/LRR (Long Range Remote unit)

Long range (<40,000ft or 12.192 km) Remote, 4 wire

Contact Data-Linc Group for information regarding RS232 data cables and optional models that will support RS422 and AE485 applications.

Specifications subject to change without notice.

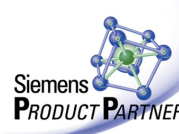
MDL500 DIMENSIONS



ABOUT DATA-LINC GROUP

For over fifteen years, Data-Linc Group has provided reliable communication solutions for industrial automation systems. Data-Linc Group, an alliance partner with most major PLC manufacturers including Rockwell Automation, Siemens, Schneider Electric, GE Fanuc, and Omron, as well as others, provides expert technical support and communications consultation. Data-Linc's industry proven RF technology has been successfully implemented in all major industries including automotive plants, consumer goods manufacturing/packaging, steel mills, mines, oil/gas refineries, paper mills, utilities and transportation systems. Its products are available worldwide. Data-Linc recently expanded its market with a line of wireless modems for the European Union.

ALLIANCE PARTNERS



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