

# DLM4500

## DIAL-UP/LEASED LINE EXTENDED TEMP MODEM



Data-Linc Group's DLM4500 voice band modem offers maximum versatility and reliability in remote process control and data acquisition. From dial-up, leased and private line applications, the DLM4500 provides unsurpassed flexibility in any industrial application requiring extended temperatures.

The DLM4500 uses advanced Trellis coding, error correction and data compression technology for virtually error-free data communications. An uncompressed PLC line speed of up to 19.2 Kbaud is standard; however, port baud rates of 1200 through 115.2 Kbaud are also available.

The DLM4500 operates full/half-duplex on two wires. The asynchronous digital interface can be either RS-232/422 or AE485. The DLM4500 Auto Answer AE485 version easily provides long distance polling of multiple PLCs at a remote site. The polling operation performed by the Master is completely transparent to the DLM4500. No additional Master programming is required—simply enter the Remote DLM4500 telephone number.

Housed in a rugged steel enclosure for optimal EMI resistance, the DLM4500 series is factory configured for trouble-free installation. No programming or configuration is required.

### FEATURES

- Ideal for industrial dial-up, leased line, private line or dedicated wire applications
- Extended temperature range of -40° to +176°F (-40° to +80°C)
- Operates as dial-up or leased line
- Versatile, reliable and durable—designed especially for industrial applications
- Easily interfaces with most PLCs, RTUs and PCs
- Factory or field configured for your application—ensuring trouble-free installation
- Supports most serial protocols, including DF1, GE-SNP, Modbus ASCII, DNP, and Optomux. (For Modbus RTU, contact Data-Linc)

### APPLICATIONS

- SCADA system communications
- Remote PLC programming and diagnostics
- Remote alarm monitoring
- PLC/RTU communications

Please contact Data-Linc for an application review.

## DLM4500 SPECIFICATIONS

### Compliance

**EMI/RFI:** FCC Part 15, Class B, DOC Class/

MDC Class B

**Phone Compatibility:** FCC Part 68

### Ringer Equivalence

0.30B

### Carrier

Trellis Coded Modulation (TCM) 1700 or 1800 Hz

### Standards

**Modem Communication.** ITU-TSS (CCITT) V.34, V.43bis, V.32, V.23, V.22bis, V.22 and V.21; Bell 212A and 103/113

**Error Correction.** V.42 (LAP-M or MNP3-4)

**Data Compression.** V.42bis (4:1 throughput) MNP5 (2:1 throughput)

### Interface

**Telephone Line.** Modular TELCO, RJ-11

**Serial Port.** DB-9 female

**Power.** 2 Position Pluggable Terminal Block

### Flow Control

User selectable options; function disabled at factory

### Operation

Two-wire dial-up or two-wire leased lines

### Modem Data Rate

Support all speeds up to 33.6 Kbps

### DTE Speeds Supported

Up to 115.2 Kbaud

### Dial Type

Touch-tone

### Transmission Level

-11 dBm

### Receiver Sensitivity

-43 dBm

### Range

20 miles\* (32 km) on unloaded line, unlimited for loaded lines and dial-up applications

### Internal Memory

**RAM.** 60 character command buffer

**NVRAM.** One stored factory profile

### User Controls

**Standard.** AT Command Set

**Optional.** Auto Answer/Dial Back internal discrete signal control module

### Diagnostics

Tests using &Tn

### Data Connections

**Standard.** DB-9 female DCE

**Optional.** Two wire AE485 or four wire RS-422

(AE485 Auto Enable is RS-485 compatible in most cases)

### Data Format

Serial, Asynchronous 10 or 11 bit

### Power

**Standard.** Wall mount power supply, 110/120 VAC to 9 to 18 VDC, 800 mA

**Optional.** 24 VDC (user supplied) power interface, two position terminal block. 24 VDC, 300 mA

### Operating Environment

**Temperature.** -40° to +176°F (-40° to 80°C)

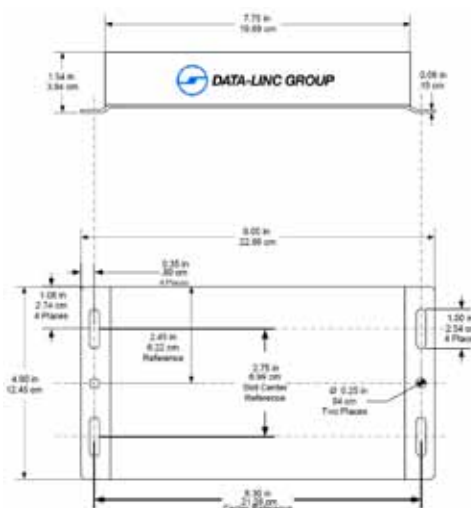
**Humidity.** 0 to 95%, non-condensing

### Enclosure

**Standard.** 18-gauge steel with mounting flanges.

**Weight** 1.68 lbs (0.76kg)

## DLM4500 DIMENSIONS



## ABOUT DATA-LINC GROUP

Since 1988, 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 a solution based approach thanks to its long-time experience with instrumentation and automation devices such as sensors, PLCs, HMIs, etc. Data-Linc's products use industry proven RF technologies that have been successfully applied in all major industries worldwide, including automotive plants, paper mills, consumer goods, manufacturing/packaging, oil & gas refineries and pipelines, utilities, moving platforms and transportation systems— under ground, off-shore and above ground, Data-Linc meets the challenge.

## ALLIANCE PARTNERS



GE Fanuc



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\* Depends upon line quality.