

LCM100

LINE CARRIER MODEM

POWER LINE CARRIER MODEM



The LCM100 Line Carrier Modem sends and receives digital data over power lines in a facility. It permits full-duplex asynchronous data transmission over 120 VAC (higher voltage options available) power lines at data rates up to 9600 baud. The LCM eliminates costly dedicated cable installations for significant savings. The LCM100 utilizes high frequency FSK for exceptional immunity to inductively coupled industrial electromagnetic interference, resulting in high data reliability.

Versatile.

In addition to operating on power wires, the LCM100 can also be used for communication over sliding or rolling electrical conductors. The LCM provides an exceptionally economical and convenient method for communicating between PLCs, PCs, Controllers, Electronic Signs and HMIs in field and factory floor applications. The LCM100 connects to the 120 VAC power line with a single cable that powers up the unit and serves as the FSK communication path.

FEATURES

- Transmits data over power lines
- Eliminates costly cable installation
- Portable, convenient and versatile
- Exceptional range of up to 5,000 feet (1.52 km)
- Easy to install

Configuration.

The LCM100 has a three wire (data in, data out, and signal ground) DB25 RS232 port. DTE and DCE configuration is done with internal jumpers or can be ordered factory pre-configured. The LCM100 is data rate and data protocol transparent. Since no settings are needed, it is very easy to install and use. One or two PLI500 Power Line isolators are recommended to maintain maximum FSK signal strength and block on-line noise as shown on the accompanying diagram.

Range.

The LCM100 provides a communication range of up to 5,000 feet (1.52 km). This range is measured through the building's electrical wiring.

APPLICATIONS

- Automated materials handling equipment
- Stacker cranes
- Rotating casting tables
- Electronic sign control
- Conveyor belt monitoring
- General industrial data communications

LCM100 SPECIFICATIONS

Data Format

Any asynchronous format up to 9600 baud or discrete

Data Transmission Speed

Up to 9600 baud

Operation

Full-duplex

Data Interface

RS232, DB-25 female, DTE or DCE

Distance

Up to 5,000 feet (1.52 km)

Power

120 V AC +/-10%
50-60 Hz, 4.5 watts

Connectors

Line/power. 3 pin IEC-320 male power jack
Data. DB-25 female

Operating Modes

Point-to-point

FSK Carrier

Highband. Space 150 KHz, Mark, 156.5 KHz

Lowband. Space 100 KHz, Mark, 106.5 KHz

Indicators

Power. Red LED, indicates power on

Carrier Detect. Green LED

Receive Sensitivity

20 mV

Transmit Level

250 mW into 3 ohms

Operating Environment

Standard Temperature. 32° to 158° F
(0 to 70° C)

Humidity. 0 to 90%, non-condensing

Storage. -40° to 185° (-40° to 85° C)

Enclosure

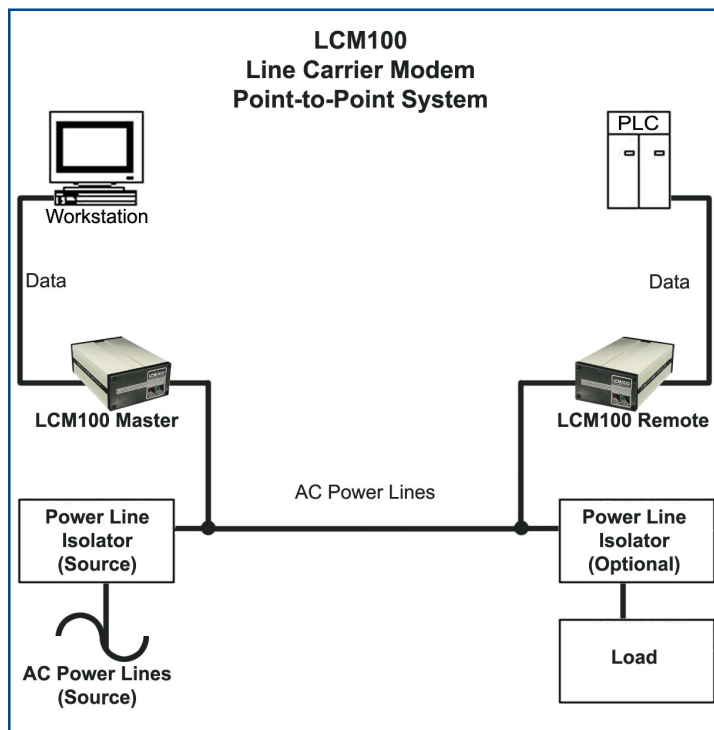
Standard. Extruded aluminum with steel mounting flanges

Dimensions. 7.25" (18.5 cm) length x 4.85"
(12.3 cm) width x 2.55" (6.4 cm) depth

Weight. 6.0 lbs (2.75 kg)

Specifications subject to change without notice.

LCM100 POINT-TO-POINT SYSTEM DIAGRAM



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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