PlantLinc™ PLR6130

2MI/3.2KM RANGE 2.4 GHz FHSS SERIAL RADIO MODEM

DATA-LINC GROUP™
The Industrial Data Communication Experts

PLR6130

FEATURES

- License-free 2.4 GHz ISM band

- Range of 2 miles (3.2 km)

- SmartSpectrum™ technology for maximum data integrity in noisy industrial environments

- RS-232/RS-485 data ports

- AES-256 bit Encryption

- Separate RS-232 DB9 port for configuration

- Operates as Master, Remote, Repeater or Repeater/Remote

- User adjustable hop patterns and frequency zones for exceptional performance in close proximity networks

- Factory or field configured for easy, trouble-free installation

- Optional DIN rail mounting

Data-Linc introduced the serial and I/O *PlantLinc* Family, developed for short-range in-plant to medium-range installations, in direct response to customer requests for a modem that could replace less reliable technologies with the same robust FHSS (Frequency Hopping Spread Spectrum) data transfer method as our premium SRM Family, but at a lower, short-range-competitive price.

The PlantLinc Family's "PLR" modems now offer the same key SRM features in the 2.4 GHz license-free band for data transfer up to 2 miles* (3.2 km) with line-of-sight and provide a particularly robust alternative that out-performs 802.11 options that employ Direct Sequence Spread Spectrum (DSSS) technology that is less immune to the noise . In high RFI/EMI and the crowded 2.4 GHz band, such as areas of existing wireless infrastructure, the PLR's FHSS technology provides confidence in unsurpassed data communication integrity.

The PLR6130 is software configurable and has a separate DB9 serial port for independent access to configuration software. Data-Linc's proprietary *SetLinc*™ software, included with the PLR6130 modems, simplifies modem setup and configuration— executed via the dual serial ports (RS-232 or RS-485). For remote sites, web configuration is also an option.

As with all members of the PLR Family of license-free radio modems, the PLR6130 supports both point-to-point and point-to-multipoint network topologies with a virtually unlimited number of radios. Each modem can be individually configured as Master, Remote, Repeater or Repeater/Remote using the included Config-Linc™

software. Additionally, the PLR6130 provides not only superior security through AES-256 encryption but also offers a range of 2 miles (3.2 km) with line-of-sight, farther with Repeaters and/or high gain antennas.

The combination of features and benefits supplied by the PLR6130 serial modem continues to support Data-Linc's well-earned reputation for superior reliability, versatility and performance for wireless industrial data communication. These competitively priced modems provides the additional advantage of compatibility with the corresponding versions of the long-range radios to support hybrid SRM/PLR applications, offering maximum flexibility in network design both inside and outside the plant.

License-free, 2.4 GHz serial radio modem

Included
CD *SetLinc*™ configuration software
Test antenna
Power supply
User Guide

Transmitter
Rated Range 2 miles (3.2 km), LOS with omni directional antennas
Output Power 250 mW maximum, 10 programmable steps (+24 dBm)
Modulation Spread Spectrum, GFSK
Spreading Code Frequency Hopping
Hop Patterns 15 (user selectable)
Occupied Bandwidth 230 KHz

Receiver
Sensitivity -102 dBm @ 115.2 Kbps for BER10^{-4};
-99 dBm @ 153.6 Kbps for BER10^{-4}
Selectivity 40 dB @ fc ±230 KHz;
60 dB @ fc ±460 KHz

RF Data Transmission
Error Detection. 32 Bit CRC
Data Throughput 1200 Baud - 115.2 Kbaud
Data Encryption 256 bit AES

Interface
RS-232/RS-485 Data ports
RS-232 Separate configuration port

Antenna
Standard thread SMA female
Supplied bench test antenna
Nominal Impedance 50 Ω

Power
Input Voltage 10-28 VDC; wall mount
12 VDC /115-230 VAC power supply included
Transmit Current 650 mA @ 12 VDC (8 Watts)
Receive Current 100 mA @ 12 VDC (1.2 Watts)

Operating Modes
Master, Remote, Repeater, Repeater/Remote

Configuration Software
Config-Linc software included

Diagnostics
Front panel LEDs Power, RF Carrier, RF Out, RF In, LAN (Link-Act), Mode LEDs x 4
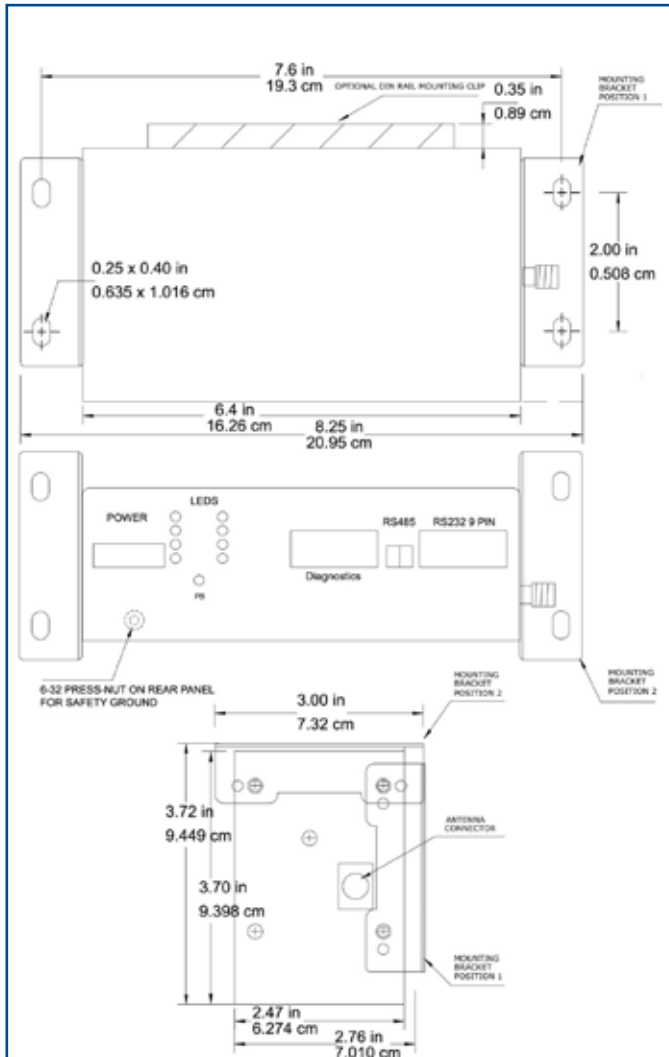
Operating Environment
Temperature -40º to 167º F (-40º to 75º C)
Humidity 0 to 95% non-condensing humidity

Enclosure
Standard 18 gauge steel
2.47 X 3.70 X 6.4 in. (6.274 X 9.398 X 16.26 cm)
Included Optional DIN rail mounting flanges (2)
Weight 1.8 lbs (.82kg)

Note: Mounting bracket can be mounted in 4 positions on end plate for multiple mounting options.

GE Fanuc · MITSUBISHI ELECTRIC · OMRON · NATIONAL INSTRUMENTS · Encompass Product Partner · Collaborative Automation by Schneider Electric · Siemens Product Partner

DATA-LINC GROUP
Corporate Headquarters
1125 12th Avenue NW
Issaquah, WA 98027 USA
info@data-linc.com
Tel: (425) 882-2206
Fax: (425) 867-0865
www.data-linc.com

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