

# SRM6310E-EU

## WIRELESS ETHERNET MODEM - 2.4 GHz BAND

WIRELESS ETHERNET MODEM 2.4 GHz BAND - EUROPE



### FEATURES

- Licence-free and wireless—operates in the 2.4-2.4835 GHz ISM (industrial/scientific/medical) band
- Industrial proven performance for secure wireless Ethernet plant networking, material handling and SCADA systems
- Wireless bridging technique transparently supports TCP/IP, UDP and other Ethernet protocols
- Employs Smart Spectrum™ frequency hopping technology for exceptional data integrity—including high interference environments
- Excellent receiver sensitivity for superior range performance
- Rated range up to 8 km (5 miles) line-of-sight required
- Built-in repeater mode to extend range and work around obstructions
- Factory or field configuration for easy installation
- Built-in diagnostics for quick installation and troubleshooting
- Designed for extreme environments (-40° to +75° C operating temperature)
- Conforms to European Union safety and emission requirements

*PLC slot-mount models also available. Contact Data-Linc Group for more information.*

Data-Linc Group's new wireless, licence-free SRM6310E-EU Wireless Ethernet Modem offers superior reliability, versatility and performance for Ethernet transmission. Designed to meet European CE Mark and ETSI RF regulations, the SRM6310E-EU combines advanced frequency hopping technology and a highly sensitive RF receiver to maximize transmission range and industrial performance.

The SRM6310E-EU employs Smart Spectrum™ frequency hopping spread spectrum (FHSS) technology in the 2.4-2.4835 GHz frequency band for secure, robust communication. (Data-Linc Group's LincView™ Diagnostic Software, an optional RF network diagnostics management tool for stand-alone SRM modems, offers system network monitoring and maintenance from Master locations.) Data-Linc Group's FHSS technology, coupled with 32-bit CRC error detection, enables the SRM6310E-EU to reliably deliver critical information.

The SRM6310E-EU has a rated range of 8 km (5 miles) with unobstructed line-of-sight. The built-in Repeater mode may be used to extend range or work around obstructions. The modem functions as a wireless Ethernet bridge and is transparent to all Ethernet protocols (TCP/IP, UDP, etc.).

The SRM6310E-EU is easily field configurable and includes built-in diagnostics to evaluate RF signal quality during installation and operation. Additionally, Data-Linc can often pre-configure the modems for even easier installation.

The SRM6310E-EU is designed for extreme environments. It is rated for extended temperature operation (-40° to +75° C) and may be powered from a 230 VAC adaptor or 10 to 28 VDC voltage sources.

### APPLICATIONS

- Wirelessly connect plant and business networks
- Cost-effective alternative to factory floor Ethernet cable installation
- Communications to mobile equipment (automatic guide vehicles, conveyor systems, transfer cars, overhead cranes, warehouse automation, HMIs, etc.)
- Eliminates trenching to pump stations, storage tanks, pipelines, substations and control rooms for SCADA communications
- Video surveillance and security systems

## SRM6310E-EU SPECIFICATIONS

### Operating Frequency License-free, 2.4-2.4835 GHz (Europe)

#### Transmitter

**Range.** Up to 8 km (5 miles) with unobstructed line-of-site, farther with Repeaters

**Output Power.** Selectable up to 500 mW; 100 mW maximum at antenna

**Modulation.** Spread Spectrum, GFSK

**Spreading Code.** Frequency Hopping

**Hop Patterns.** 15 (user selectable)

**Occupied Bandwidth.** 230 KHz

#### Receiver

**Sensitivity.** -107 dBm @  $10^{-4}$  raw BER;

-105 dBm @  $10^{-6}$  raw BER

**Selectivity.** 40 dB @ fc +/-230 KHz;

60 dB @ fc +/-460 KHz

**System Gain.** 135 dB

#### RF Data Transmission

**Error Correction.** 32 Bit CRC with retransmission

**Data Encryption.** Substitution Dynamic Key

**RF Data Rate.** 188 Kbps

#### Interface

10BaseT (UTP); One straight, one cross-pinned (only one connector can be used at a time)

**Data Throughput.** 108 Kbps maximum in point-to-point mode; throughput measured assuming 75% frequency availability

**Connectors.** 10BaseT, DB9 RS232 (configuration)

#### Antenna

Reverse thread SMA female

Supplied bench test antenna

Optional external omni directional or yagi antenna

#### Power

**Input Voltage Requirements.** 10 to 28 VDC; 230 VAC to 12 VDC wall mounted transformer provided

**Connector.** Latching screw terminal

**Transmit Current (Peak).** 700 mA @ 12 VDC

**Receive Current.** 100 mA @12 VDC

#### Operating Modes

Point-to-point, point-to-multipoint, Store-and-Forward Repeater, Repeater/Remote

#### Configuration.

Serial Port 19.2 Kbaud terminal based

#### Diagnostics

**Front Panel LEDs.** Power, RF Link, RF In, RF Out, LAN In, LAN Out, LAN Link, LAN Collision, Overrun Error

**Serial Port Data.** Stored signal strength, noise and disconnect information.

**Optional.** LincView™ Diagnostics for real-time RF network monitoring

**Compliance.** CE Mark and ETSI EN 300 328

#### Operating Environment

**Standard Temperature.** -40° to 75° C

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

#### Enclosure

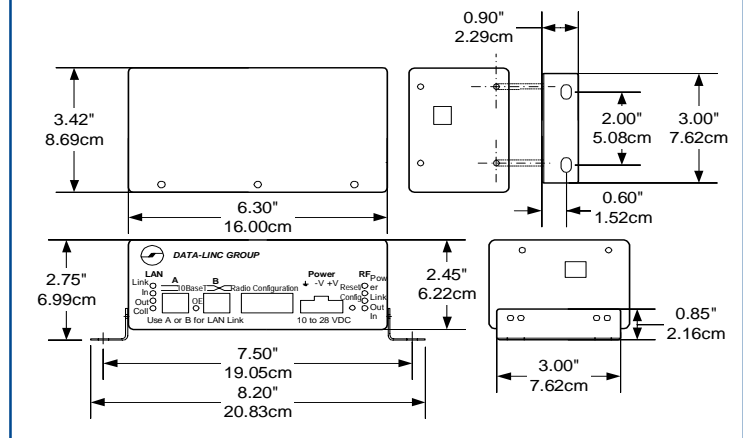
**Standard.** NEMA 1; 18-gauge steel; 6.22 x 8.69 x 16 cm

**Mounting.** Two "L" brackets on either side, rear, top or bottom and panel mounting. Optional DIN rail clip

**Weight.** .88 kg

Specifications subject to change without notice.  
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## SRM6310E-EU 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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