

Long-Range Reader/Writers

LRP820-14/LRP830-14

DeviceNet™

Features

- Read/Write to Dozens of Tags Simultaneously (Multiple-Tag-In-Field)
- Industrial Strength Reader/Writer (IP66)
- Long-Range Read/Write
- International Recognized Frequency of 13.56 MHz
- RS232/RS422/Mux32 (RS485) Bus Interfaces
- Four Industrial Input Points and Four Output Points
- LRP830-14 DeviceNet Reader/Writer

Applications

- Paint Ovens
- Automotive Manufacturing
- Parcel/Baggage Handling
- Material Handling/Logistics

Use With

- FastTrack™ Series Passive Read/Write Tags/Labels/PCBs
- CM11 / CM12 DeviceNet Modules
- CM21 InterBus-S Module
- CM30-Series Profibus Modules
- CM40-Series Modbus Plus Modules
- CM52 Remote I/O Module
- CM80-Series ControlNet Modules
- CM900 Automatic ID Module
- CM1000 Automatic ID PLC Module
- CM1746 RFID Module
- MM80 MicroMux Bus Module
- Any RS232 or RS422 Hosts

EMS, a Datalogic Group Company, is the field-proven leader in the development and application of Radio Frequency Identification (RFID) Tags/Labels/PCBs, Antennas, Controllers and network interface modules for tough industrial environments. With over seventeen years of RFID successes in the automotive, electronics, material handling and food processing industries, EMS has built a global reputation in providing customers with complete supply chain solutions – from production to retail EMS has the complete solution!

EMS' FastTrack™ line of RFID Tags/Labels/PCBs and Reader/Writers (or Antennas) provides outstanding RFID solutions for demanding industrial environments. From scorching paint ovens to post office parcel tracking applications, the FastTrack™ family of RFID Tags/ Labels/PCBs and Reader/Writers deliver on all of your data collection and tracking demands.

The Long-Range Reader/Writer (LRP820-14) is part of the FastTrack™ RFID family of Reader/Writers. The long-range, read/write capabilities make the LRP820-14 ideal for communicating to EMS' FastTrack™ family of Tags/Labels/ PCBs. The LRP820-14 is a floor antenna to be used for applications where you want to track pallets or carts going through.

The construction of the LRP-14 antenna is strong enough to be driven over by a fork lift. You can read/write to multiple tags on boxes placed on the pallet/cart as you roll it over the antenna.

**READ AND
WRITE TO
DOZENS OF TAGS
WITH A FLOOR
ANTENNA**

The LRP820 refers to the tough, IP66 enclosed, industrial controller and is equipped with four input points and four output points. Sensors, light towers and photo eye switches can be directly hooked up to the LRP controller – greatly reducing wiring installations to the host PC/PLC.

The Long-Range DeviceNet Reader/Writer LRP830-14 provides all the same benefits as the LRP820-14 with the added advantage of an integrated DeviceNet interface module. If your application involves a DeviceNet bus network, and you demand absolute data capture accuracy, then the all-in-one FastTrack™ DeviceNet Reader/Writer is the perfect solution.

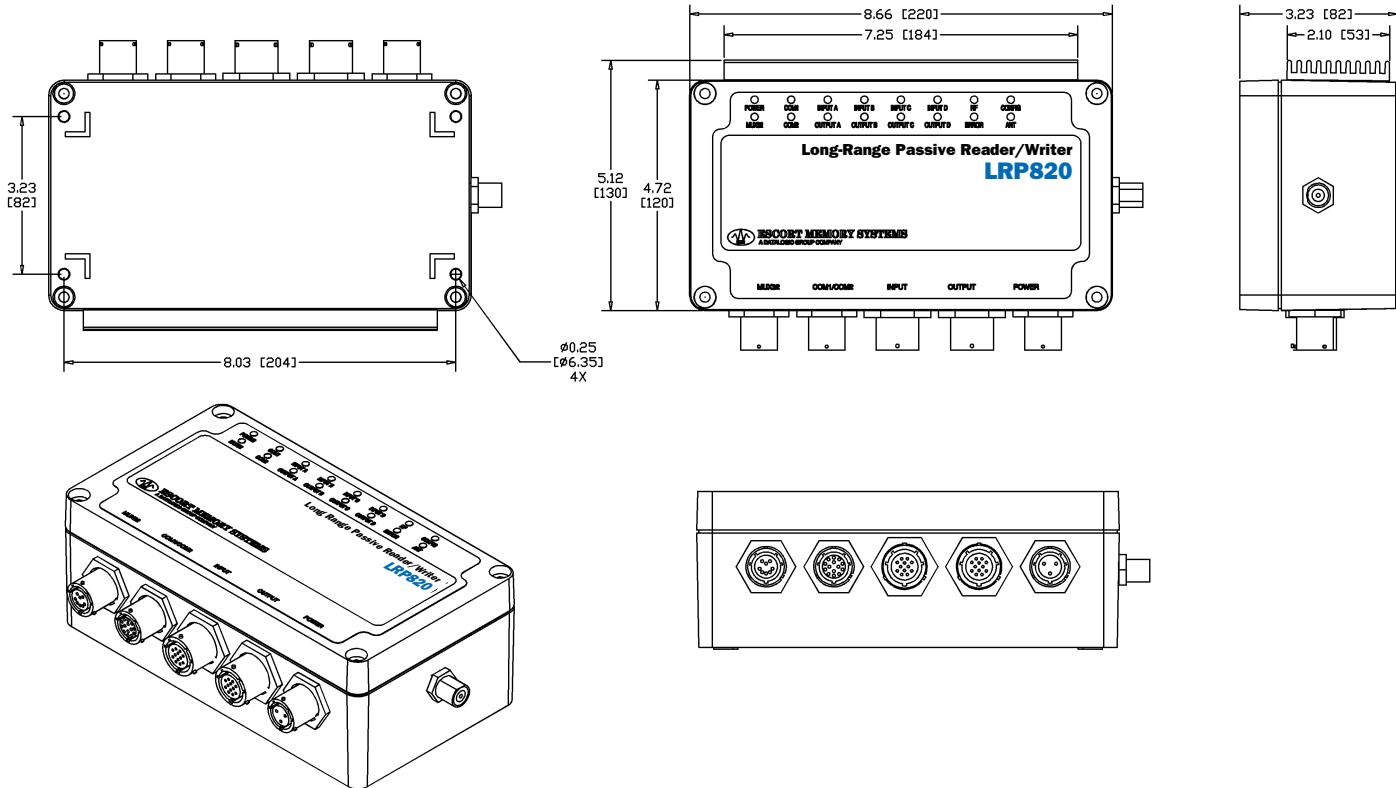
Electrical	Supply Voltage Power Consumption	18-30VdC 31W (1.3A @ 24VdC)
Memory	60KB Program Memory (System) 16KB Data Read/Write Memory 96KB Paged Data Read/Write Memory (32KB x 3)	
RFID Interface	LRP820-14 Long-Range Reader/Writer, 2 Meter Cable LRP830-14 Long-Range DeviceNet Reader/Writer, 2 Meter Cable	
Interface	COM1 RS232 RS422 Mux32 Bus Interfaces: Mux32 Optoisolated (LRP820-14) DeviceNet Interface (LRP830-14)	
	COM2 RS232	
	Baud Rate RS232/RS422 (COM1) RS232 (COM2) RS485/Mux32 (COM1)	1200, 2400, 4800, 9600, 19200, 38400 bps 1200, 2400, 4800, 9600, 19200 bps 9600 or 346K bps
	Inputs Four Industrial-Level Inputs Voltage Input Range Imax	4.5 – 30VdC 25mA
	Output Four Industrial-Level Outputs Vmax Imax	30 VdC 500mA
Mechanical Specifications	LRP820 Dimensions (L x W x H) Weight Enclosure	8.66 x 4.72 x 3.22in. (220 x 120 x 82mm) 3.5lbs. (1.59kg) Cast Aluminum Alloy
	Floor Antenna (L x W x H)	44 x 17.5 x 1.5in. (111.76 x 44.45 x 3.81cm)
Environment	Operating Temperature Storage Temperature Humidity Vibration Resistance Shock Resistance Protection Class	32° to 120°F (0° to 49°C) -41° to 158°F (-20° to 70°C) 95% Non-Condensing IEC 68-2-6 Test FC 1.5mm 10 to 55Hz: 2 Hours each Axis IEC 66-2-27 Test EA 30g: 11 msec: 3 Shocks each Axis NEMA 4 (IP66)
Floor Antenna Spacing	Minimum Antenna to Antenna Spacing Minimum Antenna Spacing from Metal	15ft. (4.57m) 6 in. (152mm)

FastTrack™ Long-Range Reader/Writers

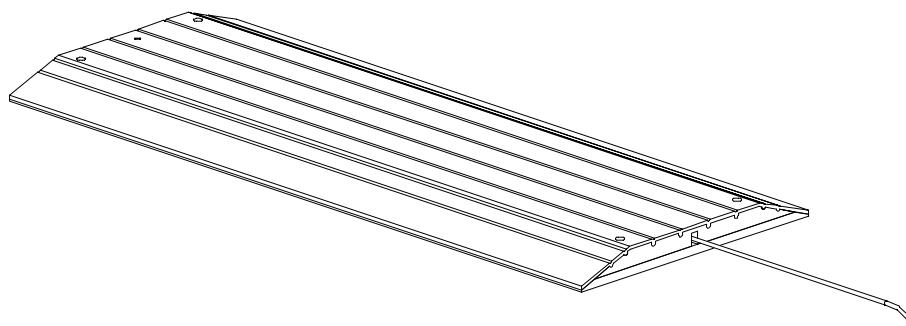
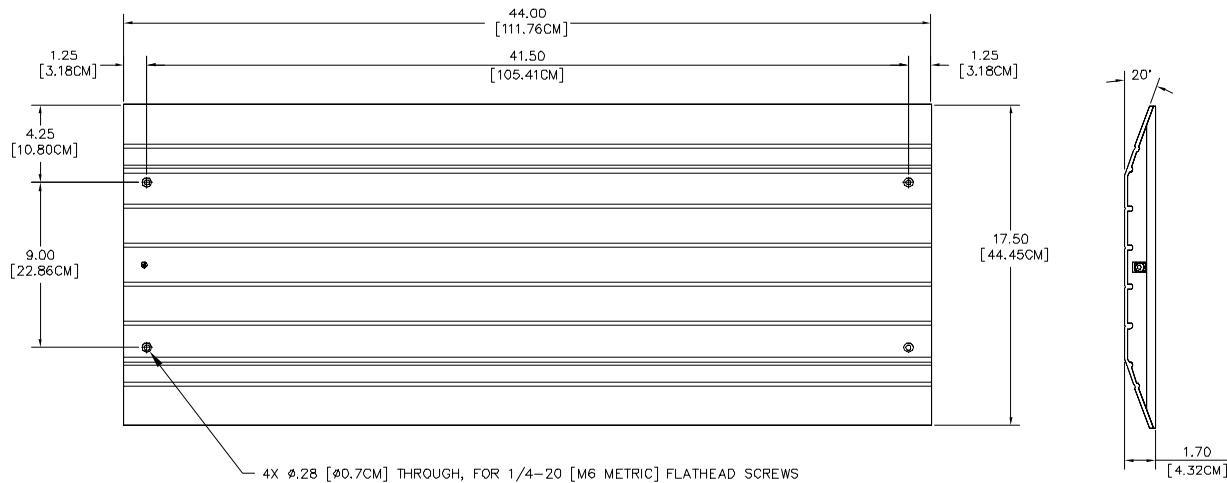
LRP820-14/LRP830-14

ESCORT MEMORY SYSTEMS
FastTrack™
RFID

LRP820 / LRP830 Mechanical Dimensions



Floor Antenna Mechanical Dimensions



RFID Field and Read/Write Ranges

LRP820-14 Long-Range Reader/Writers

Reading & Writing Ranges with FastTrack™ Passive Read/Write ANTENNAS		LRP250(HT)	LRP125(HT)	LRP-P3858	LRP250HT-FLX	LRP-L4982	LRP-L90140
Typical Range (Z) (inches/mm)*		7.50/190.5	2.25/57.2	6.50/165.1	6.50/165.1	7.50/190.5	13.75/349.3
Guaranteed Operating Range		6.00/152.4	8.20/45.7	5.20/132.1	5.20/132.1	6.00/152.4	11.00/279.4

* Proximity to metal, CRT devices and other sources of electromagnetic radiation may affect the range of the Antenna.

Available Models

Model	Description
LRP820-14†	Long-Range Reader/Writer
LRP830-14†	Long-Range DeviceNet Reader/Writer

† Mating Connectors not included. Must be ordered separately (part #00-1122).

Accessories

Model	Description
00-1122	Connector Kit, LRP820, 5 pieces, Mux32, COM1/2, Input, Output, PWR
00-1123	Connector Kit, LRP830, 4 pieces (COM1/2, Input, Output, PWR)
CBL-1452	Cable Assembly, LRP Demo (COM1/2 to DE-9)
CBL-1454	Cable Assembly, Power Supply for LRP Demo
17-1269	Manual, LRP820
17-1271	Manual, LRP830