



Passive Reader/Writers

LRP820-02 / LRP830-02

DeviceNet™

Features

- Serial Reader/Writer with Integrated Antenna
- Menu Configurable RS232 / RS422 / RS485 / MUX32
- Passive Tag Requires No Batteries
- NEMA 12 (IP65)
- Four Industrial Input Points and Four Output Points
- 23-25VDC Operation

Applications

- Material Handling
- Sortation Systems
- Work-in-Progress Monitoring
- Quality Control

Use With

- LRP Series Tags
- 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 / CM1000
- CM1746 RFID Module
- Any RS232 and RS422 Host
- CM1000

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 a dozen 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 LRP820-02 was designed for communicating to EMS' FastTrack™ family of Tags where space is a constraint. The smaller size of the Antenna allows us to read the FastTrack™ Tags more efficiently.

The LRP820 refers to the tough, IP66 encased, 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.

4" x 4"
READER/WRITER
FOR TIGHT
SPOTS AND
SMALLER TAGS

The Long-Range DeviceNet Reader/Writer (LRP830-02) provides all the same benefits as the LRP820-02 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.



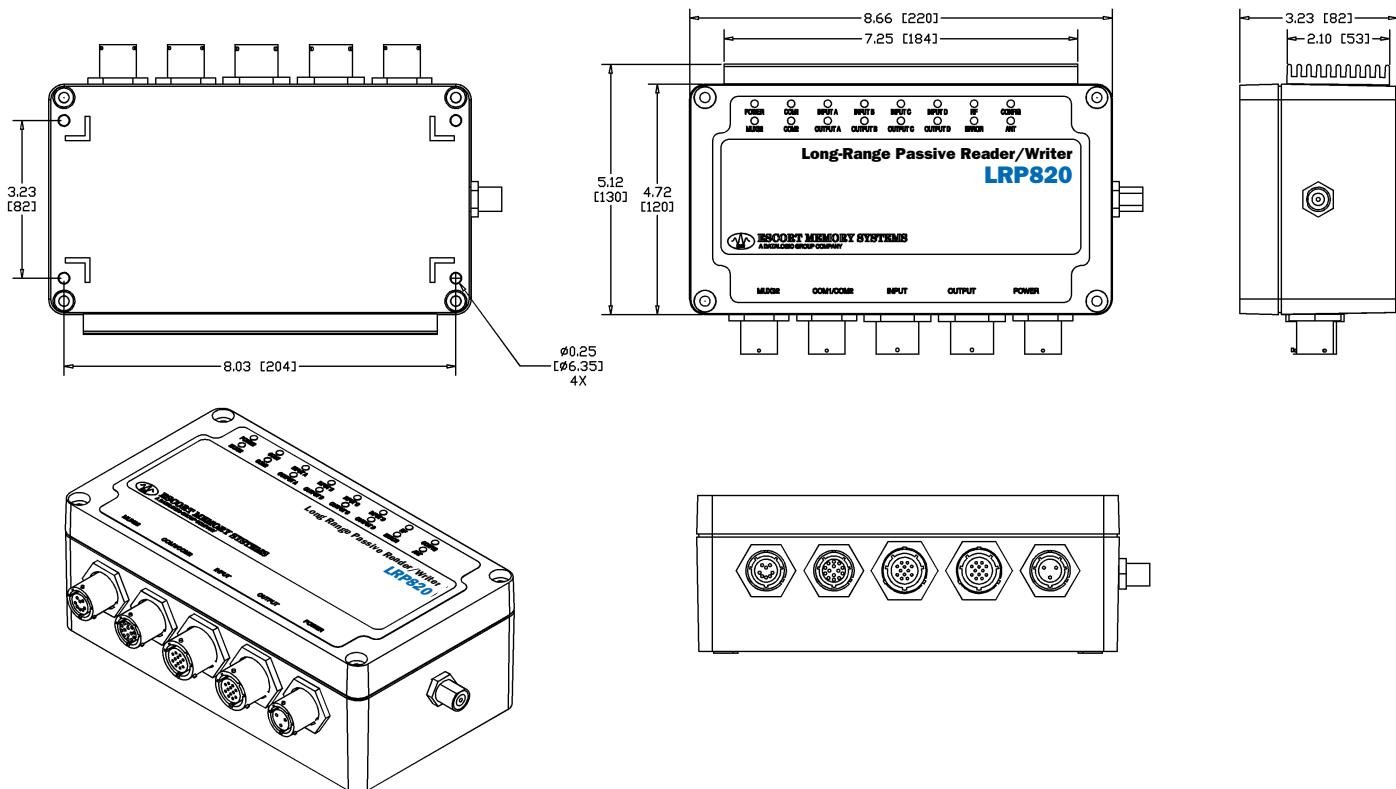
Electrical	Supply Voltage Power Consumption	18-30VdC 31W (1.3A @ 24VdC)
Memory	60KB Program Memory (System) 16KB Data Read/Write Memory 96KB Paged Data Read/Write Memory (32KB x 3)	
RFID Interface	LRP820-02 Long-Range Reader/Writer, 2 Meter Cable LRP830-02 Long-Range DeviceNet Reader/Writer, 2 Meter Cable	
Interface		
	COM1 RS232 RS422 Mux32 Bus Interfaces: Mux32 Optoisolated (LRP820-08) DeviceNet Interface (LRP830-08)	
	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
	LRP820-02 Antenna Dimensions (L x W x H)	4.00 x 4.00 x 0.98in. (102 x 102 x 25mm)
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)
Antenna Spacing	Minimum Antenna to Antenna Spacing Minimum Antenna Spacing from Metal	36in. (915mm) 6 in. (152mm)

FastTrack™ Passive Reader/Writers

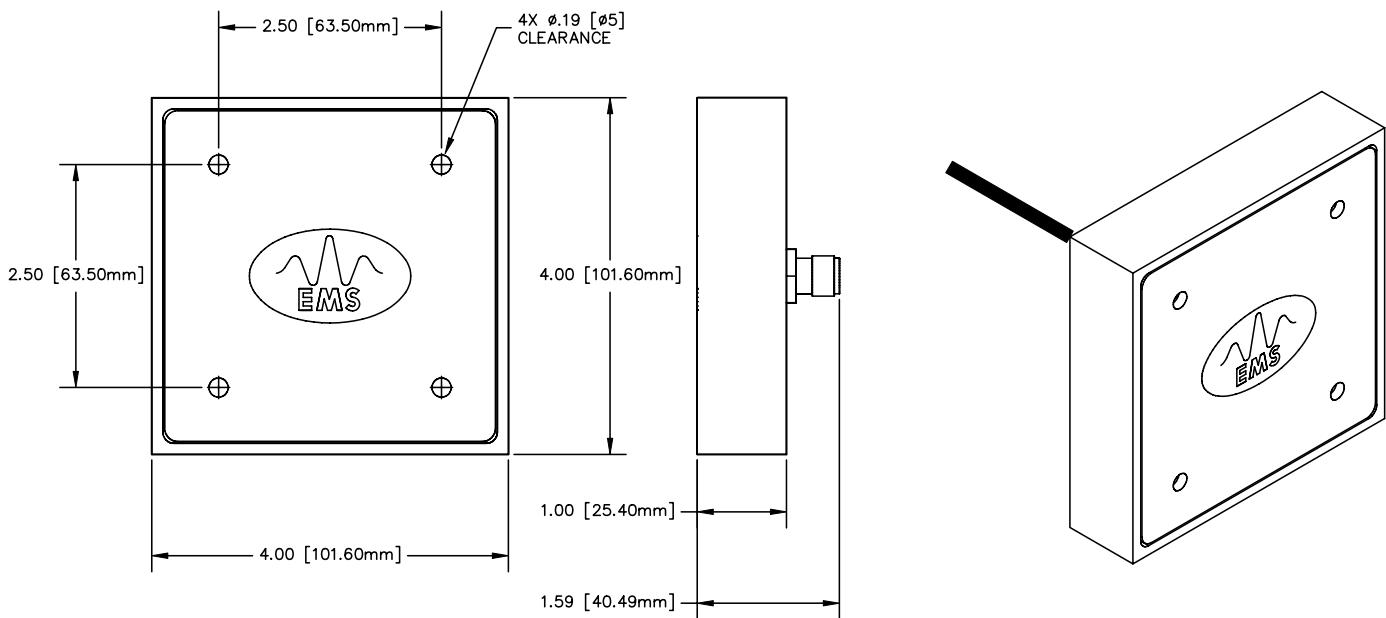
LRP820-02 / LRP830-02

ESCORT MEMORY SYSTEMS
FastTrack™
RFID

LRP820 / LRP830 Mechanical Dimensions



Antenna Mechanical Dimensions



RFID Field and Read/Write Ranges

LRP820-02 / LRP830-02 Passive Reader/Writers

Reading & Writing Ranges with FastTrack™ Passive Read/Write TAGS

	LRP125(HT)	LRP334	LRP250(HT)	LRP250HT-FLX
Typical Range (Z) (inches/mm)*	6/152	4.40/112	9.5/241	9.5/241
Guaranteed Operating Range	4.8/121.6	3.5/89	7.6/192.8	7.6/192.8

LRP820-02 / LRP830-02 Passive Reader/Writers

Reading & Writing Ranges with FastTrack™ Passive Read/Write LABELS

	LRP-L2666	LRP-L4982	LRP-L90140
Typical Range (Z) (inches/mm)*	8/203	11/279	NR**
Guaranteed Operating Range	6.4/162.4	8.8/223.2	NR**

* Not recommended.

LRP820-02 / LRP830-02 Passive Reader/Writers

Reading & Writing Ranges with FastTrack™ Passive Read/Write PCBs

LRP-P3858

Typical Range (Z) (inches/mm)*	9/228
Guaranteed Operating Range	7.2/182

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

Available Models

Model	Description
LRP820-02†	Long-Range Reader/Writer
LRP830-02†	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