ESCORT MEMORY SYSTEMS
A DATALOGIC GROUP COMPANY

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FastTrack™
RFID

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" × 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 | 18-30VdC |
| | Power Consumption | 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)	1200, 2400, 4800, 9600, 19200, 38400 bps
RS232 (COM2)	1200, 2400, 4800, 9600, 19200 bps
RS485/Mux32 (COM1)	9600 or 346K bps

Inputs
Four Industrial-Level Inputs

| Voltage Input Range | 4.5 – 30VdC |
| Imax | 25mA |

Output
Four Industrial-Level Outputs

| Vmax | 30 VdC |
| Imax | 500mA |

Mechanical Specifications

LRP820 Dimensions

(L x W x H)	8.66 x 4.72 x 3.22in. (220 x 120 x 82mm)
Weight	3.5lbs. (1.59kg)
Enclosure	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	32° to 120°F (0° to 49°C)
Storage Temperature	-41° to 158°F (-20° to 70°C)
Humidity	95% Non-Condensing
Vibration Resistance	IEC 68-2-6 Test FC 1.5mm
	10 to 55Hz: 2 Hours each Axis
Shock Resistance	IEC 66-2-27 Test EA 30g:
	11 msec: 3 Shocks each Axis
Protection Class	NEMA 4 (IP66)

Antenna Spacing

| Minimum Antenna to Antenna Spacing | 36in. (915mm) |
| Minimum Antenna Spacing from Metal | 6 in. (152mm) |

LRP820 / LRP830 Mechanical Dimensions
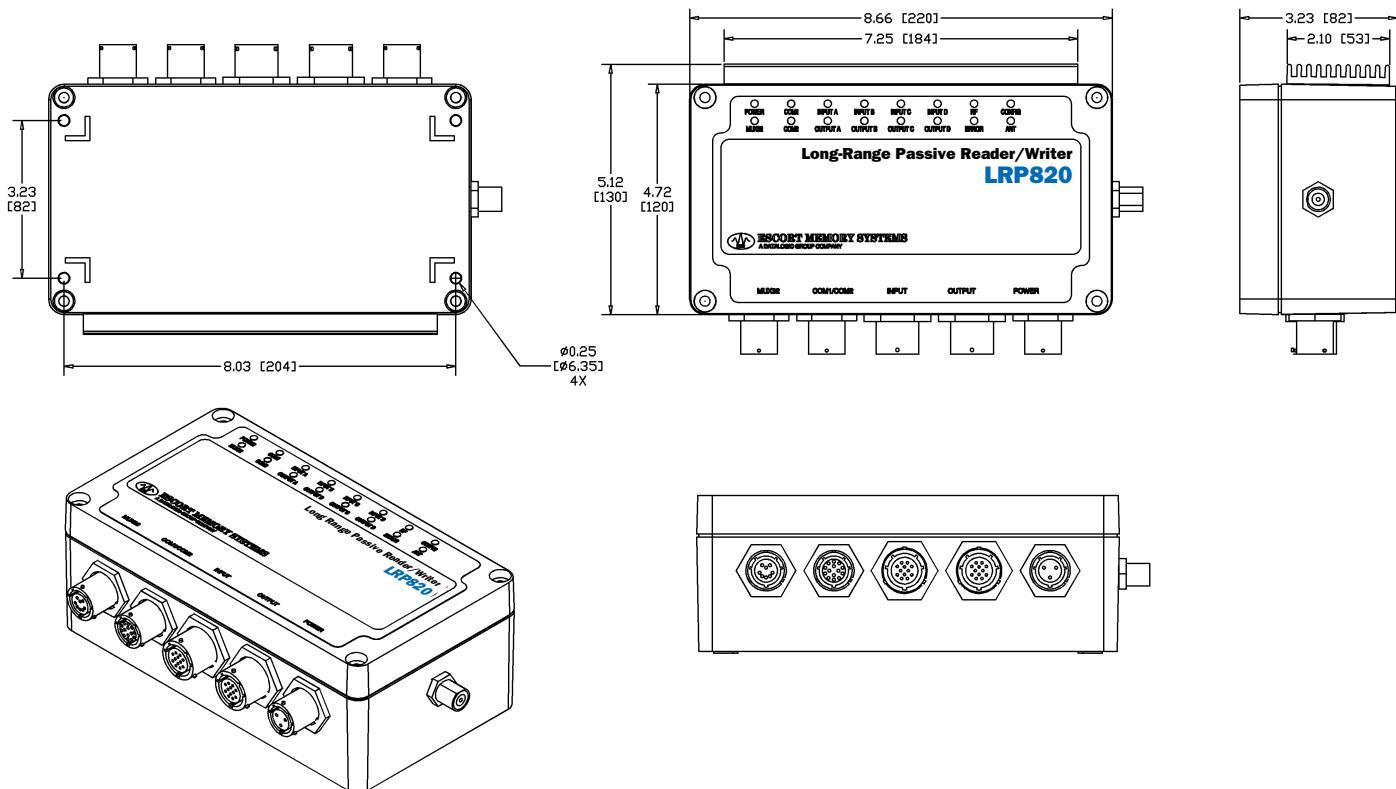
Antenna Mechanical Dimensions
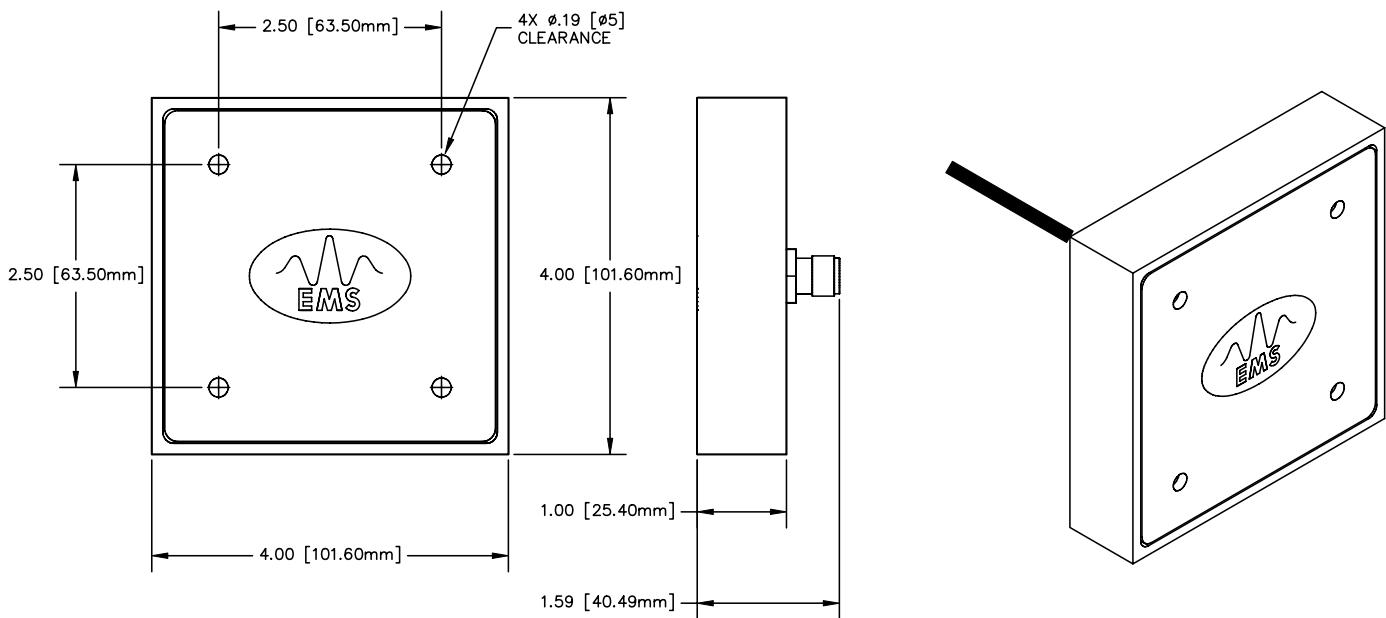
RFID Field and Read/Write Ranges

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