Long Range RFID

LRP S-SERIES TAGS

FEATURES

112 Bytes of user-accessible read/write memory allows storage of critical process detail.

Wide range of tag sizes and forms permit installation on pallets, carriers, packages, and products.

High Temperature (HT) models can withstand up to 200°C/392°F for use in automotive paint ovens and similar environments.

Conformance to the International ISO15693 (13.56MHz) RFID Standard assures “reader agnostic” compatibility, worldwide.

Reusable memory with 100K+ write cycles, unlimited reads, and minimum data retention of 10 years, provides high return on investment.

The Escort Memory Systems LRP family of RFID tags provides outstanding auto-ID solutions for demanding industrial environments. The “S” models are based on Phillips I-Code SL1 chips, and incorporate EMS’ unique design and manufacturing technology. These passive read/write tags require no batteries and offer 112 bytes of user-accessible memory. The series includes a variety of sizes to fit many applications. A durable plastic encapsulation protects the tags from harsh environments, or the user may choose a printed circuit board version if required. Read/write distances range from 0.5 to 20 inches (13 to 432mm) depending on the tag and antenna combination.

Escort Memory Systems LRP S-Series Tags provide plenty of memory for industrial auto-identification applications. PCB models can be embedded directly into the finished goods for product tracking beyond the factory.

LRP S-Series Tags are an excellent choice for pharmaceutical sorting and packaging, automated control of conveyor systems, and manufacturing applications where absolute data reliability is a requirement.

SPECIFICATIONS

Memory:
112 Bytes

Humidity:
100% non-condensing

Operating Temperatures
High Temp. models:
-40° to 200° F (-40°C to 93°C)
Standard models:
4° to 185° F (-20°C to 85°C)

Storage Temperatures
High Temp. models:
-40° to 392° F (-40°C to 200°C)
Standard models:
-40° to 185° F (-20°C to 85°C)

Protection Class
Encapsulated models:
NEMA 6P/12, IP68
PCB Models:
Not rated

COMPATIBLE READERS/CONTROLLERS
HF-0405 Series
HF-CNTL Series
LRP Series
ISO15693 readers
Long Range Passive Tags

LRP S-SERIES TAGS

MECHANICAL DRAWINGS

LRP525HTS (525S same size)

LRP250S (250HTS same size)

LRP125HTS (125S same size)

LRP-P125S

LRP-P108S

LRP-P3858S

ESCORT MEMORY SYSTEMS . 170 Technology Circle, Scotts Valley, CA 95066 USA . 800 626 3993

www.ems-rfid.com
# Long Range Passive Tags

## LRP S-SERIES TAGS

### TYPICAL READ/WRITE RANGE \(^1\) WITH EMS CONTROLLER/ANTENNAS mm/in.

<table>
<thead>
<tr>
<th>Controller</th>
<th>HF-0405</th>
<th>COBALT™ Controllers HF-CNTL-XXX</th>
<th>LRP8XXX Controllers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenna</td>
<td>Integrated</td>
<td>HF-0750</td>
<td>HF-1010</td>
</tr>
<tr>
<td>LRP125HTS</td>
<td>38/1.5</td>
<td>63/2.5²</td>
<td>152/6.0</td>
</tr>
<tr>
<td>LRP250HTS</td>
<td>76/3.0</td>
<td>note 4</td>
<td>267/10.5</td>
</tr>
<tr>
<td>LRP525HTS</td>
<td>70/2.7</td>
<td>127/5.0²</td>
<td>254/10.0³</td>
</tr>
<tr>
<td>LRP125S</td>
<td>38/1.5</td>
<td>note 4</td>
<td>152/6.0</td>
</tr>
<tr>
<td>LRP250S</td>
<td>70/2.7</td>
<td>114/4.5</td>
<td>230/9.0</td>
</tr>
<tr>
<td>LRP525S</td>
<td>98/3.8</td>
<td>note 4</td>
<td>216/8.5³</td>
</tr>
<tr>
<td>LRP-P108S</td>
<td>13/0.5</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>LRP-P125S</td>
<td>40/1.6</td>
<td>note 4</td>
<td>144/5.6</td>
</tr>
<tr>
<td>LRP-P3858S</td>
<td>60/2.3</td>
<td>95/3.7²</td>
<td>216/8.5</td>
</tr>
<tr>
<td>LRP-P972HTS</td>
<td>40/1.7</td>
<td>note 4</td>
<td>89/3.5</td>
</tr>
</tbody>
</table>

Note 1. Ranges in free air except as noted; may be affected by EMI/EMF and metal nearby.

Note 2. mounted in metal conveyor test fixture

Note 3. Tag mounted directly to metal surface

Note 4. Contact EMS for range information

### TEMPERATURE AND DIMENSIONAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Tag Model</th>
<th>Operating Temperature Range, C</th>
<th>Storage Temperature Range, C</th>
<th>Surface Dimensions, mm</th>
<th>Body Thickness, mm</th>
<th>Max Thickness, mm</th>
<th>Mounting Hole Diameter, mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRP125HTS</td>
<td>-40 to 93</td>
<td>-40 to 200</td>
<td>24.9 dia.</td>
<td>4.8</td>
<td>4.8</td>
<td>3.2</td>
</tr>
<tr>
<td>LRP250HTS</td>
<td>-40 to 93</td>
<td>-40 to 200</td>
<td>50.7x50.7</td>
<td>5.3</td>
<td>5.3</td>
<td>4.9</td>
</tr>
<tr>
<td>LRP525HTS</td>
<td>-40 to 93</td>
<td>-40 to 200</td>
<td>52x128</td>
<td>6.0</td>
<td>11.0</td>
<td>5.0</td>
</tr>
<tr>
<td>LRP125S</td>
<td>-20 to 85</td>
<td>-40 to 200</td>
<td>24.9 dia.</td>
<td>4.8</td>
<td>4.8</td>
<td>3.2</td>
</tr>
<tr>
<td>LRP250S</td>
<td>-20 to 85</td>
<td>-40 to 200</td>
<td>50.7x50.7</td>
<td>5.3</td>
<td>5.3</td>
<td>4.9</td>
</tr>
<tr>
<td>LRP525S</td>
<td>-20 to 85</td>
<td>-40 to 200</td>
<td>52x128</td>
<td>6.0</td>
<td>11.0</td>
<td>5.0</td>
</tr>
<tr>
<td>LRP-P108S</td>
<td>-20 to 85</td>
<td>-40 to 85</td>
<td>6.9 dia.</td>
<td>0.8</td>
<td>1.3</td>
<td>none</td>
</tr>
<tr>
<td>LRP-P125S</td>
<td>-20 to 85</td>
<td>-40 to 85</td>
<td>22.1 dia</td>
<td>0.8</td>
<td>1.5</td>
<td>5.7</td>
</tr>
<tr>
<td>LRP-P3858S</td>
<td>-20 to 85</td>
<td>-40 to 85</td>
<td>38x58</td>
<td>0.8</td>
<td>1.5</td>
<td>none</td>
</tr>
<tr>
<td>LRP-P972HTS</td>
<td>-40 to 93</td>
<td>-40 to 185</td>
<td>9x72</td>
<td>0.8</td>
<td>1.5</td>
<td>5.5</td>
</tr>
</tbody>
</table>
About RFID

Escort Memory Systems, a Datalogic Group Company, delivers rugged, industrial RFID solutions to leading companies worldwide with thousands of mission critical installations since 1985.

ESCORT MEMORY SYSTEMS
A DATALOGIC GROUP COMPANY

170 Technology Circle
Scotts Valley, CA 95066
Phone: 800-626-3993
E-mail: info@ems-rfid.com
Web: www.ems-rfid.com