Electromagnets

Round, Rectangular and Parallel Pole Electromagnets

**BENEFITS:**
- Electromagnets offer controlled holding power and on-demand release of ferrous parts
- Encased in steel and constructed with high temperature potting material
- Ideal for robotic and automated systems

Electromagnets are most effective when they are used in applications having direct contact with the work surface. Special sizes, voltages and mountings are available.

**FEATURES:**
- 12VDC, 24VDC, 110VDC or 120VAC
- Automated or manual operation
- Fast on/off operation
- 24” leads or terminal block
- Tapped mounting holes

**CUSTOM DESIGNS AND OPTIONS:**
- Selected cord locations
- Extended lead lengths
- Lead protection
- Retractable cords
- Controlled holding power with optional variable power supplies
- Custom sizes

**Parallel Pole Electromagnets**

Parallel pole electromagnets offer broad application potential due to their ability to deliver improved strength when in contact with uneven shapes. These magnets can operate where parts have uneven surfaces or odd shapes by using custom machined pole shoes to match the shape of the part.

- Standard models have side mounted terminal block connections
- All sizes available in 24 volts DC
- Excellent holding power in a compact package
- Common mounting bolt sizes in 1” & 2” wide models
- Continuous duty 70°C - 95°C temperature rise
- End exit lead/ cord available on all models

**Key Markets**
Automotive Tier 1 & 2, Fabrication, Metal Forming

**Related Products**
Power Supplies, Transporters®, PowerLifts®, Creative Lifts®, RELM, Battery Lift, Demagnetizers

All Photos And Drawings Represent The Products At The Time Of Publication (06/18)
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Round, Rectangular and Parallel Pole Electromagnets

Round Electromagnets

Round electromagnets are available in a variety of sizes. They deliver concentrated power and high responsiveness in a manual or automatic application.

Operating under the control of IMI power supply units, round electromagnets in 12VDC, 24VDC, 110VDC (available upon request) or 120VAC configurations deliver optimum holding power.

<table>
<thead>
<tr>
<th>Holding Value</th>
<th>12VDC Part No.</th>
<th>24VDC Part No.</th>
<th>120VAC Part No.</th>
<th>A Dia.</th>
<th>B Length</th>
<th>T Thread</th>
<th>G (Lead)</th>
<th>Watts</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 lbs</td>
<td>ER1-071</td>
<td>ER2-071</td>
<td>-</td>
<td>3/4</td>
<td>1-1/4</td>
<td>10-32</td>
<td>1/4</td>
<td>1.44</td>
<td>1.7 oz</td>
</tr>
<tr>
<td>7 lbs</td>
<td>ER1-101</td>
<td>ER2-101</td>
<td>-</td>
<td>1</td>
<td>3/4</td>
<td>10-32</td>
<td>1/4</td>
<td>1.44</td>
<td>1.9 oz</td>
</tr>
<tr>
<td>12 lbs</td>
<td>ER1-102</td>
<td>ER2-102</td>
<td>-</td>
<td>1</td>
<td>1-1/4</td>
<td>10-32</td>
<td>1/4</td>
<td>3.60</td>
<td>2.6 oz</td>
</tr>
<tr>
<td>22 lbs</td>
<td>ER1-103</td>
<td>ER2-103</td>
<td>-</td>
<td>1-1/4</td>
<td>1-1/4</td>
<td>1/4-20</td>
<td>1/4</td>
<td>4.40</td>
<td>4.2 oz</td>
</tr>
<tr>
<td>40 lbs</td>
<td>ER1-104</td>
<td>ER2-104</td>
<td>-</td>
<td>1-1/2</td>
<td>1-1/2</td>
<td>1/4-20</td>
<td>1/4</td>
<td>4.60</td>
<td>8.0 oz</td>
</tr>
<tr>
<td>75 lbs</td>
<td>ER1-201</td>
<td>ER2-201</td>
<td>ERA-201</td>
<td>2</td>
<td>1-5/8</td>
<td>1/4-20</td>
<td>3/8</td>
<td>6.00</td>
<td>1.0 lb</td>
</tr>
<tr>
<td>90 lbs</td>
<td>ER1-202</td>
<td>ER2-202</td>
<td>ERA-202</td>
<td>2</td>
<td>2-1/2</td>
<td>1/4-20</td>
<td>3/8</td>
<td>16.80</td>
<td>2.0 lbs</td>
</tr>
<tr>
<td>185 lbs</td>
<td>ER1-303</td>
<td>ER2-303</td>
<td>ERA-303</td>
<td>3</td>
<td>3</td>
<td>5/16-18</td>
<td>3/8</td>
<td>26.30</td>
<td>5.0 lbs</td>
</tr>
<tr>
<td>325 lbs</td>
<td>ER1-403</td>
<td>ER2-403</td>
<td>-</td>
<td>4</td>
<td>3</td>
<td>3/8-16</td>
<td>3/8</td>
<td>33.00</td>
<td>9.0 lbs</td>
</tr>
</tbody>
</table>

All dimensions are stated in inches.

Rectangular Electromagnets

Rectangular electromagnets are available in a variety of sizes. These magnets provide positive holding power and high responsiveness in numerous manual or automatic applications.

Controlled by a remote IMI power supply, rectangular electromagnets are available in 12VDC, 24VDC, 110VDC (available upon request) and 120VAC models. They deliver positive holding power tailored to the material being handled.

<table>
<thead>
<tr>
<th>Holding Value</th>
<th>12VDC Part No.</th>
<th>24VDC Part No.</th>
<th>120VAC Part No.</th>
<th>A Width</th>
<th>B Length</th>
<th>C Height</th>
<th>T Thread</th>
<th>E Hole Space</th>
<th>G (Lead)</th>
<th>Watts</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 lbs</td>
<td>ES1-111</td>
<td>ES2-111</td>
<td>-</td>
<td>1-1/2</td>
<td>1-1/2</td>
<td>1-1/4</td>
<td>10-32</td>
<td>CTR</td>
<td>3/8</td>
<td>8.0</td>
<td>31 lb</td>
</tr>
<tr>
<td>100 lbs</td>
<td>ES1-121</td>
<td>ES2-121</td>
<td>ESA-121</td>
<td>1-1/2</td>
<td>2-1/2</td>
<td>1-1/4</td>
<td>10-32</td>
<td>1</td>
<td>3/8</td>
<td>9.7</td>
<td>1 lb</td>
</tr>
<tr>
<td>200 lbs</td>
<td>ES1-221</td>
<td>ES2-221</td>
<td>ESA-221</td>
<td>2-1/2</td>
<td>2-1/2</td>
<td>1-1/2</td>
<td>1/4-20</td>
<td>CTR</td>
<td>3/8</td>
<td>14.4</td>
<td>2 lbs</td>
</tr>
<tr>
<td>400 lbs</td>
<td>ES1-241</td>
<td>ES2-241</td>
<td>ESA-241</td>
<td>2-1/2</td>
<td>4-1/2</td>
<td>1-7/8</td>
<td>1/4-20</td>
<td>2</td>
<td>3/8</td>
<td>30.0</td>
<td>5 lbs</td>
</tr>
</tbody>
</table>

All dimensions are stated in inches.

Note: 120 VAC models are complete w/ NEMA 5-15P plug w/ internal rectifier. DO NOT REMOVE PLUG.