Bobbin Wound Electromagnetic Coils

Arnold offers precision layered or random wound coils engineered to meet your design requirements. Our custom engineered coils use high quality, bondable magnet wire to reach the electrical specs you need and keep your design as small as possible.

Bobbin wound coils are available in standard or custom bobbin sizes, in a range of plastic and injection molded materials. Choices are available in magnet wire sizes, insulation, pins or displacement terminals and other components.

### Dimensions

<table>
<thead>
<tr>
<th></th>
<th>Automated Winding</th>
<th>No Manual Intervention</th>
<th>With Manual Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire Size:</td>
<td>metric/imperial</td>
<td>0.6-2.0(mm)</td>
<td>0.4-1.0(mm)</td>
</tr>
<tr>
<td>Max Winding OD:</td>
<td>metric/imperial</td>
<td>150(mm)</td>
<td>100(mm)</td>
</tr>
<tr>
<td>Max Axial Length:</td>
<td>metric/imperial</td>
<td>133(mm)</td>
<td>100(mm)</td>
</tr>
</tbody>
</table>

### Testing & Quality Control

Lead-free soldering of joints is performed in a temperature and humidity controlled environment. Typical solder used is BS EN 29453:1994 Grade 95A, 96S, 97C, 99C with a melting temperature of >200°C.

Coils are certified after completion by:
- Resistance
- OD of winding
- Voltage and time of Voltage test

### Applications

- Active Engine Mounts
- Fire/Safety Electromagnetic Door Holder
- Reed Switches
- Audio Components
- High Frequency Magnetic Amplifiers
- Ham Radios
- Harmonic Generators
- Emission Controls
- Transformers
- Hydraulic Valves
- Compressor Clutches
- Oscillators
- Flux Gate Magnetometers
- Pulse Transformers

### Encapsulated Coils

Coils can be coated with durable, temperature resistant varnish/thermoplastics, chosen to suit your design’s specific max temp requirement. This will protect your coil assembly from moisture, corrosion, vibration and other harsh conditions.

### Capabilities

- Coated Copper – type of varnish specific to max temp requirement
- Terminations & Lead Wires as required
- Injection molding of bobbins
- Finished assemblies