# Controllers

**CNT1530**

**Dimensions in inches [mm]**

<table>
<thead>
<tr>
<th><strong>Electrical Data</strong></th>
<th><strong>CNT1530</strong></th>
<th><strong>Unit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Min. Operating Voltage</td>
<td>9</td>
<td>Volt</td>
</tr>
<tr>
<td>2. Max. Operating Voltage</td>
<td>15</td>
<td>Volt</td>
</tr>
<tr>
<td>3. Standby Current</td>
<td>40</td>
<td>mA DC</td>
</tr>
<tr>
<td>4. Current Limit (1)</td>
<td>&gt;75 for &gt;10 ms</td>
<td>A DC</td>
</tr>
<tr>
<td>5. Max. Continuous Input Power</td>
<td>300</td>
<td>W</td>
</tr>
<tr>
<td>6. Continuous Output Current</td>
<td>20</td>
<td>A DC</td>
</tr>
</tbody>
</table>

**Operating Modes**

- 7. Control Method: Open Loop Speed
- 8. Switching Waveform: Trapezoidal
- 9. Feedback Type: Sensored

**Inputs**

- 10. Hall Sensors: H1, H2, H3
- 11. Power Input: BATT+, BATT-
- 12. Magnetic Triggers: Direction (FD/REV), Speed (0-100% PWM)
- 13. Recommended Speed Magnet Grade (2): SmCo 1:5
- 14. Recommended Speed Magnet Dimensions: 4.76 x 1.52 (0.188" x 0.060") Dia x Thick mm (in)
- 15. Recommended Direction Magnet Grade (2): SmCo 1:5
- 16. Recommended Direction Magnet Dimension: 3.18 x 3.18 (0.125" x 0.125") Dia x Thick mm (in)

**Outputs**

- 17. Phase Leads: A, B, C

**Environmental**

- 18. Maximum Storage Temperature: 150 (302) °C (°F)
- 19. Autoclave Cycles: 1,000

**Mechanical**

- 20. Housing Material: Aluminum
- 21. Dimensions: 22.8 x 83.5 x 16.6 (0.90 x 3.29 x 0.66) mm (in)
- 22. Weight: 70 (2.5) g (oz)
- 23. Wire Insulation Material: PTFE
- 24. Power Lead AWG: 18
- 25. Hall Sensor Lead AWG: 26

**Notes:**

1. Current limit allows brief excursions beyond 75ADC so long as they are less than 10ms in length. The response time is dependent upon the slew rate of the current excursion, and the current limit features is intended to prevent against prolonged motor stall conditions from inducing further damage in the system.

2. Recommended SmCo 1:5 Disk Magnets are suggestions for the appropriate magnet to incorporate into the speed trigger and direction switch in the customer’s handpiece. Please contact Portescap with further specification questions.