### Electrical Data

<table>
<thead>
<tr>
<th></th>
<th>EN22A</th>
<th>EN22AL</th>
<th>EN22B</th>
<th>EN22BL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lines per revolution</td>
<td>1024</td>
<td>1024</td>
<td>1024</td>
<td>1024</td>
</tr>
<tr>
<td>Number of channels</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Max. speed (rpm)</td>
<td>20000</td>
<td>20000</td>
<td>20000</td>
<td>20000</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>5V</td>
<td>5V</td>
<td>5V</td>
<td>5V</td>
</tr>
<tr>
<td>Output signal</td>
<td>TTL</td>
<td>TTL</td>
<td>TTL</td>
<td>TTL</td>
</tr>
<tr>
<td>Index pulse width</td>
<td>90°</td>
<td>90°</td>
<td>90°</td>
<td>90°</td>
</tr>
<tr>
<td>Phase shift, Channel A to B</td>
<td>90°</td>
<td>90°</td>
<td>90°</td>
<td>90°</td>
</tr>
<tr>
<td>Index of code disc</td>
<td>0.7g/cm²</td>
<td>0.7g/cm²</td>
<td>0.7g/cm²</td>
<td>0.7g/cm²</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>-40°...+125°C</td>
<td>-40°...+125°C</td>
<td>-40°...+125°C</td>
<td>-40°...+125°C</td>
</tr>
</tbody>
</table>

### Features & Configuration
- Magnetic rotary encoder chip
- Output interface: ABI
- Configuration programmable: Zero position, ABI line per revolution
- ABI binary pulse count: 1024, 512, 256ppr
- Optional line driver: Provide four channel differential line driver with complementary outputs for EN22AL and EN22BL

### Output Signals

#### EN22A/EN22B
with counter-clockwise rotation as from the shaft end

#### EN22AL/EN22BL
with counter-clockwise rotation as from the shaft end

### Connection

#### EN22A/EN22B
- Pin 1: GND, AWG28
- Pin 2: Vcc, AWG28
- Pin 3: NC, AWG28
- Pin 4: I+, AWG28
- Pin 5: B+, AWG28
- Pin 6: NC, AWG28
- Pin 7: A+, AWG28
- Pin 8: A-, AWG28

#### EN22AL/EN22BL
- Pin 1: GND, AWG28
- Pin 2: Vcc, AWG28
- Pin 3: I-, AWG28
- Pin 4: I+, AWG28
- Pin 5: B-, AWG28
- Pin 6: B+, AWG28
- Pin 7: A-, AWG28
- Pin 8: A+, AWG28