Series HWA 103

- Absolute singleturn rotary-encoder with a hollow shaft diameter of 10-25.4 mm, parallel- or SSI output
- Housing diameter 103 mm, small design and high degree of protection
- Maximum resolution 12 Bit
- Direct assembly onto existing shafts
- Also available in stainless steel for aggressive environmental conditions
- Accessories from page 78

**Electrical specifications**
- max. pulse frequency: 25 kHz
- Perm. temperature range: -30°...+70° C
- Power supply: 10 V...30 V DC
- Max. current consumption: 160 mA (without load)
- Max. output load: 40 mA (per channel)
- Residual ripple: max. ± 5% Uₙ

**Mechanical specifications**
- Flange: Aluminium
- Housing: Aluminium
- Hollow shaft: stainless steel
- Shaft seal: oil/salt-water resistant
- Bearing: Deep groove ball bearing
- Weight: approx 0.8 kg
- Protection type: IP 65
- Max. speed: 6,000 U/min
- Torque: approx 15 Ncm

**Mechanical dimensions**

* Tolerance = H 7
All specification in millimeters
Absolute Rotary Encoder Series HWA 103

Output circuits

Order ref.: 0 3 5 6

Output code

<table>
<thead>
<tr>
<th>Output code</th>
<th>Resolution</th>
<th>Inputs</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binary, BCD</td>
<td>2, 4, 8, 16, 32, 64, 128, 256, 512, 1.024, 2.048, 3.600, 4.096</td>
<td>(Octocoupler)</td>
<td>Latch (Octocoupler input, control with + U_b)</td>
</tr>
<tr>
<td>Gray (beginning with 0)</td>
<td>2, 4, 8, 16, 32, 64, 128, 256, 512, 1.024, 2.048, 4.096</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gray excess (beginning ≠ 0))</td>
<td>45, 90, 180, 360, 720, 1.440, 2.880, 3.600</td>
<td></td>
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</tr>
</tbody>
</table>

Pin configuration

Order reference

HWA 103 - 1 R - (max. resolution 4.096)