Series HWI 80

- Incremental rotary-encoder with a hollow shaft diameter of 6-12 mm
- Housing diameter 80 mm, small design and high degree of protection
- Maximum 5,000 pulses / revolution
- Direct assembly onto existing shafts
- Also available in stainless steel for aggressive environmental conditions
- Accessories from page 78

Electrical specifications

- max. pulse frequency: 100 kHz
- Perm. temperature range: -30°...+70° C
- Power supply: 10 V...30 V DC
- Max. current consumption: 80 mA (without load)
- Max. output load: 30 mA (per channel)
- Residual ripple: max. ± 5% Uₚ
- Power supply: 5 V DC ± 5%
- Max. current consumption: 80 mA

Mechanical specifications

- Flange: Aluminium
- Housing: Aluminium
- Hollow shaft: stainless steel
- Shaft seal: oil/salt-water resistant
- Bearing: Deep groove ball bearing
- Weight: approx 0.5 kg
- Protection type: IP 65
- Max. speed: 6,000 U/min
- Torque: approx 10 Ncm

Mechanical dimensions

All specification in millimeters
Output circuits

Two square pulse trains offset by 90° el, with channel A lagging in clockwise rotation.

Reference pulse 0 once per revolution, position and length optional, linked for RS 422.

All channels can also be executed inversely.

Pin configuration

<table>
<thead>
<tr>
<th>Connection type 00</th>
<th>GND</th>
<th>+Uₜ</th>
<th>A</th>
<th>B</th>
<th>A₂</th>
<th>B₂</th>
<th>0</th>
<th>0₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Colour code according to DIN 47100)</td>
<td>white</td>
<td>brown</td>
<td>green</td>
<td>yellow</td>
<td>gray</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection type 00</td>
<td>white</td>
<td>brown</td>
<td>green</td>
<td>yellow</td>
<td>gray</td>
<td>pink</td>
<td>blue</td>
<td>red</td>
</tr>
<tr>
<td>(Colour code according to DIN 47100)</td>
<td>black</td>
<td>blue</td>
<td>brown</td>
<td>beige</td>
<td>yellow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection type 01</td>
<td>black</td>
<td>blue</td>
<td>brown</td>
<td>beige</td>
<td>yellow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection type 07, 08, 09, 10, 11</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>(5)</td>
<td>(6)</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Connection type 12, 54</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

Order reference

Housing | Shaft | Signal output | Drive |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>S = Standard</td>
<td>06 = 6 mm</td>
<td>1 = A</td>
<td>1 = Studs</td>
</tr>
<tr>
<td>E = Stainless steel</td>
<td>07 = 7 mm</td>
<td>2 = A, B</td>
<td>2 = Coupling</td>
</tr>
<tr>
<td>08 = 8 mm</td>
<td>3 = A, B, 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 = 10 mm</td>
<td>4 = A, A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 = 11 mm</td>
<td>5 = A, B / A, B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 = 12 mm</td>
<td>6 = A, B, 0 / A, B, 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>59 = 9.52 mm</td>
<td>7 = A, 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 = A, 0 / A, 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 = A, B, 0, 0</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Connection position/Connection type (see page 78)

Standard |
R = radial: 00, 01, 07, 08, 09, 10, 11, 12, 54

Stainless steel |
R = radial: 00, 01, 12

Output circuit

1 = Push-pull 30mA
3 = TTL
6 = RS 422
7 = Uₑ 24 VDC out. 5V TTL
8 = Push-pull 100mA
9 = Uₑ 24 VDC out. RS 422

Number of pulses 1 . . . 5,000 (higher numbers of pulses on request)