**EA 58 F - 63 F / G PROFIBUS**

**BLIND HOLLOW SHAFT SINGLETURN ABSOLUTE ENCODER**

**Specifications**

Industry standard singleturn absolute encoder for factory automation applications.

- Optical sensor technology (OptoASIC)
- Resolution up to 13 bit (8192 ppr)
- Power supply up to +28 VDC with Profibus DP as electronic interface
- Cable gland or M12 connector output
- Blind hollow shaft diameter up to 15 mm
- Mounting by stator coupling, spring or anti-rotation pin

### Ordering Code

<table>
<thead>
<tr>
<th>SERIES</th>
<th>EA</th>
<th>58F</th>
<th>4096</th>
<th>B 12/28</th>
<th>FXX</th>
<th>10</th>
<th>X</th>
<th>3</th>
<th>P3R</th>
<th>XXX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SERIES</strong></td>
<td>EA</td>
<td>58F</td>
<td>4096</td>
<td>B 12/28</td>
<td>FXX</td>
<td>10</td>
<td>X</td>
<td>3</td>
<td>P3R</td>
<td>XXX</td>
</tr>
<tr>
<td><strong>MODEL</strong></td>
<td>blind hollow shaft with stator coupling 58F</td>
<td>blind hollow shaft with spring 63F</td>
<td>blind hollow shaft with anti-rotation pin 63G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RESOLUTION</strong></td>
<td>ppr max 4096 / 8192</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CODE TYPE</strong></td>
<td>binary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>POWER SUPPLY</strong></td>
<td>12 ... 28 V DC 12/28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ELECTRONIC INTERFACE</strong></td>
<td>PROFIBUS DP V0 CLASS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BORE DIAMETER</strong></td>
<td>mm 8 (9.52mm 3/8”)</td>
<td>mm 9</td>
<td>mm 10</td>
<td>mm 12</td>
<td>mm 14</td>
<td>mm 15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ENCLOSURE RATING</strong></td>
<td>IP 54 X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MAX ROTATION SPEED</strong></td>
<td>3000 rpm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OUTPUT TYPE</strong></td>
<td>terminal box - radial cable glands P3R</td>
<td>radial M12 connectors M12R</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VARIANT</strong></td>
<td>custom version XXX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ELTRA trade**

www.eltra-trade.com  

tel: +421 552 601 099  
e-mail: info@eltra-trade.com
**ELECTRICAL SPECIFICATIONS**

- **Resolution**: 2...4096 / 2...8192 ppr programmable during commissioning
- **Power supply**: 12/28 = 11.4...29.4 V DC
- **Current consumption without load**: 300 mA
- **Output type**: RS 485 galvanically isolated
- **Max bus frequency**: 12 Mbaud
- **Diagnostic features**: frequency warning, position warning / alarm
  - Please refer to installation guide for more information.
- **Max frequency**: 25 kHz LSB
- **Accuracy**: ±1/2 LSB
- **Counting direction**: programmable during commissioning
- **Start-up time**: 500 ms
- **Electromagnetic compatibility**: IEC 61000-6-2, IEC 61000-6-4

**MECHANICAL SPECIFICATIONS**

- **Bore diameter**: ø 8 / 9 / 10 / 12 / 14 / 15 mm
- **Enclosure rating**: IP 54 (IEC 60529)
- **Max rotation speed**: 3000 rpm continuous
- **Shock**: 50 G, 11 ms (IEC 60068-2-27)
- **Vibration**: 10 G, 10...2000 Hz (IEC 60068-2-6)
- **Moment of inertia**: 5 x 10^4 kgm^2
- **Starting torque (at +20°C / +68°F)**: < 0.02 Nm
- **Body material**: EN-AW 2011 aluminum
- **Shaft material**: 1.4305 / AISI 303 stainless steel
- **Housing material**: painted aluminum
- **Flange material**: EN-AW 2011 aluminum
- **Bearings**: 2 ball bearings
- **Bearings life**: 10^6 revolutions
- **Operating temperature**: 0...+60°C (+32°...+140°F)
- **Storage temperature**: -15...+70°C (+5°...+158°F)
- **Fixing torque for collar clamping**: 1.5 Nm recommended
- **Weight**: 650 g (22.93 oz)

**CONNECTIONS**

<table>
<thead>
<tr>
<th>Function</th>
<th>S3 connector (power supply)</th>
<th>S3 connector (line out)</th>
<th>S3 connector (line in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Vdc</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>0 Volt</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>signal A (out)</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>signal B (out)</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

*anti-rotation pin is included in model G, for mounting instruction please refer to product installation notes.*

*with supplied adapter shaft.*