Model 260 Ultra Versatile Commutated Thru-Bore

Features
- Low Profile 30.30mm
- Up to 12 Pole Commutation Available
- Thru-Bore Style
- Simple, Innovative Flexible Mounting System
- Incorporates Opto-ASIC Technology

The Model 260's larger bore (up to 15.875mm) and low profile make it the perfect solution for many machine and motor applications, and is provided with a full Thru-Bore. The Model 260 uses a pioneering Opto-ASIC design, and innovative anti-backlash mounting system, allowing simple, reliable, and precise encoder attachment. Unlike traditional kit or modular encoder designs, its integral bearing set provides stable and consistent operation without concerns for axial or radial shaft runout. For brushless servo motor applications, the Model 260 can be specified with three 120° electrical phase tracks to provide up to 12 pole commutation feedback. The optional extended temperature capability allows servo motors to operate at higher power outputs and duty cycles.

Common Applications
Brushless Servo Motor Commutation, Robotics, Motor-Mounted Feedback, Assembly Machines, Digital Plotters, High Power Motors

Model 260 Ordering Guide
Red type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>260/1</th>
<th>04</th>
<th>AF</th>
<th>0256</th>
<th>NC</th>
<th>HV</th>
<th>G2</th>
<th>ST</th>
<th>IP50</th>
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<tbody>
<tr>
<td>BORE SIZE</td>
<td>01 1/4&quot;, 0.250&quot;</td>
<td>02 3/8&quot;, 0.375&quot;</td>
<td>AT 1/2&quot;, 0.500&quot;</td>
<td>03 5/8&quot;, 0.625&quot;</td>
<td>04 6 mm</td>
<td>05 10 mm</td>
<td>07 7 mm</td>
<td>08 6 mm</td>
<td>09 9 mm</td>
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<tr>
<td>PPR</td>
<td>See PPR chart below</td>
<td>Price adder &gt;1000</td>
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<td>OUTPUT TYPE</td>
<td>NC</td>
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<td>4A 4 Pole</td>
<td>6B 6 Pole</td>
<td>8C 8 Pole</td>
<td>12D 12 Pole</td>
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<td>4A 4 Pole</td>
<td>6B 6 Pole</td>
<td>8C 8 Pole</td>
<td>12D 12 Pole</td>
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<td>OPERATING TEMPERATURE</td>
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For specification assistance call Customer Service at +44 (0)1978 262100

Model 260 PPR Options
- 0001* 0010* 0011* 0012* 0020* 0025* 0030* 0040* 0050 0060 0100 0120 0128 0200 0250 0254 0256 0300 0360 0400 0450 0500 0512 0600 0720 1000 1024 1200 1220 1250 1270 1500 1800 2000 2048 2500 2560 3000 4096 5000 6000 8192 10000
*Contact Customer service for High Temp option

Contact Customer Service for other disc resolutions; not all disc resolutions available with every commutation option.

Notes:
1 Not available in all configurations. Contact Customer Service for availability.
2 5 to 15 VCC supply only for HT option.
3 For non-standard cable lengths contact sales office for details and cost.
4 Not available with commutation.
5 Increased starting torque with IP64 Option.
Electrical

Input Voltage............. 4.75 to 24 VCC for temperatures up to 70º C
5 to 16 VCC for 0º to 100º C operating temperature

Input Current ............. 100 mA max with no output load

Output Format........... Incremental- Two square waves in quadrature
with channel A leading B for clockwise shaft rotation, as viewed from the mounting face.
See Waveform Diagrams below.

Output Types............. Open Collector- 20 mA max per channel
Push-Pull- 20 mA max per channel
Line Driver- 20 mA max per channel (Meets RS422 at 5 VDC supply)

Index..................... Once per revolution gated to channel A. See Waveform Diagrams below.

Freq. Response............ 200 kHz standard (up to 1MHz)

Noise Immunity........... Tested to BS EN61000-6-2; BS EN50081-2; BS EN61000-4-2; BS EN61000-4-3; BS EN61000-4-6, BS EN55011

Symmetry.................. 180º (±18º) electrical
Quad. Phasing............. 90º (±22.5º) electrical
Min. Edge Sep......... 67.5º electrical

Accuracy................... Within 0.01º mechanical from one cycle to any other cycle, or ±0.6 arc minutes.

Mechanical

Max Shaft Speed........... 7500 RPM. Higher shaft speeds may be achievable, contact Customer Service.

Bore Size.................. 6mm through 0.625” (15.875mm)

Bore Tolerance...... H7 (SLIDING FIT FOR g6)

User Shaft Tolerances
Radial Runout........... 0.2mm max TIR
Axial Endplay............ 0.75mm max

Starting Torque........... IP50 Thru-Bore: 3.53 x 10^-3 Nm
IP44 Thru-Bore: 1.705 x 10^-2 Nm
38.84 x 10^-3 Nm for -40º C operation

Max Acceleration........... 1 x 10^5 rad/sec^2

Electrical Conn........... 2M cable (foil and braid shield, 24 AWG conductors non-commutated, 28 AWG commutated), or 8-pin M12 (12 mm) in-line connector with 0.5M cable (foil and braid shield)

Housing..................... Black non-corrosive finish

Mounting................... Slotted Flex Mount standard, additional flex mount options available (see Ordering Guide)

Weight....................... 200 gms typical

Environmental

Operating Temp........... 0º to 70º C for standard models
-40º to 70º C for low temperature option
0º to 100º C for high temperature option

Storage Temp............. -40º to +100º C

Humidity.................. 98% RH non-condensing

Vibration.................. 10 g @ 50 to 500 Hz

Shock..................... 50 g @ 11 ms duration

Sealing................... IP50, IP44 available