**Model 755A**

**- Incremental Hollow Bore**

**Features**
- Miniature Size (1.5” Diameter)
- Up to 30,000 Cycles Per Revolution
- Flex Mounting & Large Hollow Bore Option (up to 0.750”)
- High Temperature Option

The Model 755A Size 15 Accu-Coder™ is ideal for applications requiring a small, high-precision, high-performance encoder. Approximately 1.5” in diameter and 1.5” long, it will fit where many encoders cannot. All metal construction and shielded ball bearings provide years of trouble-free use. A variety of blind hollow bore sizes are available with large bores allowing for shafts up to 0.750” or 14 mm. Attaching directly to a motor is quick and simple with the innovative flex mount, first developed by EPC. This industry-standard mount eliminates couplings and increases reliability, while reducing overall length and cost. Where critical alignment is required, a Slotted Flex (SF) is available. A perfect replacement encoder where high reliability is required.

**Common Applications**
- Robotics, Assembly Machines, Motor-Mounted Feedback, Phototypesetters, Printers & Digital Plotters, Elevator Controls, Medical Diagnostic Equipment

### Model 755A Ordering Guide

Blue type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.

<table>
<thead>
<tr>
<th>Model</th>
<th>Cycles per Revolution</th>
<th>Operating Temperature</th>
<th>CPR Options</th>
<th>Output Type</th>
<th>Mounting</th>
<th>Certification</th>
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<tr>
<td>755A</td>
<td>1-30,000</td>
<td>L: -40° to 70° C²</td>
<td>Price adder</td>
<td>S: Standard</td>
<td>SF</td>
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<td>S: 0° to 70° C</td>
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<td>Flex Mount</td>
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<td>H: 0° to 100° C²</td>
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<td>HV: Line Driver</td>
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### Model 755A CPR Options

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**NOTES:**
- Contact Customer Service for additional options.
- Low temperature option not available with resolutions of 3000 CPR or higher.
- 0° to 85° C for certain resolutions, see CPR Options.
- Contact Customer Service for index gating options.
- 24 VDC max for high temperature option.
- Line Driver outputs not available with 5-pin M12 connector.
- Standard temperature, 60 to 3000 CPR only. Not available with 2540 CPR.
- For mating connectors, cables, and cordsets see Accessories at encoder.com. For Connector Pin Configuration Diagrams, see Technical Information or see >Connector Pin Configuration Diagrams< at encoder.com.
- Contact Customer Service for Low Temperature Option (H) limited to 85° C maximum for these CPR options.
- New CPR values are periodically added to those listed. Contact Customer Service to determine all currently available CPR values. Special disk resolutions are available upon request. A one-time NRE fee may apply.
MODEL 755A SPECIFICATIONS

**Electrical**
- **Input Voltage:** 4.75 to 28 VDC max for temperatures up to 70°C
- **Input Current:** 100 mA max with no output load
- **Input Ripple:** 100 mV peak-to-peak at 0 to 100 kHz
- **Output Format:** Incremental – Two square waves in quadrature with channel A leading B for clockwise shaft rotation, as viewed from the encoder mounting face. See Waveform Diagrams.
- **Output Types:** Open Collector – 100 mA max per channel
- **Max Frequency:** Up to 1 MHz
- **Electrical Protection:** Reverse voltage and output short circuit protected. NOTE: Sustained reverse voltage may result in permanent damage.
- **Noise Immunity:** Tested to BS EN61000-4-2; IEC801-3; BS EN61000-6-2; BS EN55022 (with European compliance option); BS EN61000-6-2; BS EN50204; BS EN55022 (with European compliance option).

**Mechanical**
- **Max Shaft Speed:** 7500 RPM. Higher shaft speeds may be achievable, contact Customer Service.
- **Bore Tolerance:** 0.0000” / +0.0006”
- **User Shaft Tolerances:**
  - Radial Runout: 0.007” max
  - Axial End Play: ±0.030” max
  - Starting Torque: ±0.14 oz-in, typical
  - 4.0 oz-in typical for -40°C operation
  - Moment of Inertia: 2.8 x 10^-4 oz-in-sec^2
  - Housing: Black non-corrosive finish
  - Bearings: Precision ABEC ball bearings
  - Weight: 3.5 oz typical

**Environmental**
- **Storage Temp:** -25° to 85°C
- **Humidity:** 98% RH non-condensing
- **Vibration:** 10 g @ 58 to 500 Hz
- **Shock:** 50 g @ 11 ms duration

**Model 755A Flex Mount (S)**
- **Bore Depth:** 0.500 (12.7) oz-in-sec
- **Cable Length:** 18”

**Optional Slotted Flex Mount (SF)**
- **Cable Length:** 18”

**Model 755A Large Bore Flex Mount (S)**
- **Bore Depth:** 0.750 (19)
- **Cable Length:** 20”

**Waveform Diagrams**
- Line Driver and Push-Pull
- Incremental – Two square waves in quadrature from A to B (from one cycle to any other cycle. Interpolation of one cycle to any cycle. Interpolation error (units > 3000 CPR is 90° gated to Outputs A and B. See Waveform Diagrams.

**Wiring Table**
- For EPC-supplied mating cables, refer to wiring table provided with cable.
- Trim back and insulate unused wires.

**Flying Leads**
- **Function:**
  - Com: Black
  - +VDC: White
  - A: Brown
  - A’: Yellow
  - B: Red
  - B’: Green
  - Z: Orange
  - Z’: Blue

**Terminal Block**
- 1.500 (38)

**8-pin Molex**
- 7
d

**8-pin M12**
- 3

**5-pin M12**
- 5

**Shield**
- Bare

*CE Option: Cable shield (bare wire) is connected to internal case.
†Standard cable is 24 AWG conductors with foil and braid shield.
**CE Option: Use cable cordset with shield connected to M12 connector coupling nut.