

## DR011

Direct Replacement Encoder For  
BEI EX152

**BRITISH**  
**ENCODER**  
PRODUCTS COMPANY



Model DR011

### Features:

- High precision 38.1mm (1.50") incremental encoder
- Stainless steel 1/4" OD shaft
- Quadrature A & B channels
- 1000 PPR
- Push-Pull output
- Servo mount encoder with 4-40 x 7.62mm deep mounting holes on a 27.9mm bolt circle
- 457mm cable with strain relief
- IP50 sealing
- Shaft speeds up to 7,500 RPM

The DR011 is the smart direct replacement choice for the BEI EX152 encoder commonly used on postal sorting equipment, baggage systems, and packaging/conveying equipment. This exact replacement has the added benefit of an attached cable, saving a technician time by not having to solder wires to a circuit board. Improved sealing means a longer life with increased protection.

**If you need to replace a BEI EX152, save yourself both time and money and order the DR011.**

**ACCU-CODER™**  
by Encoder Products Company

### The Accu-Coder™ Advantage

- Get this encoder **FAST!**
- **Huge savings** in price!
- The accuracy, reliability, and quality that only come from an Accu-Coder™
- Industry Best **3-year** warranty!



Model BEI EX152

### Don't see the exact encoder you need?

Call +44(0)1978 262100 and our Technical Sales Department will cross-reference your encoder to the correct BEPC model.

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## Model DR011 Specifications

### Electrical

Input Voltage..... 4.75 to 28 VCC 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 below.  
Output Type..... Push-Pull – 20 mA max per channel  
Freq Response ..... 100 kHz  
Noise Immunity..... Tested to BS EN61000-4-2; IEC801-3; BS EN61000-4-4; DDENV 50141; DDENV 50204; BS EN55022 (with European compliance option); BS EN61000-6-2; BS EN50081-2  
Symmetry..... 180° (±18°) electrical at 100 kHz output  
Quad Phasing ..... 90° (±22.5°) electrical at 100 kHz output  
Min Edge Sep..... 67.5° electrical at 100 kHz output  
Rise Time ..... Less than 1 microsecond  
Accuracy ..... 0.017° mechanical (1.0 arc minutes) from one cycle to any other cycle.

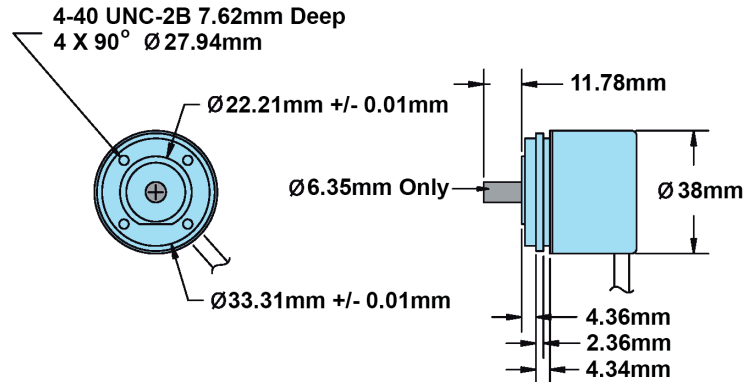
### Mechanical

Max Speed..... 7500 RPM. Higher shaft speeds may be achievable, contact Customer Service.  
Shaft Size..... 6.35mm outside diameter  
Shaft Rotation ..... Bi-directional  
Radial Shaft Load ..... 2.26 Kg  
Axial Shaft Load..... 1.36 Kg  
Starting Torque.....  $2.507 \times 10^{-2}$  N-m typical  
 $2.825 \times 10^{-2}$  N-m typical for -40° C operation  
Max Acceleration ..... 1 x 105 rad/sec<sup>2</sup>  
Electrical Conn ..... 2M cable (foil and braid shield, 24 AWG conductors)  
Housing..... Black non-corrosive finish  
Bearings ..... Precision ABEC ball bearings  
Mounting..... 33.31mm Servo Mounting face; see dimensions  
Weight..... 87.88 grams typical

### Environmental

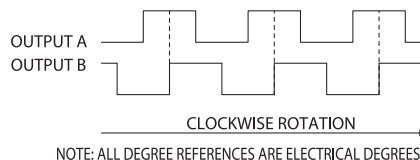
Operating Temp..... 0° to 70° C  
Storage Temp..... -25° to 85° C  
Humidity ..... 98% RH non-condensing  
Vibration..... 10 g @ 58 to 500 Hz  
Shock..... 50 g @ 11 ms duration

## DR011 Dimensions



All dimensions are in mm with a tolerance of  $\pm 0.127$ mm or  $\pm 0.254$  unless otherwise specified

## Waveform Diagram



## Wiring Table

Function	Cable Color
COM	Black
+VDC	White
A	Brown
B	Red
Shield	Bare