

## DR86A

### Extra Heavy Duty Machine Tool Encoder



#### Features

Model DR86A is an extra heavy duty unit which employs a highly reliable Opto-ASIC encoder module mounted within a rugged mechanical housing. The heavy duty sealed bearings, together with double O-ring sealing makes this encoder a serious and reliable alternative to a wide range of machine tool encoders, and at an advantageous price.

#### Common Applications

Motion Control Feedback, Conveyors, Elevator Controls, Machine Control, Food Processing, Process Control, Robotics, Material Handling, Textile Machines

#### Replaces

Fanuc, Sumtak, Tamagawa, Koyo, Kwangwoo

<u>Order Number</u>	<u>CPR</u>
DR86A-01	1024

#### The Accu-Coder™ DR86A Features:

- Rugged All Metal Housing
- 68 mm Flange Mount
- 1024 CPR\*
- 17-Pin MS Style Connector
- IP65 Double O-ring Seal
- Line Driver Output
- 15 mm Stainless Steel Shaft

\*Other CPR's may be available. Contact Customer Service.

#### The Accu-Coder™ Advantage

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

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

# DR86A

## Extra Heavy Duty Machine Tool Encoder

### Model 86A Specifications

#### Electrical

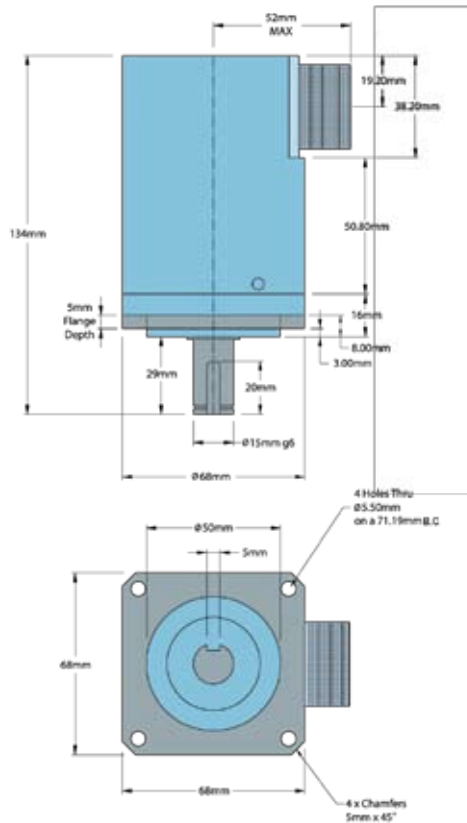
Input Voltage ..... 4.75 to 24 VCC max for temperatures up to 70° C  
 Input Current ..... 100 mA max with no output load  
 Input Ripple ..... 100 mV peak-to-peak at 0 to 100 kHz  
 Output Format ..... Incremental- Two square waves in quadrature with channel A leading B for clockwise shaft rotation, as viewed from the encoder mounting face. See Waveform Diagrams below.  
 Output Types..... Line Driver- 20 mA max per channel (Meets RS 422 at 5 VCC supply)  
 Index ..... Occurs once per revolution. The index is Ungated. See Waveform Diagrams below.  
 Freq Response ..... Up to 100 KHz  
 Noise Immunity ..... Tested to BS EN61000-4-2; IEC801-3; BS EN61000-4-4; DENV 50141; DENV 50204; BS EN55022 (with European compliance option); BS EN61000-6-2; BS EN50081-2  
 Symmetry ..... 180° (±18°) electrical at 100 kHz output  
 Quad Phasing ..... 1 to 2540 PPR: 90° (±22.5°) electrical at 100 kHz output  
 Min Edge Sep ..... 1 to 2540 PPR: 67.5° electrical at 100 kHz output  
 Rise Time ..... Less than 1 microsecond  
 Accuracy ..... Instrument and Quadrature Error: For 1024CPR, 0.017° mechanical (1.0 arc minutes) from one cycle to any other cycle

#### Mechanical

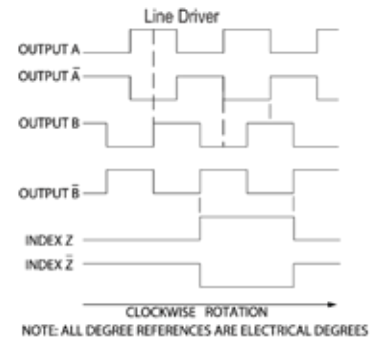
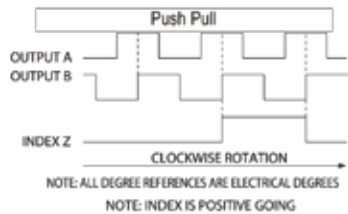
Max Shaft Speed ..... 3600 RPM. Higher shaft speeds may be achievable, contact Customer Service  
 Shaft Size ..... 15 mm  
 Shaft Material ..... 303 stainless steel  
 Shaft Rotation ..... Bi-directional  
 Radial Shaft Load..... 35 kg max  
 Axial Shaft Load ..... 35 kg max  
 Starting Torque ..... 2.118 x 10<sup>-2</sup> Nm typical  
 Max Acceleration ..... 1 x 10<sup>5</sup> rad/sec<sup>2</sup>  
 Electrical Conn ..... 17-pin MS Style  
 Housing ..... Anodized Aluminium  
 Bearings ..... Precision ABEC ball bearings  
 Mounting ..... Square Flange with 4 Holes 5.50 mm Dia on a 71.19 mm Bolt (B.C.)  
 Weight ..... 800 gms typical

#### Environmental

Operating Temp..... 0° to 70° C  
 Storage Temp ..... -25° to +85° C  
 Humidity..... 95% RH non-condensing  
 Vibration ..... 10 g @ 58 to 500 Hz  
 Shock ..... 50 g @ 11 ms duration  
 Sealing ..... IP65



### Waveform Diagrams



### Wiring Table

17-Pin Conn	Function
A	A
B	Z
C	B
D	---
E	---
F	---
G	---
H	+VCC
J	---
K	0 Volts
L	---
M	---
N	A'
P	Z'
R	B'
S	---
T	---