

DR86A

Extra heavy duty machine tool encoder



Model DR86A is an extra heavy duty unit that 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 durable alternative to a wide range of machine tool encoders.

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

Features

- Rugged all metal housing
- 68 mm flange mount or servo mount
- 1024 CPR*
- 17-Pin MS style connector
- IP65 double O-ring seal
- Line Driver output
- 15 mm stainless steel shaft

Contact Customer Service for pricing. Discounts available for volume orders.

Order Number	CPR
DR86A-F2-01	1024
DR86A-S2-01	1024

*Other CPRs maybe available. Contact Customer Service.

The Accu-Coder™ Advantage

- US-based since 1969
- Industry-best 3-year warranty
- Exceptional customer service
- Fast lead times – contact us for lead times and expedite options



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MODEL DR86A 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; 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.....	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 1024 CPR, 0.017° mechanical (1.0 arc minutes) from one cycle to any other cycle

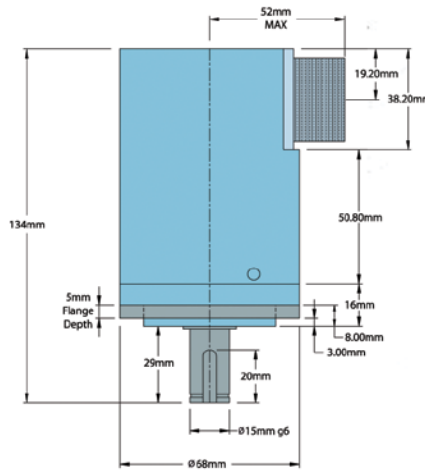
Mechanical

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 ⁻² Nm typical
Max Acceleration.....	1 x 10 ⁵ rad/sec ²
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 Circle (B.C.) Servo flange with 4 Holes M3 x 5.00 deep on a 60 mm Bolt Circle (B.C.)
Weight.....	800 gms typical

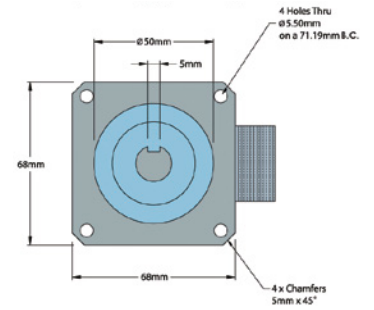
Environmental

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

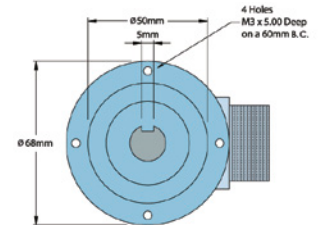
DR86A Dimensions



F2 FLANGE MOUNT



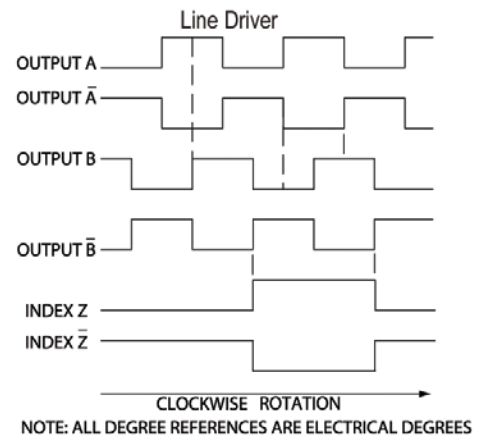
S2 SERVO MOUNT



DR86A 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	---

DR86A Waveform Diagram



Don't see the exact encoder you need?

Call (800) 366-5412 and our Technical Sales Department will cross-reference your encoder to the correct EPC model.