

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 serious and reliable alternative to a wide range of machine tool encoders, and at an economical 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

Price: \$750

Additional discounts available for volume orders.

ORDER NUMBER	CPR
DR86A-F2-01	1024
DR86A-S2-01	1024

Features:

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

**Other CPRs may be available. Contact Customer Service.*

The Accu-Coder™ Advantage

- ✓ Get this encoder FAST – you'll get your encoders in days, not weeks.
- ✓ Huge savings in price comparison – the DR86A is your economical solution
- ✓ 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 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; 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 1024 CPR, 0.017° mechanical (1.0 arc minutes) from one cycle to any other cycle

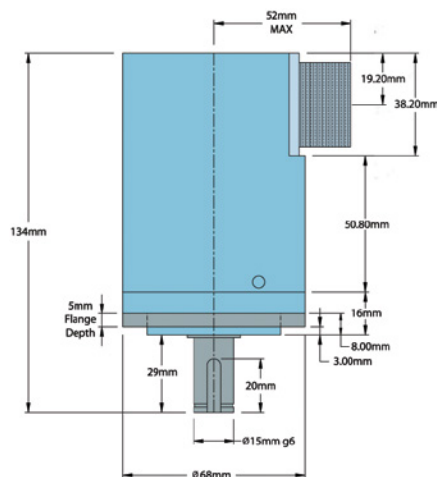
Mechanical

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

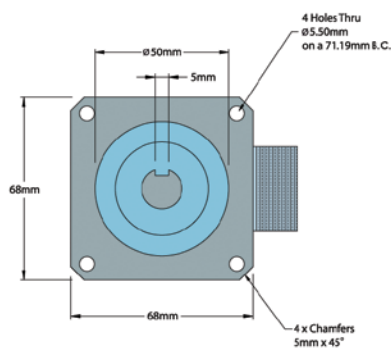
Environmental

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

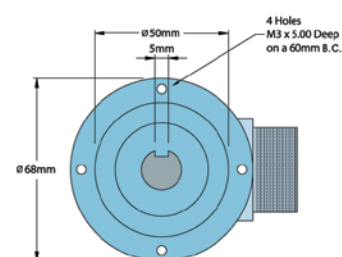
DR86A Dimensions



F2 (Flange Mount)



S2 (Servo Flange)



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

