

## DR580

Direct Replacement Encoder For  
Dynapar H23 on Magnetek Vector/Inverter Motors

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

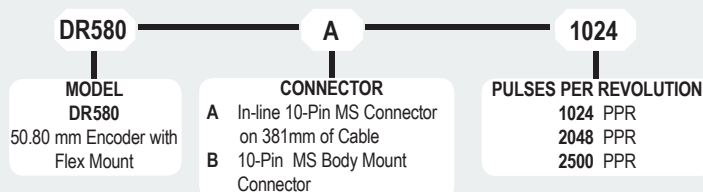


### Features:

- Rugged 50.8mm (2") industrial encoder with 57.15mm flex mount and 5/8" bore
- Able to withstand temperatures up to 100° C
- Quadrature with index
- Line Driver output
- 5 to 28 VDC
- 10-pin inline or body mount MS connectors
- Frequency up to 200 kHz
- Sealing of IP64

The Direct Replacement Encoder DR580 is an exact substitute for the Dynapar H23 used on Magnetek Vector/Inverter Duty motors. Available with PPR's of 1024 or 2048, the DR580 is a heavy duty, rugged industrial encoder capable of withstanding higher temperatures and shock than the Dynapar H23. With either a body mount, or in-line connector option, the DR580 will provide a simple direct fit installation with superior performance for your motor mount application.

### ORDER GUIDE :-



**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!

### 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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## DR580 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 Types.....Line Driver- 20 mA max per channel (Meets RS 422 at 5 VCC supply)  
Index.....Occurs once per revolution. See *Waveform Diagrams* below.  
Freq Response.....Up to 200 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.....90° (±22.5°) electrical at 100 kHz output  
Min Edge Sep.....67.5° electrical at 100 kHz  
Rise Time.....Less than 1 microsecond  
Accuracy.....Instrument and Quadrature Error: 0.017° mechanical (1.0 arc minutes) from one cycle to any other cycle. (Total Optical Encoder Error = Instrument + Quadrature + Interpolation)

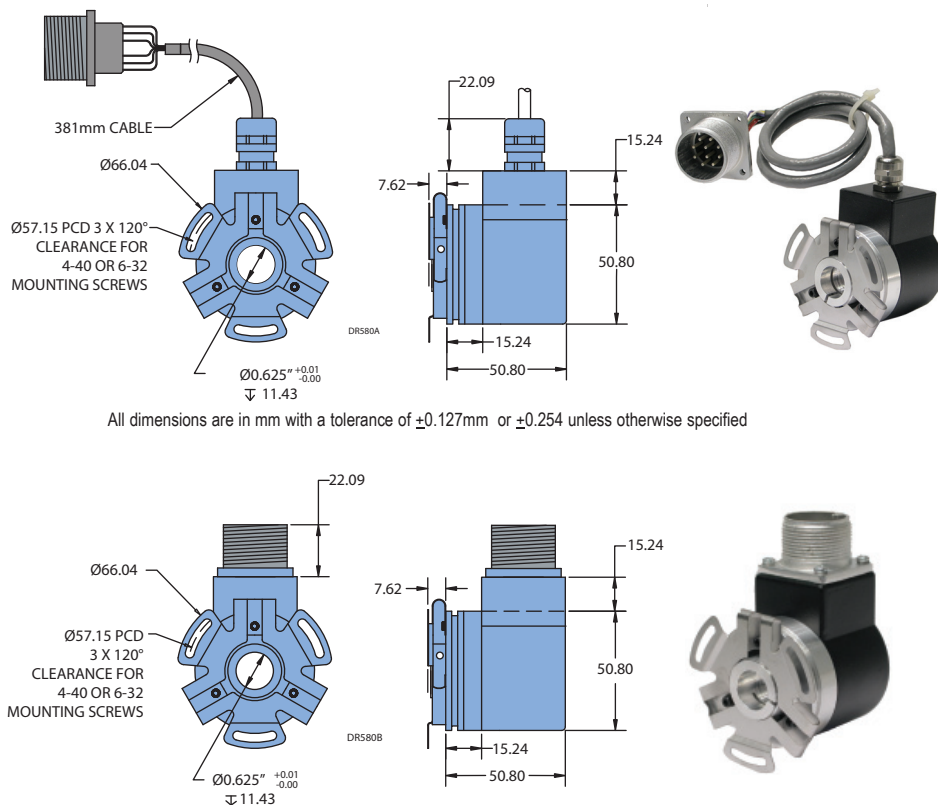
### Mechanical

Max Shaft Speed.....8000 RPM. Higher shaft speeds may be achievable, contact Customer Service.  
Shaft Size.....0.625"  
User Shaft Tolerances  
Radial Runout.....0.17 max  
Axial Endplay.....+/- 0.7 Max  
Starting Torque.....7.0615 x 10<sup>-3</sup> Nm typical with IP64 seal  
Max Acceleration.....1 x 10<sup>5</sup> rad/sec<sup>2</sup>  
Connector Type.....10 Pin MS on 381mm of cable, or body mount  
Housing.....Black non-corrosive finish  
Bearings.....Precision ABEC ball bearings  
Mounting.....57.15mm Flex Mount  
Weight.....311g typical

### Environmental

Operating Temp.....0° to 70° C for standard models  
Storage Temp.....-25° to +85° C  
Humidity.....98% RH non-condensing  
Vibration.....20 g @ 58 to 500 Hz  
Shock.....75 g @ 11 ms duration  
Sealing.....IP64

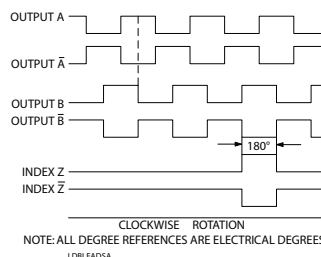
## DR580 Dimensions



## Waveform Diagram

### Line Driver

The Line Driver output waveform is shown in the figure to the right. Output B leads Output A for clockwise rotation, as viewed from the encoder mounting face.



## Wiring Table

Pin	Function	Cable Color
A	A	Violet
B	B	Brown
C	Z	Orange
D	+VDC	Red
E	Shield	Black Tube
F	COM	Black
G	Case	Green
H	A'	Blue
I	B'	White
J	Z'	Yellow