

DR580

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



The Accu-Coder™ Direct Replacement Encoder DR580 is an exact substitute for the Dynapar H23 used on Magnetek Vector/Inverter Duty motors. Available with CPR'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.

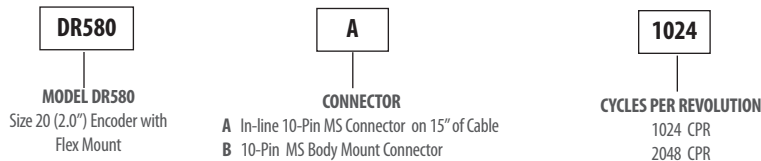
Features:

- Rugged 2" industrial encoder with 2.25" flex mount and 5/8" bore
- Able to withstand temperatures up to 100° C
- Quadrature with index
- Line Driver output
- 5 to 28VDC
- 10-pin in-line or body mount MS connectors
- Frequency up to 200 kHz
- Sealing of IP64

Typical Price: for Comparable Encoder: \$525 - \$650

DR580 Price: \$475

Additional discounts available for volume orders.



The Accu-Coder™ Advantage

- ✓ Get this encoder FAST – you'll get your encoders in days, not weeks.
- ✓ Huge savings in price comparison – the DR580 is your economical solution
- ✓ The accuracy, reliability, and quality that only come from an Accu-Coder™
- ✓ Industry Best 3-year warranty!



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Model DR580 Specifications

Electrical

Input Voltage.....	4.75 to 28 VDC max for temperatures up to 70° C; 4.75 to 24 VDC for temperatures between 70° C to 100° 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 B leading A for clockwise shaft rotation, as viewed from the encoder mounting face. See Waveform Diagrams below.
Output Type.....	Line Driver- 20 mA max per channel (Meets RS 422 at 5 VDC supply)
Index.....	Occurs once per revolution. See Waveform Diagram below.
Freq Response.....	200 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.....	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)

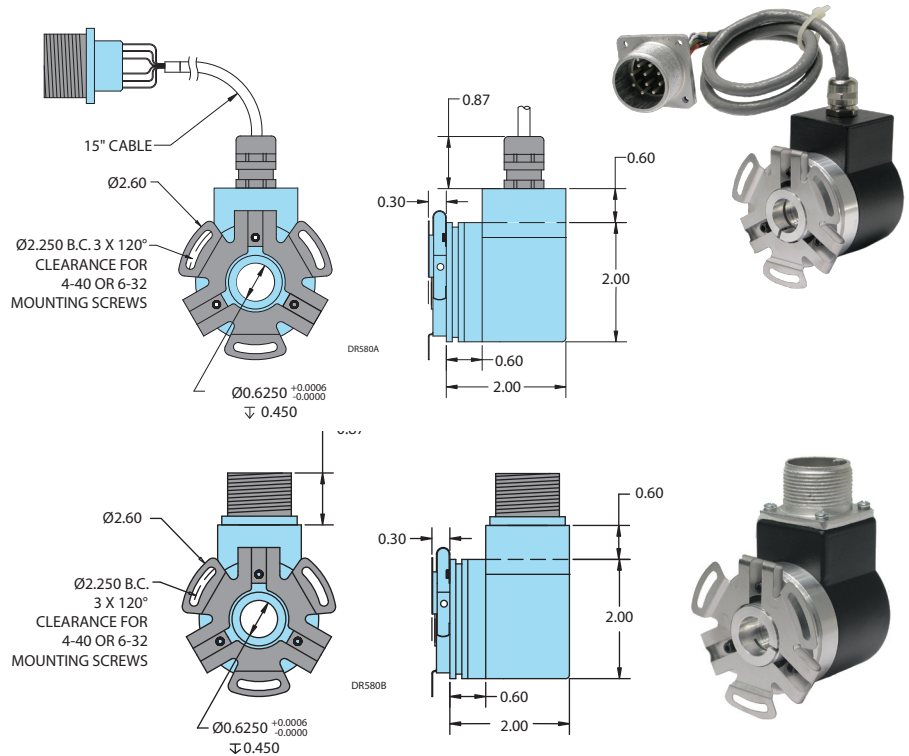
Mechanical

Max Shaft Speed.....	8000 RPM. Higher shaft speeds may be achievable, contact Customer Service.
Bore Size.....	0.625"
Bore Tolerance.....	+0.0006" / -0.0000"
User Shaft Tolerances	
Radial Runout.....	0.007" max
Axial Endplay.....	±0.030" max
Starting Torque.....	1.0 oz-in typical with IP64 seal
Moment of Inertia.....	5.2 x 10 ⁻⁴ oz-in-sec ²
Max Acceleration.....	1 x 10 ⁵ rad/sec ²
Electrical Conn.....	10-pin MS on 15" of cable, or body mount
Housing.....	All metal construction with black protective coating
Bearings.....	Precision ABEC ball bearings
Mounting.....	2.250" Flex mount
Weight.....	11 oz typical

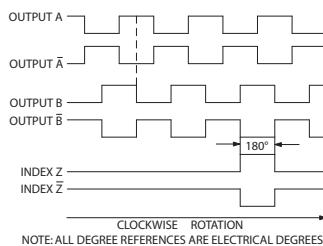
Environmental

Operating Temp.....	0° to 100° C
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



DR580 Waveform Diagrams



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.

DR580 Wiring Tables

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