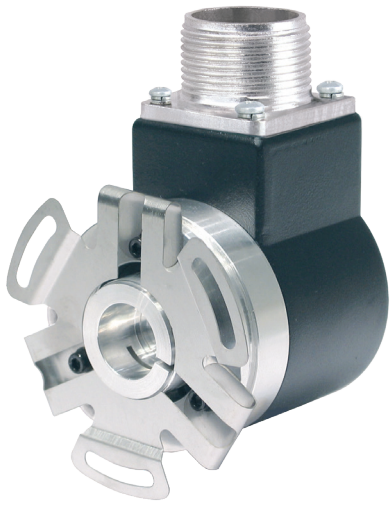
DR580

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 CPRs of 1024, 2048, or 2500, 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 28 VDC
- 10-pin inline or body mount MS connectors
- Frequency up to 200 kHZ
- Sealing of IP64

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

DR580	A	1024
MODEL DR580	**CONNECTOR TYPE**	**CYCLES PER REVOLUTION**
Size 20 (2.0") encoder with Flex Mount	**A** Inline 10-Pin MS Connector on 15" of cable	1024 CPR
	B 10-Pin MS Body Mount Connector	2048 CPR
		2500 CPR

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 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)

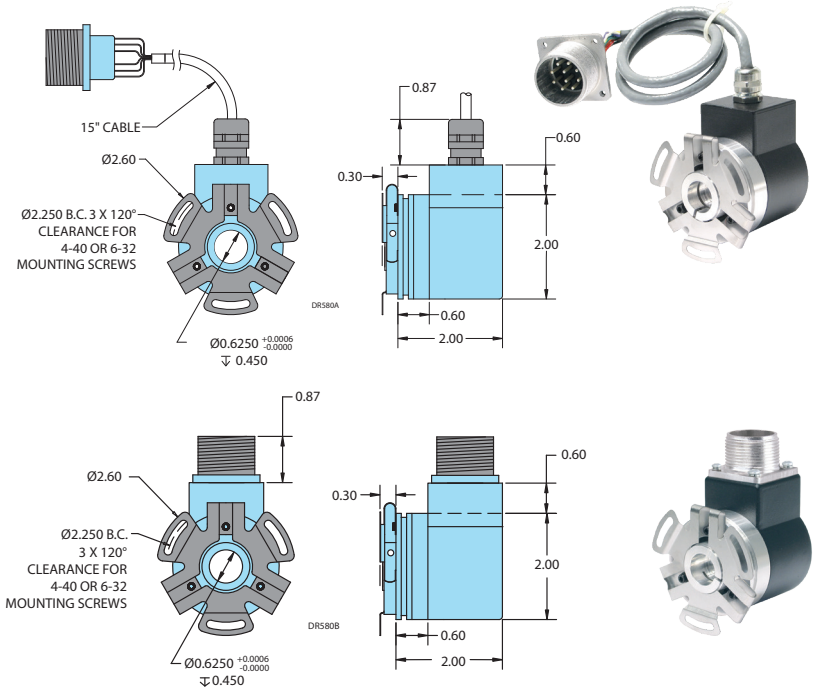
Mechanical

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

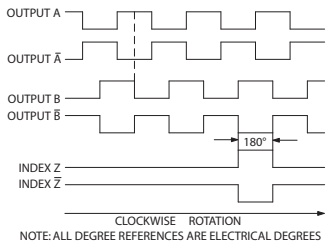
Environmental

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 Diagram



NOTE: ALL DEGREE REFERENCES ARE ELECTRICAL DEGREES

Line Driver

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

DR580 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

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.*

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