ENCODER PRODUCTS COMPANY



# Direct Replacement Encoders

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# Direct Replacement Encoders

## *DR857*
**AMS Controls incremental optical encoders**

- Standard 3 inch round encoder body
- 0256, 0500, 1000, 2000, and 4000 * CPR available
- 3/8" Shaft made of 303 Stainless Steel
- 5V Line Driver output
- End-mount 10-pin MS connector
- Precision ABEC ball bearings
- IP66 sealing
- Price adder for 4000 CPR



## *DR21R*
**Renco RCH20D**

- Highly customized, Direct Replacement Encoder with a unique, OEM-specific ABS stepped voltage output channel.
- DR21R configurations replace select Renco RCH20D and RHS25D models originally installed on legacy F, H, W, N and HSM servo motor models.
- Line Driver output with ABS stepped voltage output
- Quadrature with index
- 5 VDC Input Voltage
- End mount 16-pin header connection
- Operating temperature up to 100°C



## *DR011*
**BEI EX152**

- For encoder commonly used on postal sorting equipment, baggage systems, and packaging/ conveying equipment
- Includes attached cable for easy installation (no soldering wires to a circuit board required)
- Improved sealing for a longer life with increased protection



## *DR735*
**Heidenhain* ROD320**

- Meets or exceeds all OEM specifications
- Provides precision feedback control for Siemens* 1FT Series Simodrive* motors
- Features an improved "Stay In Place" tapered shaft
- Offers custom flex mount
- 5 different resolution options, from 1000 to 5000 CPR
- 9" of cable
- 17 pin connector with the correct Heidenhain pinout



Direct Replacement encoders are designed as drop-in replacements for encoders commonly found in the industrial marketplace. If you don't see an exact replacement on the cross reference chart below, please submit a request at encoder.com/cross-reference.

| Encoder Model | EPC Direct Replacement |
|---|---|
| BEI EX152 | DR011 |
| DRC 29L | DR651 |
| Dynapar H23 for Magnatek Motors | DR580 |
| Dynapar Rotoulsar 60 | DR553 |
| Heidenhain ROD320 | DR735 |
| Microcut Controller | DR274 |
| Quantum ATL 3000 | DR425 |
| Renco RCH20D | DR21R |
| Siemens 1XP8001 | DR686 |
| Videojet Printers | DR323 |

## *DR86A*
**Replaces a wide range of machine tool encoders**

- Employs reliable Opto-ASIC technology
- Extra heavy duty unit mounted within a rugged mechanical housing
- Offers heavy duty sealed bearings, together with double O-ring sealing



## *DR274*
**Microcut Controller-Perfecta Printing Presses**

- Encoder for Perfecta USA manufactured printing presses that use the Microcut Controller ("Microcut" uses the encoder EPC supplied to Goldengate Microsystems)
- Often used as backstop gauges in the printing and binding industry
- With the female RJ45 connector, no installation – just plug in



## *DR323*
**Videojet Printers**

- Used on legacy Marsh Videojet printers
- Included in kit sold by Videojet for Patrion Plus, Overture, Encore, and M8000 ink jet printers





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## *DR553*
**Dynapar Rotopulser Model 60**

- Used on ink jet printers, cut-to-length applications, motor drive speed feedback, and a variety of other applications.



## *DR651*
**DRC 29L**

- Heavy duty, rugged 2.0" encoder designed for harsh industrial environments such as machine tools and robotics
- Can withstand 80 lb axial load, 60 lb radial load, and 75 g of shock, as compared to the DRC 29L's 30 lbs of load and 50 g of shock



## *DR580*
**Dynapar H23 on Magnetek Vector/Invertor Motors**

- Available with CPRs of 1024 or 2048
- Heavy duty, rugged industrial encoder capable of withstanding higher temperatures and shock than the Dynapar H23
- Offers body mount or in-line connector option for a simple direct fit installation



## *DR686*
**Siemens* 1XP8001**

- Unique threaded shaft is a standard order
- Either 1024 or 2048 CPR
- 12 pin connector at the end of 18" of cable



## *DR738*
**Direct replacement for 444 Tach Style encoders** *Price adder for some configuration options. See blue options, below.*

- Provides a digital encoder signal format to replace traditional Tacho style feedback devices
- Heavy duty bearings and mechanical assembly, perfect for applications requiring a rugged and dependable encoder
- Replaces encoders from Hubner, Baumer, Tekel, etc.
- Domestic sourcing provides fast delivery, technical support, and repair services



### MODEL DR738 ORDERING GUIDE

*Blue type indicates price adder options.*

DR738 – N – 51 – S – 1000 – R – HV – 1 – Y – 2 – E – X – N – CE

**Model DR738**
444 Tach

**Housing Style**
**N** Standard Housing

**Shaft Size**
**51** 11 mm keyway
**52** 12 mm keyway

**Operating Temperature**
**S** 0° to 70° C
**H** 0° to 100° C[1]

**Cycles Per Revolution**
1-30,000
*See CPR Options for available resolutions.*
Price adder for CPR >1270
1271-3000
3001-5000
5001-6000
6001-10,000
10,001-18,000
18,001-24,000
24,001-30,000

**Output Type**
**5 - 28V In/Out[3]**
**OC** Open Collector
**PU** Pull-Up Resistor
**PP** Push-Pull
**HV** Line Driver[4]
**8 - 28V In/5V Out[5, 6]**
**H5** Line Driver[4]
**P5** Push-Pull

**Number of Channels[2]**
**A** Channel A
**Channel A Leads B**
**Q** Quadrature A & B
**R** Quadrature A & B with Index
**Channel B Leads A**
**K** Reverse Quadrature A & B
**D** Reverse Quadrature A & B with Index

**Maximum Frequency**
**1** Standard 100 kHz
**2** 200 kHz - $19
**5** 250 kHz, >3000 CPR
**3** 500 kHz, >6000 CPR[7]
**4** 1 MHz, >10,000 CPR[7]

**Mounting**
**Y** 444 Tach

**Seal**
**2** IP64

**Connector Location**
**S** Side
**E** End

**Connector Type[8]**
**W** 6-pin MS Style
**Y** 7-pin MS Style
**X** 10-pin MS Style
**9D** 9-pin D-subminiature
**J** 5-pin M12 (12 mm)
**K** 8-pin M12 (12 mm)
**G** Gland, 24" Cable[9]

**Mating Connector**
**N** No
**Y** Yes
6-pin MS Style
7-pin MS Style
10-pin MS Style
9-pin D-sub

**Certification**
**N** None
**CE** CE marked[10]

### MODEL DR738 CPR

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0001* | 0002* | 0004* | 0005* | 0006* | 0007* | 0008* | 0010* | 0011* | 0012* | 0014* |
| 0020 | 0021* | 0024* | 0025* | 0028* | 0030* | 0032* | 0033* | 0034* | 0035* | 0038* |
| 0040* | 0042* | 0045* | 0050* | 0060 | 0064* | 0100 | 0120 | 0125 | 0128* | 0144* |
| 0150* | 0160* | 0200 | 0240* | 0250 | 0254* | 0256* | 0300 | 0333* | 0360 | 0400 |
| 0500 | 0512 | 0600 | 0625* | 0635 | 0665* | 0720 | 0768* | 0800 | 0889 | 0900* |
| 1000 | 1024 | 1200 | 1201*[a] | 1203*[a] | 1204*[a] | 1250[a] | 1270[a] | 1440 | 1500 | 1800 |
| 2000 | 2048 | 2400a | 2500 | 2540[a] | 2880[a] | 3000[a] | 3600[a] | 4000[a] | 4096[a] | 5000[a] |
| 6000[a] | 7200[a] | 7500[a] | 9000[a] | 10,000[a] | 10,240[a] | 12,000[a] | 12,500[a] | 14,400[a] | 15,000[a] | 18,000[a] |
| 20,000[a] | 20,480[a] | 25,000[a] | 30,000[a] | | | | | | | |

** Contact Customer Service for High Temperature Option.*
*[a] High Temperature Option (H) limited to 85° C maximum for these CPR options.*

NOTES:
1. 0° to 85° C for certain resolutions, see CPR Options.
2. Contact Customer Service for index gating options.
3. 24 VDC max for high temperature option.
4. Line Driver not available with 5-pin M12 or 6-pin MS connector. Available with 7-pin MS connector only without Index Z.
5. Standard temperature, 60 to 3000 CPR only.
6. H5 and P5 outputs not available with CE option, or any End Mount MS Connector.
7. Standard cable lengths only. For details, please refer to Technical Bulletin TB-116: Noise and Signal Distortion Considerations at encoder.com.
8. For Mating Connectors, Cables, and Cordsets see Accessories at encoder.com.
9. For Non-Standard Cable Lengths add a forward slash (/) plus cable length expressed in feet. Example: SG/6 = 6 feet of cable.
10. Please refer to Technical Bulletin TB-100: When to Choose the CE Mark at encoder.com.

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# Get the Accu-Coder® Advantage

## *US-Based Since 1969*

Encoder Products Company, Inc. (EPC) is a leading designer and manufacturer of motion feedback devices. Founded in the US in 1969, EPC's corporate headquarters are now housed in our 100,000 square foot, vertically-integrated main manufacturing facility in Sagle, Idaho, USA.

## *Quality You Can Rely On*

At EPC, quality is designed into every product. Each product is fully tested against EPC's exacting quality standards. EPC is ISO 9001:2015 certified, and RoHS and WEEE compliant.

## *Outstanding Value*

EPC's products are competitively priced and come with an industry-leading 3-year warranty*. It's not unusual to hear about EPC encoders still working after 30 or 40 years, or that have outlasted the equipment they are installed in.

**For products with a high-operating-temperature option, warranty is two years.*

## *Exceptional Customer Service*

When you call EPC, you talk to real engineers and encoder experts who can answer your toughest motion feedback questions. We're here to answer your calls Monday through Friday, 5:00 am - 4:30 pm Pacific Time.

## *Fast Lead Times*

EPC is known for our fast lead times. We can produce your custom encoders faster than most suppliers' standard products. Expedite options are available on many models. Contact us for specific lead times on your product.

ENCODER PRODUCTS COMPANY

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3 WARRANTY Year

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