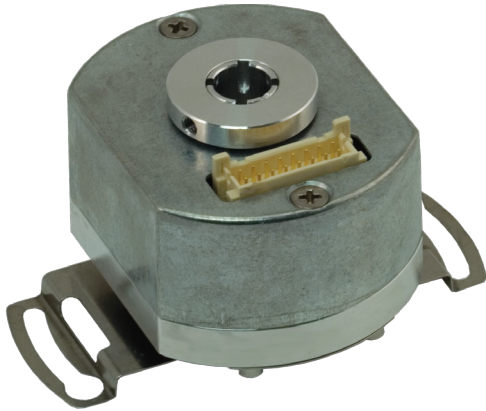


DR21R

Direct Replacement Encoder for Select Renco RCH20D and RHS25D Models*



The Accu-Coder DR21R is a 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. An exact mechanical and electrical cross-reference for these obsolete Renco configurations, the DR21R also incorporates EPC's advanced Opto-ASIC sensing technology, providing superior thermal stability and signal reliability. The DR21R is available in 4 to 6 working days, with a Next Day Expedite option available, and it is fully backed by EPC's industry best 3-year warranty.

*These models have been discontinued by the manufacturer, and are increasingly difficult to find and costly to replace.

The Accu-Coder™ DR21R Features:

- Replaces select RCH20D and RHS25D Renco 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

DR21R Ordering Information

RENCO MODEL NUMBER	EPC DIRECT REPLACEMENT	CPR	POLE COUNT	BORE SIZE	MOUNT BC	INDEX GATING	MOTOR SERIES
RCH20D-2000/4-1/2-5/0-LD/VC-7-M6-S	DR21R-01	2000	8	0.500"	3.125"	A	F
RHS25D-P3-2000/4-1/2-5-CA6-LD-MS-CM-S	DR21R-01†	2000	8	0.500"	3.125"	A	F
RCH20D-5000/4-1/2-5/0-LD/VC-1-M6-S	DR21R-02	5000	8	0.500"	3.125"	A & B	F
RCH20D-2000/2-8MM-5/0-LD/VC-1-M6-S	DR21R-03	2000	4	8 mm	2.375"	A & B	H, HSM2
RCH20D-2000/3-8MM-5/0-LD/VC-1-M6-S	DR21R-04	2000	6	8 mm	2.375"	A & B	H, HSM3, HSM4
RCH20D-2000/4-1/2-5/0-LD/VC-1-M6-S	DR21R-05	2000	8	0.500"	2.375"	A & B	H, HSM6, HSM8
RCH20D-5000/3-8MM-5/0-LD/VC-1-M6-S	DR21R-06	5000	6	8 mm	2.375"	A & B	H
RCH20D-2000/3-1/2-5/0-LD/VC-7-M6-S	DR21R-07	2000	6	0.500"	2.375"	A	W
RHS25D-P3-2000/3-1/2-5-CA6-LD-MS-CM-S	DR21R-07†	2000	6	0.500"	2.375"	A	W
RCH20D-2000/2-12MM-5/0-LD/VC-1-M4-S <i>Includes hub shaft cover.</i>	DR21R-08	2000	4	12 mm	1.812"	A & B	N

†Requires accessory cable 080499-01

Accessory Options

Part No.	Description
080499-01	6" Mating Cable

Don't see the exact encoder you need replaced?

Call **1-800-366-5412** to speak to a Customer Service Representative who will be happy to cross-reference any model you need replaced with an EPC encoder.



NOTE: The DR21R ABS Encoder requires installation by a qualified technician.

ACCU»CODER™
by Encoder Products Company

DR21R

Direct Replacement Encoder for Select Renco RCH20D and RHS25D Models

Model DR21R Specifications

Electrical

Input Voltage.....5 VDC
 Input Current.....150 mA max with no output load
 Output Format.....Incremental – Two square waves in quadrature with channel A leading B for clockwise shaft rotation (as viewed from the mounting face), commutation and ABS stepped voltage.
 See *Waveform Diagrams*.
 Output Types.....TTL Line Driver – 20 mA max per channel (Meets RS 422 at 5 VDC supply)
 Index.....Once per revolution. See *Waveform Diagrams*.
 Max. Frequency.....300 KHz
 Noise Immunity.....Tested to BS EN61000-6-2; BS EN50081-2; BS EN61000-4-2; BS EN61000-4-3; BS EN61000-4-6, BS EN55011
 Symmetry.....180° (±18°) electrical
 Quad. Phasing.....90° (±22.5°) electrical
 Min. Edge Sep.....67.5° electrical
 Accuracy.....Within 0.01° mechanical from one cycle to any other cycle, or 0.6 arc minutes.
 Commutation.....Up to 8 pole
 Comm. Accuracy.....1° mechanical

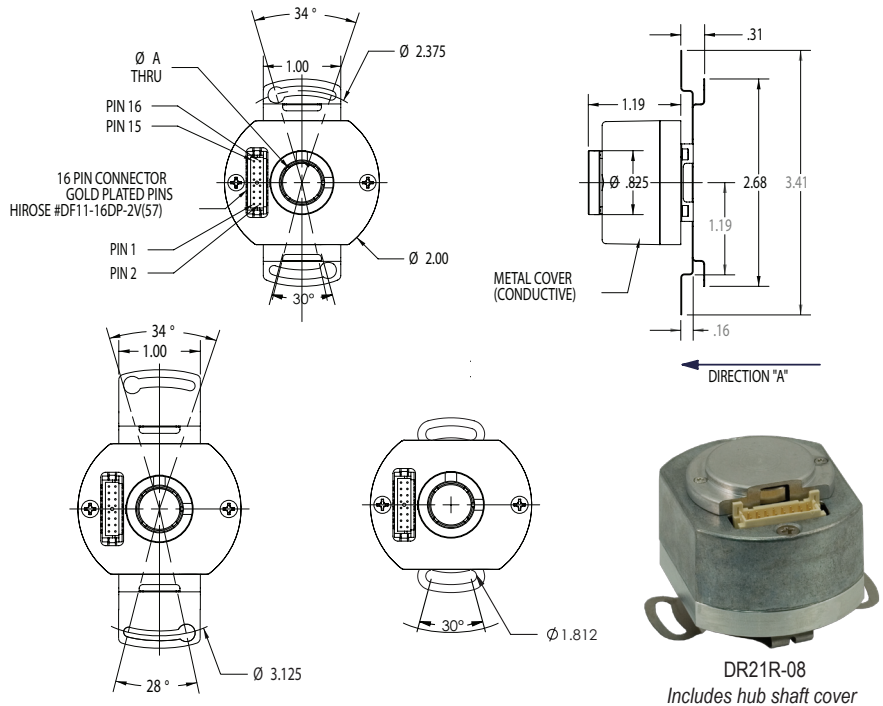
Mechanical

Max Shaft Speed.....6000 RPM
 Bore Size.....0.500" or 8 mm
 Bore Tolerance.....-0.0000" / +0.0006"
 User Shaft Tolerances
 Radial Runout.....0.007" max
 Axial Endplay.....±0.030" max
 Starting Torque.....0.50 oz-in
 Moment of Inertia.....3.9 X 10⁻⁴ oz-in-sec²
 Max Acceleration.....1 X 10⁵ rad/sec²
 Electrical Conn.....16-pin End Mount Header
 Housing.....All Metal Aluminum and Zinc Alloy
 Mounting.....1.182", 2.375" or 3.125" Flex-Mount
 Weight.....3.5 oz typical

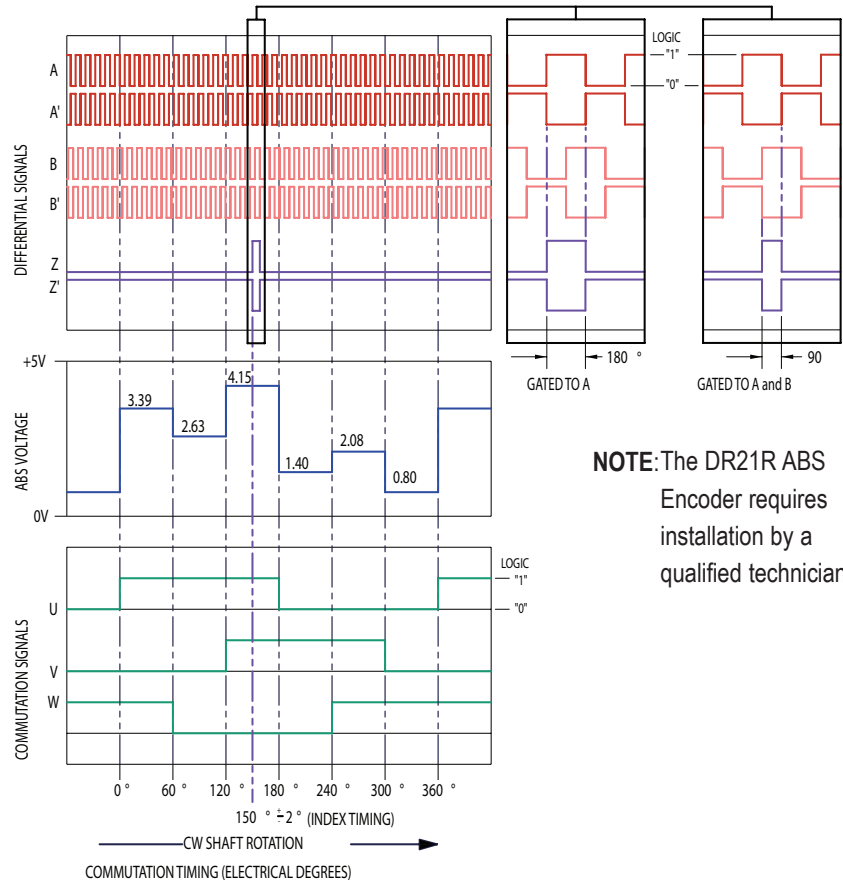
Environmental

Operating Temp.....0° to 100°C
 Storage Temp.....-30° to 110° C
 Humidity.....5% – 90% RH non-condensing
 Vibration.....10 g @ 58 to 500 Hz
 Shock.....50 g @ 11 ms duration
 Sealing.....IP50

DR21R Dimensions



DR21R Waveform Diagram



DR21R Wiring Table

Pin	Function	Mating Cable Wire Color
1	+5 VDC	White
2	U	Violet
3	COM	Black
4	V	Gray
5	A	Brown
6	W	Red/Black
7	A'	Yellow
8	ABS	Yellow/Black
9	B	Red
10	---	N/C
11	B'	Green
12	---	N/C
13	Z (INDEX)	Orange
14	---	N/C
15	Z' (INDEX)	Blue
16*	CASE GROUND	N/C

* A 0.10 uF capacitor is connected from common (COM) to case ground internal to encoder.