

DR651

Direct Replacement Encoder for DRC 29L



The Accu-Coder™ DR651 is EPC's Direct Replacement Encoder for the DRC 29L. The DR651 is a heavy duty, rugged 2.0" encoder designed for harsh industrial environments such as machine tools and robotics. The DR651 is an exact mechanical fit to the DRC 29L – a large shafted encoder with Servo hub, CPR, and Connector mount options. But the similarities stop there. The DR651 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. Select the DR651 for a more durable rugged replacement for the hard to find, DRC 29L.

Typical Price: \$600 to \$900

DR651 Price: \$490

Additional Discounts Available for Volume Orders

DR651

MODEL DR651

Size 20 (2.0") Encoder with 2.796" Servo Mount

A

CONNECTOR

- A Side Mount 10-Pin MS Connector
- B End Mount 10-Pin MS Connector

1000

CYCLES PER REVOLUTION

See Chart Below

Features:

- Rugged 2" industrial encoder with 2.796" Servo Hub
- 0.3748" shaft with flat made from 303 Stainless
- Quadrature with index
- Line Driver output
- 5 to 28 VDC Input Voltage
- Side or end mount 10-pin MS connector
- Frequency up to 100 kHz
- Sealing to IP66

Model DR651 CPR Options

0025	0050	0100	0128	0150	0160	0200	0250	0256
0300	0360	0400	0500	0512	0600	0625	0635	0720
0800	0900	1000	1024	1200	1250	1270	1440	1500
1800	2000	2500	5000	10,000				

Call EPC Customer Service today at 1-800-366-5412 to order the DR651

The Accu-Coder™ Advantage

- ✓ Get this encoder FAST – you'll get your encoders in days, not weeks.
- ✓ Huge savings in price comparison – the DR651 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 DR651 Specifications

Electrical

Input Voltage..... 4.75 to 28 VDC 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 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 100 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

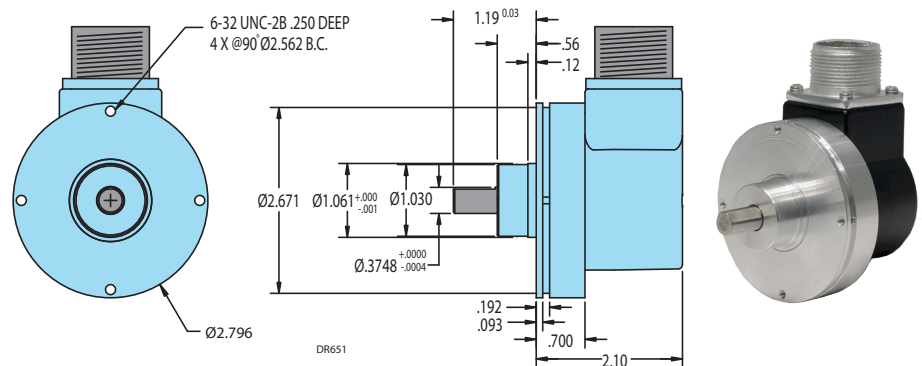
Max Shaft Speed..... 8000 RPM. Higher shaft speeds may be achievable, contact Customer Service.
 Shaft Size..... 0.3748"
 Shaft Material..... 303 Stainless Steel
 Shaft Rotation Bi-directional
 Radial Shaft Load 60 lb max. Rated load of 15 to 30 lb for bearing life of 1.5 x 10⁹ revolutions
 Axial Shaft Load..... 80 lb max. Rated load of 20 to 40 lb for bearing life of 1.5 x 10⁹ revolutions

Starting Torque..... 3.0 oz-in typical with IP66 shaft seal
 Moment of Inertia 5.2 x 10⁻⁴ oz-in-sec²
 Max Acceleration 1 x 10⁵ rad/sec²
 Electrical Conn..... Side or end mount 10-pin MS
 Housing All metal construction with black protective coating
 Bearings Precision ABEC ball bearings
 Mounting..... 2.796" Servo Hub
 Weight..... 1 lb typical

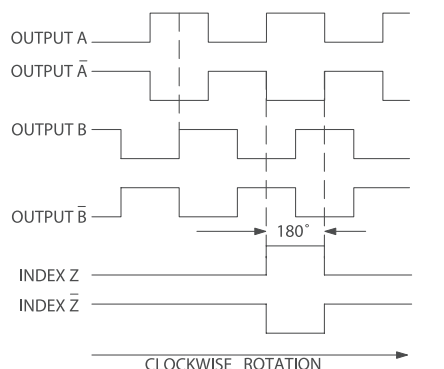
Environmental

Operating Temp 0° to 70° 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 IP66

DR651 Dimensions



DR651 Waveform Diagram



NOTE: ALL DEGREE REFERENCES ARE ELECTRICAL DEGREES

LDSIGC

DR651 Wiring Table

Pin	Function
A	A
B	A'
C	B
D	B'
E	Z
F	Z'
I	+VDC
J	COM

Don't see the exact encoder you need replaced?

Call **1-800-366-5412** and our Technical Services Department will cross-reference the encoder to the correct EPC model.