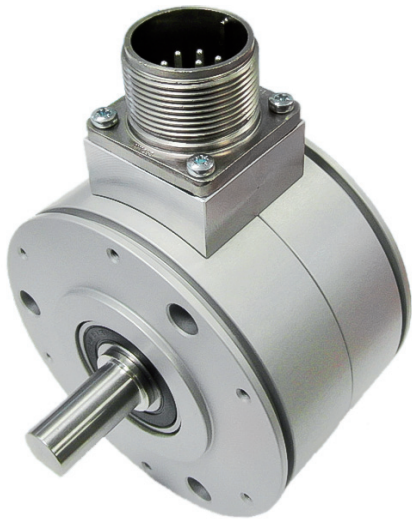


Model 7RP Extra Heavy Duty Thru-Shaft Encoder



Ø90.0 mm

Features

- Extra Heavy Duty Mechanical Assembly
- Single Ended or Double Ended Shaft
- Reversible Face Fixing Option
- Incorporates Opto-ASIC Technology

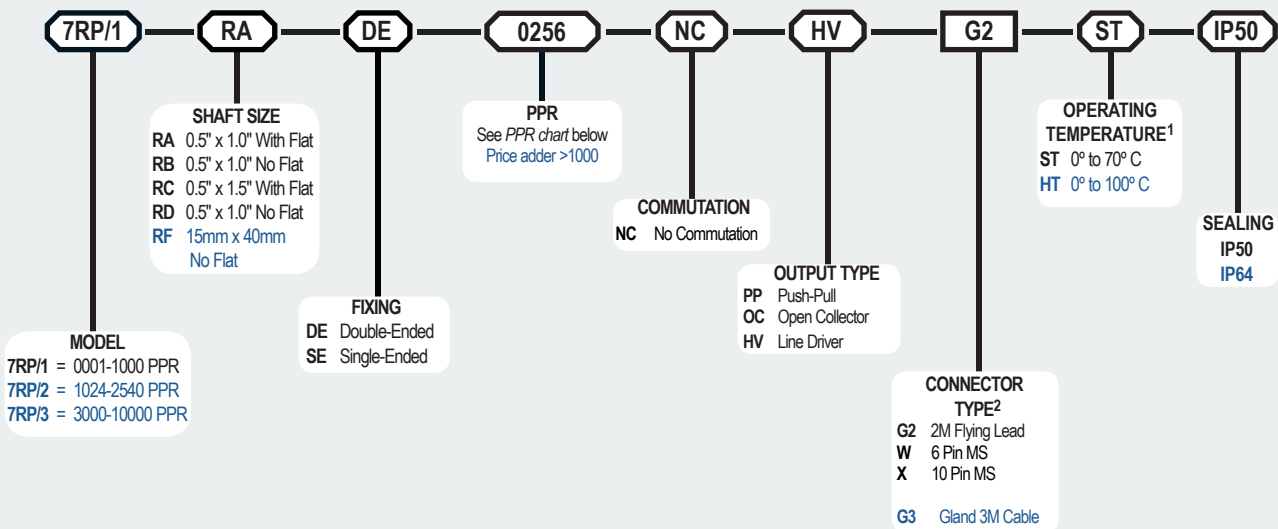
The Model 7RP provides yet another extra heavy duty encoder which has the advantage of a double-ended male shaft together with a totally reversible mounting configuration. This arrangement will allow for the fixing of measuring wheels on both shafts, thus ensuring secure and error free contact with conveyor, or moving product, during length measurement applications. A single-ended shaft configuration is also available. This encoder employs our highly reliable Opto-ASIC technology.

Common Applications

Robotics, Motor-Mounted Feedback, Assembly Machines, High Power Motors

Model 7RP Ordering Guide

Blue type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.



For specification assistance call Customer Service at +44 (0)1978 262100

Model 7RP PPR Options

0001 thru 0189*	0200	0250	0254	0256
0300	0360	0400*	0500	0512
0720	0800	0840	1000	1024
1220	1250	1270	1500	1800*
2048	2500	2540	3000	3600*
4096	5000	6000	8192	7200*
10,000				

* Contact customer service for availability

Contact Customer Service for other disc resolutions; not all disc resolutions available with every commutation option.

NOTES:

- 1 5 to 16 VCC supply only for HT option.
- 2 For Non-Standard cable length please contact the sales office.

Model 7RP Extra Heavy Duty Thru-Shaft Encoder

Model 7RP Specifications

Electrical

Input Voltage.....4.75 to 24 VCC for temperatures up to 70° C
5 to 16 VCC for 0° to 100° C operating temperature

Input Current.....100 mA max with no output load

Output FormatIncremental- Two square waves in quadrature with channel A leading B for clockwise shaft rotation, as viewed from the mounting face.
See *Waveform Diagrams* below.

Output TypesPush-Pull- 20 mA max per channel
Line Driver- 20 mA max per channel (Meets RS 422 at 5 VCC supply)

IndexOnce per revolution gated to channel A.
See *Waveform Diagrams* below.

Freq. Response.....200 kHz standard

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

Symmetry180° (±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.

CommutationUp to 12-pole. Contact Customer Service for availability.

Comm. Accuracy.....1° mechanical

Mechanical

Max Shaft Speed.....3600 RPM. Higher shaft speeds may be achievable, contact Customer Service.

Shaft Size10mm through 15mm

Shaft Tolerance.....g6 (SLIDING FIT FOR H7)

Starting TorqueIP50: 7.0615×10^{-3} Nm
IP64: 2.0118×10^{-2} Nm

Electrical Conncable (foil and braid shield, 24 AWG or 6-pin or 10-Pin MS connector)

Housing.....Anodised Aluminium

Weight.....800 grams typical

Environmental

Operating Temp.....0° to 70° C for standard models
0° to 100°C for high temperature option

Storage Temp-40° to +100° C

Humidity.....98% RH non-condensing

Vibration.....10 g @ 58 to 500 Hz

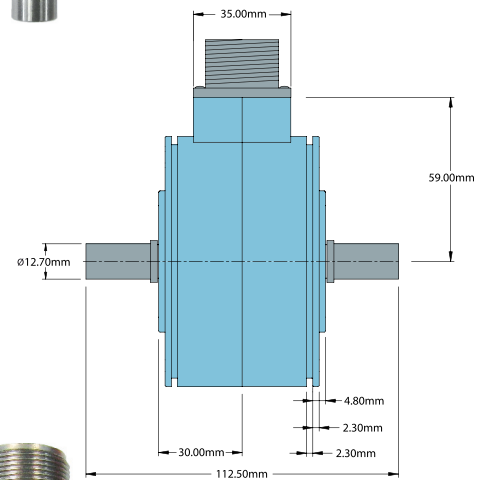
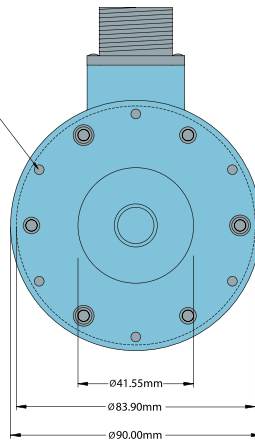
Shock.....50 g @ 11 ms duration

Sealing.....IP50; IP64 available

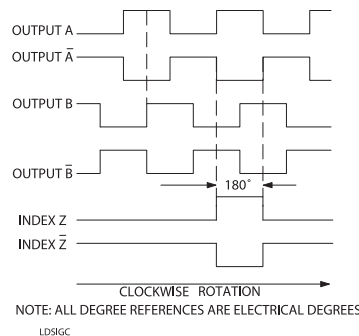
Model 7RP Double-Ended w/10 Pin



6 Holes 60° Apart
on a Ø80.20mm PCD
Tapped M3 x 9mm Deep



Waveform Diagrams



Wiring Tables

Function	Gland Cable† Wire Color	6 Pin MS** OC,PP	10 Pin MS** HV
0 Volts	Black	C	C
+VCC	White	E	E
A	Brown	B	B
A'	Yellow	--	G
B	Red	D	D
B'	Green	--	H
Z	Orange	A	A
Z'	Blue	--	I
Shield	Bare*	F	F

*CE: Cable shield (bare wire) is connected to internal case.

†Standard cable is 24 AWG conductors with foil and braid shield.

**CE: Shield is connected to connector case unless otherwise specified.