

Model 7RP Extra Heavy Duty Thru-Shaft



Features

- Extra heavy duty mechanical assembly
- Single Ended or Double Ended shaft
- Reversible face fixing option
- Incorporates Opto-ASIC Technology

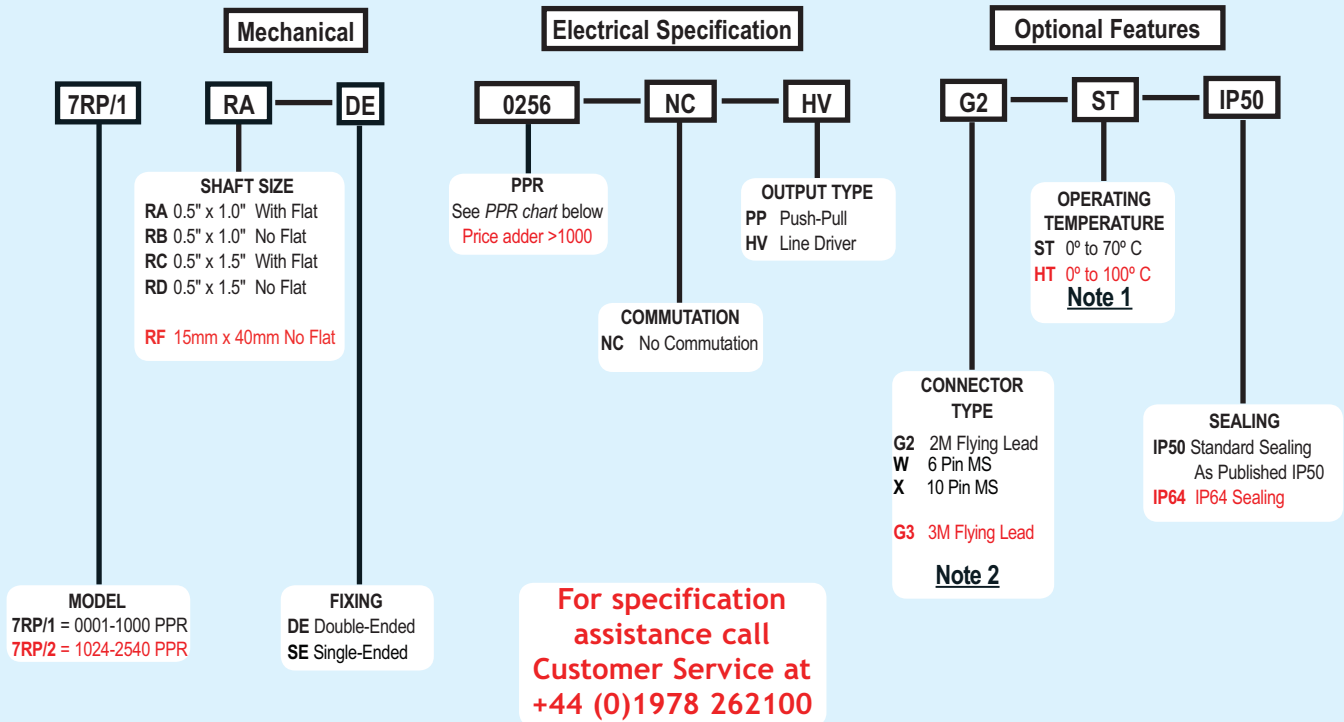
The model 7RP provides yet another extra heavy duty encoder which has the advantage of a double-ended male shaft together with a totally reversible mounting configuration. This arrangement will allow for the fixing of measuring wheels on both shafts, thus ensuring secure and error free contact with conveyor, 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

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



Model 7RP PPR Options

0001*	0010*	0011*	0012*	0020*	0025*	0030*
0040*	0060	0100	0120	0128*	0200	0250
0254	0256	0300	0360	0400	0500	0512
0600	0720	0800	0840	1000	1024	1200
1220	1250	1270	1500	1800	2000	2048
2500	2540	3000	4096	6000	8192	10000

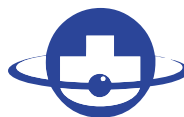
*Contact Customer service for High Temp option

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 lengths contact sales office for details and cost.

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**BRITISH
ENCODER**
PRODUCTS COMPANY



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 Format	Incremental- Two square waves in quadrature with channel A leading B for clockwise shaft rotation, as viewed from the mounting face. See <i>Waveform Diagrams</i> below.
Output Types	Push-Pull- 20 mA max per channel Line Driver- 20 mA max per channel (Meets RS 422 at 5 VCC supply)
Index	Once per revolution gated to channel A. See <i>Waveform Diagrams</i> 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
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 12-pole. Contact Customer Service for availability.
Comm. Accuracy	1° mechanical

Mechanical

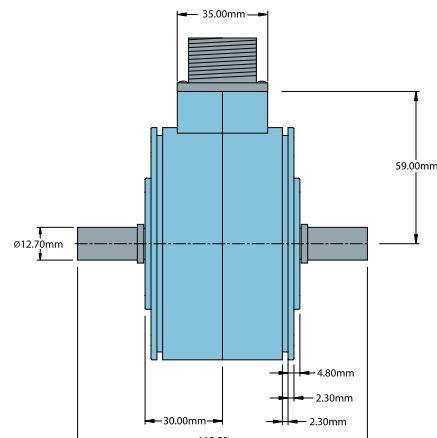
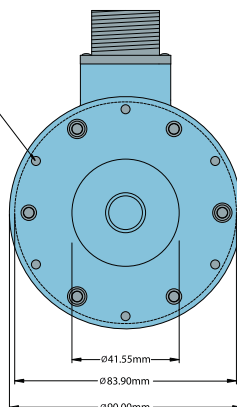
Max Shaft Speed.....	3600 RPM. Higher shaft speeds may be achievable, contact Customer Service.
Shaft Size	10mm through 15mm
Shaft Tolerance.....	g6 (SLIDING FIT FOR H7)
Starting Torque	IP50: 7.0615 x 10 ⁻³ Nm IP64: 2.0118 x 10 ⁻² Nm
Max Acceleration.....	1 X 10 ⁵ rad/sec ²
Electrical Conn	cable (foil and braid shield, 24 AWG or 6-pin or 10-Pin MS connector)
Housing.....	Anodised Aluminium
Weight.....	800 gms typical

Environmental

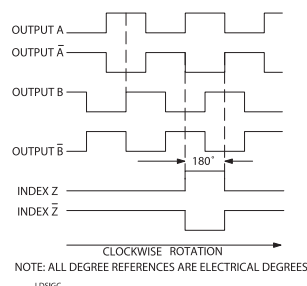
Operating Temp.....	0° to 70° C for standard models 0° to 100°C for high temperature option
Storage Temp	-40° to +100° C
Humidity	98% RH non-condensing
Vibration.....	10 g @ 58 to 500 Hz
Shock.....	50 g @ 11 ms duration
Sealing.....	IP50; IP64 available

Model 7RP Double-Ended w/10 Pin

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



Waveform Diagrams



Wiring Table

Function	Gland Cable Wire Color	10-pin MS HV	6-pin MS PP
Com	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	----
Case	----	F	F
Shield	Screen	----	----