The Model 755RG is ideal for applications requiring a small, high precision, high performance encoder. Approximately 38mm in diameter and 38mm long, it will fit where many encoders cannot. Designed with all metal construction and shielded ball bearings, it will provide years of trouble-free use. The standard servo mount (RG) version is available with a variety of shaft sizes and lengths. Three additional servo style mounts (RGS1, RGS2, RGS3) are also available. The optional flange mounting (MA) is ideal for applications requiring a bolt-on, high precision encoder. And the optional MHH flange (M-1) converts the mounting to be the same as the 58 style 426 package. With its high reliability and quick delivery, the Model 755A encoder is the perfect replacement encoder for less reliable encoders of this size.

Common Applications
Servo Motor Control, Robotics, Medical Diagnostic Equipment, Speciality Assembly Machines, Digital Plotters, Printers, Typesetting Equipment

Model 755RG Ordering Guide
This type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.

Model 755RG PPR Options

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* Contact Customer Service for High Temperature Option.
* Contact Customer Service to determine all currently available PPR values. Special disk resolutions are available upon request. A one-time MRE fee may apply.

Related Projects
- Page 32 - Model 755A 38mm High Precision Servo Mount
- Page 38 - Model 755RG 38mm High Precision Servo or Square Flange Mount
- Page 39 - Model 755BR 38mm High Precision Servo or Square Flange Mount

BRITISH ENCODER PRODUCTS Co., UNIT 33 WHITEGATE INDUSTRIAL ESTATE, WREXHAM, LL13 8UG, UNITED KINGDOM
TEL: +44 (0)1978 262100 - FAX: +44 (0)1978 262101 - WEB: WWW.ENCODER.CO.UK - EMAIL: SALES@ENCODER.CO.UK
Model 755RG Specifications

**Electrical**
- **Input Voltage:** 4.75 to 28 Vcc 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
- **Output Types:** Open Collector- 100 mA max per channel
- **Max Frequency:** Up to 1 MHz
- **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 EN60068-2
- **Symmetry:** 1 to 6000 PPR: 180° (±18°) electrical at 100 kHz output
- **Quad Phasing:** 1 to 6000 CPR: 90° (±22.5°) electrical at 100 kHz output
- **Min Edge Separation:** 1 to 6000 PPR: 67.5° electrical at 100 kHz output
- **Rise Time:** Less than 1 microsecond
- **Accuracy:** Instrument and Quadrature Error: For 200 to 1999 PPR, 0.017° mechanical (1.0 arc minutes) from one cycle to any other cycle. For 2000 to 3000 PPR, 0.01° mechanical (0.6 arc minutes) from one cycle to any other cycle. Interpolation error (units > 3000 PPR only) within 0.005° mechanical. (Total Optical Encoder Error = Instrument + Quadrature + Interpolation)

**Mechanical**
- **Max Shaft Speed:** 7500 RPM. Higher shaft speeds may be achievable, contact Customer Service.
- **Shaft Size:** Up to 0.250” Diameter
- **Bore Tolerance:** g6, Sliding fit for HT host bore

**User Shaft Tolerances**
- **Radial Shaft Load:** 2.25 Kg max
- **Axial Shaft Load:** 1.36 Kg max
- **Starting Torque:** 9.886 x 10^-4 typical
- **Operational Temperature:** 2.82 x 10^-4 typical for -40° C operation
- **Electrical Connection:** 2M cable (foil and braid shield, 24 AWG conductors), 6- or 8-pin M12 (12 mm) in-line connector with 2M cable (braid shield), 6-pin Molex, Terminal Block, 5 Pin Cover, 6 Pin Cover, 8 Pin Cover, Gland Cover (See appendix sheet for cover options)
- **Housing:** Black non-corrosive finish
- **Bearings:** Precision ABEC ball bearings
- **Mounting:** Servo or Optional Flange
- **Weight:** 100 grams typical

**Environmental**
- **Operating Temp:** 0° to 70° C for standard models
- **Storage Temp:** -25° to +85° C
- **Humidity:** 98% RH non-condensing
- **Vibration:** 10 g @ 5 to 350 Hz
- **Shock:** 50 g @ 11 ms duration
- **Sealing:** IP50 Standard

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**Model 755RG Standard Servo Mount (RG)**

**Model 755RG Square Flange Option (MA)**

**Model 755RG MHH 58mm Flange (M1)**

**Model 755RG Servo Mounts RGS1 and RGS2**

All dimensions are in mm with a tolerance of ±0.127mm or ±0.254 unless otherwise specified.
Model 755RG Mounting RGS3

Also Available as Separate Flanges are the M-1 and MA Flanges Below.

Individual M-1 Flange Kit (MHH)

Individual MA Flange Kit (Square Flange)

All dimensions are in mm with a tolerance of ±0.127mm or ±0.254 unless otherwise specified.
755 Special Covers
Appendix Sheet

755 HS and 755RG Special Covers

Please see Specific Model (755RG or 755HS) Ordering Guides for Options

755 Cover & 5 Pin Binder Connector (5E05)

Ø42.00

755 Cover & 6 Pin MS Connector (5E06)

30.00

755 Cover & 8 Pin EuroFast Connector (5E08)

Ø42.00

755 Cover & M10 Gland + 2M Cable (5SG2)

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