Model 758 Ordering Guide

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

### Mechanical
- **Body Style**
  - 20: Servo Clamp Spigot Style 420
  - 26: Servo Flange Style 426
- **Shaft Size**
  - 60: 6mm No Flat
  - 6F: 6mm + Flat
  - 10: 10mm - No Flat
  - 10F: 10mm + Flat
  - 12R: 12mm + Flat
  - XX: Custom

### Electrical Specification
- **Channels**
  - A: Single Channel
  - Q: Quadrature A+B
  - R: Quad + Z Marker A+B+Z
- **PPR**
  - See PPR chart below
  - Price adder >1000
- **Output Type**
  - OC: Open Collector
  - PP: Push-Pull
  - HV: Line Driver
  - L5: 24V In 5V out

### Optional Features
- **Connector**
  - **Type**
    - EG2: End Gland + 2M Cable
    - EG3: End Gland + 3M Cable
    - EG5: End Gland + 5M Cable
    - EK: End 8 Pin Eurofast M12 Connector
    - E12A: End 12 Pin Connector - Option A
    - E12B: End 12 Pin Connector - Option B
    - E12C: End 12 Pin Connector - Option C
  - **Sealing**
    - ST: IP50
  - **Operating Temperature**
    - ST: 0º to 70º C
    - HT: 0º to 100º C

### Model 758 PPR Options - See Note 3

<table>
<thead>
<tr>
<th>PPR Values</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
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<td>0160*</td>
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<td>0254*</td>
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<td>0333*</td>
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<td>15,000p</td>
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<td>25,000p</td>
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<td>30,000p</td>
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</tbody>
</table>

* Contact Customer Service for High Temperature Option.

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

### Notes
1. 0º to 85º for certain resolutions. See PPR options.
2. Contact customer service for marker gating options.
3. Standard temperature, 50 to 3000 PPR only.
4. For non-standard cable lengths - call sales office.

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Model 758 is a heavy duty, extremely rugged, reliable, yet compact European standard 58 mm diameter encoder, designed for harsh factory and plant floor environments. Shaft loading is no problem for the double-shielded ball bearings; their 36Kg load rating ensures a long operating life. If fitted with the optional heavy-duty shaft seal, the Model 758 is rated IP65. Two standard mounting options are available: Clamping Flange (20 type) or Synchro Flange (26 type). The Model 758 is the perfect replacement encoder for units requiring the popular European mount.

Common Applications
- Motion Control Feedback
- Machine & Elevator Controls
- Food Processing
- Robotics
- Material Handling
- Conveyors
- Textile Machines

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TEL: +44 (0)1978 262100 - FAX: +44 (0)1978 262101 - WEB: WWW.ENCODER.CO.UK - EMAIL: SALES@ENCODER.CO.UK
Model 758 - 58mm Euro-Standard

Model 758 Specifications

Electrical
- Input Voltage: 4.75 to 28 Vcc max for temperatures up to 70º C
  4.75 to 24 Vcc for temperatures between 70º C to 100º 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 Types:
  - Open Collector - 50 mA max per channel
  - Push-Pull - 20 mA max per channel
  - Line Driver - 20 mA max per channel (Meets RS 422 at 5 Vcc supply)
- Index: Occurs once per revolution. The index for units >3000 PPR is 90º gated to Outputs A and B. See Waveform Diagrams below.
- Freq Response: 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 EN50081-2
- Symmetry: 1 to 6000 PPR: 180º (±18º) electrical at 100 kHz output
  6001 to 20,480 PPR: 180º (±36º) electrical
- Quad Phasing: 1 to 6000 PPR: 90º (±22.5º) electrical at 100 kHz output
  6001 to 20,480 PPR: 90º (±36º)
- Min Edge Sep: 1 to 6000 PPR: 67.5º electrical at 100 kHz output
  6001 to 20,480 PPR: 54º electrical
  >20,480 PPR: 50º electrical
- Rise Time: < 1 microsecond
- Accuracy:
  - Instrument and Quadrature Error: For 200 to 1999 PPR, 0.017º mechanical (1.0 arc minutes) from one cycle to any other cycle. For 2000 to 3000 PPR, 0.01º mechanical (0.6 arc minutes) from one cycle to any other cycle. Interpolation error (units > 3000 PPR only) within 0.005º mechanical. (Total Optical Encoder Error = Instrument + Quadrature + Interpolation)

Mechanical
- Max Shaft Speed: 8000 RPM. Higher shaft speeds may be achievable, contact Customer Service.
- Shaft Size: 6 mm, 10 mm
- Shaft Rotation: Bi-directional
- Radial Shaft Load: 36 Kg max. Rated load of 10 to 20 Kg for bearing life of 1.5 x 10^7 revolutions
- Axial Shaft Load: 36 Kg max. Rated load of 10 to 20 Kg for bearing life of 1.5 x 10^7 revolutions
- Starting Torque: 7.061 x 10^-3 Nm typical with IP64 seal or no seal
  2.118 x 10^-2 Nm typical with IP66 shaft seal
- Max. Acceleration: 1 x 10^5 rad/sec^2
- Electrical Conn:
  - Gland with 2M cable (foil and braid shield, 24 AWG conductor) 12-pin connector, or 8-pin M12 (12 mm)
  - Anodised Aluminium
- Housing: Precision ABEC ball bearings
- Mounting: European Standard Clamping Flange (20 Type) and Synchro Flange (26 Type)
- Weight: 320 gms typical

Environmental
- Operating Temp: 0º to 70º C for standard models
  0º to 100º C for high temperature option (0º to 85º C for certain resolutions, see PPR Options.)
- Storage Temp: -25º to +85º C
- Humidity: 98% RH non-condensing
- Vibration: 2.5 g @ 58 to 500 Hz
- Shock: 75 g @ 11 ms duration
- Sealing: IP64 shaft seal or IP65 shaft seal

Model 758 Clamping Flange 20 Type

Model 758 Synchro Flange 26 Type

Waveform Diagrams

Wiring Table

<table>
<thead>
<tr>
<th>Function</th>
<th>Gland Cable</th>
<th>Wire Color</th>
<th>8-pin M12</th>
<th>12-pin Option A CW</th>
<th>12-pin Option B CW</th>
<th>12-pin Option C CCW</th>
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</table>

CAUTION - Always check wiring colour code against Encoder Label due to changes in specification since September 2006