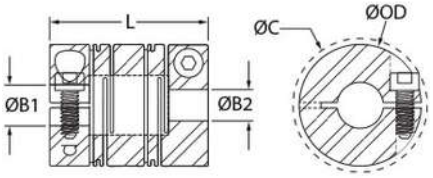
# MRLC25-10-5-A

Ruland MRLC25-10-5-A, 10mm x 5mm Long Slit Coupling, Aluminum, Clamp Style, 25.0mm OD, 34.0mm length








## Description

Ruland MRLC25-10-5-A is a clamp style slit coupling with 10mm x 5mm bores, 25.0mm OD, and 34.0mm length. It is manufactured from a single piece of material and has two sets of intermittent slit cuts allowing for a maintenance-free coupling with high torsional stiffness in relation to comparable couplings, such as beam type. MRLC25-10-5-A is commonly used in precise positioning applications found in semiconductor, medical, and test and measurement equipment. This long style slit coupling has added torque and misalignment capabilities compared to the short style. MRLC25-10-5-A is zero-backlash, has a balanced design for reduced vibration at speeds up to 5,000 RPM, and can accommodate all forms of misalignment with light bearing loads. It is manufactured by Reliance Precision Ltd. in their County Cork, Ireland factory from 7075 aluminum for lightweight and low inertia. MRLC25-10-5-A is inventoried by Ruland and RoHS3 and REACH compliant.

## Product Specifications

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|---|---|---|---|
| **Bore (B1)** | 10 mm | **Small Bore (B2)** | 5 mm |
| **B1 Max Shaft Penetration** | 9.6 mm | **B2 Max Shaft Penetration** | 9.6 mm |
| **Outer Diameter (OD)** | 0.984 in (25.0 mm) | **Bore Tolerance** | +0.020 mm / +0.000 mm |
| **Length (L)** | 1.339 in (34.0 mm) | **Clearance Diameter (C) MAX** | 26.9 mm |
| **Cap Screw** | M3 | **Screw Material** | 18-8 300 Series Stainless Steel |
| **Hex Wrench Size** | 2.5 mm | **Screw Finish** | Bright |
| **Seating Torque** | 1.10 Nm | **Number of Screws** | 2 |
| **Dynamic Torque Reversing** | 1.55 Nm | **Angular Misalignment** | 3.0° |
| **Dynamic Torque Non-Reversing** | 2.35 Nm | **Parallel Misalignment** | 0.40 mm |
| **Peak Torque** | 3.90 Nm | **Axial Motion** | 0.70 mm |
| **Torsional Stiffness** | 3.9 Nm/Deg | **Moment of Inertia** | 0.0105859 lb-in² |
| **Maximum Speed** | 5,000 RPM | **Full Bearing Support Required?** | Yes |
| **Average Load at Max Parallel Offset** | 4.87 N | **Average Slope** | 12.17 N/mm |
| **Zero-Backlash?** | Yes | **Balanced Design** | Yes |
| **Material Specification** | 7075-T651 Extruded and Drawn Aluminum Bar | **Temperature** | -110°F to 175°F (-80°C to 80°C) |
| **Finish Specification** | SurTec 650 | **Manufacturer** | Reliance Precision Limited |
| **Country of Origin** | Ireland | **Weight (lbs)** | 0.076400 |
| **UPC** | 634529304730 | **Tariff Code** | 8483.60.8000 |
| **UNSPC** | 31163003 | | |
| **Note 1** | Performance ratings are for guidance only. The user must determine suitability for a particular application. | | |
| **Prop 65** | | | |

**WARNING** This product can expose you to the chemical Nickel (metallic), known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.