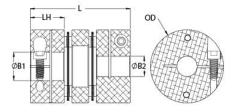




## MDCDE25-12-8-A

Ruland MDCDE25-12-8-A, 12mm x 8mm Double Disc Coupling, Aluminum, Clamp Style, Electrically Isolating, 25.4mm OD, 34.9mm Length





## Description

Ruland MDCDE25-12-8-A is an electrically isolating clamp double disc coupling with 12mm x 8mm bores, 25.4mm OD, and 34.9mm length. It is zero-backlash and has a balanced design for reduced vibration at high speeds. The double disc design is comprised of two anodized aluminum hubs, two sets of thin stainless steel disc springs, and an acetal center spacer allowing each disc to bend individually and accommodate all types of misalignment. The acetal center spacer isolates the two hubs preventing the incidental transfer of current from the motor to the driven component or vice versa. MDCDE25-12-8-A is lightweight and has low inertia making it well suited for applications with speeds up to 10,000 RPM. Hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. Ruland manufactures MDCDE25-12-8-A to be torisionally rigid and an excellent fit for precise positioning stepper servo applications commonly found in semiconductor, solar, printing, machine tool, and test and measurement systems. It is machined from solid bar stock that is sourced exclusively from North American mills and RoHS3 and REACH compliant. MDCDE25-12-8-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

## **Product Specifications**

Length (L)34.9 mmHub Width (LH)11.85Recommended Shaft Tolerance+0.000 mm / -0.013 mmForged Clamp ScrewM3Screw MaterialAlloy SteelHex Wrench Size2.5 mrScrew FinishBlack OxideSeating Torque2.1 NnNumber of Screws2 eaDynamic Torque Reversing1.40 NAngular Misalignment2.0°Dynamic Torque Non-Reversing2.80 NParallel Misalignment0.15 mmStatic Torque5.6 NnAxial Motion0.30 mmTorsional Stiffness6.9 NnMoment of Inertia3.051 x 10 <sup>-6</sup> kg-m²Maximum Speed10,000Full Bearing Support Required?YesZero-Backlash?YesBalanced DesignYesTorque WrenchTW:BTRecommended Hex KeyMetric Hex KeysMaterial SpecificationHubs: Type 3 SpaceTemperature-10°F to 150°F (-23°C to 65°C)Finish SpecificationSulfuri II, Clas BlackManufacturerRuland ManufacturingCountry of OriginUSA		
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Balanced Design     Yes     Torque Wrench     TW:B1       Recommended Hex Key     Metric Hex Keys     Material Specification     Hubs: Type 3 Space       Temperature     -10°F to 150°F (-23°C to 65°C)     Finish Specification     Sulfuri II, Class Black       Manufacturer     Ruland Manufacturing     Country of Origin     USA	) RPM	
Recommended Hex Key       Metric Hex Keys       Material Specification       Hubs: Type 3 Space         Temperature       -10°F to 150°F (-23°C to 65°C)       Finish Specification       Sulfuri II, Class Black         Manufacturer       Ruland Manufacturing       Country of Origin       USA		
Type 3     Space       Temperature     -10°F to 150°F (-23°C to 65°C)     Finish Specification     Sulfuri       II, Class     Black     Black       Manufacturer     Ruland Manufacturing     Country of Origin     USA	<u> -1R-1/4-18.3</u>	
II, Class     Black       Manufacturer     Ruland Manufacturing       Country of Origin     USA	2024-T351 Bar, Disc Spring: 302 Stainless Steel, Center r: Acetal	
	c Anodized MIL-A-8625 Type ss 2 and ASTM B580 Type B Anodize	
Weight (lbs)         0.071400         UPC         63452		
	9089408	
Tariff Code         8483.60.8000         UNSPC         31163	008	
Note 1 Stainless steel hubs are available upon request.	Stainless steel hubs are available upon request.	
Note 2 Torque ratings are at maximum misalignment.	Torque ratings are at maximum misalignment.	
Note 3 Performance ratings are for guidance only. The user must determine suitability	Performance ratings are for guidance only. The user must determine suitability for a particular application.	
Note 4         Torque ratings for the couplings are based on the physical limitations/failure point normal/typical conditions the hubs are capable of holding up to the rated torque cases, especially when the smallest standard bores are used or where shafts and shaft is possible below the rated torque of the disc springs. Keyways are available	of the disc springs. In some re undersized, slippage on th	

	torque capacity in the shaft/hub connection when required. Please consult technical support for more assistance.
Prop 65	<b>MARNING</b> This product can expose you to chemicals including Ethylene Thiourea and Nickel (metallic), known to the State of California to cause cancer, and Ethylene Thiourea known to the State of California to cause birth defects or other reproductive harm. For more information go to <u>www.P65Warnings.ca.gov</u> .
Installation Instructions	
	<ol> <li>Align the bores of the MDCDE25-12-8-A double disc coupling on the shafts that are to be joined and determine if the misalignment parameters are within the limits of the coupling. (<i>Angular Misialignment:</i> 2.0°, <i>Parallel Misalignment:</i> 0.15 mm, <i>Axial Motion:</i> 0.30 mm)</li> <li>Fully tighten the M3 screw on the first hub to the recommended seating torque of 2.1 Nm using a 2.5 mm hex torque wrench.</li> <li>Before tightening the screw on the second hub, rotate the coupling by hand to allow it to reach its free length.</li> <li>Tighten the screw on the second hub to the recommended seating torque. Make sure the coupling remains axially relaxed and the misalignment angle remains centered along the length of the coupling.</li> <li>The shafts may extend into the relieved portion of the bore as long as it does not exceed the shaft penetration length of 11.8 mm for bore 1 and 16.6 mm for bore 2.</li> </ol>