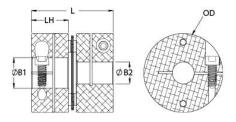




DCS16-8-4-A

Ruland DCS16-8-4-A, 1/2" x 1/4" Single Disc Coupling, Aluminum, Clamp Style, 1.000" OD, 1.031" Length





Description

Ruland DCS16-8-4-A is a clamp single disc coupling with 0.5000" x 0.2500" bores, 1.000" OD, and 1.031" length. It is zero-backlash and has a balanced design for reduced vibration at high speeds. The single disc design is comprised of two anodized aluminum hubs and two sets of thin stainless steel disc springs which can accommodate angular misalignment and axial motion, however does not allow for any parallel misalignment. DCS16-8-4-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 DCS16-8-4-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. DCS16-8-4-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

0.5000 in	Small Bore (B2)	0.2500 in
0.467 in	B2 Max Shaft Penetration	0.499 in
1.000 in	Bore Tolerance	+0.001 in / -0.000 in
1.031 in	Hub Width (LH)	0.467 in
+0.0000 in / -0.0005 in	Forged Clamp Screw	M3
Alloy Steel	Hex Wrench Size	2.5 mm
Black Oxide	Seating Torque	2.1 Nm
2 ea	Dynamic Torque Reversing	12.5 lb-in
1.0°	Dynamic Torque Non-Reversing	25 lb-in
0.00 in	Static Torque	50 lb-in
0.006 in	Torsional Stiffness	94 lb-in/Deg
0.0086 lb-in ²	Maximum Speed	10,000 RPM
Yes	Zero-Backlash?	Yes
Yes	Torque Wrench	<u>TW:BT-1R-1/4-18.3</u>
Metric Hex Keys	Material Specification	Hubs: 2024-T351 Aluminum Bar, Disc Springs: Type 302 Stainless Steel
-40°F to 200°F (-40°C to 93°C)	Finish Specification	Sulfuric Anodized MIL-A-8625 Type II, Class 2 and ASTM B580 Type B Black Anodize
Ruland Manufacturing	Country of Origin	USA
0.060400	UPC	634529082232
8483.60.8000	UNSPC	31163008
Stainless steel hubs are available	upon request.	
Stainless steel hubs are available Torque ratings are at maximum mi	• •	
Torque ratings are at maximum mi	• •	itability for a particular application.
	1.000 in 1.031 in +0.0000 in / -0.0005 in Alloy Steel Black Oxide 2 ea 1.0° 0.00 in 0.006 in 0.0086 lb-in ² Yes Metric Hex Keys -40°F to 200°F (-40°C to 93°C) Ruland Manufacturing 0.060400	1.000 inBore Tolerance1.031 inHub Width (LH)+0.0000 in / -0.0005 inForged Clamp ScrewAlloy SteelHex Wrench SizeBlack OxideSeating Torque2 eaDynamic Torque Reversing1.0°Dynamic Torque Non-Reversing0.00 inStatic Torque0.006 inTorsional Stiffness0.0086 lb-in²Maximum SpeedYesZero-Backlash?YesTorque WrenchMetric Hex KeysMaterial SpecificationRuland ManufacturingCountry of Origin0.060400UPC

WARNING 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

- 1. Align the bores of the DCS16-8-4-A single disc coupling on the shafts that are to be joined and determine if the misalignment parameters are within the limits of the coupling. (*Angular Misialignment:* 1.0°, *Parallel Misalignment:* 0.00 in, *Axial Motion*: 0.006 in)
- 2. 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.
- 3. Before tightening the screw on the second hub, rotate the coupling by hand to allow it to reach its free length.
- 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.
- 5. The shafts may extend into the relieved portion of the bore as long as it does not exceed the shaft penetration length of 0.467 in for bore 1 and 0.499 in for bore 2.