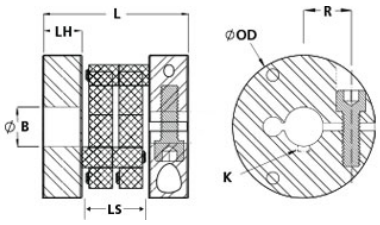
MCPTDK56-16-A

Ruland MCPTDK56-16-A, Controlflex Coupling Hub, Aluminum, Clamp Style With Keyway, 56.0mm OD, 51.0mm Length





Description

Ruland MCPTDK56-16-A is a Controlflex coupling hub with a 16mm bore, 5mm keyway, 56.0mm OD, and 51.0mm length. It is a component in a four-piece design consisting of two aluminum hubs mounted by pins to two acetal inserts creating a lightweight low inertia coupling capable of speeds up to 10,000 RPM. This four-piece design allows for a highly customizable coupling that easily combines clamp hubs with inch, metric, keyed, and keyless bores. MCPTDK56-16-A has a thinner length than regular hubs allowing it to be used in confined spaces. Hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. Controlflex couplings have a balanced design for reduced vibrations at high speeds, can accommodate all forms of misalignment, and are an excellent fit for encoders, tachometers, and light duty stepper servo positioning applications. MCPTDK56-16-A is RoHS3 and REACH compliant.

Product Specifications

Bore (B1)	16 mm	**B1 Max Shaft Penetration**	12.0 mm
Keyway (K)	5 mm	**Outer Diameter (OD)**	2.205 in (56.0 mm)
Bore Tolerance	+0.06 mm / +0.02 mm	**Hub Width (LH)**	12.00 mm
Length (L)	2.008 in (51.0 mm)	**Space Between Hubs (LS)**	1.062 in (27.0 mm)
Forged Clamp Screw	M5	**Screw Material**	Alloy Steel
Hex Wrench Size	4.0 mm	**Screw Finish**	Black Oxide
Seating Torque	5.7 Nm	**Screw Location (R)**	21 mm
Number of Screws	1 ea	**Rated Torque**	14 Nm
Angular Misalignment	1.0°	**Peak Torque**	16 Nm
Torsional Stiffness	14.40 Nm/Deg	**Axial Motion**	1.00 mm
Parallel Misalignment	1.50 mm	**Maximum Speed**	10,000 RPM
Recommended Inserts	CPFRG35/56-AT	**Full Bearing Support Required?**	Yes
Zero-Backlash?	Yes	**Balanced Design**	Yes
Weight (lbs)	0.177300	**Temperature**	-22°F to 175°F (-30°C to 80°C)
Material Specification	6082 Aluminum Bar	**Finish**	Clear Anodized
Finish Specification	Clear Anodized	**Manufacturer**	Schmidt Kupplung
UPC	634529228135	**Country of Origin**	Germany
Tariff Code	8483.60.8000	**UNSPC**	31163022
Note 1	Stainless steel hubs are available upon request.		
Note 2	Performance ratings are for guidance only. The user must determine suitability for a particular application.		
Note 3	Torque ratings for the couplings are based on the physical limitations/failure point of the inserts. Under normal/typical conditions the hubs are capable of holding up to the rated torque of the inserts. In some cases, especially when the smallest standard bores are used or where shafts are undersized, slippage on the shaft is possible below the rated torque. Keyways are available to provide additional torque capacity in the shaft/hub connection when required. Please consult technical support for more assistance.		
Prop 65	⚠**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 www.P65Warnings.ca.gov.		

Installation Instructions

1. Align the bores of the MCPTDK56-16-A controlflex coupling hub on the shafts that are to be joined with the drive pins facing each other and determine if the misalignment parameters are within the limits of the coupling. (*Angular Misialignment:* 1.0°, *Parallel Misalignment*: 1.5 mm, *Axial Motion*: 1.0

mm)

2. Rotate the hubs on the shaft so the drive pins are 90° from each other.
3. Place the first hub at the end of the shaft. Tighten the clamp screw to 5.7 Nm using a 4.0 mm hex torque wrench.
4. Place an insert(s) with the standoffs facing the hub over the pins of the hub that was just installed.
5. Align the drive pins on the second hub to match the holes in the insert(s).
6. Verify that the space between hubs is 1.062 in, 27.0 mm.
7. Tighten the clamp screw on the second hub to the recommended seating torque of 5.7 Nm using a 4.0 mm hex torque wrench.