



MIC20-1/4"-4MM-A

Ruland MIC20-1/4"-4MM-A, 1/4" x 1/4" Single Beam Coupling, Aluminum, Clamp Style, 0.787" (20.0mm) OD, 1.102" (28.0mm) Length



Description

Ruland MIC20-1/4"-4MM-A is a single beam coupling with 0.2500" x 4mm, 0.787" (20.0mm) OD, and 1.102" (28.0mm) length. It is machined from a single piece of material and feature one long continuous spiral cut. This gives it higher misalignment capabilities than comparably sized multiple beam couplings. MIC20-1/4"-4MM-A is zero-backlash making it well suited for applications such as encoders that require high positioning accuracy. MIC-series couplings have purely metric outer diameter and length dimensions and fit in a smaller envelope than the ICR-series. All hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. MIC20-1/4"-4MM-A is made from 7075 aluminum for lightweight and low inertia. It is machined from bar stock that is sourced exclusively from North American mills and RoHS3, REACH, and Conflict Minerals compliant. MIC20-1/4"-4MM-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

Bore (B1)	0.2500 in	Small Bore (B2)	4 mm
B1 Max Shaft Penetration	0.542 in (13.8 mm)	B2 Max Shaft Penetration	0.542 in (13.8 mm)
Outer Diameter (OD)	0.787 in (20.0 mm)	Bore Tolerance	+0.001 in / -0.000 in (+0.025 mm / -0.000 mm)
Length (L)	1.102 in (28.0 mm)	Recommended Shaft Tolerance	+0.0000 / -0.0005 " (+0.000 / -0.013 mm)
Cap Screw	M3	Screw Material	Alloy Steel
Hex Wrench Size	2.5 mm	Screw Finish	Black Oxide
Seating Torque	2.1 Nm	Number of Screws	2 ea
Dynamic Torque Reversing	0.51 Nm	Angular Misalignment	5.0°
Dynamic Torque Non-Reversing	1.02 Nm	Parallel Misalignment	0.25 mm
Static Torque	2.03 Nm	Axial Motion	0.25 mm
Torsional Stiffness	5.10 Deg/Nm	Moment of Inertia	1.085 x10 ⁻⁶ kg-m ²
Maximum Speed	6,000 RPM	Full Bearing Support Required?	Yes
Zero-Backlash?	Yes	Recommended Hex Key	Metric Hex Keys
Material Specification	7075-T651 Extruded and Drawn Aluminum Bar	Temperature	-40°F to 225°F (-40°C to 107°C)
Finish Specification	Bright, No Plating	Manufacturer	Ruland Manufacturing
Country of Origin	USA	Weight (lbs)	0.044390
UPC	63452943697	Tariff Code	8483.60.8000
UNSPC	31163003		

Note 1 Torque ratings are at maximum misalignment.

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 machined beams. Under normal/typical conditions the hubs are capable of holding up to the rated torque of the machined beams. 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 of the machined beams. Please consult technical support for more assistance.