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Find the *Newport M-UMR12.80* at our website: *Click HERE*

Linear Stage, Single-Row Ball Bearing, 80 mm Travel, M5 and M6



Overview

The M-UMR12.80 Precision Single-Row Ball Bearing Linear Stage features steel construction for high stability and rigidity. The ball bearings and precision-ground bearing surfaces provide exceptional linear travel, with an angular deviation <200 µrad. UMR12 Series Stages have single-row ball bearings making them an excellent choice for carrying high loads up to 400 N. The moving carriage is preloaded by two springs to ensure constant micrometer contact for smooth, backlash-free motion over a 63 mm travel range. Multiple drive options cover the range of precision positioning. Standard BM Series Micrometers provide 1 µm sensitivity, while DM Series Differential Micrometers offer 0.1 µm. For coarse motion with position locking, a fixed positioning kit replaces the micrometer with two opposing adjustment screws and lock nuts. An optional carriage locking kit includes a screw that mounts in the stage body opposite the micrometer. Motorized actuators can be added for precision motion control. Generous hole patterns allow great flexibility in component placement on the stage mounting surface. Two stages can be easily stacked in an XY configuration and mounted to a table or breadboard. Multi-axis stage configurations are easily assembled using EQ Series Angle Brackets. UMR Stages are compatible with UTR and URM Rotation Stages, BGM Goniometers, and SL Series Mirror Mounts.

Technical Specs

Axes of Travel	X	**Drive Location**	Center drive
Maximum Stage Travel	80 mm	**Drive Torque**	0.08 Nm
Thread Type	M5 and M6	**Compliance in Roll**	0.02 mrad/Nm
Load Capacity	400 N	**Compliance in Pitch**	0.02 mrad/Nm
Vertical Load Capacity	440 N	**Compliance in Yaw**	0.02 mrad/Nm
Angular Deviation	<200 µrad	**Platform Size**	120 x 210.5 mm
Material	Alloy Steel	**Height**	26 mm
Bearings	Double-Row Ball Bearings	**Recommended BM Micrometer**	BM32.80
Bearing Constant	70 mm		

Related Products

Accessories

Compare	Description	Drawings, CAD & Specs	Avail.	Price
	**ADAPT-BM25-375** Motorized Actuator Adapter, UMR12 to VP-25AA and PZA12		In Stock	$55
	**CL22-80** Carriage Lock, UMR12.80		In Stock	$34
	M-EQ120-E Outer Bracket, Compatible with UMR12 and UTR120 Stages, Metric		In Stock	$218
	**FP22-80** Fixed Positioning Kit, UMR12.80		In Stock	$35

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Compare	Description	Drawings, CAD & Specs	Avail.	Price
	**M-BDK-1** Ball Driver Tool Set, Includes: 1.5, 2, 2.5, 3, 4 & 5 mm Wrenches		In Stock	$31
	M-EQ120-I Inner Bracket, Compatible with UMR12 and UTR120 Stages, Metric		In Stock	$167
	**M-SK-M6A** Black Oxide Screw Kit, M6, Assortment, Qty 261		In Stock	$56

Similar

Compare	Description	Drawings, CAD & Specs	Avail.	Price
	**M-423** High-Performance Low-Profile Ball Bearing Linear Stage, 25.4 mm, M6		In Stock	$271
	**M-UMR8.25** Linear Stage, Double-Row Ball Bearing, 25 mm Travel, M4 and M6		In Stock	$341
	**M-UMR8.51** Linear Stage, Double-Row Ball Bearing, 51 mm Travel, M4 and M6		In Stock	$662
	**M-UMR12.40** Linear Stage, Single-Row Ball Bearing, 40 mm Travel, M5 and M6		In Stock	$615
	**M-UMR12.63** Linear Stage, Single-Row Ball Bearing, 63 mm Travel, M5 and M6		In Stock	$830

Compatible

Compare	Description	Drawings, CAD & Specs	Avail.	Price
	**M-BR5** Mounting Bridle, M-UTR120 to M-MVN120, M-TGN120, UMR12, M-MTM Series, Qty 4		In Stock	$42
	**UTR120** Manual Rotation Stage, Steel, 4.7 in, Diameter, 360° Coarse, 4° Fine, 1/4-20		In Stock	$1,286
	**BM32.80** Micrometer Head, Standard Resolution, 80mm Travel, 100 lb. Load		In Stock	$609

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