DSM Series Dovetail Manual Linear Stages, 13–100 mm Travel, Lead Screw Drive

Model DSM Series · waveqvanta.com/products/dsm-series-dovetail-manual-linear-stages

Aluminum dovetail linear stages with ground lead screw drive, side vernier scale and locking for steady manual positioning.



DSM series manual linear stages are made of black anodized aluminum alloy and combine a dovetail guide with a ground lead screw drive for high load capacity and fine sensitivity. The fine screw pitch gives a slow adjustment rate, and the small screw diameter makes the series better suited to short and medium travels. A vernier scale on the side and a lock are standard.

Key features

- Dovetail guide with high load capacity: up to 10 kg horizontal, 5 kg central
- Ground lead screw drive (φ6 × 0.5, φ6 × 1 or φ8 × 1) for fine adjustment
- Side vernier scale with 0.1 mm minimum reading
- Locking function for positional stability
- Travel 13, 20, 25, 50 or 100 mm; 20 mm stage thickness
- Black anodized aluminum alloy body, center drive

Specifications

Axes of Travel	X (single axis)
Travel Range	13–100 mm
Stage Surface Size	40 × 40, 60 × 60 or 65 × 65 mm
Main Body Length	40–140 mm
Thickness	20 mm
Guide Mechanism	Dovetail guide
Drive Type	Ground lead screw, φ6 × 0.5, φ6 × 1 or φ8 × 1
Drive Location	Center
Vernier Minimum Reading	0.1 mm
Locking	Yes
Horizontal Load Capacity	5–10 kg
Central Load Capacity	2–5 kg
Weight	0.12–0.4 kg
Body Material and Finish	Black anodized aluminum alloy
Naming Suffix	E: base length equals stage length; L: base longer than stage

Model overview

Model	Travel (mm)	Stage Size (mm)	Body Length (mm)	Lead Screw	Horizontal Load (kg)	Central Load (kg)	Weight (kg)
DSM13S-4040E	13	40 × 40	40	φ6 × 0.5	5	2	0.12
DSM20S-6060E	20	60 × 60	60	φ6 × 0.5	8	3.5	0.22
DSM25S-6565E	25	65 × 65	65	φ6 × 1	10	5	0.25
DSM50S-6590L	50	65 × 65	90	φ6 × 1	10	5	0.3
DSM100S-65140L	100	65 × 65	140	φ8 × 1	10	5	0.4

Typical applications

- General manual positioning of optics and fixtures
- Laboratory optical setups
- Positioning tasks that need a lockable setting
- Coarse alignment of optomechanical assemblies