AKV Series Aluminum Manual Vertical Stages, 6–13 mm Travel, Micrometer Drive

Model AKV Series · waveqvanta.com/products/akv-series-aluminum-manual-vertical-stages

Black anodized aluminum Z stages with micrometer drive and linear slider guides for manual height adjustment.



AKV series vertical stages are micrometer-driven Z stages with linear slider guides that keep motion accurate as the platform rises and falls. Direct-lift models (Z) use a vertical micrometer, while lever-lift models (C) use a horizontal micrometer. The black anodized aluminum body has low reflectivity for dark environments, and standard holes in the top plate and base allow stacking with other stages.

Key features

- Six models with 6, 10 or 13 mm travel and 40 × 40 to 90 × 90 mm stage surfaces
- Direct lift with vertical micrometer (Z models) or lever lift with horizontal micrometer (C models)
- Linear slider guides for smooth vertical motion
- Sensitivity ≤2 µm; micrometer minimum reading 0.01 mm
- Black matte anodized finish with low reflectivity
- Standard holes on the top plate and base for combining with other stages
- Central load capacity up to 3 kg; static parallelism ≤100 µm

Specifications

Travel Range	6, 10 or 13 mm
Stage Surface Size	40 × 40 to 90 × 90 mm
Stage Surface Height Range	51–79.5 mm (model dependent)
Lifting Mechanism	Direct lift (Z models) or lever lift (C models)
Guide Mechanism	Linear slider guide
Drive Type	Micrometer
Drive Location	Central, vertical (Z models) or central, horizontal (C models)
Body Material and Finish	Black anodized aluminum alloy
Sensitivity	≤2 µm
Micrometer Minimum Reading	0.01 mm
Height Change per Micrometer Turn	0.5 mm
Static Parallelism	≤100 µm
Central Load Capacity	≤2 kg (40 mm models); ≤3 kg (other models)
Weight	0.195–0.96 kg
Note	On lever-lift models the micrometer reading is for reference only

Model overview

Model	Stage Size (mm)	Travel (mm)	Height Range (mm)	Lift Mechanism	Micrometer	Load (kg)	Weight (kg)
AKV6A-40Z	40 × 40	6	51–57	Direct lift	Vertical	≤2	0.195
AKV6A-40C	40 × 40	6	54.5–60.5	Lever lift	Horizontal	≤2	0.25
AKV13A-60Z	60 × 60	13	66.5–79.5	Direct lift	Vertical	≤3	0.508
AKV10A-60C	60 × 60	10	55–65	Lever lift	Horizontal	≤3	0.42

Model	Stage Size (mm)	Travel (mm)	Height Range (mm)	Lift Mechanism	Micrometer	Load (kg)	Weight (kg)
AKV13A-65Z	65 × 65	13	66.5–79.5	Direct lift	Vertical	≤3	0.8
AKV10A-90C	90 × 90	10	60–70	Lever lift	Horizontal	≤3	0.96

Typical applications

- Height adjustment of optics, fibers and samples
- Z axis for multi-axis manual positioning assemblies
- Low-light and dark-room optical setups
- Beam height matching on optical tables