

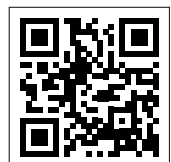
KAOS OEM

A speedy, slim positioning stage for two-axis applications.

- **Lowest Moving Mass.** Compared to a conventional stacked linear motor positioning stage, KAOS has only about one-tenth the moving mass, balancing linear motor size and acceleration.
- **Speed And Precision.** KAOS offers speeds in excess of 4 m/s and accelerations in excess of 4 g. Accuracy is $\pm 9 \mu\text{m}/\text{meter}$. Bi-directional repeatability is ± 2 counts of the KAOS' direct reading encoders.
- **Easy To Integrate.** All utilities terminate in quick connects at the long axis midpoint. KAOS has integrated energy chains with room for extra utilities. Optical limits, carriage sensor and hard stops are all built in.
- **Enhanced Stiffness.** The low-profile mechanical design improves coupling between the payload and the linear bearings, increasing stiffness and reducing settling times.
- **Built To Last.** KAOS features anodized aluminum construction with stainless steel hardware. All bearings are lubed for life.

DATA SHEET

TECHNICAL SPECIFICATIONS	KAOS OEM-L
Type	Direct Drive Linear (dual axis)
Bearing type	Long axis: (1) Preloaded 4-row ball Short axis: (2) Preloaded 2-row ball
Travel max (mm)	Long axis: 1800 Short axis: 102
Motor type	Air core 3-Phase linear motor, parallel or series wound, 3 coil lengths
Accuracy (µm) <small>Linear accuracy at stage centerline, after two-point temperature scale correction.</small>	Long axis: ±4/meter Short axis: ±10
Angular deviation (±arc-sec) <small>Yaw angle maximum in the plane of the linear bearings. Most chassis are flexible enough that this is generally the achievable number when the unit is straightened on user surface.</small>	Long axis: ±8 Short axis: ±10
Bi-directional repeatability (µm)	Long axis: ±2 Short axis: ±10
Uni-directional repeatability (µm) <small>If deceleration and payload are kept constant.</small>	Long axis: ±1 Short axis: ±5
Encoder resolution(s): linear (µm), rotary (CPR)	1 µm, 0.5 µm, 0.1 µm
Speed (m/sec)	4
Continuous linear force (N) (coil length dash number) Short axis as % of long axis, at (example payload kg)	Long axis: 5.6(-0), 12.9(-1) Short axis: 92%(.9), 70%(2.3)
Max moment pitch, yaw for 10 ⁶ m @ 2 m/sec (N-m)	3
Max moment, roll for 10 ⁶ m @ 2 m/sec (N-m)	0.8
Moving mass (kg)	3.4(-0), 3.7(-1)
Max payload (kg)	5
Chassis mass constant (C) <small>Chassis mass = Length X .015 + C (kg)</small>	C = 3.4(-0), 4.6(-1)
Cable length from end of stage, std (±25 mm)	2850-<Length> (add 2 m as an option)



Configure and request a quote online at www.bell-everman.com/rfq.