Fast, High-Load Hexapod for Dynamic Motion Simulation / Vibration Cancellation

FOR LOADS TO 60 KG

H-900KSCO

- Low- wear, brushless DC motors
- Travel ranges to 200 mm in X and Y and up to 170 mm in Z
- Tilt and rotation angle to 66°
- High velocities

Reference- class 6- axis positioning system
Parallel- kinematic design for six degrees of freedom making it significantly more compact and stiff than serial-kinematic systems, higher dynamic range, no moved cables: Higher reliability, reduced friction.

The H-900KSCO motion hexapod is designed for dynamic motion in all degrees of freedom (X,Y,Z, pitch, roll, yaw). With 130lbs payload and 80mm/sec max. velocity, it provides an excellent balance of speed and load capacity in a compact envelope. Applications of the H-900KSCO hexapod platform include motion cancellation, motion simulation (profiles compatible to ISO 20672, ISO 8728, and ISO 16328), industrial alignment processes, precision machining, automotive production, and stabilization of motion on moving vehicles and marine vessels.

Powerful digital controller, open software architecture
Optional: Software for avoiding collisions in restricted workspace

Specifications

Preliminary Data	H-900KSCO	Unit	Tolerance
Active axes	X, Y, Z, θ_X, θ_Y, θ_Z		
Motion and Positioning			
Single- actuator design resolution	0.58	µm	
Travel range* X, Y	200	mm	
Travel range* Z	170	mm	
Travel range* θ_X, θ_Y	66	°	
Travel range* θ_Z	66	°	
Min. incremental motion X, Y	5	µm	typ.
Min. incremental motion Z	5	µm	typ.
Backlash X, Y	20	µm	typ.
Backlash Z	5	µm	typ.
Backlash θ_X, θ_Y	50	µrad	typ.
Backlash θ_Z	90	µrad	typ.
Repeatability X, Y	±2	µm	typ.
Repeatability Z	±0.5	µm	typ.
Repeatability θ_X, θ_Y	±5	µrad	typ.
Repeatability θ_Z	±9	µrad	typ.
Max. velocity X, Y, Z	80	mm/ s	
Max. velocity θ_X, θ_Y, θ_Z	520	mrad/ s	
Typ. velocity X, Y, Z	20	mm/ s	
Typ. velocity θ_X, θ_Y, θ_Z	130	mrad/ s	
Mechanical Properties			
Load (base plate horizontal)	635	N	max.
Holding force, de- energized (base plate horizontal)	635	N	max.
Motor Type	DC gear motor		
Miscellaneous			
Operating temperature range	-10 to 50	°C	
Material	Aluminum		
Mass	65.5	kg	

Technical data specified at 20 ±3 °C.
Ask about custom designs!
* The travel ranges of the individual coordinates (X, Y, Z, θ_X, θ_Y, θ_Z) are interdependent. The data for each axis in this table shows its maximum travel, where all other axes are at their zero positions. If the other linear or rotational coordinates are not zero, the available travel may be less.

Order Information

H-900KSCO
Motion Hexapod for 60 kg Load, to 200 mm Travel Range, to 80 mm/ s Velocity

Ask about custom designs!

Controllers / Drivers / Amplifiers

C-887.5x Controller for Hexapod Positioning Systems

Related Products

H-850 6- Axis Hexapod
H-840 6- Axis Hexapod
H-845 High- Load Hexapod
H-860KMAG High- Dynamics Hexapod