

FBS150/150/200

Linear Stage



Mechanical Design Characteristics

MODEL	FBS150150	FBS150200
Stage Plate Material	Aluminum — Black Anodized	
Motor	HR8 Piezo, ultrasonic standing wave	
Bearing Type	Precision crossed rollers with anti-migration device	
Encoder	Linear optical encoder with gold tape scale	
Cable Lengths (m)	3m	
MTBF (hours)	30,000	
Stage Mass (g)	4399g	5435g
Carriage Moving Mass (g)	1677g	2054g
RoSH	Compliant	
Vacuum Compatible Options	High Vacuum (to 10^{-7} Torr) / UHV (to 10^{-10} Torr) available	

Performance Specifications

MODEL	FBS150150	FBS150200
Travel Range (mm)	150mm	200mm
Encoder Resolution	Standard	100nm
	Optional	10nm
Bi-directional Repeatability	Standard	1 μ m
	Optional	100nm
Absolute Accuracy (Error mapping available)	Standard	12 μ m
	Optional	7 μ m
Minimum Incremental	AC Mode	100nm
Move Convergence	UHR Mode	5nm
	DC Mode	<1nm
Maximum Velocity	200mm/sec	200mm/sec
Straightness & Flatness	$\pm 5\mu$ m	$\pm 5\mu$ m
Pitch & Yaw	$\pm 50\mu$ rad	$\pm 50\mu$ rad
Load Capacity - Horizontal	1.8kg	1.47kg
Load Capacity - Vertical	NA	NA
Dynamic Stall Force	30N	30N
Motor Stiffness	3N/ μ m	3N/ μ m
Holding Force without Power	28N	



