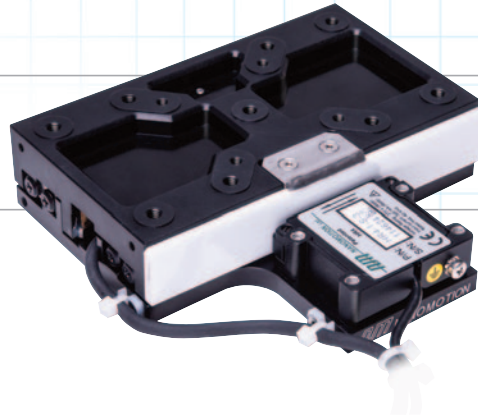


FBS075/040/060/100

Linear Stage



MECHANICAL DESIGN CHARACTERISTICS

MODEL	FBS075040	FBS075060	FBS075100
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)	727g	918g	1062g
Carriage Moving Mass (g)	284g	447g	445g
RoSH	Compliant		
Vacuum Compatible Options	High Vacuum (to 10^{-7} Torr) / UHV (to 10^{-10} Torr) available		

PERFORMANCE SPECIFICATIONS

MODEL	FBS075040	FBS075060	FBS075100
Travel Range (mm)	40mm	60mm	100mm
Encoder Resolution	Standard	100nm	
	Optional	10nm	
Bi-directional Repeatability	Standard	1 μ m	
	Optional	100nm	
Absolute Accuracy	Standard	6 μ m	10 μ m
(Error mapping available)	Optional	3 μ m	5 μ m
Minimum Incremental	AC Mode	100nm	
Move Convergence	UHR Mode	5nm	
	DC Mode	<1nm	
Maximum Velocity	200mm/sec	250mm/sec	250mm/sec
Straightness & Flatness	$\pm 4\mu$ m	$\pm 5\mu$ m	$\pm 5\mu$ m
Pitch & Yaw	$\pm 40\mu$ rad	$\pm 60\mu$ rad	$\pm 60\mu$ rad
Load Capacity - Horizontal	3.0kg	3.0kg	3.0kg
Load Capacity - Vertical	0.8kg	0.65kg	0.65kg
Dynamic Stall Force		32N	
Motor Stiffness		3N/ μ m	
Holding Force without Power		28N	

