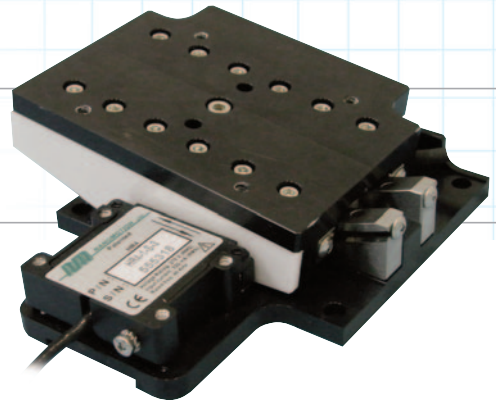
FGS100/125/160 Goniometer Stage



Mechanical Design Characteristics

MODEL	FGS100125	FGS100160
Stage Plate Material	Aluminum — Black Anodized	
Motor	HR4 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)	773g	842g
Carriage Moving Mass (g)	461g	423g
RoSH	Compliant	
Vacuum Compatible Options	High Vacuum (to 10^{-7} Torr) / UHV (to 10^{-10} Torr) available	

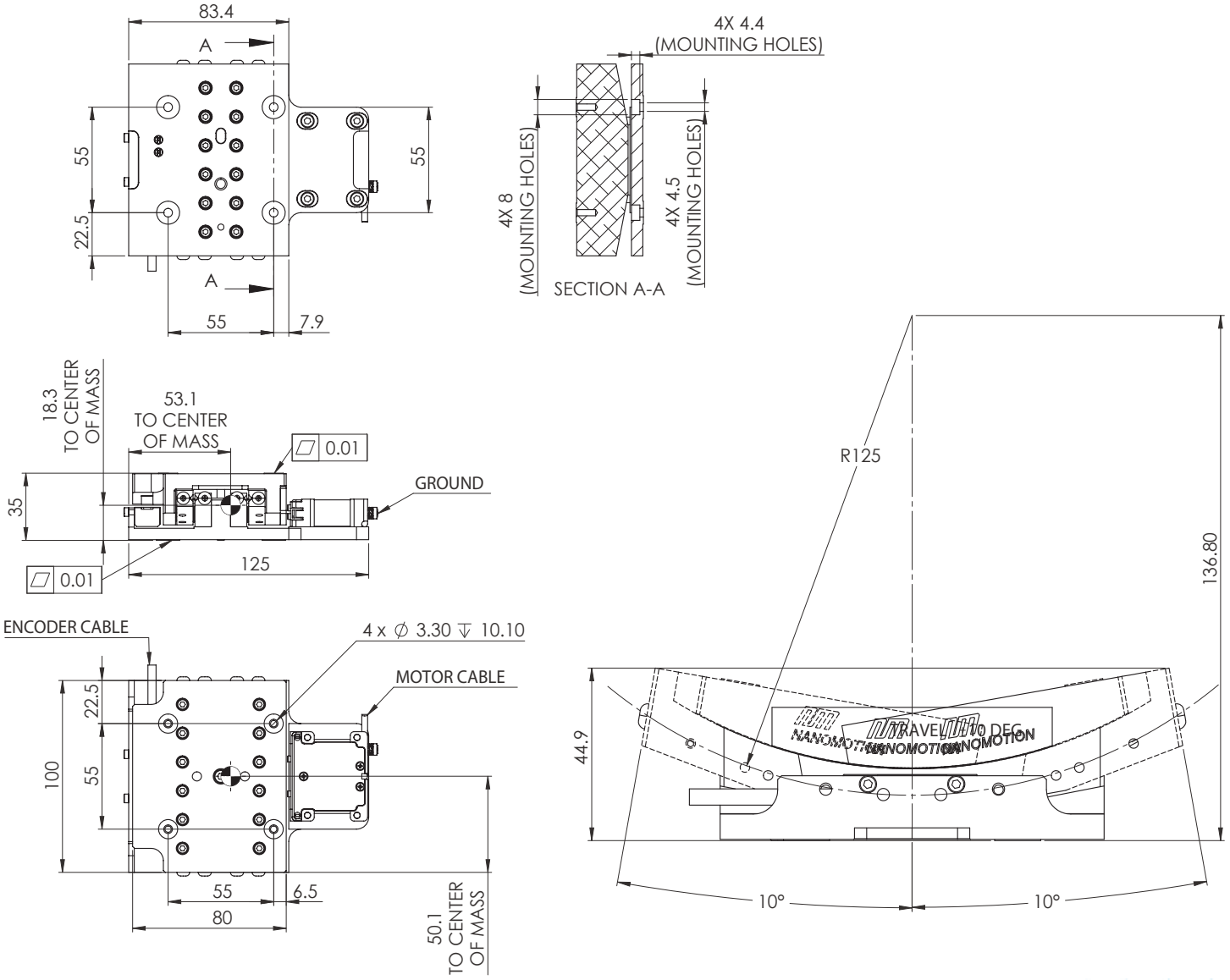
Performance Specifications

MODEL		FGS100125		FGS100160
Travel Range (deg)		±10°		±10°
Encoder Resolution	Standard	0.171 arc sec.		0.134 arc sec.
	Optional	0.0171 arc sec		0.0134 arc sec
Bi-directional Repeatability	Standard		2 arc sec.	
	Optional		0.2 arc sec.	
Minimum Incremental	AC Mode	0.165 arc sec.		0.128 arc sec.
Move Convergence	UHR Mode	0.0082 arc sec.		0.0064 arc sec.
	DC Mode	0.000165 arc sec.		0.000129 arc sec.
Maximum Velocity (deg/sec)		100 deg/sec		85 deg/sec
Load Capacity (kg)		3kg		3kg
Inertial Capacity ($kg.m^2$)		$0.0512kg.m^2$		$0.083kg.m^2$
Dynamic Stall Force		2040Nm		2600Nm
Motor Stiffness		0.045N* m/µrad		0.074N* m/µrad
Holding Force without Power		1836Nm		2340Nm

MECHANICAL DRAWINGS

FGS100125

European View **Dimensions are Metric**



MECHANICAL DRAWINGS

FGS100160

European View **Dimensions are Metric**