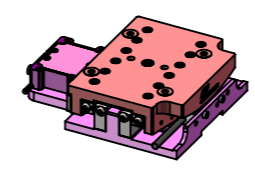
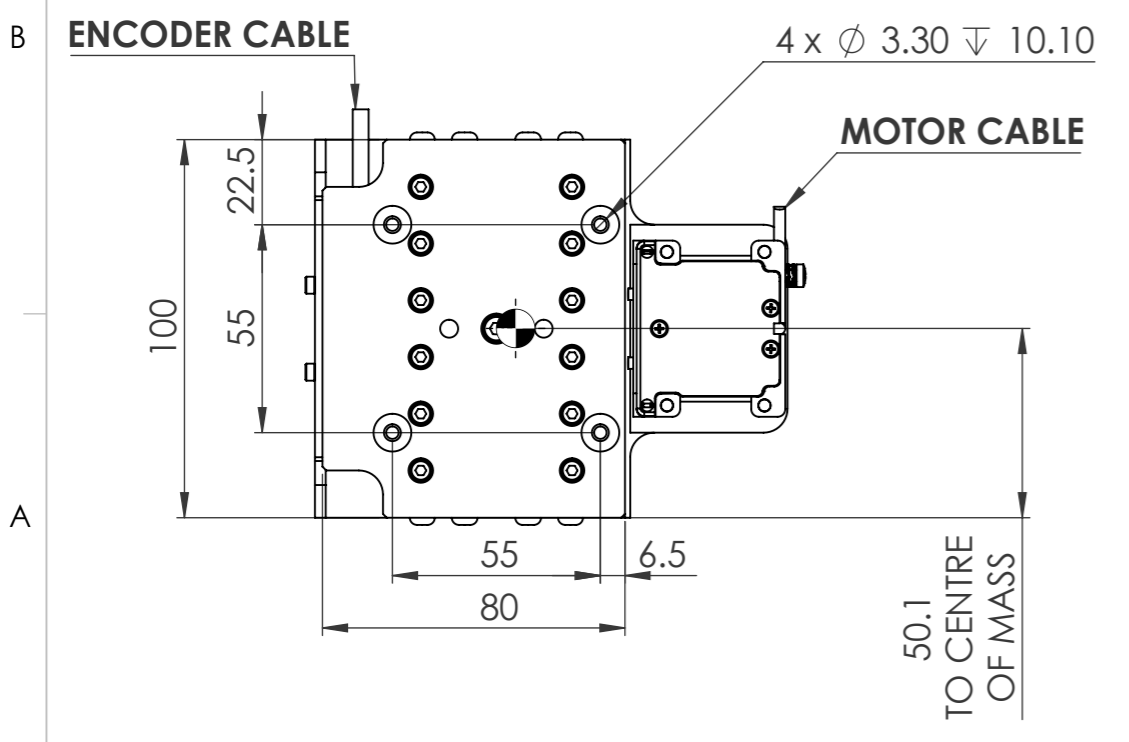
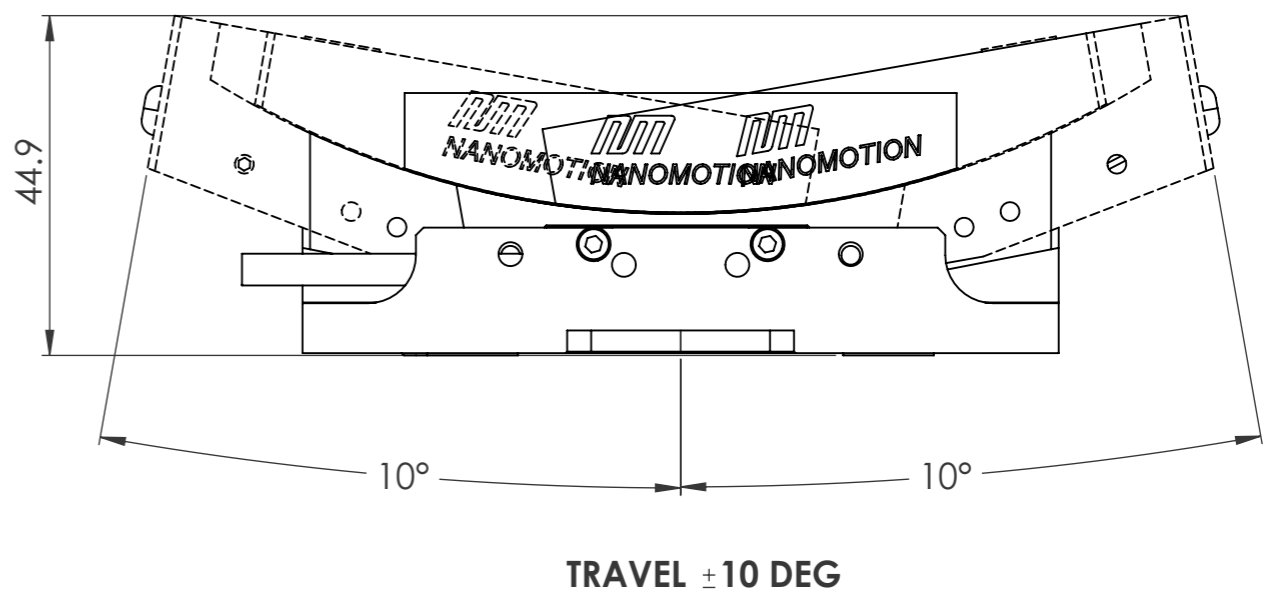
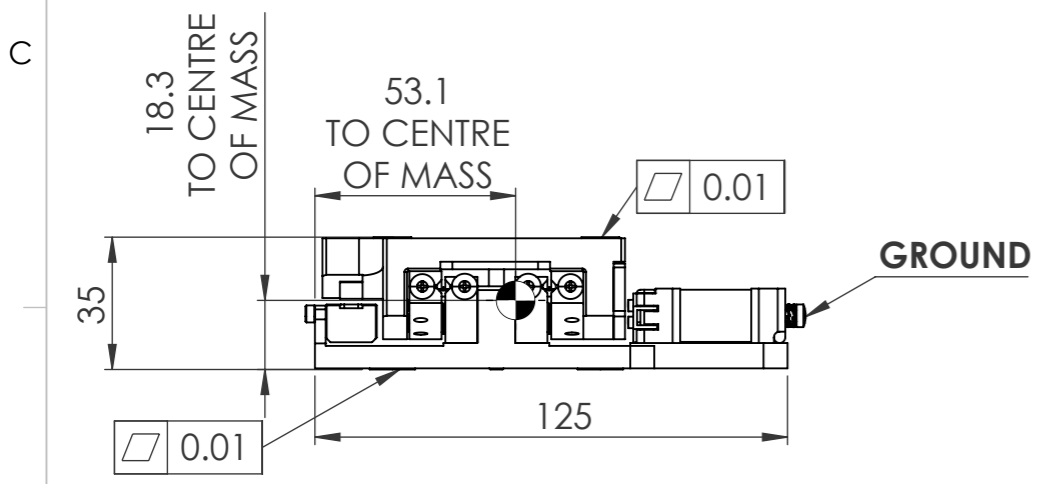


REVISIONS				
ECO	REV.	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



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**MATERIAL:**

**FINISH:**

ALL DIMENSIONS UNIT: mm

**SURFACE ROUGHNESS:** N7

**GENERAL TOLERANCES ACCORDING TO ISO 2768-FH REFERENCE TABLE**

NOMINAL MEASURE (mm)	TOLERANCE	
	OVER	MAX
0 - 6	±0.1*	
6 - 30	±0.1	
30 - 120	±0.15	
120 - 400	±0.2	

ANGULAR: ±1\*\*

\*TOLERANCES DIFFER FROM ISO 2768-FH

**PROJECT:**

**PART NAME:**

**PART NUMBER:**

**REV.**

**SCALE 1:2**

**DWG. A3**

**SHEET 1 OF 2**




# TECHNICAL SPECIFICATIONS:

Mechanical Design Characteristics	
Stage Plate Structure	Aluminum - Black Anodize
Motor	Piezo Electric, Ultrasonic Standing Wave HR4
Gonio Bearings	Precision crossed roller with anti-migration device
Encoder	Linear optical scale with 20µm signal period and 0.1µm resolution, with home reference mark with electrical limits
Cable Lengths	3m
MTBF	30,000 hours
Stage Mass (g)	773
Moving Mass (g)	461

Performance Specifications	
Travel Range (deg)	10
Encoder Resolution (nm)	0.171 arc seconds; 0.0171 arc seconds optional
Bi-directional Repeatability (µm)	2 arc seconds; 0.2 arc seconds optional
Maximum Velocity (deg/sec)	112
Load Capacity (kg)	3
Inertia Capacity (Kg*m <sup>2</sup> )	0.0512
Dynamic Stall Moment (Nm)	2040
Stage Stiffness(N*m/µrad)	0.045

MOTOR CONECTOR- 9 pin D-type female		
Pin	Function	Description
1	GND	System ground
2	N.C.	With AB1A Driver - Phase
3	Motor-Up	White wire - High voltage input
4	Motor-Common	Black wire - High Voltage input for AB1A, GND for AB5 AB2 and AB4 drivers as well as XCD Controller/Drivers
5	Motor-Down	Red wire - High voltage input
6	Motor-Connected Safety input	Short pin 6 to pin 1 - enables Driver. Open on pin 6 - disables the Driver.
7	GND	System ground - Connected to connector hood
8	N.C.	Not connected
9	N.C.	Not connected

ENCODER CONNECTOR- D-Type 15 pin, MALE		
Pin #	Pin Name	Function
7,8	5V	Power
2,9	0V	
14	A+	Incremental signals
6	A-	
13	B+	
5	B-	Reference mark / Index
12	Z+/Q-	
4	Z-/Q+	Inner shield
15	Shield	
Case	Shield	Outer shield
1,3	N.C.	Not connected
10-11	N.C.	Not connected



**NANOMOTION**  
A Johnson Electric Company

PART NUMBER:	REV.
SCALE 1:2	DWG. SIZE A3
SHEET 2 OF 2	