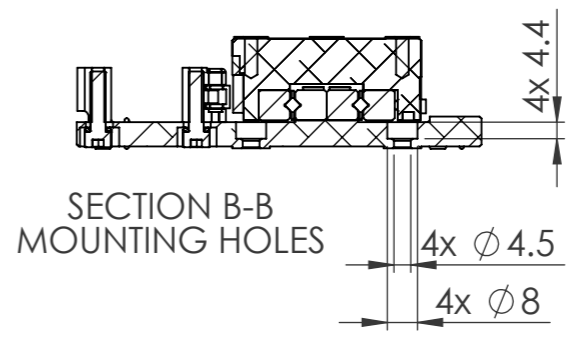
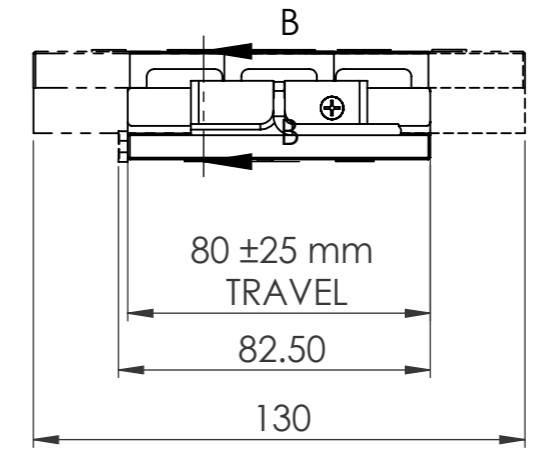
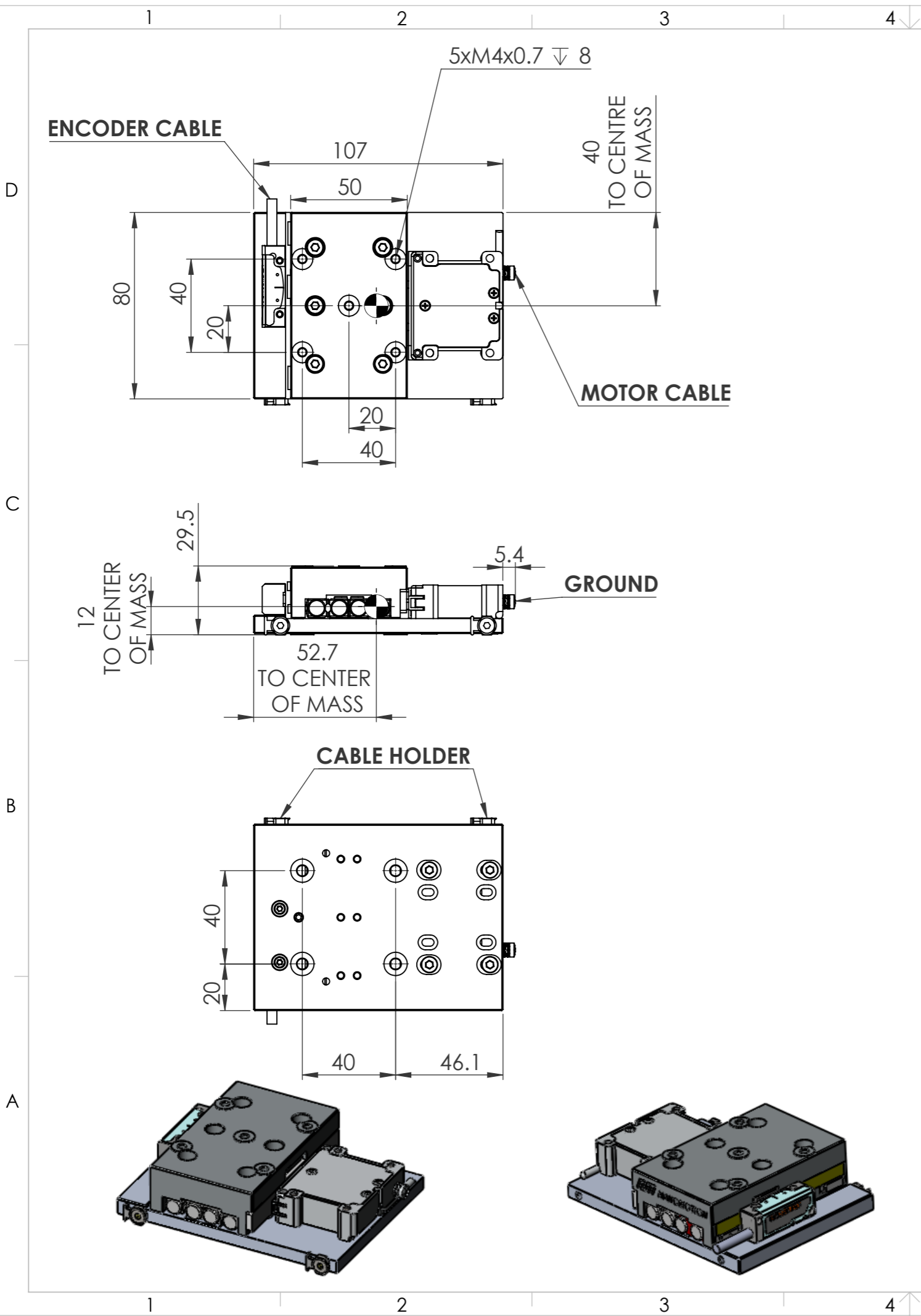



REVISIONS				
ECO	REV.	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



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MATERIAL:		 A Johnson Electric Company													
FINISH:															
ALL DIMENSIONS UNIT: mm		PROJECT:													
SURFACE ROUGHNESS: $N7$		PART NAME: ICD, FB STAGE, 50MM WIDE 50MM TRAVEL													
DESIGNED		PART NUMBER:													
CHECKED Amos Y		<b>FB0050050-129</b>													
APPROVED Tuvia		REV. <b>A</b>													
<table border="1"> <thead> <tr> <th>NAME</th> <th>SIGNATURE</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>07/07/20</td> </tr> <tr> <td></td> <td></td> <td>07/07/20</td> </tr> </tbody> </table>		NAME	SIGNATURE	DATE			07/07/20			07/07/20	<table border="1"> <tr> <td>SCALE 1:2</td> <td>DWG. A3</td> <td>SHEET 1 OF 2</td> </tr> </table>		SCALE 1:2	DWG. A3	SHEET 1 OF 2
NAME	SIGNATURE	DATE													
		07/07/20													
		07/07/20													
SCALE 1:2	DWG. A3	SHEET 1 OF 2													

GENERAL TOLERANCES ACCORDING TO ISO 2768-FH REFERENCE TABLE		
NOMINAL MEASURE (mm)	OVER	MAX TOLERANCE
0 - 6		±0.1*
6 - 30		±0.1
30 - 120		±0.15
120 - 400		±0.2
ANGULAR		±1**
*TOLERANCES DIFFER FROM ISO 2768-FH		

# TECHNICAL SPECIFICATIONS:

Mechanical Design Characteristics	
Stage Plate Structure	Aluminum - Black Anodize
Motor	Piezo Electric, Ultrasonic Standing Wave HR4
Linear 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)	550
Moving Mass (g)	230

Performance Specifications	
Travel Range (mm)	50
Encoder Resolution (µm)	0.1 standard; (10nm optional)
Bi-directional Repeatability (µm)	1.0 standard; (0.1µm optional)
Maximum Velocity (mm/sec)	200
Straightness & Flatness (µm)	+/- 4
Pitch & Yaw (µrad)	+/- 40
Load Capacity(Horizontal) (kg)	1.78
Load Capacity (vertical lift) (kg)	0.31
Dynamic Stall Force (N)	16
Stage Stiffness (N/µ)	1.78

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
7,9	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



PART NUMBER: **FB0050050-129** REV. **A**

SCALE 1:2 DWG. SIZE A3 SHEET 2 OF 2