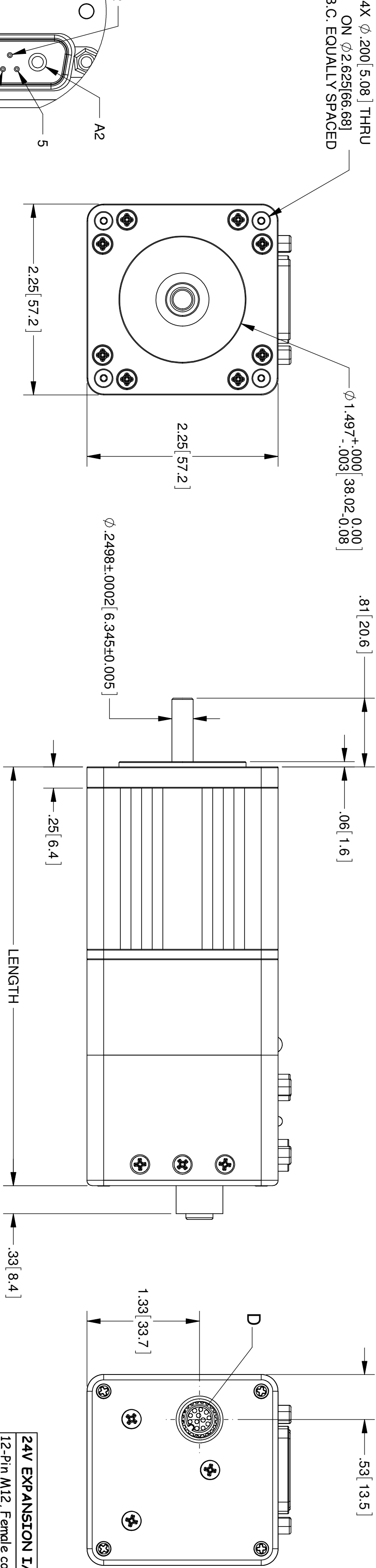
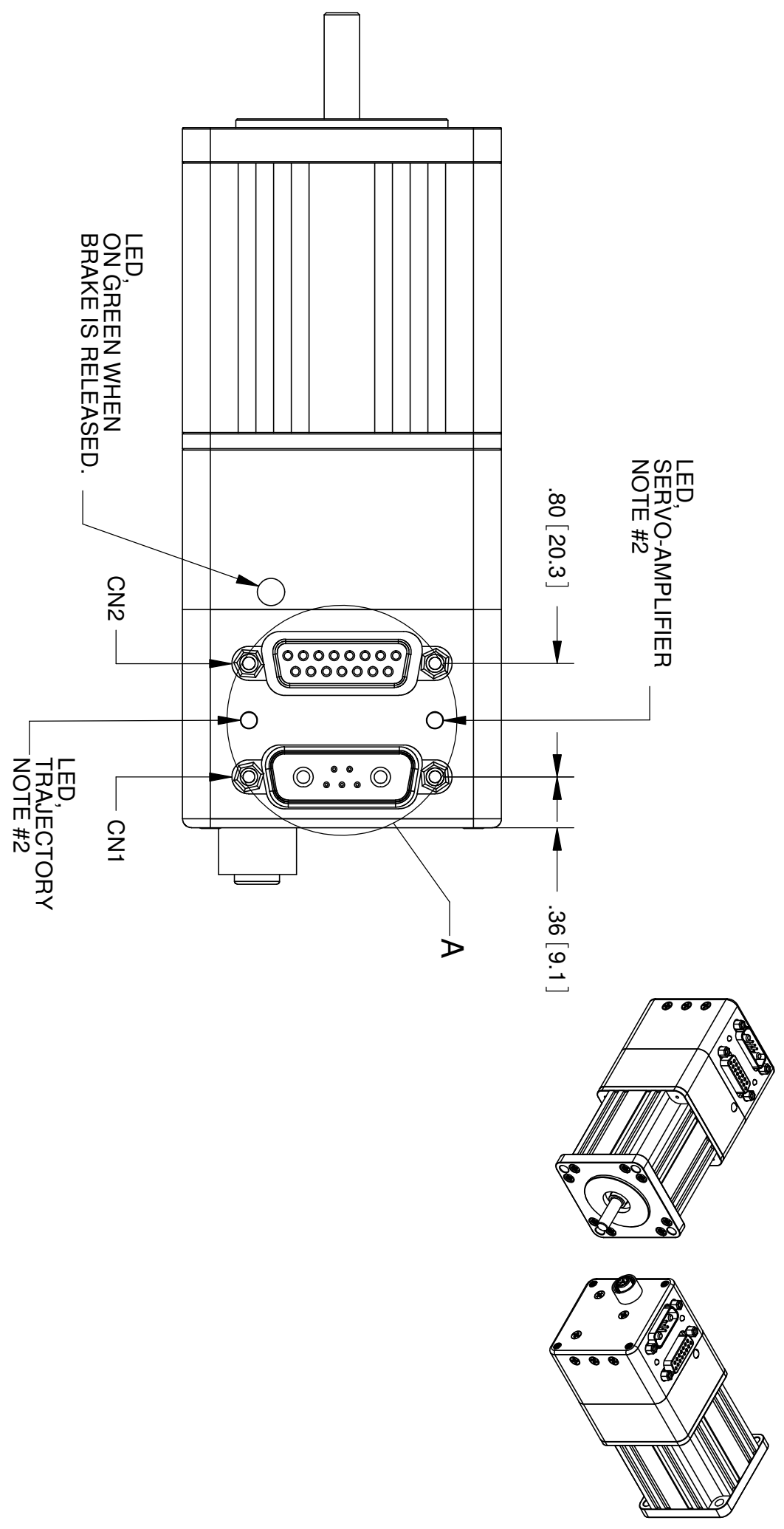
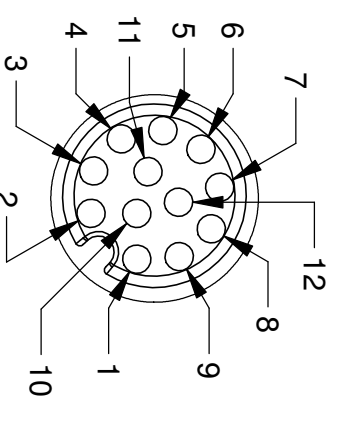
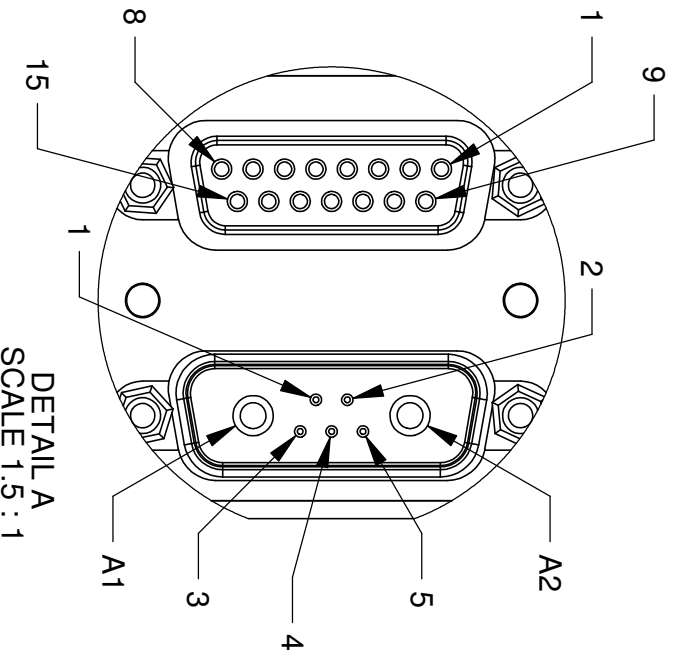


REV.	DESCRIPTION	ZONE	ECO	DATE	APPROVED
A	PRELIMINARY RELEASE			01/20/2011	M. TRAN

- NOTES:
- DRAWING APPLIES TO THE FOLLOWING SMARTMOTOR WITH PART NUMBERS:  
SM23105D-BRK-AD1 SM23205D-BRK-AD1 SM23305D-BRK-AD1 SM23405D-BRK-AD1  
SM23105D-DEBRK-AD1 SM23205D-DEBRK-AD1 SM23305D-DEBRK-AD1 SM23405D-DEBRK-AD1
  - LED, SERVO-AMPLIFIER:  
• CLEAR = CONTROLLER POWER NOT AVAILABLE  
• RED = FAULT  
• FLASH GREEN = DRIVE (AMPLIFIER) IS OFF  
• GREEN = DRIVE (AMPLIFIER) IS ON  
LED, TRAJECTORY  
• CLEAR = NOT IN CONTROLLED TRAJECTORY (DEFAULT STATE)  
• GREEN = IN CONTROLLED TRAJECTORY (CLOSE LOOP MOTION)  
FOR -DE OPTION, DRIVE POWER AND CONTROLLER POWER ARE ON SEPARATE PINS. MUST PROVIDE POWER TO CONTROLLER AND DRIVE POWER TO OPERATE. SEE TABLE CN2 BELOW FOR PIN ASSIGNMENT.  
DIMENSIONS IN [ ] ARE mm.
  - RECOMMENDED BOLTING SCREW SIZE TO BE 10-32 OR M5, SOCKET CAP.



PART NUMBER	LENGTH	
	in	mm
SM23105D-BRK	4.29	109.0
SM23205D-BRK	4.88	123.8
SM23305D-BRK	5.53	140.3
SM23405D-BRK	6.18	156.8



24V EXPANSION I/O	12-Pin M12, Female connector
PIN #	NAME
1	24V I/O #1
2	24V I/O #2
3	24V I/O #3
4	24V I/O #4
5	24V I/O #5
6	24V I/O #6
7	24V I/O #7
8	24V I/O #8
9	24V I/O #9
10	24V I/O #10
11	24V PWR IN
12	GND (I/O)

CN2 : 15PIN D-SUB FEMALE CONNECTOR

PIN #	NAME	FUNCTIONS		
		Default Function	Secondary Function	Digital I/O Analog Input
1	I/O A	External Encoder A Input	Step Input	5V TTL 0 to 5V
2	I/O B	External Encoder B Input	Direction Input	5V TTL 0 to 5V
3	I/O C	Positive Limit Input		5V TTL 0 to 5V
4	I/O D	Negative Limit Input		5V TTL 0 to 5V
5	I/O E		RS485 A (+)	5V TTL 0 to 5V
6	I/O F		RS485 B (-)	5V TTL 0 to 5V
7	I/O G	G-Synchronization	RS485-150 Adaptor Data	5V TTL 0 to 5V
8	ENC A OUT	Encoder A Output		
9	ENC B OUT	Encoder B Output		
10	RS232 Tx	RS232 Transmitt		
11	RS232 Rx	RS232 Receive		
12	+5Vdc OUT	+5Vdc Supply Out		
13	GND	Signal GND		
14	POWER GND	POWER GND		
15	POWER	POWER		

CN1 : 7PIN COMBO D-Sub Male Connector

PIN #	NAME	FUNCTIONS	Ties to CN2, PIN #
1	I/O G	G-Synchronization	7
2	+5Vdc OUT	+5Vdc Output	12
3	RS232 Tx	RS232 Transmitt	10
4	RS232 Rx	RS232 Received	11
5	GND	Signal GND	13
A1	DRIVE PWR	Drive Power (20 - 48Vdc)	15
A2	POWER GND	POWER GND	14

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**ALUMINUM HOUSING** FINISH: **BLACK ANODIZED HOUSING**

**INCH** UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE INCHES AND TOLERANCES ARE: .XXX ± .005 ANGLES: .XX ± 0.25°

**THIRD ANGLE PROJECTION**

ALL DIMENSIONS, TOLERANCES AND ROUGHNESS APPLY AFTER FINISHING, WHEN APPLICABLE. NO BURRS ALLOWED. BREAK SHARP EDGES .01 MAX.

DRAWN: M. TRAN DATE: 01/20/2011

**Animatics Corporation**

SM23x05D SERIES  
W/BRAKE AND EXT 24VIO OPTIONS

SIZE: DWG NO: SM23x05D-BRK-AD1  
DO NOT SCALE DRAWING SCALE: 1:1 SHEET: 1 OF 1