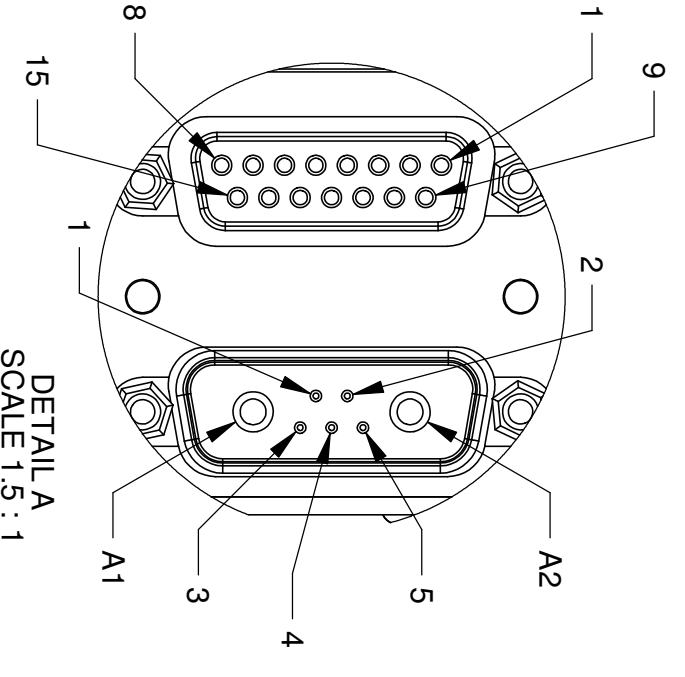
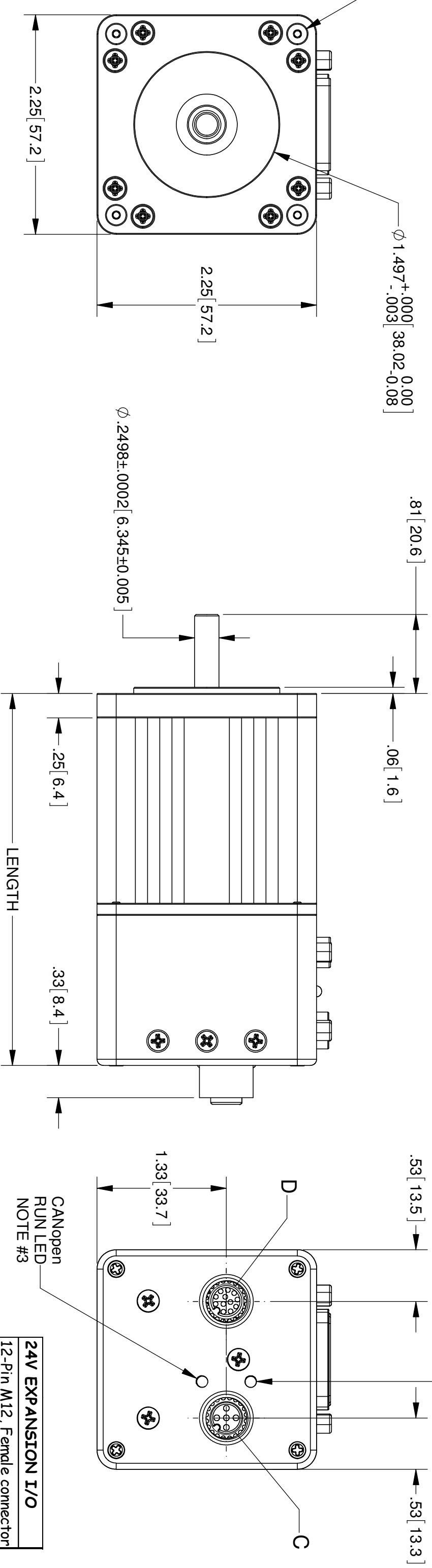
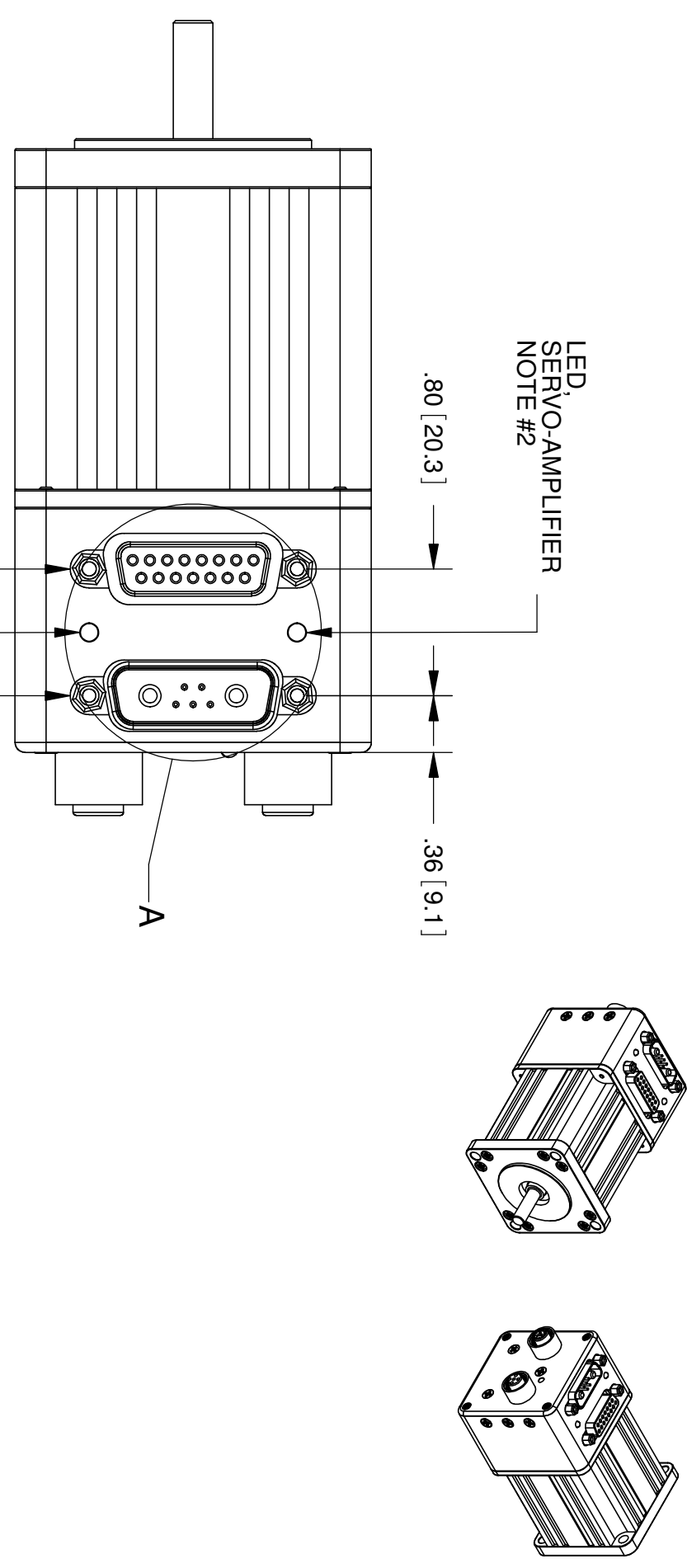
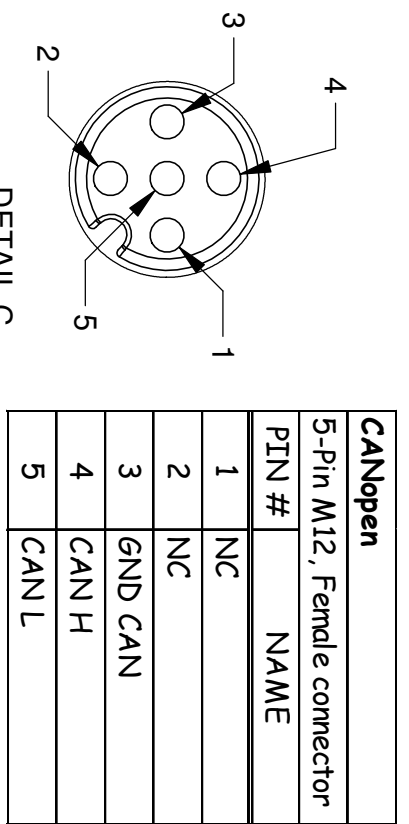


REV.	DESCRIPTION	ZONE	ECO	DATE	APPROVED
A	PRELIMINARY RELEASE			01/20/2011	M. TRAN

- NOTES:
- DRAWING APPLIES TO THE FOLLOWING SMARTMOTOR WITH PART NUMBERS:  
SM23105D-C-AD1 SM23205D-C-AD1 SM23305D-C-AD1 SM23405D-C-AD1  
SM23105D-DE-C-AD1 SM23205D-DE-C-AD1 SM23305D-DE-C-AD1 SM23405D-DE-C-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)  
• CANopen ERROR LED (RED)  
• CLEAR = NO ERROR  
• SINGLE FLASH = WARNING, COMMUNICATION ERROR COUNT LIMIT REACHED  
• DOUBLE FLASH = GUARD OR HEART BEAT ERROR  
• SINGLE FLASH (GREEN)  
• BLINKING = PREOPERATIONAL STATE  
• SOLID = OPERATIONAL STATE
  - CANopen RUN LED (GREEN)  
• SINGLE FLASH = DEVICE IS IN STOPPED STATE  
• BLINKING = PREOPERATIONAL STATE  
• SOLID = OPERATIONAL STATE
  - 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.



PART NUMBER	LENGTH	
	in	mm
SM23105D	3.17	80.4
SM23205D	3.75	95.3
SM23305D	4.40	111.8
SM23405D	5.05	128.3



24V EXPANSION I/O	
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
1	I/O A	External Encoder A Input	Step Input
2	I/O B	External Encoder B Input	Direction Input
3	I/O C	Positive Limit Input	
4	I/O D	Negative Limit Input	
5	I/O E		
6	I/O F		
7	I/O G	6-Synchronization	
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	6-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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**INCH** UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE INCHES AND TOLERANCES ARE:  
DECIMALS: .XXX ± .005  
XXX ± .03

**ANGLES:** XX ± 0.25°  
X ± 0.5°

NO BURRS ALLOWED. BREAK SHARP EDGES .01 MAX.

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M - 1994.

ALL DIMENSIONS, TOLERANCES AND ROUGHNESS APPLY AFTER FINISHING, WHEN APPLICABLE.

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

**Animatics Corporation**

SM23x05D SERIES  
W/CANOPEN AND EXT 24V I/O OPTIONS

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