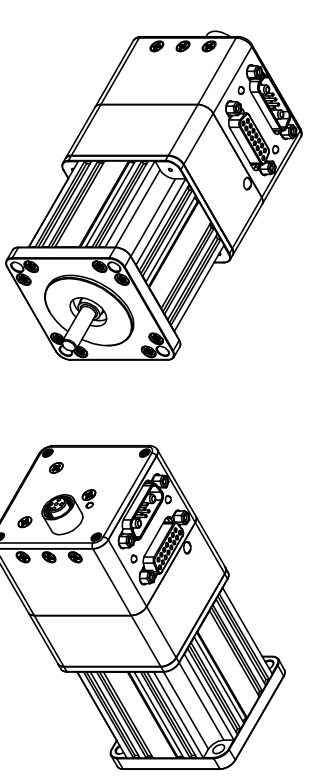
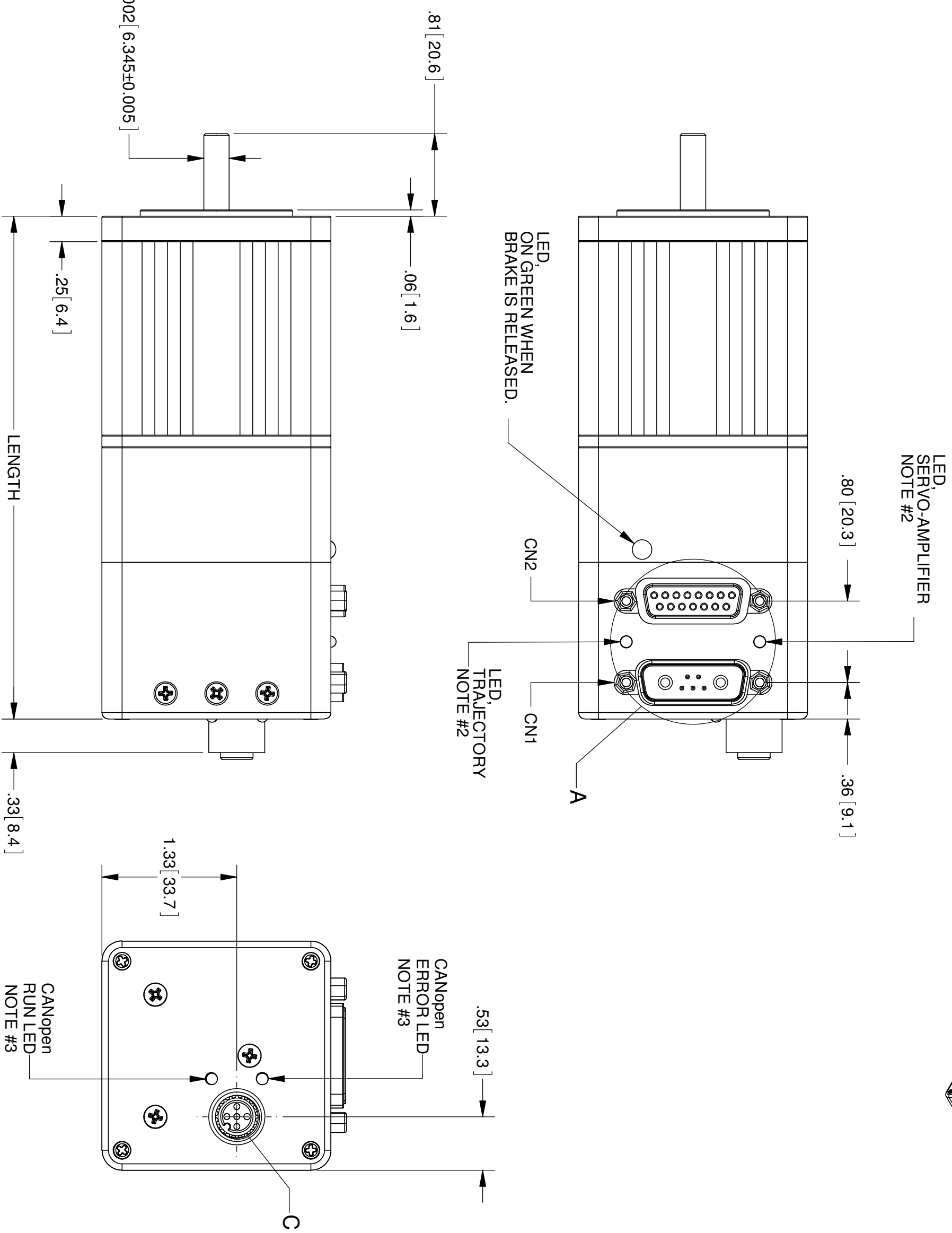


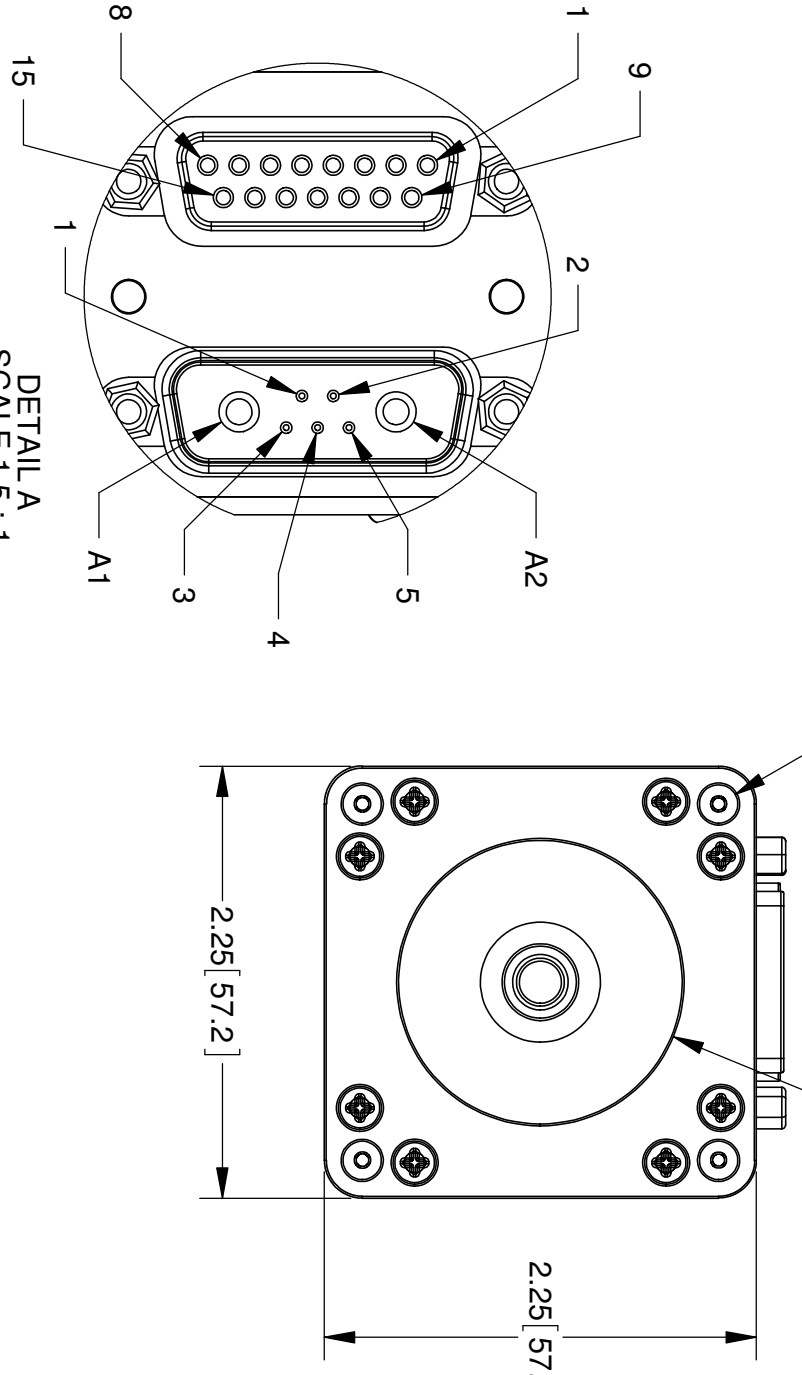
REV.	DESCRIPTION	ZONE	ECO	DATE	APPROVED
A	PRELIMINARY RELEASE			01/20/2011	M. TRAN



- NOTES:
- DRAWING APPLIES TO THE FOLLOWING SMARTMOTOR WITH PART NUMBERS:
 SM23105D-BRK-C SM23205D-BRK-C SM23305D-BRK-C SM23405D-BRK-C
 SM23105D-DEBRK-C SM23205D-DEBRK-C SM23305D-DEBRK-C SM23405D-DEBRK-C
 - 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
 • 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.
 - RECOMMENDED BOLTING SCREW SIZE TO BE 10-32 OR M5, SOCKET CAP.



DETAIL A
SCALE 1.5 : 1

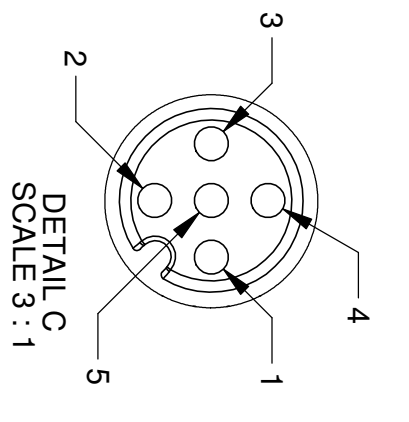


CN2 : 15PIN D-SUB FEMALE CONNECTOR

PIN #	NAME	LENGTH	
		in	mm
1	SM23105D-BRK	4.29	109.0
2	SM23205D-BRK	4.88	123.8
3	SM23305D-BRK	5.53	140.3
4	SM23405D-BRK	6.18	156.8

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

CANopen	
5-Pin M12, Female connector	
PIN #	NAME
1	NC
2	NC
3	GND CAN
4	CAN H
5	CAN L



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

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

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ALUMINUM HOUSING FINISH: BLACK ANODIZED

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 CANOPEN OPTIONS

TITLE: SM23x05D-BRK-C

SIZE: DWG NO: SM23x05D-BRK-C

DO NOT SCALE DRAWING SCALE: 1:1 SHEET: 1 OF 1