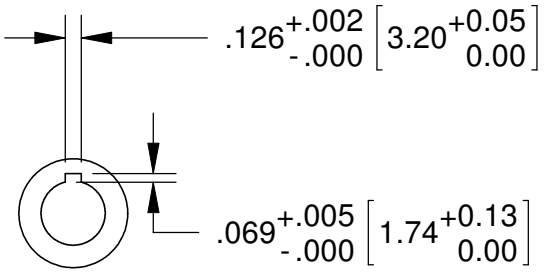
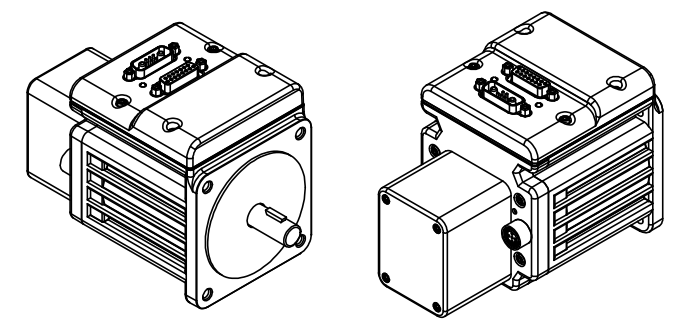


NOTES:
 1. DRAWING APPLIES TO THE FOLLOWING SMARTMOTOR WITH PART NUMBERS:
 SM34165DT-BRK-C-AD1 SM34165DT-DEBRK-C-AD1
 SM34165DT-BRKSH-C-AD1 SM34165DT-DEBRKSH-C-AD1

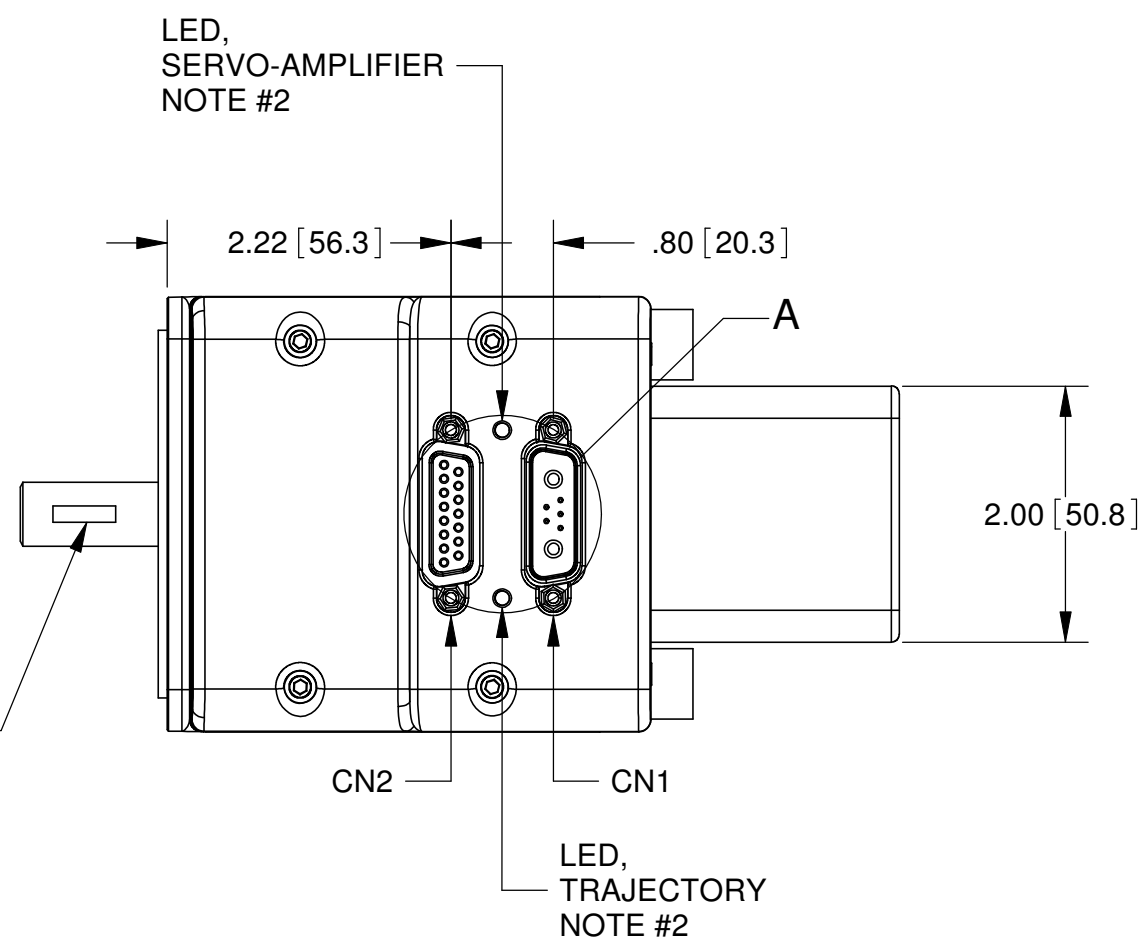
2. LED, SERVO-AMPLIFIER:
 • CLEAR = CONTROLLER POWER NOT AVAILABLE
 • RED = FAULT
 • FLASH GREEN = DRIVE (AMPLIFIER) IS OFF
 • GREEN = DRIVE (AMPLIFIER) IS ON
- LED, TRAJECTORY
 • CLEAR = NOT IN CONTROLLED TRAJECTORY (DEFAULT STATE)
 • GREEN = IN CONTROLLED TRAJECTORY (CLOSE LOOP MOTION)
3. CANopen ERROR 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
4. 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.
5. DIMENSIONS IN [] ARE mm.
6. RECOMMENDED BOLTING SCREW SIZE TO BE 10-32 OR M5, SOCKET CAP.

REV.	DESCRIPTION	ZONE	ECO	DATE	APPROVED
A	PRELIMINARY RELEASE			10/12/2010	M. TRAN

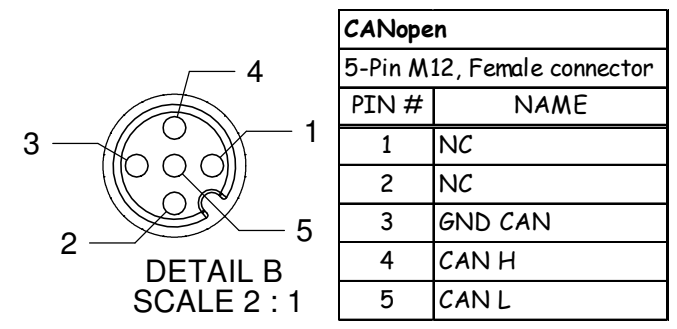
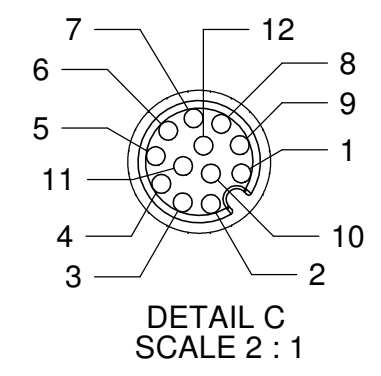
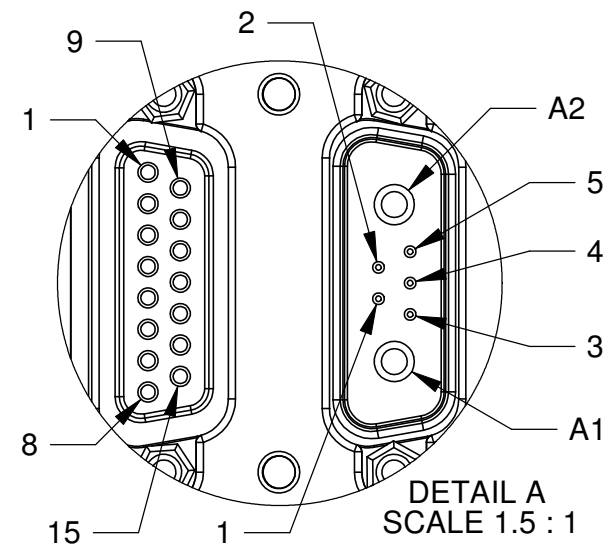
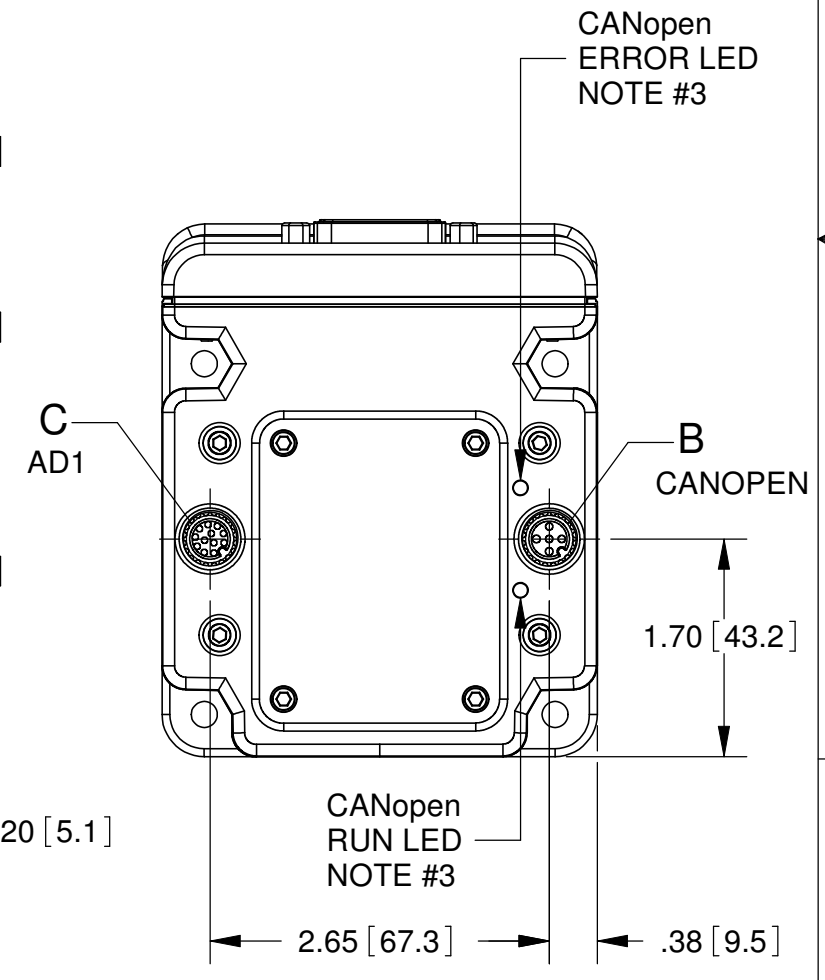
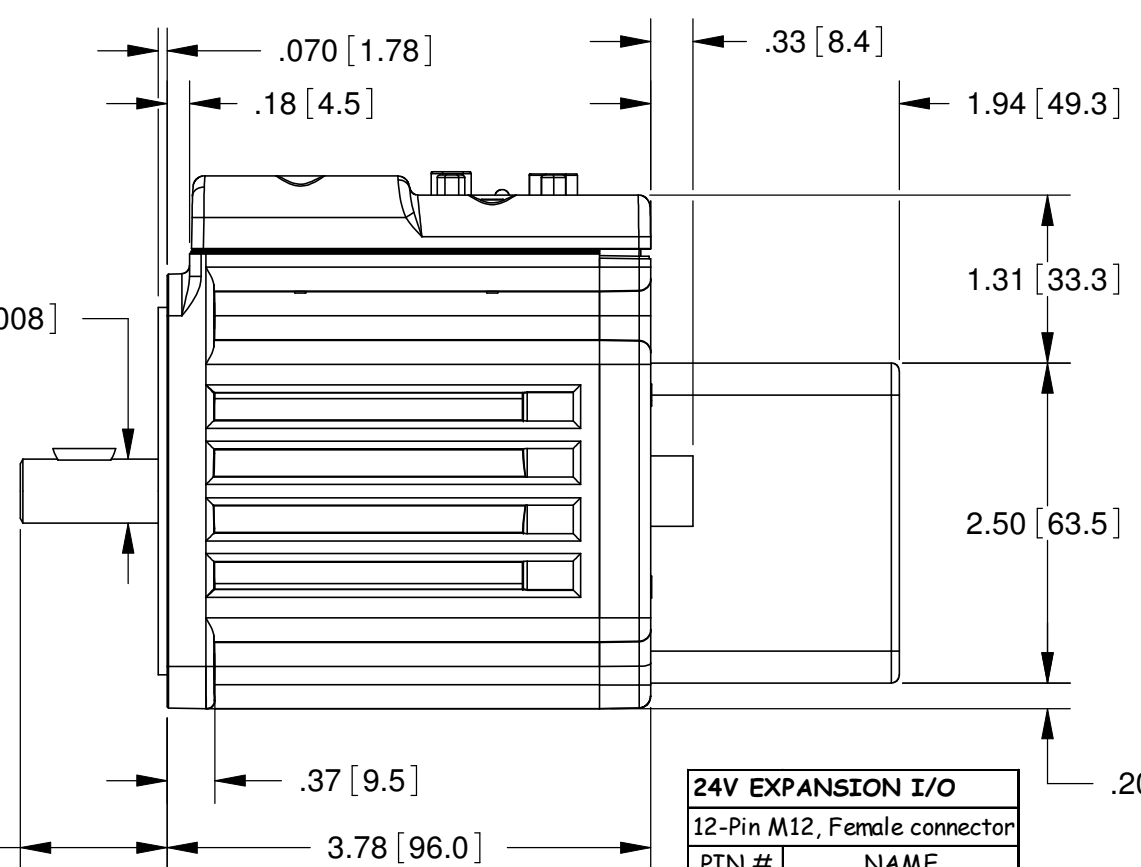
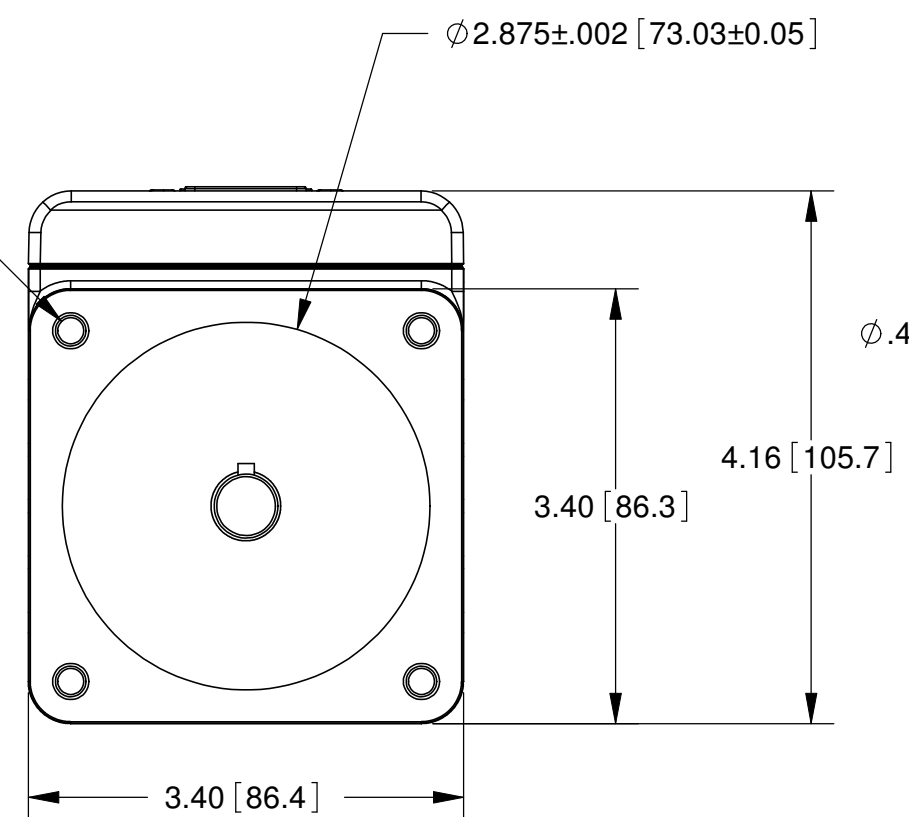


ANSI WOODRUFF
KEYSEAT HUB
KEY# 404

ANSI WOODRUFF
KEY# 404



4X ϕ .203 [5.16] THRU
ON ϕ 3.875 [98.43] B.C.
EQUALLY SPACED



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)

CANopen	
PIN #	NAME
1	NC
2	NC
3	GND CAN
4	CAN H
5	CAN L

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 (Pos)	5V TTL	0 to 5V
6	I/O F		RS485 B (Neg)	5V TTL	0 to 5V
7	I/O G	G-Synchronization	RS485-ISO Adapter Data	5V TTL	0 to 5V
8	ENC A OUT	Encoder A Output			
9	ENC B OUT	Encoder B Output			
10	RS232 Tx	RS232 Transmit			
11	RS232 Rx	RS232 Receive			
12	+5Vdc OUT	+5Vdc Supply Out			
13	GND	Signal GND			
14	POWER GND	POWER GND	For -DE Option, Pin 15 is Contorl power (20V to 48V) and Pin 14 is PWR GND. *PIN 15 is not connected to A1.		
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	+5V dc OUT	+5Vdc Output	12	
3	RS232 Tx	RS232 Transmit	10	
4	RS232 Rx	RS232 Received	11	
5	GND	Signal GND	13	
A1	DRIVE PWR	Dirve Power (20 - 48Vdc)	15^	
A2	POWER GND	POWER GND	14	

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MATERIAL: ALUMINUM HOUSING FINISH: BLACK ANODIZE HOUSING

DRAWN: M. TRAN DATE: 10/12/2010
ENGR: DATE:

INCH UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE INCHES AND TOLERANCES ARE:
 THIRDS ANGLE PROJECTION DECIMALS: .XXX ± .010 ANGLES: .XX ± 0.25°
 .XX ± .04 .X ± 0.5°

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M - 1994.
 ALL DIMENSIONS, TOLERANCES AND ROUGHNESS APPLY AFTER FINISHING, WHEN APPLICABLE.
 NO BURRS ALLOWED, BREAK SHARP EDGES .01 MAX.

Animatics Corporation

TITLE: SM34165DT SERIES W/BRAKE, CANOPEN, AND AD1 OPTION

SIZE: C DWG NO: SM34165DT-BRK-C-AD1

DO NOT SCALE DRAWING SCALE: 2:3 SHEET: 1 OF 1