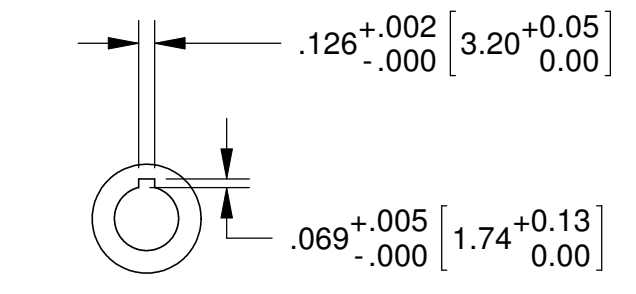
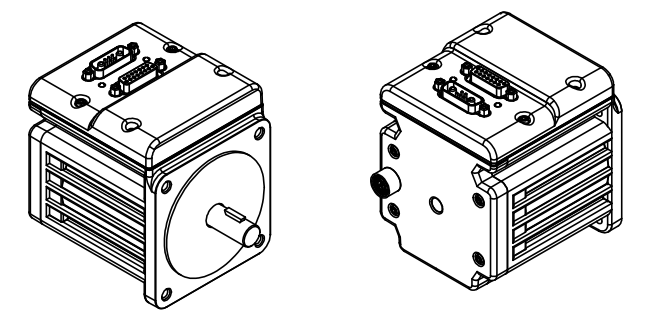


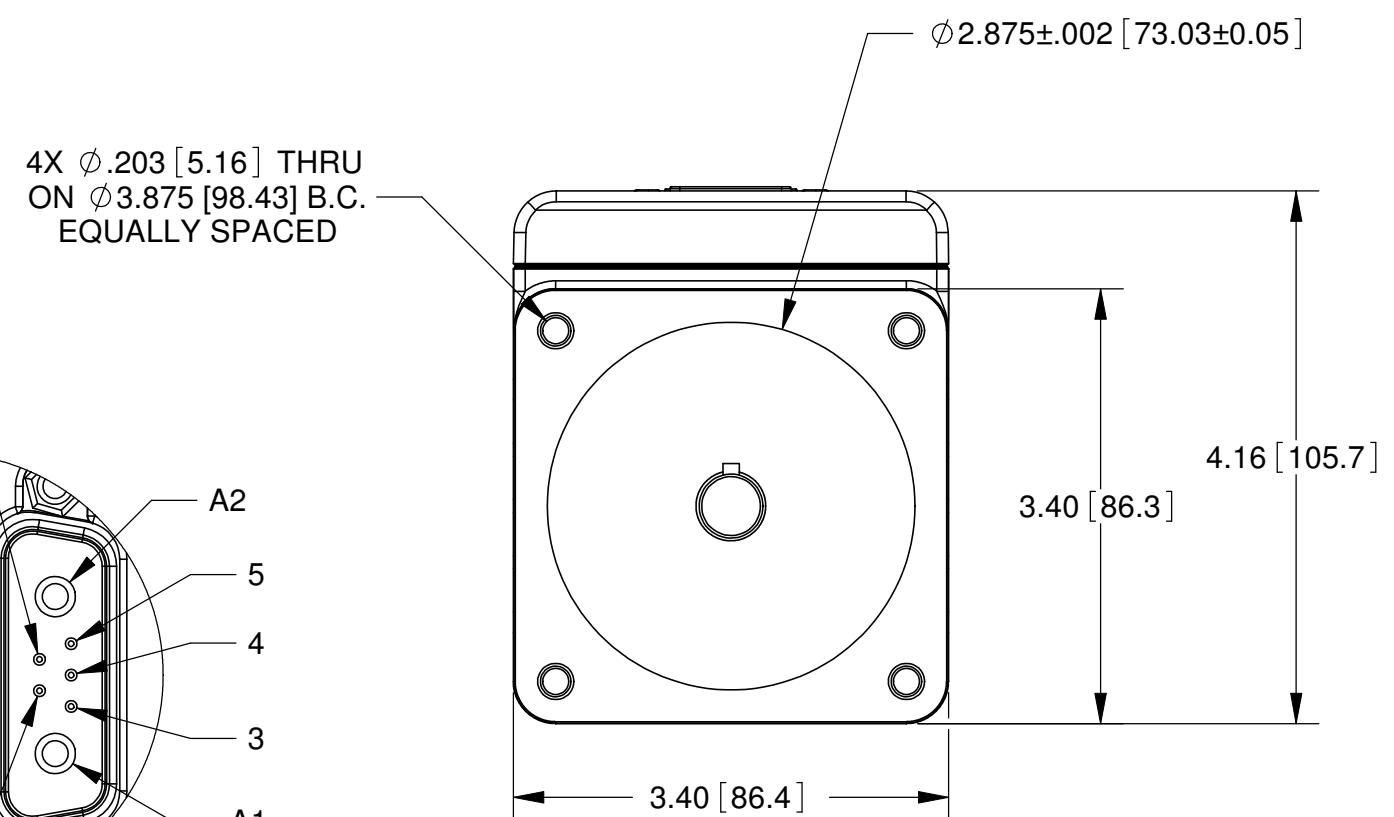
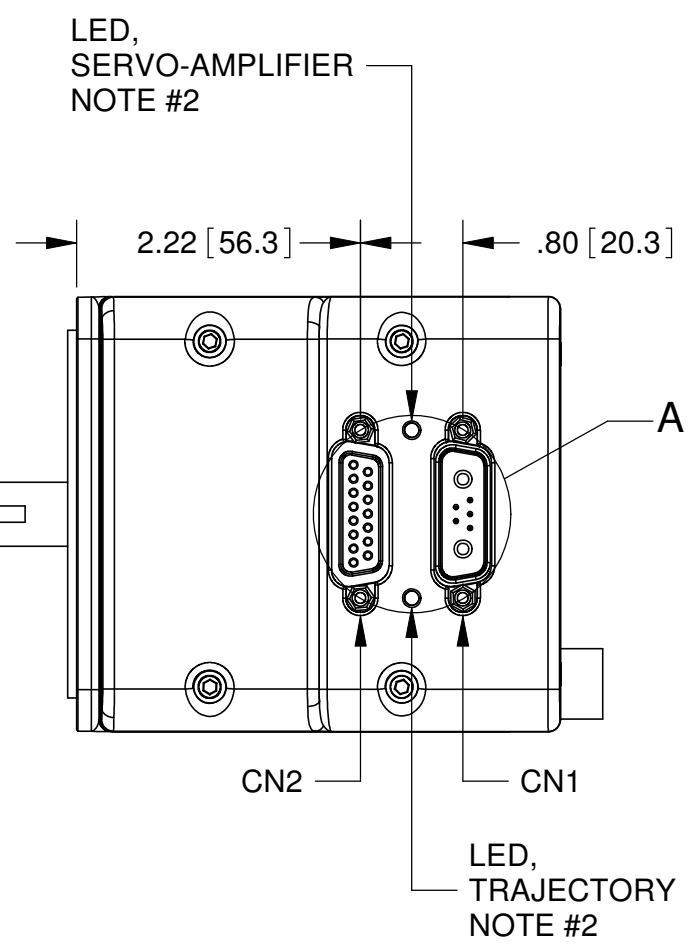
- NOTES:
- DRAWING APPLIES TO THE FOLLOWING SMARTMOTOR WITH PART NUMBERS:
 SM34165DT-AD1 SM34165DT-DE-AD1
 SM34165DT-SH-AD1 SM34165DT-DESH-AD1
 - LED, SERVO-AMPLIFIER:
 - CLEAR = CONTROLLER POWER NOT AVAILABLE
 - RED = FAULT
 - FLASH GREEN = DRIVE (AMPLIFIER) IS OFF
 - GREEN = DRIVE (AMPLIFIER) IS ON
 - 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.

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

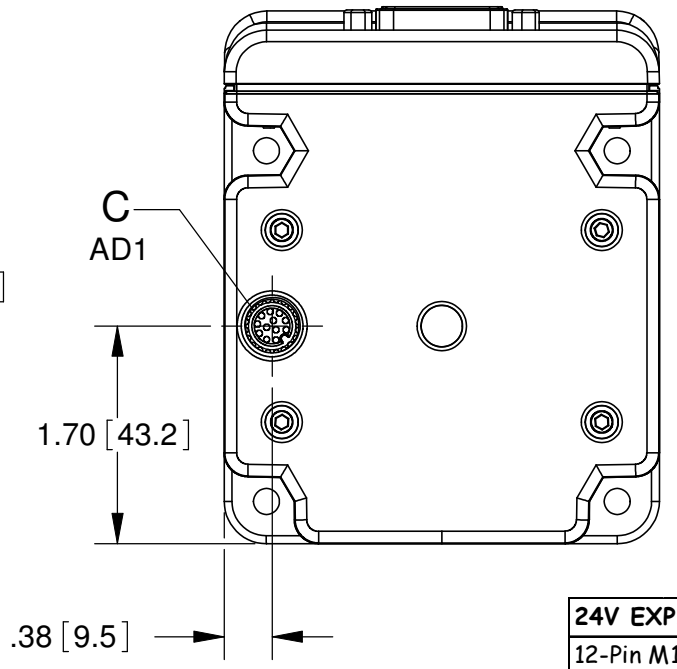
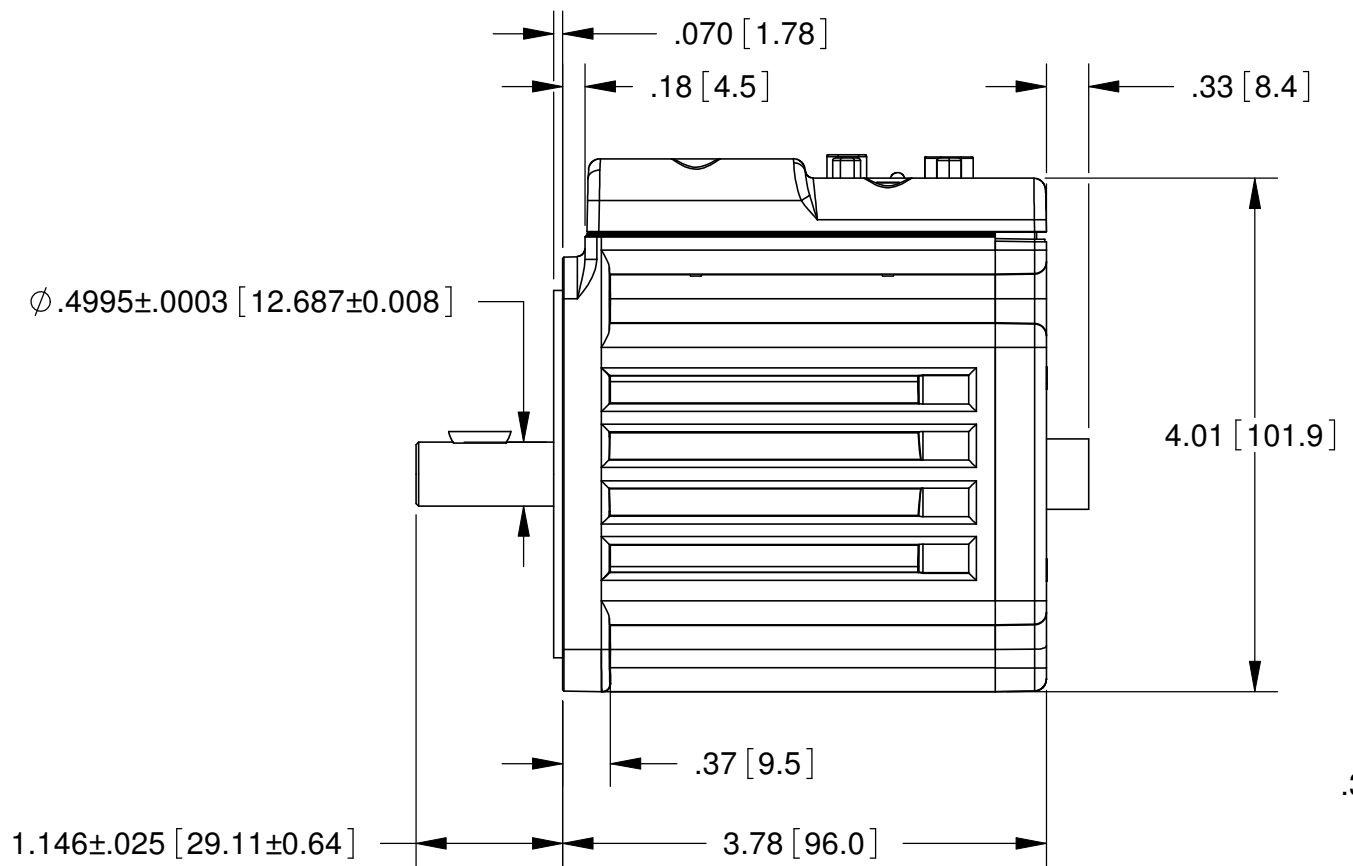


ANSI WOODRUFF
KEYSEAT HUB
KEY# 404

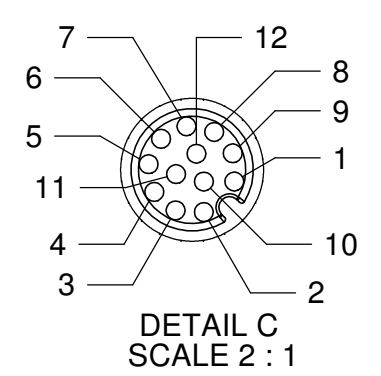
ANSI WOODRUFF
KEY# 404



DETAIL A
SCALE 1.5 : 1



| 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) |



DETAIL C
SCALE 2 : 1

| 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 ANODIZED HOUSING

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

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

THIRD ANGLE PROJECTION

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/EXT 24VIO OPTION**

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

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