

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

REVISIONS

REV	DATE	ECN	DESCRIPTION	APP
A	8/29/01	2164	INITIAL RELEASE	SMH

SD100 CONNECTOR PIN-OUT DEFINITIONS

J1-Power Interface:

4-Pin 5.08mm Center Terminal Block

Mating Connector: OnShore #EDZ95004

Digi-Key# EDI1719

1. Main power return
2. Main V+ power input
3. Motor+ output
4. Motor- output

J2-Servo Interface: 15-Pin Female D-Sub

Mating Connector: Digi-Key #215M

1. Encoder phase A+
2. Encoder phase B+
3. Encoder Index+
4. +5 VDC
5. +5 VDC
6. Reserved, do not use
7. Reserved, do not use
8. Reserved, do not use
9. Encoder phase A-
10. Encoder phase B-
11. Encoder Index-
12. Common
13. Common
14. Reserved, do not use
15. Reserved, do not use

15. Common
16. INP_Mode input
17. PM/QM Mode input
18. Output_Limit input 0
19. Output_Limit input 1
20. Over-temp. output return
21. Overflow output return
22. In_Position output return
23. Ready output return
24. Reset input
25. Clear input
26. Count_Up/Step input return
27. Count_Down/Dir input
28. Reserved, Do Not Use
29. Reserved, Do Not Use
30. Encoder Index+ output
31. Encoder Index- output
32. Encoder phase A- output
33. +5V
34. INP_Mode input return
35. PM/QM Mode input return
36. Output_Limit input 0 return
37. Output_Limit input 1 return

J5-RS-232 Comm. Interface:

6-Pin Modular Jack

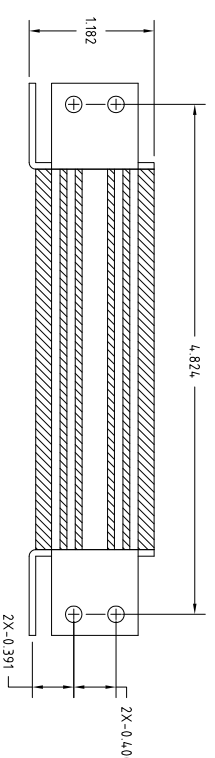
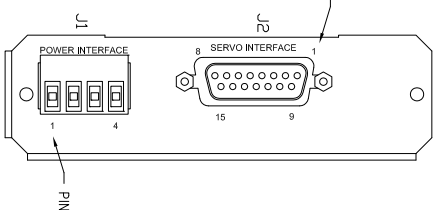
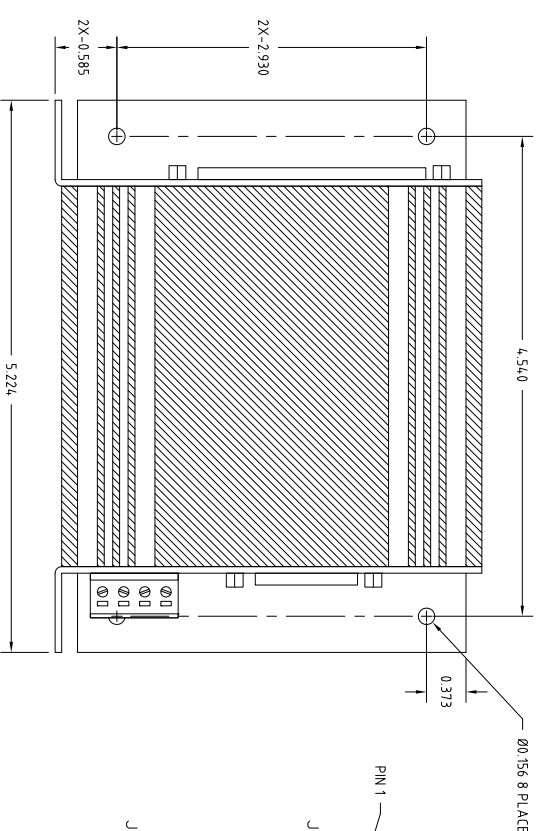
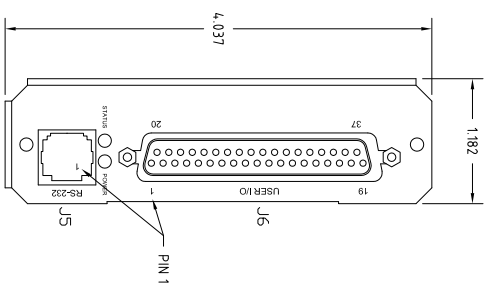
Mating Connector: Digi-Key #A9093

1. Handshake output
2. Handshake input
3. Receive data input
4. Transmit data output
5. Common
6. +5VDC

J6-User I/O Interface: 37-Pin Female D-Sub

Mating Connector: Digi-Key #237M

1. Over-temp. output
2. Overflow output
3. In_Position output
4. Ready output
5. Reset input return
6. Clear input return
7. Count_Up/Step input
8. Count_Down/Dir input return
9. Reserved, Do Not Use
10. Reserved, Do Not Use
11. Reserved, Do Not Use
12. Encoder Index- output
13. Encoder phase B+ output
14. Encoder phase A+ output



SPECIFICATIONS

DESCRIPTION	STAND-ALONE 1 AXIS SERVO MOTOR INDEXER/DRIVER
OPERATING MODES	POSITION, TORQUE
FILTER ALGORITHM	PID
SERVO LOOP RATE	10 KHZ
SERVO POSITION FEEDBACK	INCREMENTAL QUADRATURE ENCODER
OUTPUT	PWM MOTOR DRIVE 3 AMPS CONT. AND 6 AMPS PEAK AT 48 VDC MAX.
PWM FREQUENCY	APPROXIMATELY 19.531 KHZ
ENCODER INPUT	SINGLE-ENDED OR DIFFERENTIAL
ENCODER OUTPUT	DIFFERENTIAL
ENCODER SUPPLY VOLTAGE	5 VDC
ENCODER INPUT VOLTAGE	5.5 VDC MAX., -0.1 VDC MIN.
ENCODER COUNT RATE	1 MILLION QUADRATURE COUNTS PER SECOND
COMMAND PULSE COUNT RATE	1 MILLION QUADRATURE COUNTS PER SECOND (COUNT AND/OR DIRECTION STATE MUST REMAIN UNCHANGED FOR 500 NS MINIMUM)
DEDICATED DIGITAL INPUTS	RESET, CLEAR, OUTPUT LIMIT (2), MODE (2), COUNT UP/STEP (+5VDC DNL), COUNT DOWN/DIRECTION (+5VDC DNL), ALL OPTOISOLATED
DEDICATED DIGITAL OUTPUTS	RELAY, OVER-TEMP, OVERFLOW, IN_POSITION, ALL OPTOISOLATED
COMMUNICATION INTERFACE	RS232 SERIAL INTERFACE, 9600 BAUD, 8 BITS, 1 STOP BIT, NO PARITY XON/XOFF HANDSHAKE
SUPPLY VOLTAGE	+11 TO +48 VDC
MOTOR VOLTAGE	+12 TO +48 VDC
DIMENSIONS	APPROXIMATELY 104mm LONG BY 102mm WIDE BY 28mm THICK
WEIGHT	APPROXIMATELY 266 ml

SMAC

REF. NUMBER
LAD-1

DESIGNED BY:	DATE:	CHECKED BY:	DATE:	CONTRACT:
				STD

DRAWN BY:	DATE:	APPROVED BY:	DATE:	SHEET NUMBER:
S. HOONMAN	8/29/01			1 OF 1

PART NAME: LAD-1 (SMART DRIVER CONTROLLER)

SCALE: NONE DWG SIZE: PART NUMBER: LAD-1 REVISION: A

SIGNATURE NEEDED FOR ORDER APPROVAL

DATE

APPROVAL NOT RECEIVED WITHIN 48 HOURS MAY AFFECT DELIVERY

FILE NAME: LAD-1 OUTLINE.dwg

SPEC. NUMBER:

DO NOT SCALE DWG

B

LAD-1

A