

Figure 1-2: Side View - Auxiliary Board.

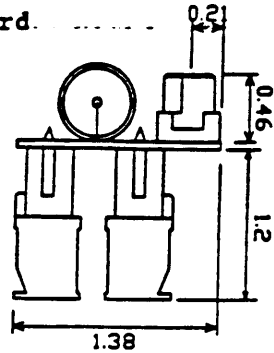


Table 1-1: Communication and I/O Connections - TB1

<u>Pin #</u>	<u>Function</u>
1	RS232-Receive
2	RS232-Transmit
3	RS232-Ground (Used exclusively for RS232)
4	Opto +
5	CW Limit input (Active low)
6	CCW Limit input (Active low)
7	Home Limit input (Active high or low)
8	Isolated Ground (Used for all I/O)
9	Trigger Input #1
10	Trigger Input #2
11	Trigger Input #3
12	Sequence Select Input #1
13	Sequence Select Input #2
14	Sequence Select Input #3
15	Programmable Output #1
16	Programmable Output #2

Table 1-2: Encoder Interface Connections - (TB2)

<u>Pin #</u>	<u>Function</u>
1	Shield
2	Ground
3	Channel A+
4	Channel A-
5	Channel B+
6	Channel B-
7	Channel Z+
8	Channel Z-

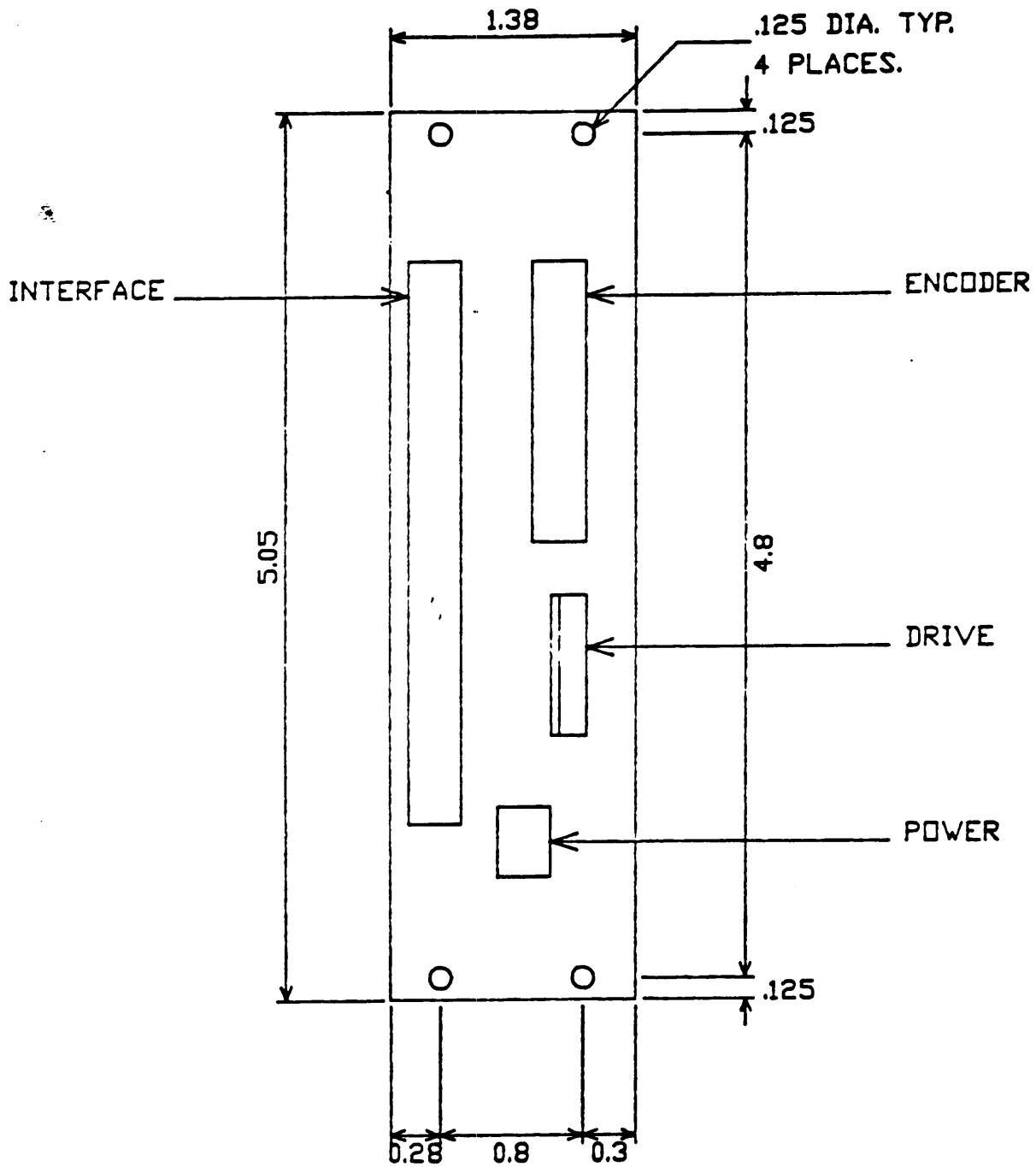
Table 1-3: Motor Driver Output Connection - (J3)

<u>Pin #</u>	<u>Function</u>
1	Isolated Ground
2	Shutdown (Active state depends on drive)
3	Step
4	Direction
5	N.C.
6	N.C.
7	Fault
8	N.C.

Table 1-4: Power Supply Connection - (TB3)

<u>Pin #</u>	<u>Function</u>
1	+24VDC
2	+24VDC Ground (Used exclusively for 24VDC)

Figure 1-3: IFX Dimensional Drawing



1.3. Configuration and Specifications

1.3.1. Specifications

1.3.1.1. I/O Specifications

CW & CCW Limits

Optically Isolated Inputs. Normally "High", or ON. These inputs require a normally closed contact closure to Isolated Gnd to disable. May also be disabled with LD command.

Home Limit

Optically Isolated input. This input is used to determine the home position, usually via a normally open load activated switch.

Trigger 1, 2, & 3

Optically Isolated Inputs. Normally "High". Require a closed contact to Isolated GND to bring to a "low" state. Trigger configuration must remain stable for 50 msec to be recognized by the IFX.

Sequence Select 1, 2, & 3

Optically Isolated Inputs. Normally "High" or, OFF. Require a closed contact to Isolated GND to bring to a "low" or, ON state. Sequence number must remain stable for 50 msec to be recognized by the IFX.

Out 1 & 2

Open Collector outputs. Normally "High" or, OFF (not conducting current). Active "low" or, ON (conducting current) provides 5 - 15 VDC @ 12 mA max.

Encoder Inputs

TTL (0 - 5 VDC) inputs receiving differential A, B, and Z channel outputs from an incremental encoder. Encoders with Open Collector Outputs may require pullup resistors.

1.3.1.2. Power Supply Specifications

The IFX requires 24 VDC @ 300 mA for operation.

Maximum Ripple = +/- 1 VDC

Minimum Low Line = 22 VDC (Ripple = +1 VDC / -0 VDC)

Maximum High Line = 28 VDC (Ripple = +0 VDC / -1 VDC)

1.3.1.3. Memory Specifications

2K of EEPROM (Non-Volatile) for storing up to 7 sequences of 256 characters (including delimiters) each, and for storing power up default parameters.

1.3.1.4. Environmental Specifications

Operating temperature = 0 - 55 deg C.

1.3.2. RS232 Setup

The RS232 interface has four selectable baud rates, they are, 9600, 4800, 2400, and 1200. Baud rate is selected via jumpers JU1-JU4. See figure 1-3 for Jumper location. See Table 1-5 for jumper settings. All other RS232 protocol is fixed at 8 data bits, 1 stop bit, No parity.

Table 1-5: Baud Rate Jumper Settings

<u>Baud Rate</u>	<u>JU4</u>	<u>JU5</u>	<u>JU6</u>	<u>JU7</u>
9600	OFF	OFF	OFF	ON
4800	ON	OFF	OFF	OFF
2400	OFF	ON	OFF	OFF
1200	OFF	OFF	ON	OFF

1.3.3. Setting Device Address

The device address is set via jumpers JU1-JU3. Up to eight units may be controlled from a single RS232 port. Units are specified with address specifiers 1 - 8. See figure 1-3 for Jumper location. See table 1-6 for jumper settings.

Table 1-6: Device Address Jumper Settings

<u>Device Address</u>	<u>JU1</u>	<u>JU2</u>	<u>JU3</u>
1	ON	ON	ON
2	OFF	ON	ON
3	ON	OFF	ON
4	OFF	OFF	ON
5	ON	ON	OFF
6	OFF	ON	OFF
7	ON	OFF	OFF
8	OFF	OFF	OFF

Figure 1-4: Jumper Location

