CNC4PC C34SDF Connector Board for F Series User Manual

Contents

CNC4PC
Integration Solutions for CNC Projects

CNC4PC C34SDF Connector Board for F Series

Product Information

The C34SDF-BOARD is an interface board that connects C82, C76, M16D, C62 and the F AC SERVO DRIVER. It is designed to be used with CNC machines and provides a means of connecting input signals such as Step, Dir, and differential signals C74 and C76. The board comes with jumpers that allow you to select the enable mode and the type of input signal being used.

Features

- Flexible enable mode selection with jumpers
- Compatible with various input signals including Step, Dir, and differential signals C74 and C76
- Compact design with RJ45 and DB25 connectors

Pinout

The C34SDF-BOARD comes with an RJ45 connector for encoder signals and a DB25 female connector for connecting to the F AC SERVO DRIVER. The pinout for the DB25 connector is as follows:

DB25 FEMALE PIN	FUNCTION	RJ45 PIN
21	SERVO ON *	5
8	COM+	–
+	5V	8
4	COM-/GND	3,16
15	ALARM *	5
3	DIR-	19
6	DIR+	6
1	STEP-	18
2	STEP+	2

Note: * Servo ON and Alarm signals are related to the RJ45 pin 5 of the C34SDF board, but they are not connected directly to this pin.

Dimension

The C34SDF-BOARD has a compact design with dimensions of length 62.5 mm, width 55.0 mm, and height 20.0 mm.

Product Usage Instructions

Jumper Settings

The C34SDF-BOARD comes with jumpers that allow you to select the enable mode and the type of input signal being used. Please follow these instructions to correctly set the jumpers:

Enable Mode Selection

The board provides two enable modes: Software Enable and Hardware Enable. The default setting is Software Enable. To change the enable mode, follow these steps:

1. Locate the jumpers on the board labeled “SOFT ENABLE” and “HARD ENABLE”.
2. Remove the jumper from the current setting.
3. Place the jumper in the desired setting. For example, to enable Hardware Enable, place the jumper on the two pins labeled “HARD ENABLE”.

Input Signal Selection

The board is compatible with various input signals including Step, Dir, and differential signals C74 and C76. Follow these steps to select the input signal:

1. Locate the jumper on the board labeled “STEP & DIR” and “DIFERENTIAL”.
2. If you are using differential signals C74 and C76, place the jumper on “DIFERENTIAL”.

3. If you are not using differential signals for Step & Dir, place the jumper on “STEP & DIR”.

Wiring Instructions

The C34SDF-BOARD is designed to be used with CNC machines and provides a means of connecting input signals such as Step, Dir, and differential signals C74 and C76. Follow these wiring instructions to correctly connect your input signals:

Diagram of connection with input signals Step & Dir and C76

Refer to the following diagram to correctly connect input signals when using Step & Dir and differential signals C76:

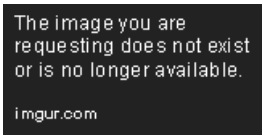
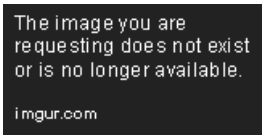


Diagram of connection with input signals Differentials C74 and C76

Refer to the following diagram to correctly connect input signals when using differential signals C74 and C76:



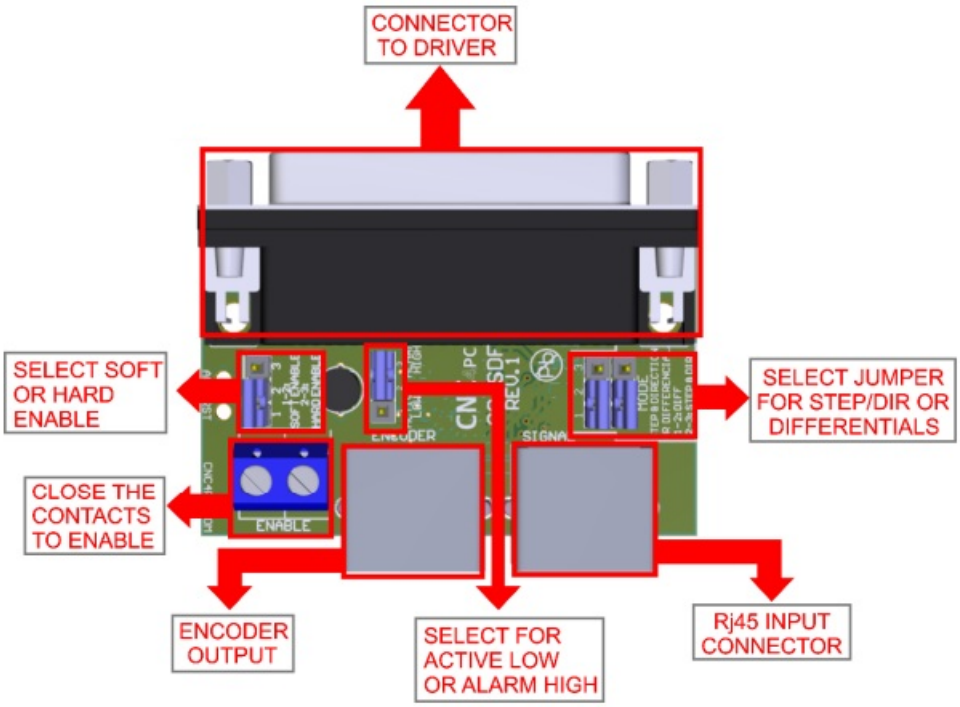
OVERVIEW

This board interface is used for the connection between C82, C76, M16D, C62 and the F AC SERVO DRIVER

FEATURES

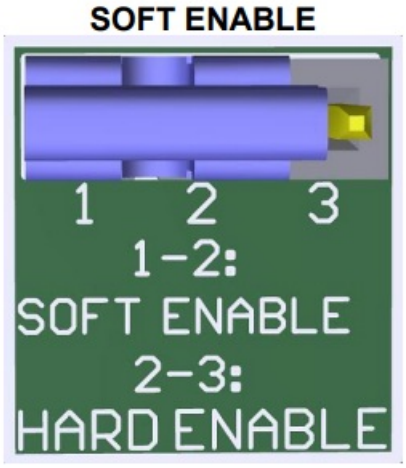
- DB25 FEMALE connector for Driver Connection.
- RJ45 Connector for Axis.
- Encoder Output.
- Alarm terminal
- Select Jumper for Hard Enable or Soft Enable.
- Select jumper for signal differentials.
- Select Jumper active Low and active High
- Terminals for external drive enable push button.

BOARD DESCRIPTION



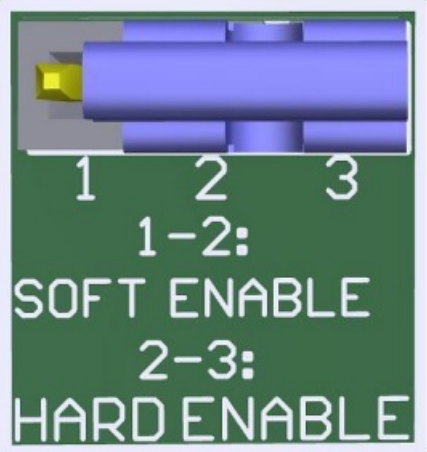
JUMPER TO SELECT THE ENABLE

- Use Software Enable to keep the driver active only while the system is active.
- Set of jumpers as shown in the image.



- Use Hardware Enable to keep the driver enabled all the time.
- Set of jumpers as shown in the image.

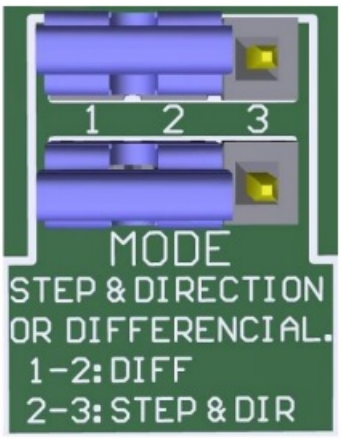
HARD ENABLE



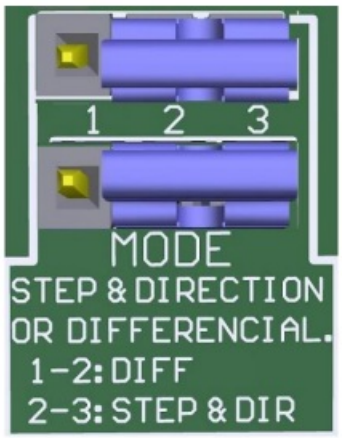
JUMPER TO SELECT THE DIFFERENTIAL

- If working the inputs of STEP and DIR as differentials signals, you have to use the board, set jumper as shown in the image.

DIFERENTIAL.

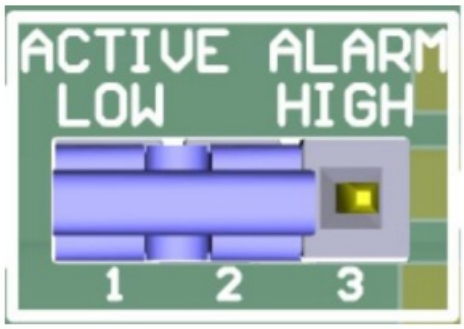


- If not use the differential signal for STEP & DIR, set jumper as show in the image

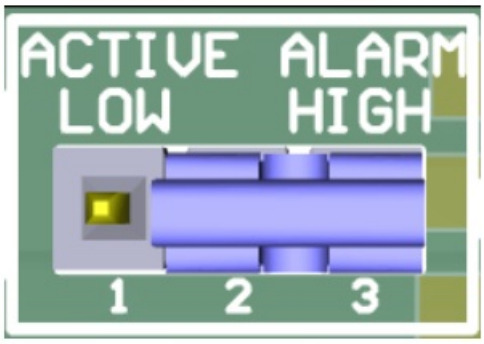


JUMPER TO SELECT ACTIVE LOW AND ACTIVE HIGH

1-2: ACTIVE LOW



2-3: ACTIVE HIGH



WIRING SAMPLE

Diagram of connection with input signals Step & Dir and C76.

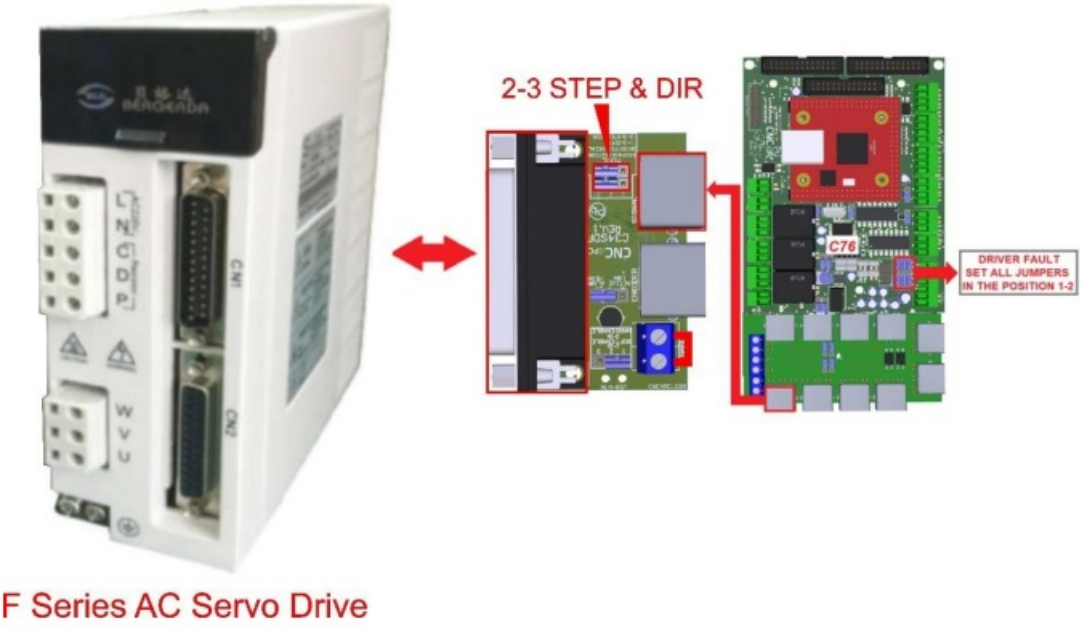
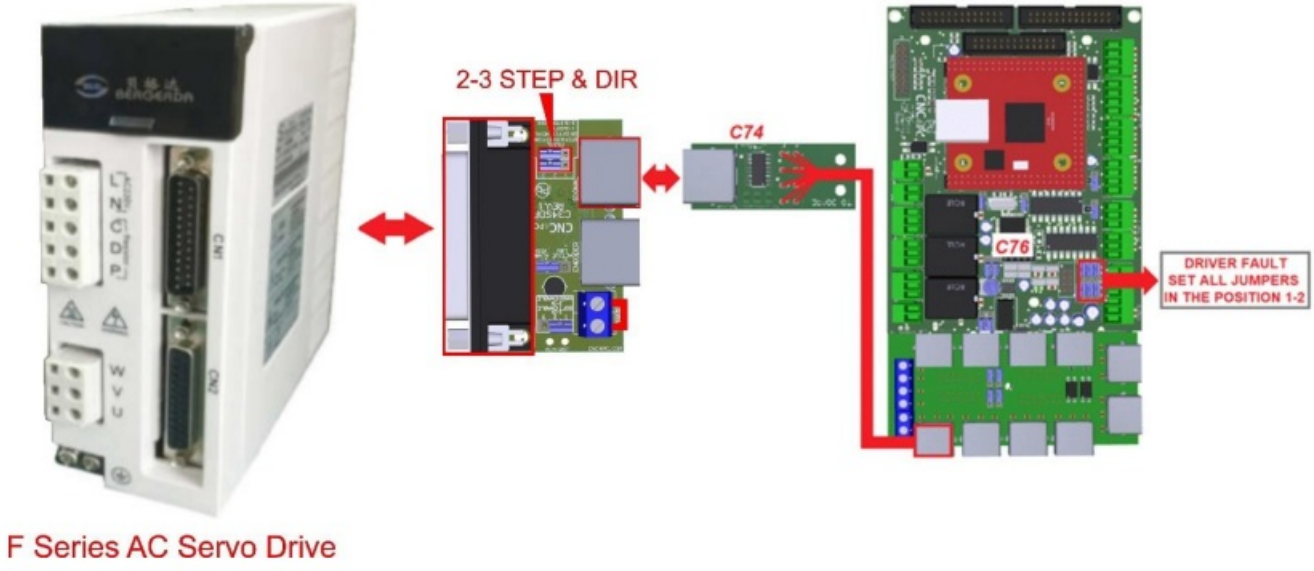


Diagram of connection with input signals Differentials C74 and C76



PINOUT

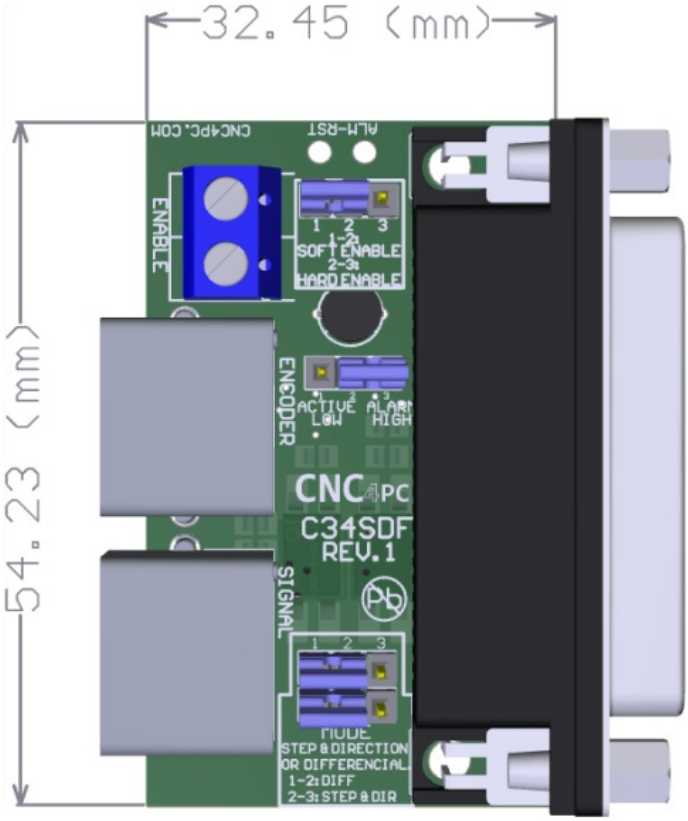
F SERIES SERVO DRIVE AND C34SDF CONNECTION		
DB25 FEMALE **PIN**	**FUNCTION**	**RJ45 PIN**
21	SERVO ON *	5
8	COM+	7
–	+ 5V	8
3,16	COM- / GND	4
15	ALARM *	5
7	DIR-	3
19	DIR+	6
6	STEP-	1
18	STEP+	2

Note:
Servo ON and Alarm signals are related to the RJ45 pin 5 of the C34SDF board, but they are not connected directly to this pin.

RJ45 for Encoder

DB25 FEMALE PIN	RJ45 PIN	FUNCTION
3, 16	1	GND
–	2	5VDC
13	3	Z-
25	4	Z+
11	5	A-
23	6	A+
12	7	B-
24	8	B+

DIMENSION



All dimensions are in Millimeters.

DISCLAIMER

Use caution. CNC machines can be dangerous machines. Neither DUNCAN USA, LLC nor Arturo Duncan are liable for any accidents resulting from the improper use of these devices. This product is not a fail-safe device and it should not be used in life support systems or in other devices where its failure or possible erratic operation could cause property damage, bodily injury or loss of life.

Documents / Resources

	**CNC4PC C34SDF Connector Board for F Series** [pdf] User Manual C34SDF, Connector Board for F Series, C34SDF Connector Board for F Series, C34SDF Connector Board, Connector Board, Board