



# Ultra5000 Connector Kit

(Catalog Number 2090-U5CK-TB)

These instructions describe how to wire the I/O connectors for an Allen-Bradley® Ultra5000™ Intelligent Positioning Drive. Pinouts for the I/O connectors on the Ultra5000 drives are provided.

## Contents of the Ultra5000 Connector Kit

The Ultra5000 Connector Kit includes the following items:

Item	Description	Quantity
1	CN1A - 28 pin I/O connector plug (Weidmueller 174828)	1
2	CN1B - 14 pin I/O connector plug (Weidmueller 174821)	1
3	1/16 inch flat blade screwdriver	1

## Wiring the CN1A and CN1B I/O Connectors

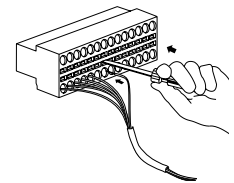
CN1A (28-pin) and CN1B (14-pin) are plugable, double-row, spring clamp I/O connectors with 3.5mm spacing. To wire I/O connections:

### ATTENTION



The Ultra5000 drive contains stored energy devices. To avoid the hazard of electrical shock, verify that all voltages on the system bus network have been discharged before attempting to service, repair or remove this unit. Only qualified personnel familiar with solid state control equipment and safety procedures in publication NFPA 70E, Standard for Electrical Safety Requirements for Employee Workplaces, or applicable local codes should attempt this procedure.

1. Strip approximately 6 mm (0.25 in.) of insulation from the end of your I/O wires. Exercise caution not to damage wire strands as you remove the insulation. Maximum wire gauge for these connectors is 0.75 mm<sup>2</sup> (18 AWG).
2. With the flat blade screwdriver, depress the spring clamp next to the I/O pin you are preparing and insert the wire, as shown. Note: The connector is keyed by an offset bar on the drive. Verify proper orientation of the plug by temporarily attaching it to the I/O connector on the drive. Always remove the plug before inserting signal wires.
3. After removing the screwdriver, gently pull on each wire to ensure fastness. Re-insert any loose wires.



## Ultra5000 I/O Pinouts

The tables are arranged to match the drive's I/O pin arrangement. Refer to the *Ultra5000 Hardware Installation Manual* (2098-IN001x-EN-P) for more information on these signals.

CN1A Connector			
Pin	Signal	Pin	Signal
15	INPUT9	1	INPUT1 <sup>2</sup>
16	INPUT10	2	INPUT2 <sup>2</sup>
17	INPUT11	3	INPUT3
18	INPUT12	4	INPUT4
19	INPUT13	5	INPUT5
20	INPUT14	6	INPUT6
21	INPUT15	7	INPUT7
22	INPUT16	8	INPUT8
23	OUTPUT5	9	OUTPUT1
24	OUTPUT6	10	OUTPUT2
25	OUTPUT7	11	OUTPUT3
26	OUTPUT8+	12	OUTPUT4
27	OUTPUT8-	13	SHIELD
28	IOCOM <sup>1</sup>	14	IOPWR <sup>1</sup>

CN1B Connector			
Pin	Signal	Pin	Signal
8	+5VCOM	1	+5V
9	AIN1	2	AX+
10	AIN2	3	AX-
11	+5VCOM	4	BX+
12	AOUT1	5	BX-
13	AOUT2	6	IX+
14	SHIELD	7	IX-

<sup>1</sup> The Ultra5000 0.5, 1.0, and 2.0 kW, and all 460V drives (2098-IPD-005-xx, 2098-IPD-010-xx, 2098-IPD-020-xx, and 2098-IPD-HVxxx-xx models) require a user supplied I/O power source.

<sup>2</sup> High speed inputs.

## Related Documentation

Documents cited contain additional information concerning related Allen-Bradley products or general information that may be helpful. To obtain a copy, contact your local Rockwell Automation office or distributor, or access the documents on-line at [www.theautomationbookstore.com](http://www.theautomationbookstore.com) or [www.ab.com/manuals/gmc](http://www.ab.com/manuals/gmc).

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