

Doc No.: AN-253

Version: 1.0

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Subject: Euro209 / Euro205X connection differences

APPLICATION NOTE

1. Introduction

The Euro209, though not fully pin compatible with the Euro205X has been designed with some compatibility. For example, power and IO pins share the same pattern in both controllers. This document shows the pins that have the same function and those that are different between 209 and 205x.

2. Pin connection diagram - Euro209

Euro205x

| | C | B | A |
|----|------------|------------|------------|
| 1 | 5V | 5V | 5V |
| 2 | 5V | 5V | 5V |
| 3 | 0V | 0V | 0V |
| 4 | IO 0V | OP13 | OP10 |
| 5 | OP9 | OP12 | OP15 |
| 6 | OP8 | OP11 | OP14 |
| 7 | IO 24V | IN0 / R0 | IN1 / R1 |
| 8 | IN2 / R2 | IN3 / R3 | IN4 |
| 9 | IN5 | IN6 | IN7 |
| 10 | IN8 | IN9 | IN10 |
| 11 | IN11 | IN12 | IN13 |
| 12 | IN14 | 0V | IN15 |
| 13 | 0V | DIR2 (OC) | 0V |
| 14 | STEP1 (OC) | STEP2 (OC) | DIR3 (OC) |
| 15 | DIR0 (OC) | DIR1 (OC) | STEP3 (OC) |

Euro209

| | C | B | A |
|----|----------|----------|----------|
| 1 | 5V | 5V | 5V |
| 2 | 5V | 5V | 5V |
| 3 | 0V | 0V | 0V |
| 4 | IO 0V | OP13 | OP10 |
| 5 | OP9 | OP12 | OP15 |
| 6 | OP8 | OP11 | OP14 |
| 7 | IO 24V | IN0 / R0 | IN1 / R1 |
| 8 | IN2 / R2 | IN3 / R3 | IN4 / R4 |
| 9 | IN5 / R5 | IN6 / R6 | IN7 / R7 |
| 10 | IN8 | IN9 | IN10 |
| 11 | IN11 | IN12 | IN13 |
| 12 | IN14 | 0V | IN15 |
| 13 | A7- | B7- | Z7- |
| 14 | A7+ | B7+ | Z7+ |
| 15 | A6- | B6- | Z6- |

| | | | |
|----|------------|-----------|-----------|
| 16 | STEP0 (OC) | FAULT OUT | RESET IN |
| 17 | ENABLE 1 | ENABLE OC | Ain(0) |
| 18 | Boost1 | Boost0 | ENABLE2 |
| 19 | Boost3 | Boost2 | Z3- |
| 20 | A3- | B3- | Z3+ |
| 21 | A3+ | B3+ | Z2- |
| 22 | A2- | B2- | Z2+ |
| 23 | A2+ | B2+ | Z1- |
| 24 | A1- | B1- | Z1+ |
| 25 | A1+ | B1+ | Z0- |
| 26 | A0- | B0- | Z0+ |
| 27 | A0+ | B0+ | Vout0 |
| 28 | Vout3 | Vout2 | Vout1 |
| 29 | +12V | +12V | +12V |
| 30 | Analog 0V | Analog 0V | Analog 0V |
| 31 | -12V | -12V | -12V |
| 32 | Shield | Shield | Shield |

| | | | |
|----|-----------|---------|--------|
| 16 | A6+ | B6+ | Z6+ |
| 17 | A5- | B5- | Z5- |
| 18 | A5+ | B5+ | Z5+ |
| 19 | A4- | B4- | Z4- |
| 20 | A4+ | B4+ | Z4+ |
| 21 | A3- | B3- | Z3- |
| 22 | A3+ | B3+ | Z3+ |
| 23 | A2- | B2- | Z2- |
| 24 | A2+ | B2+ | Z2+ |
| 25 | A1- | B1- | Z1- |
| 26 | A1+ | B1+ | Z1+ |
| 27 | A0- | B0- | Z0- |
| 28 | A0+ | B0+ | Z0+ |
| 29 | Vout7 | Vout6 | Vout5 |
| 30 | Analog 0V | Vout4 | Vout3 |
| 31 | Vout2 | Vout1 | Vout0 |
| 32 | ENABLE1 | ENABLE2 | Shield |

2.1. Notes

Green shaded pins have the same function.

Yellow shaded pins share the same function, but have additional function in the Euro209.

Grey shaded pins have different function.

All An+ and An- pins share with STEPn+ and STEPn-

All Bn+ and Bn- pins share with DIRn+ and DIRn-

All Zn+ and Zn- pins share with BOOSTn+ and BOOSTn-