

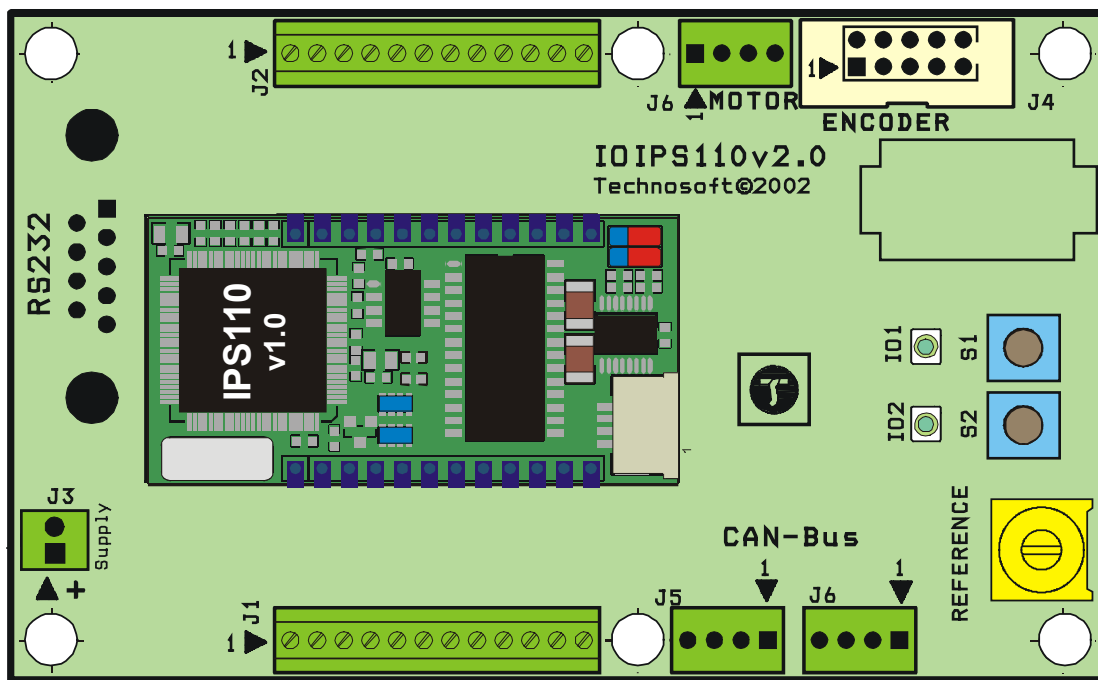
Problem: For new users of an intelligent drive, starting to implement a motion control application can be a quite complex task. You need to know how to hook-up the components of the motion system, to configure them (motor, sensors and drive), test their functionality, identify parameters and tune controllers. Finally, execute a simple movement to validate the basic system functionality and focus on your real motion application.

Solution:

- ◆ **Drive** : Technosoft Intelligent Servo Drive **IPS110**
- ◆ **S/W environment** : Technosoft **IPM MotionStudio – V2.0.1.3** or above

Description: This Application Note explains:

- how to perform the basic hardware connections for IPS110 and step motor without encoder;
- how to create under the 'IPM Motion Studio' a new project/application for motion control with a step motor;
- how to configure the components of the motion system: motor, sensors, drive;
- how to test the functionality of the system components;
- how to identify the motor parameters and tune the controllers;
- how to run and use data analysis tools;
- how to save your project/application;



The IPS110 with IOIPS110 board

Connections:

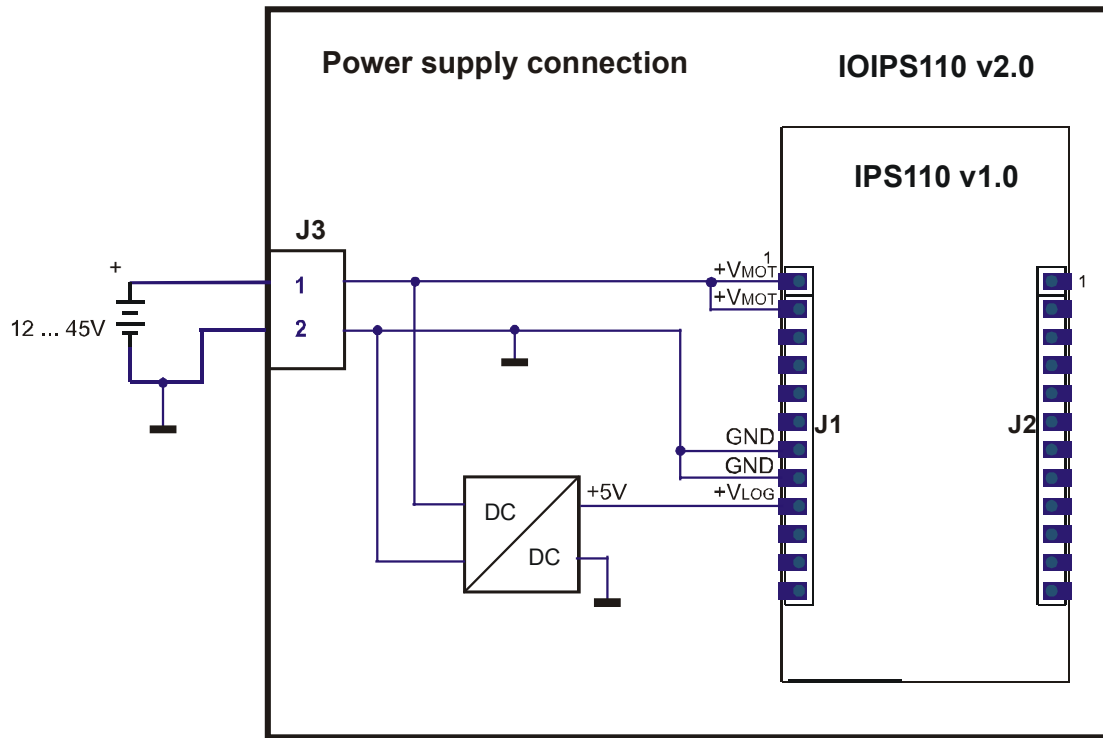


Figure 1. Power Supply – J1 Connector

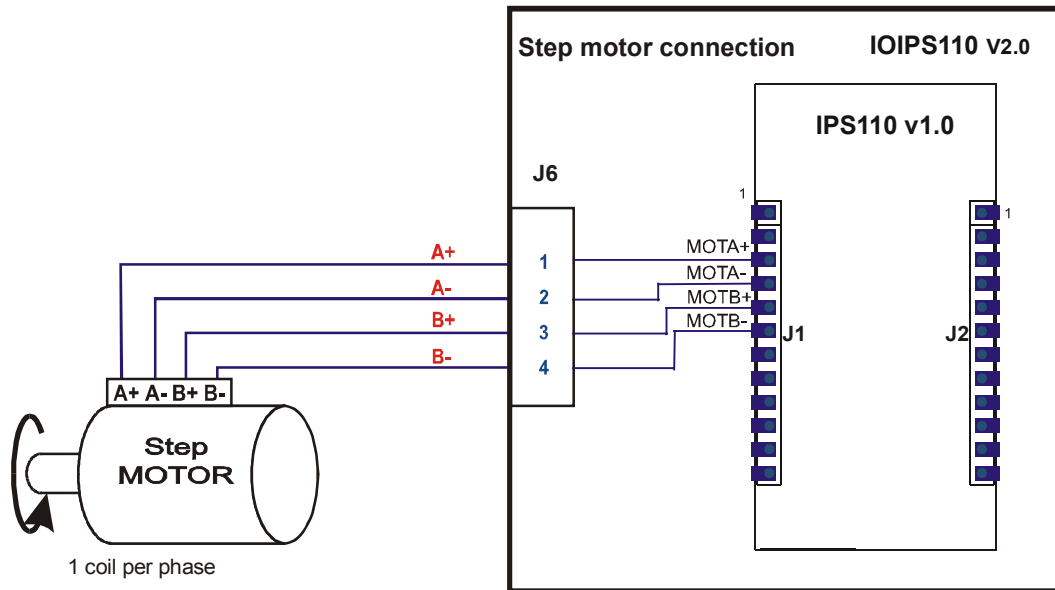


Figure 2. Motor – J3 connector

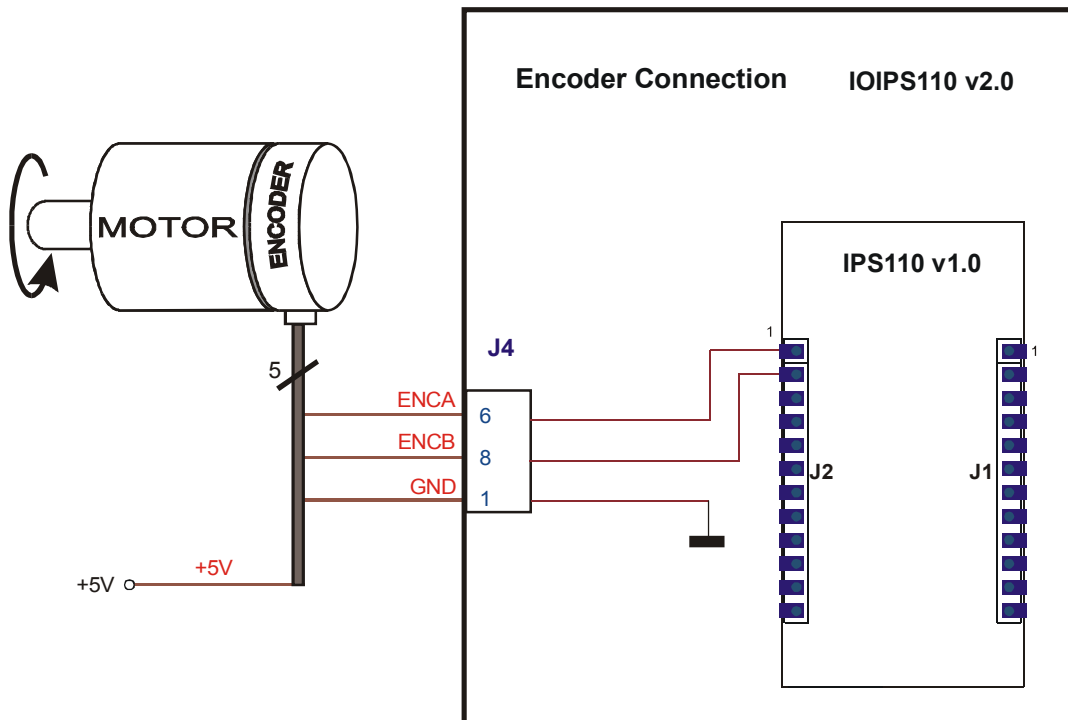


Figure 2.1. Encoder – J4a connector

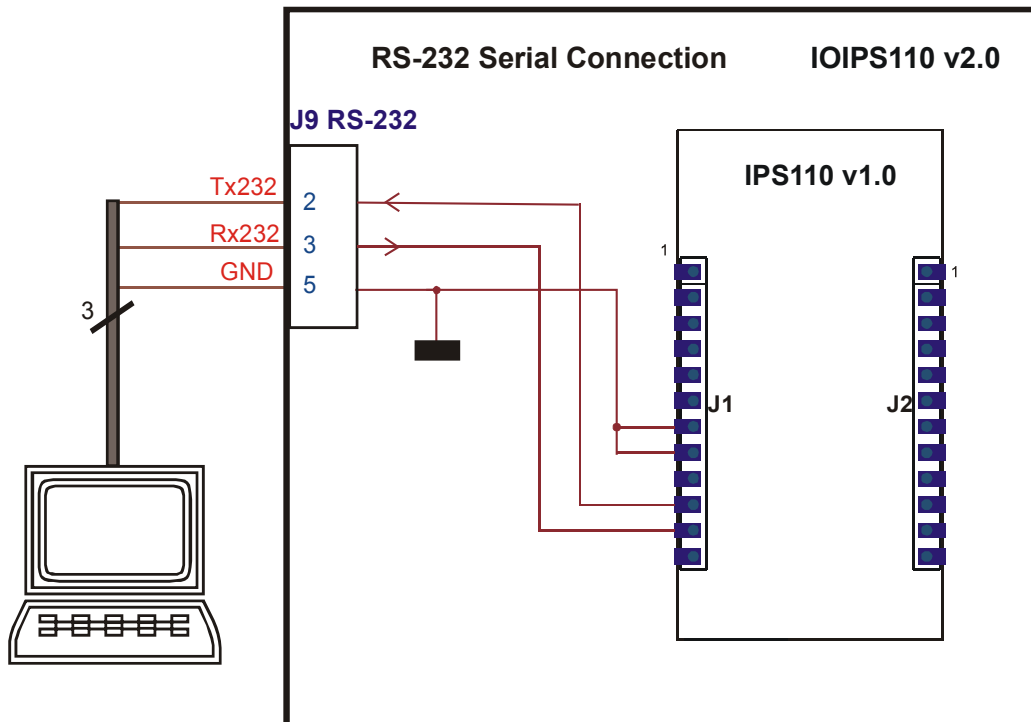


Figure 3. RS-232 connection diagram

Please follow the next steps for a hardware connection of the system components:

1. Connect the power supply, the motor to the IOIPS110 board as you can see in the Figure1 and Figure 2.
2. Connect the encoder to the IOIPS110 board as you can see in the Figure 2.1 (optional)
3. Connect the IOIPS110 board to the PC computer as you can see in the Figure 3.
4. First power up the PC
5. Secondly power up the drive
6. Follow the **Project set-up** procedure described in application note 1: document **P091.045.APN.001.x.PDF**, "Getting started using IPS110 with a step motor"