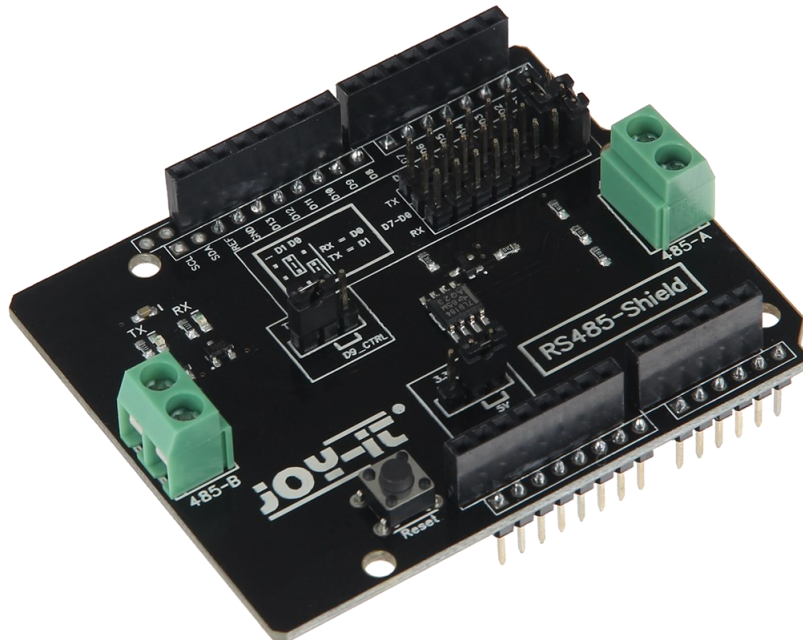# RS485-EXTENSION FOR ARDUINO
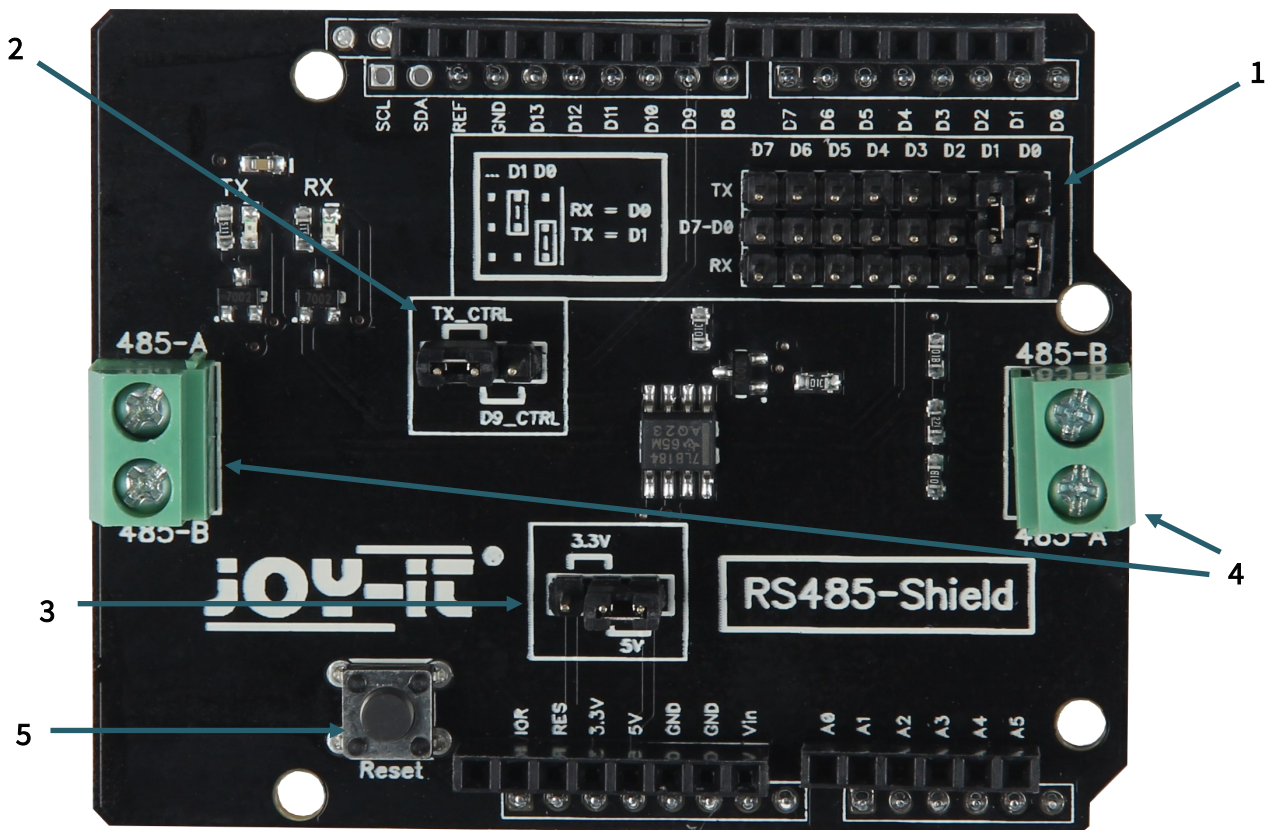ARD-RS485

1. GENERAL INFORMATION

Dear costumer,

thank you very much for choosing our product.

In following, we will introduce you to what to observe while starting up and using this product.

Should you encounter any unexpected problems during use, please do not hesitate to contact us.

1 These jumpers are for determining the transmit pin (TX) and the receive pin (RX).

The upper row is connected to the TX line.

In the middle row each pin is connected to one digital pin of the Arduino (D0 -D7).

The lower row is connected to the RX line.

2 This jumper is used for direction control.

When the jumper is set to TX_CTRL as shown in the picture, the automatic direction control is enabled.

If you set the jumper to D9_CTRL, you can control the direction manually with the digital pin D9.

A LOW signal must be applied to pin 9 for transmission and a HIGH signal for reception.

3 With this jumper the supply voltage can be changed between 3V and 5V.

This jumper must remain set to 5V for normal operation.

4 These connectors are used to send and receive the RS-485 signal.

Both connectors are connected to each other and transmit the same signal.

5 This button is used to restart the Arduino.

2. CODE EXAMPLE

In this example the automatic direction control is used. For that set the jumper to TX_CTRL.

The communication takes place via the serial interface of the Arduino, with the Serial.Print command.

By default, the D0 pin is used for receiving (RX) and the D1 pin for sending (TX).

In this example, a string is sent, a response is waited for, and this response is sent back.

Before uploading, make sure you have set the correct board and port in your Arduino IDE.

```
String testString;    //Declare a String variable

void setup() {
  Serial.begin(115200);       // turn on Serial Port
}

void loop() {

  Serial.println("Please enter Test-String: "); //Prompt User for input
  while (Serial.available()==0) {            //Wait for user input

  }
  testString=Serial.readString();                //Read user input
  Serial.print("The Test-String received is:  ");
  Serial.println(testString);         //Prompt User for input
  Serial.println("--------------------------------------------");
  delay(2000);
}
```

Our information and take-back obligations according to the Electrical and Electronic Equipment Act (ElektroG)

Symbol on electrical and electronic equipment:

This crossed-out dustbin means that electrical and electronic appliances do not belong in the household waste. You must return the old appliances to a collection point.
Before handing over waste batteries and accumulators that are not enclosed by waste equipment must be separated from it.

Return options:
As an end user, you can return your old device (which essentially fulfils the same function as the new device purchased from us) free of charge for disposal when you purchase a new device.
Small appliances with no external dimensions greater than 25 cm can be disposed of in normal household quantities independently of the purchase of a new appliance.

Possibility of return at our company location during opening hours:
Simac GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn, Germany

Possibility of return in your area:
We will send you a parcel stamp with which you can return the device to us free of charge. Please contact us by e-mail at Service@joy-it.net or by telephone.

Information on packaging:
If you do not have suitable packaging material or do not wish to use your own, please contact us and we will send you suitable packaging.

5. SUPPORT

If there are still any issues pending or problems arising after your purchase, we will support you by e-mail, telephone and with our ticket support system.

E-Mail: service@joy-it.net

Ticket system: http://support.joy-it.net

Telephone: +49 (0)2845 98469-66 (10-17 o'clock)

For further information please visit our website:

www.joy-it.net

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