RS485 CONVERTER INSTRUCTIONS

Instructions for RS485 Converter

Name: RS485 Converter
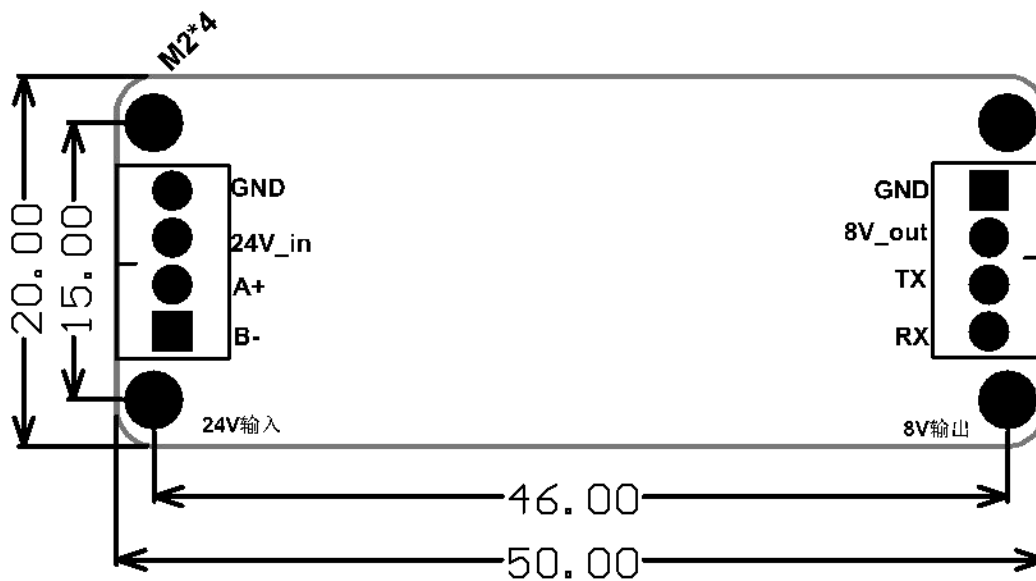
Model: AED-LA-82-12

Function description:

(1) It can convert the RS485 level to the LVTTL 3.3 V level, which can be used for the RS485 signals to control the Micro Linear Servo Actuator.

(2) 24 V to 8 V step-down module

"Micro Linear Servo Actuator" is hereinafter referred to as "Actuator".

Instructions are provided below:


Exterior View of RS485 Module

| Circuit board left signal (connected to the main control terminal)			Circuit board right signal (connected to the actuator)			
Ground	GND	Input	Ground	GND	Output	push-rod black cable
Power	24V_in	Input（24V1A）	Power	8V_out	Output（8V2A）	push-rod red cable
485 positive terminal	A+	differential input positive	485 positive terminal	TX	3.3V serial port transmission	push-rod yellhow cable
485 negative terminal	B-	differential input negative	485 negative terminal	RX	3.3V serial port reception	pus-rod blue cable

Note: **This module is a transparent transmission module. The master end sends the command data to the power cylinder through TX via RS485, and the feedback data of the power cylinder is converted into RS485 signal through RX and transmitted to the master end. Max baud rate 115200bps. One module with an electric cylinder.**

**The instructions for use are as follows:**

1. The maximum baud rate supported by the RS485 converter is 115200bps. The factory default baud rate of the actuator is 921600bps. Before using it, the communication baud rate of the actuator should be changed to 115200bps. Start the PC software and select "Connect equipment" → "Connect" → select the corresponding COM port → "Search". The actuator can be connected successfully. Next, select the left communication baud rate of the PC. Select "115200" in the pull-down list. Click the "Setting" button on the right, and then click the "Save Parameter" button. The software will give a prompt indicating that parameters are successfully saved. Subsequently, turn off power and restart the equipment; then the baud rate will be successfully modified. (To confirm whether a parameter is successfully changed, reconnect the PC software after power-off and re-power on. After successful connection, observe whether the baud rate in the lower right corner is 115200.)
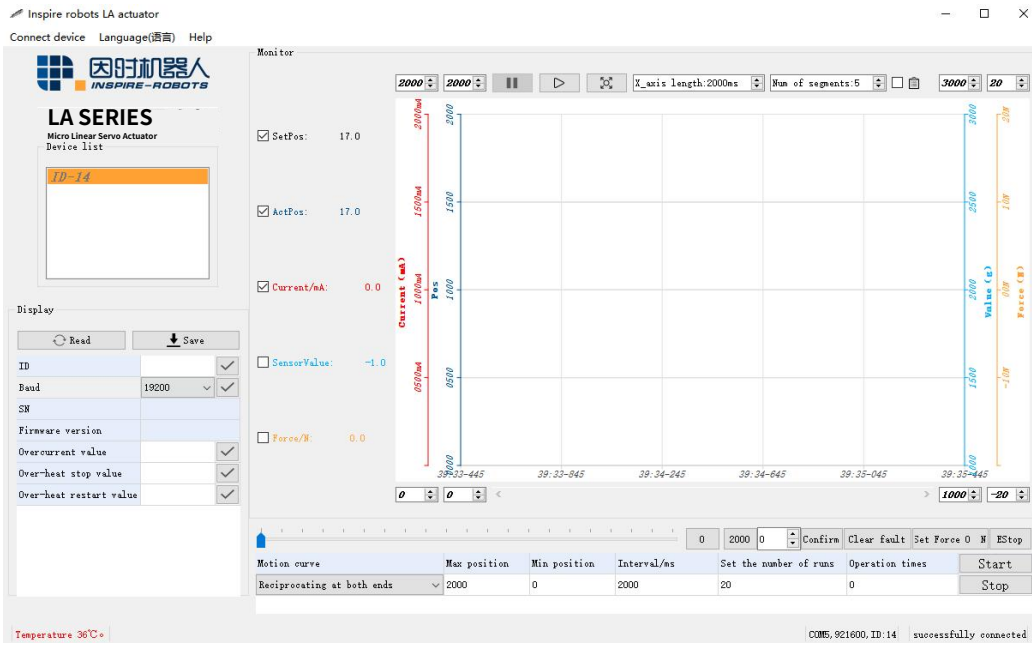
Baud Rate Modification of PC Software ①
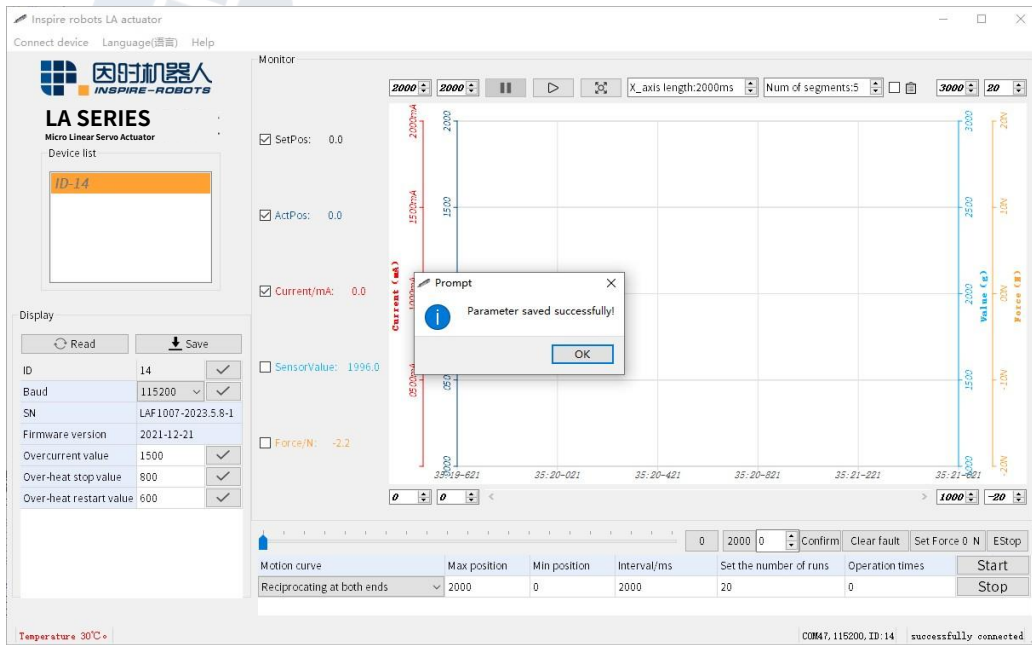

Baud Rate Modification of PC Software ②
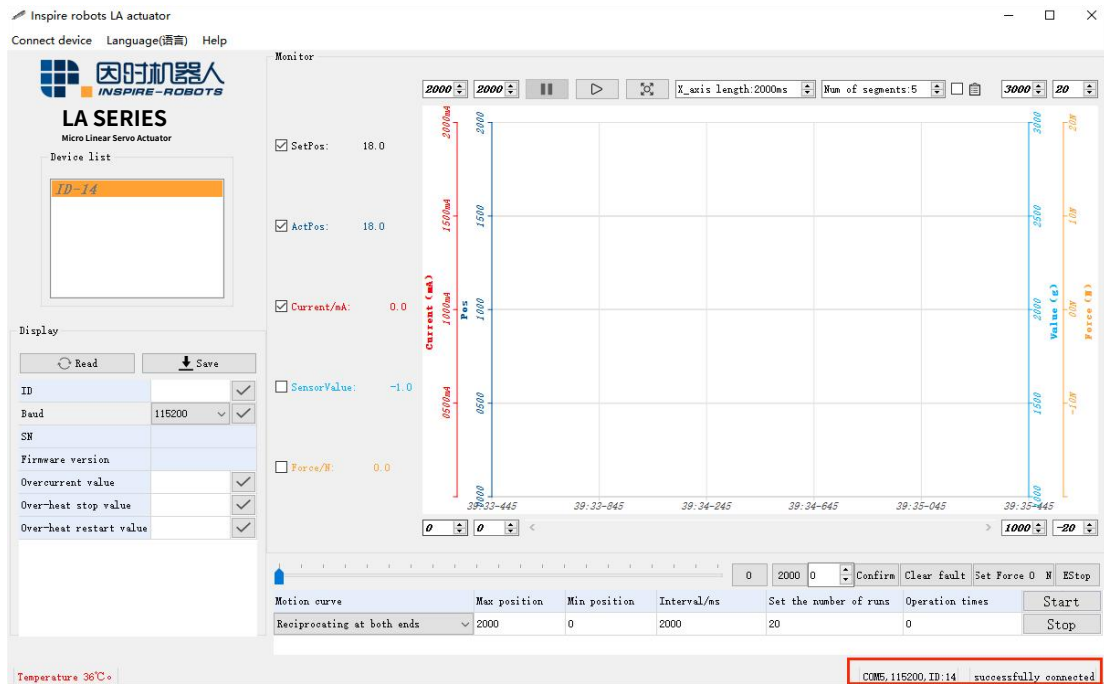
Baud Rate Modification of PC Software ③

2. Connect one end of the test cable to the USB port, and the other end to the RS485 converter (the black wire corresponds to GND; the red wire corresponds to 24 V; the yellow wire corresponds to A+; the blue/white wire corresponds to B-). Connect the other end of the RS485 module to the actuator (the black wire corresponds to GND; the red wire corresponds to 8 V; the yellow wire corresponds to TX; the blue/white wire corresponds to RX). Finally, turn on power.
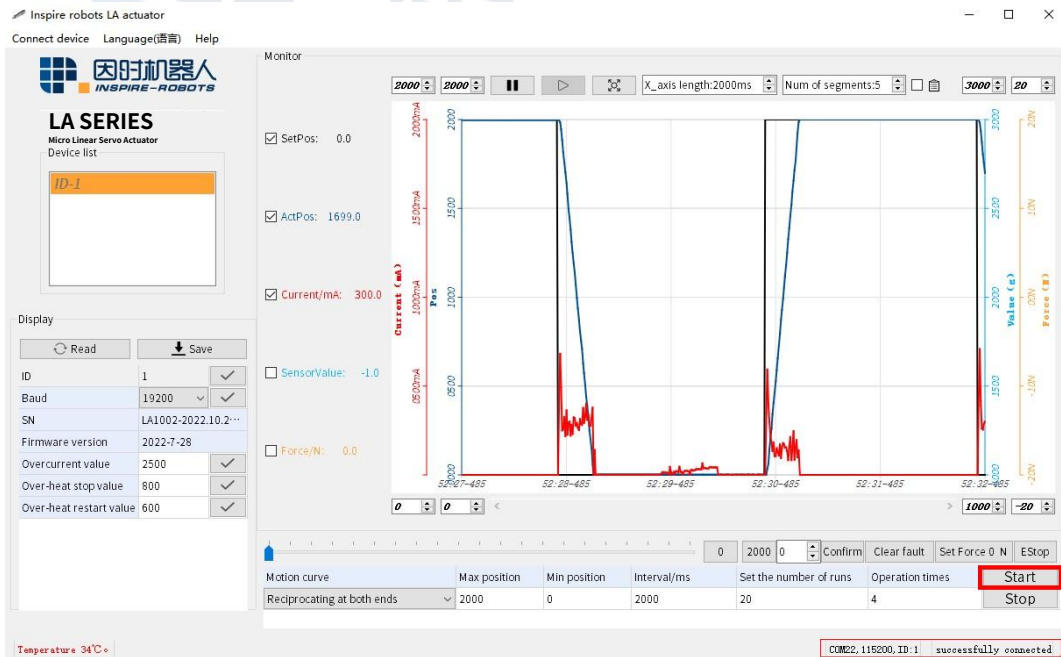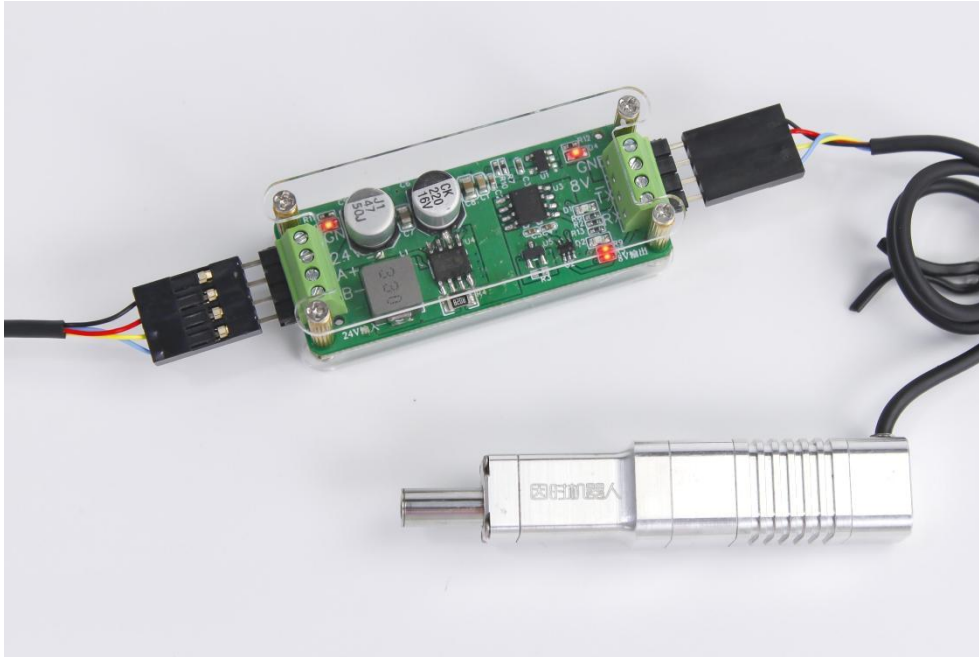

Exterior View of Test Cable
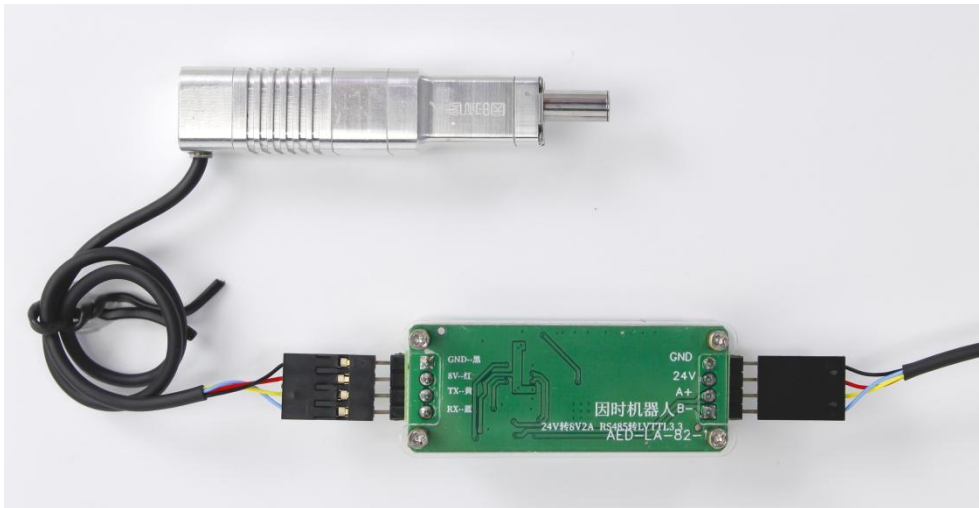
Connection Diagram of RS485 Converter, Test Cable, and Actuator

3. Start the PC software to connect the equipment. Select the corresponding COM port. After successful connection, click "Start". The actuator can operate normally. Observe the monitoring screen.
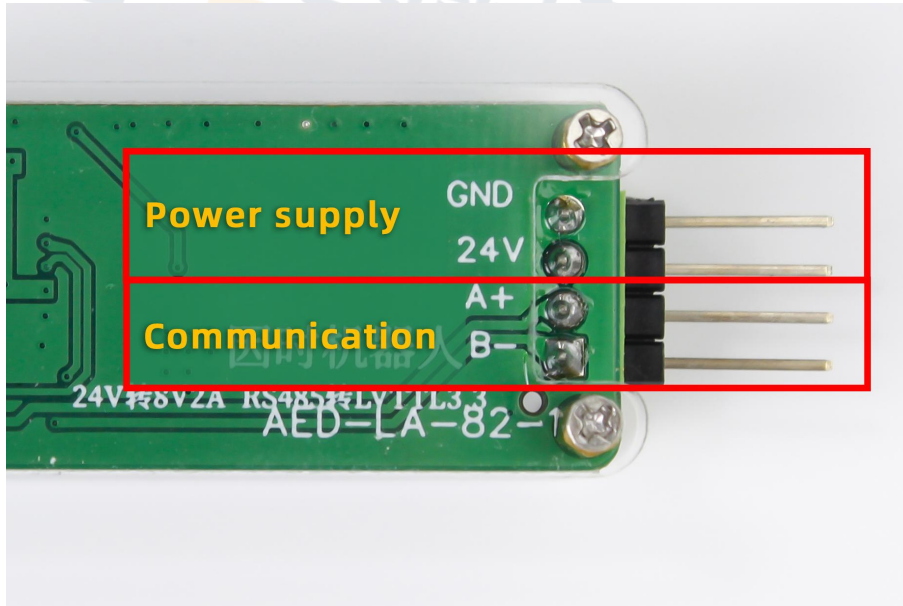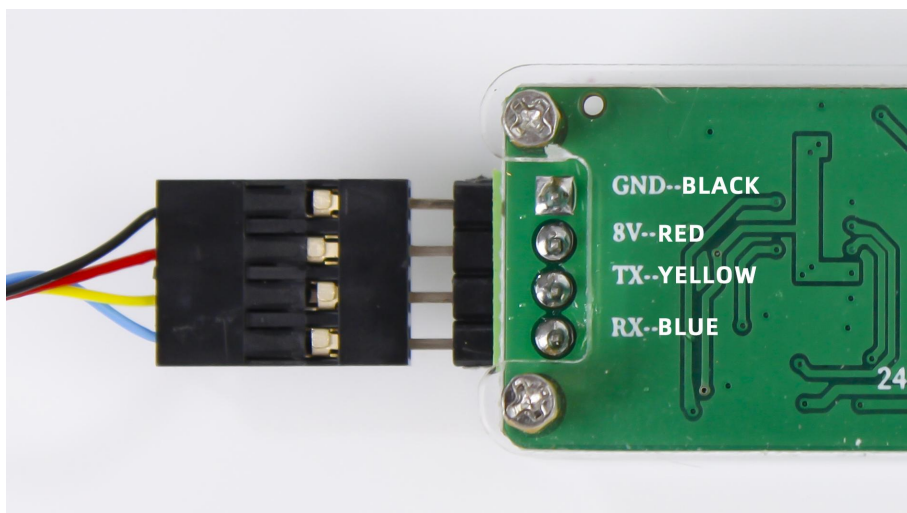

PC Software Monitoring Screen

Operation Diagram of RS485 Converter

Note: **Reverse or incorrect connection of the RS485 converter is not allowed; otherwise, the circuit board of the module and the push rod motor will be damaged! (The correct connection diagram is enclosed herein.)**

Correct Connection Diagram of PLC

Correct Connection Diagram of Push Rod Motor