SY-08 Syringe Pump Quick Use Guide

Please read the following notes carefully and follow it strictly for correct and safe use of product.

1. Item list

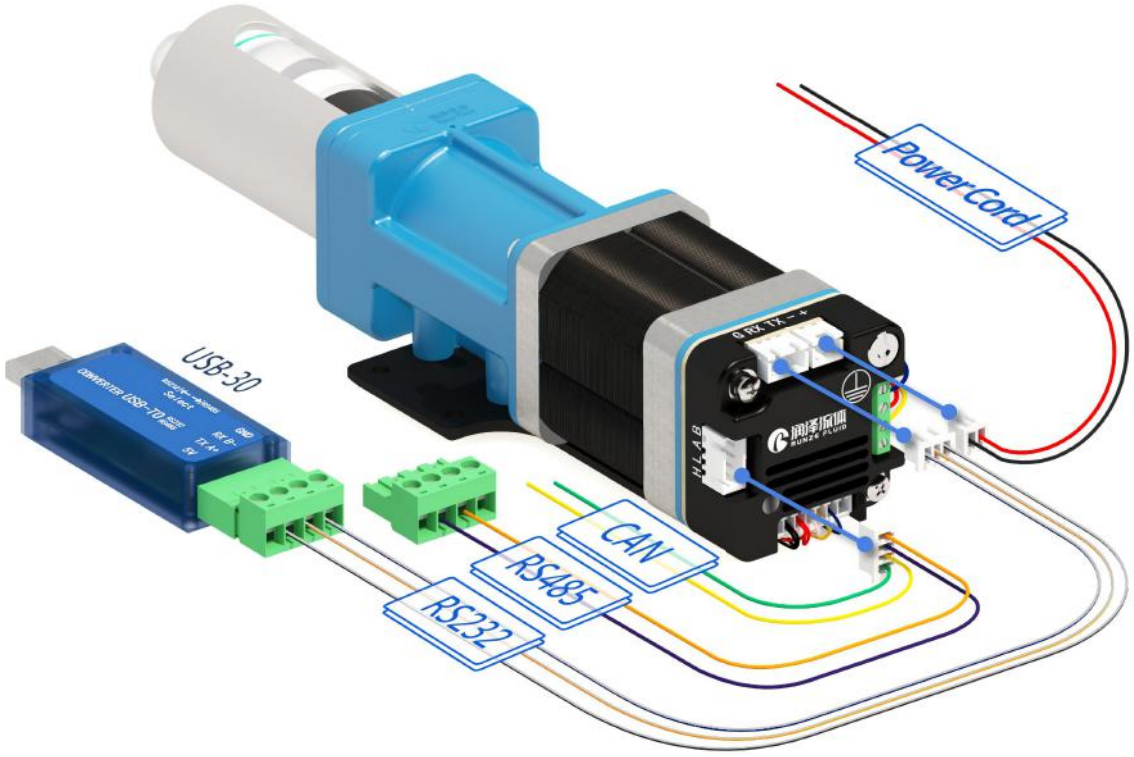
Name	Quantity
SY-08 Syringe Pump	1 set
Nine-color line accessory kit	1 pc
Operation and User Manual QR code	1 sheet
Certificate of Conformity	1 sheet
Stroke Accuracy Test Report	1 sheet

2. Cable Connection and Debugging

2.1 Power Cable and Communication Cable

Item	Color
RS232 communication cable	Blue and white-RX, black and white-GND orange and white-RX
RS485, CAN communication cable	Orange-B, purple-A, green-H, yellow-L
Power cable	Red-positive polar, black-negative polar

Please refer to the following figure for cable connection



Notes: CAN communication is not supported in the current software version

2.2 USB Driver and Debugging Software Installation

If you are using our USB To RS232/RS485 debugger for the first time, please download the debugger driver from the official website

1. Login to the official website (http://www.runzeliuti.com). Click on the hyperlink to go directly to the download page

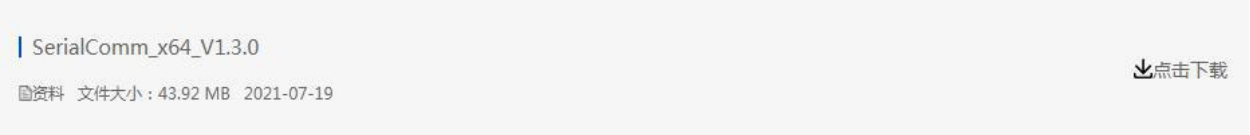
2. "Download"->"Debug Tools"->"USB to RS232, RS485 converter driver "Click to download

3. Driver installation

Open the application file 

, confirm it is the CH341SER.INF file, click Install, and then click OK, the installation is complete.

4. Download Debugging Software



3. Quick Use

3.1 Debugging Software

Open the debugging software serialcomm, Figure 3-1-1 baud rate is the baud rate of the slave computer, the factory default is 9600bps, after setting the serial port and baud rate, click the "Port" button, check the "CR" in Loop sending panel, and then double click the command input box below "Send " to enter ASCII characters. Finally, click "send" below the corresponding position to send the command.

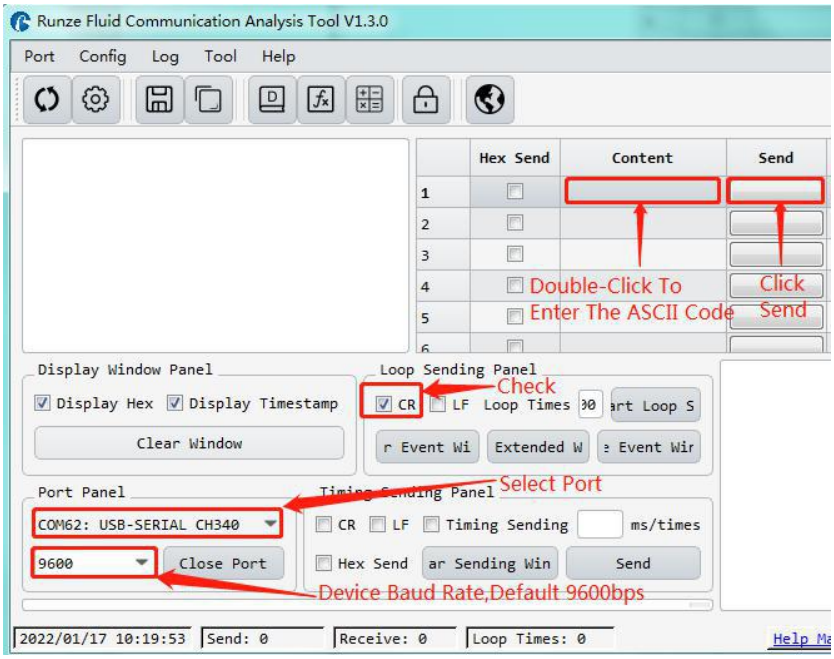


Figure 3-1-1

3.2 Examples of Communication

① Send command: /1WR Reset command

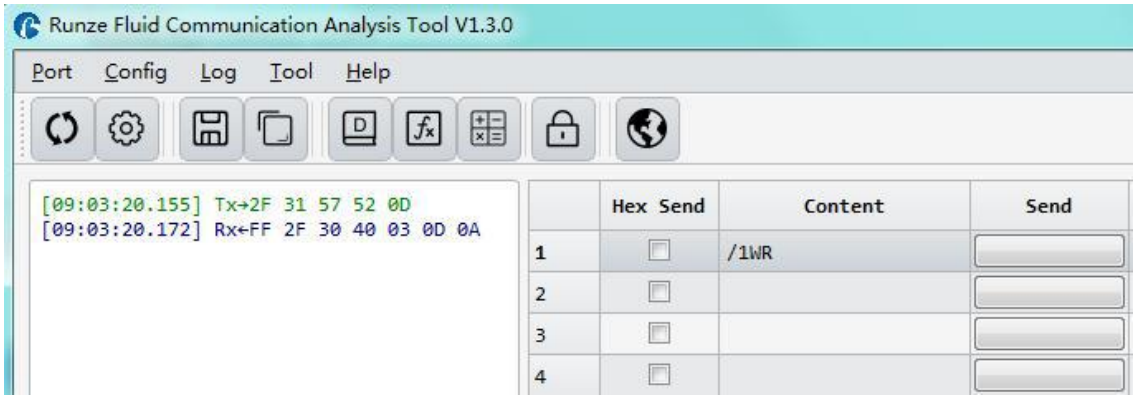
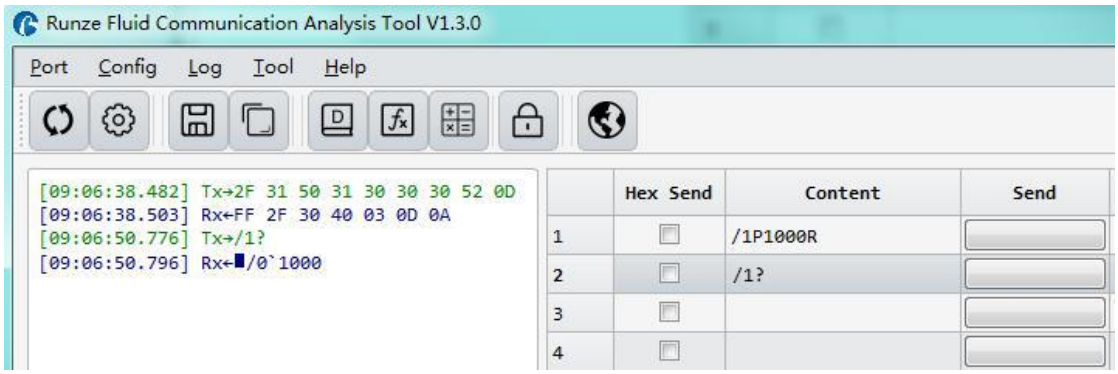


Figure 3-2-1

There is a receive command and the B3 byte shows 40, which means the device reset is successful

② Send command: /1P1000R aspirate liquid

/1? Query valve position



Check the pump position after aspirating, the result is 1000, which means the position is accurate.

Note: To switch between RS232 and RS485 communication modes, please turn the dial code on the USB-30 to the corresponding position ‘

4. Quick Command

Command	Description
W	Piston Initialization
A/a	Move piston to absolute position
P/p	Move piston down relative to each other
D/d	Move piston up relative to each other
?	Query piston position
?1	Query start speed
?2	Query running speed

?3	Query stop speed
?23	Query software version
?29/Q	Query device status

5. Common Problems & Solutions

Phenomenon	Problem	Solution
Not working when power on	The working voltage is not in the acceptable range.	Test whether the voltage is within the specified range
	The connection is loose or disconnected.	Check whether the connection is good.
	The working current is not in the acceptable range.	Detect whether the current is within the specified range
Sending a command without a return code	Chose the wrong serial port	Please check the corresponding serial port via Device Manager
	The TX and RX lines of RS232 are connected reversely or phase A & B of RS485 are connected reversely.	Exchange the TX and RX line sequence of RS232 and exchange the phase A & B sequence of RS485.
The sent and received communications are consistent in RS232.	TX and RX are in short circuit.	Check whether there is short circuit, if so, replace the cable.
Working but the sent and received communications are consistent in RS485,	A B reversed, and the USB converter is not dialed to RS485	Switch AB and dial USB to RS485 communication

6. Installation and Use

- Applicable power supply: 24V±10%， 3A, When using a linear power supply, the voltage and current must be adjusted to the corresponding parameter values
- Please use RUNZE debugging software serialcomm for product debugging
- While debugging, try to debug over liquid to avoid dry wear of the spool, which will affect the service life of the valve
- While using this product, please connect to GND to reduce the interference brought by environmental factors
- When not using this product, remember to clean the valve ports with cleaning solution such as alcohol or water to avoid long periods of test residue in the valve passage, resulting in port blockage.
- When installing this product, please install it on the existing installation holes, additional holes are strictly prohibited. For special requirements, please consult sales or technical support.