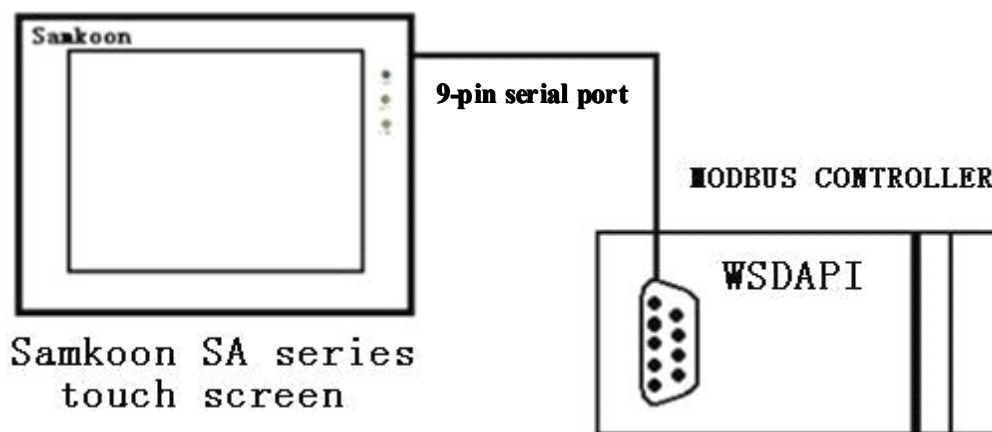


10.17. Connection between ModBus Controller and Samkoon series touch screen

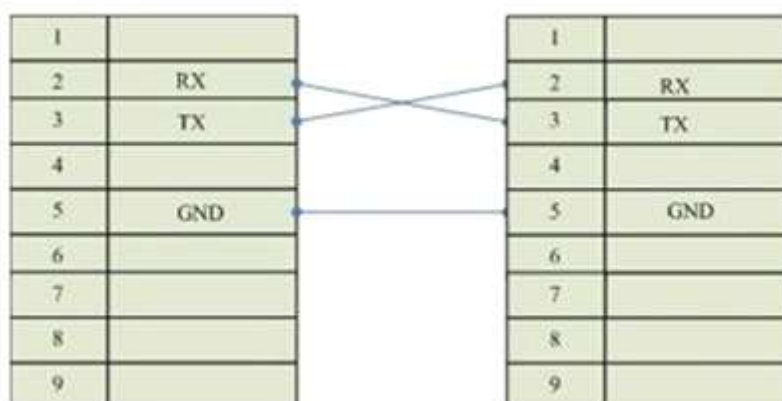
This device driver is used to read and write the data or state of ModBus Controller register by Samkoon series touch screen. It uses standard MODBUS RTU protocol. It establishes serial communication connection with the communication port of ModBus Controller through the serial device in touch screen so as to operate PLC device. Please read the relevant technical specification for communication unit and PLC device before the device application. It supports all controllers with ModBus RTU protocols.

- How to establish connection with ModBus Controller :

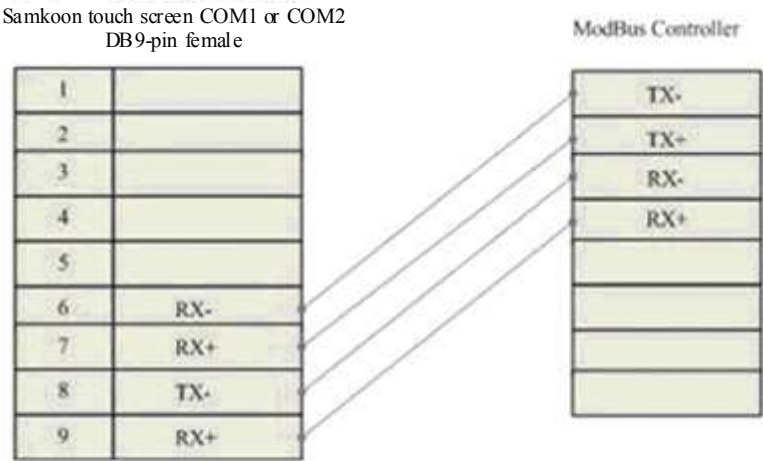
1. Hardware connection



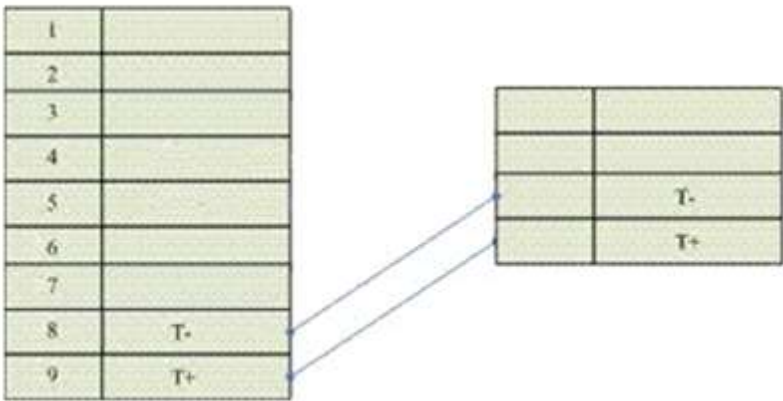
✓ ModBus RS232 port



✓ ModBus RS422 port



✓ ModBus RS485 port



2. Software setting

PLC communication mode must be RTU mode, and the station address is consistent with that of touch screen. Detailed settings refer to the relevant technical manual of ModBus RTU protocol from SCHNEIDER.

PLC communication parameter should be consistent with that of touch screen.

The recommended communication parameters for touch screen are defined as following:

Configuration Item	Recommendation
Communication port	RS232/422/485
Baud rate	9600
Data bit length	8

Stop bit length	1
Parity check bit	None
PLC address	1

Operational address range:

PLC address	Range	Type	Form	Description
0	0~9999	read-write	0dddd	Logic coil
1	0~9999	read	1dddd	Input bit register
3	0~9999	read-write	3dddd	Analog input register
4	0~9999	read-write	4dddd	Holding register



: dddd indicates decimal.



: Different PLC models support different registers, subjecting to actual register of PLC.

Communication failure analysis:

<1>. Communication connection is hard to establish.

- 1: Check PLC is powered up or not.
- 2: Communication cable is used or not.
- 3: Communication parameter setting is accurate or not.
- 4: Select the correct communication port or not.
- 5: Check the operation for a register is out of range or not.

<2>. How to remove the unreliable communication

Communication unreliability (instability): if the communication state is 0 or 1 ever and again, it indicates the communication is unreliable. The possible reasons include:

- 1: The communication distance is too far: it is not more than 500 m.
- 2: If the PLC is assured, the connection may be connected with PLC via programming software. Please contact with Shenzhen Samkoon.