1.   The composition of Modbus communication

In the Modbus bus structure, the fancoil acts as a slave station, receiving control and query of the master station (PLC, touch screen, PC, etc.). The slave address is selected by dial switch (when the dial code is 0, the slave address is 64, the dial code is 1-63, and the slave address is 1-63). The fancoil supports the broadcast code (that is, all the fancoils on the bus can be operated at the same time by broadcasting, but the fancoil will not reply data to the main station at this time);

Before use, the address of each fancoil needs to be preset, and the primary station communicates by addressing the address information of the slave station. The slave that receives the master instruction executes the specified function and responds.

When multiple fancoils are connected to the same bus, the dialing addresses of any two fancoils must not be the same, otherwise communication will be abnormal. After changing the dialing code, the wind panel should be powered back on, otherwise the change will be invalid.

2.   Communication specifications

Interface: RS-485 P means - (B), Q means + (A) for SF-xxxC2 (for SF-600C2M/C4M - SF-1500C2M/C4M P means + and Q means - new PCB). SF-xxxHM2, SF-600C2M/C4M - SF-1500C2M/C4M setted address 0 means in Modbus protocol 1 - information from a field.Communication parameters:Baud rate - you can choose 4800, 9600, 19200, 38400. The default is 9600.

Data length: 8 digits

Verification: odd parity, even parity, no parity

Stop bit: 1 bit, 2 bits

Communication protocol: Modbus reference (only supports RTU, does not support Modbus ASCII)

Default configuration: 9600, N, 8, 1 (baud rate 9600, no parity, 8 data bits, 1 stop bit).

(This fancoil can change the serial port configuration through the master station control according to actual needs. Try not to change these parameters when you are not familiar with the fancoil. If the communication fails after the change, please power on again and the communication will return to the default configuration.).

Table 1: Address mapping table of register in fan coil

The following addresses can be used: 03H。04H(read), 06H (write in a single register), 10H(write in multiple holding register)		
Data content	Register address	Remark
Running mode setting	1601 （PLC：41602）	0x00: Shutdown mode 0x01: air supply mode 0x02: Cooling mode 0x03: Heating mode 0x04: Dehumidification mode 0x05: automatic mode When setting other parameters, returning to abnormal data function code. If write this register alone, the defaulted setting is middle fan speed.
Set temperature setting Ts	1602 （PLC：41603）	Must be set within the normal temperature range. If the temperature setting range is exceeded, the exception code 03 will be returned. Temperature setting range is 17-30 °C Ts cannot be set in the air supply and dehumidification

		modes. Query Ts is 0	
Fan speed setting	1603 （PLC：41604）	0x02：Low speed 0x03：Middle speed 0x04：High speed 0x05：Auto speed When setting other parameters, returning to abnormal data function code.	
Timer ON time	1604 （PLC：41605）	Number 0~96 means: 0h timing to 24h timing	
Timer OFF time	1605 （PLC：41606）	Number 0~96 means: 0h timing to 24h timing	
Indoor temperature T1	1606 （PLC：41607）	0~240 means -20~100°C Calculation method: (temperature +5) * 2 + 30 This register can only be read and cannot be written	
Cold water coil temperature T2-C	1607 （PLC：41608）		
Hot water coil temperature T2-H	1608 （PLC：41609）		
Lock flag	1612 （PLC：41613）	Bit0	Remote control lock 1: Yes. 0: No
		Bit1	00: Lock off or no lock
		Bit2	01: Lock the cooling. 10: Lock the heating.
		In addition to the above three. The other bits of this byte are all 0s.	
Pump status	1613 （PLC：41614）	Bit0 drain pump 1: On. 0: off	
		Except for the 2 bits above, other bits in this byte are 0. This byte is read only.	
Fancoil failure status	1614 （PLC：41615）	Bit14	EE water level detection failure
		Bit8	E8 fan speed detection is out of control
		Bit7	E7 EEPROM error
		Bit4	E4 T2B sensor failure
		Bit3	E3 T2A sensor failure
		Bit2	E2 T1 sensor failure
		Except for the 2 bits above, other bits in this byte are 0. This byte is read only.	
Protection status	1615 （PLC：41616）	Bit1	P1 protection against cold or defrosting
		Except for the 1 bit above, other bits in this byte are 0. This byte is read only.	
Baud rate	1640 （PLC：41641）	The following baud rate support is available: 4800 9600 19200 38400	After changing these three parameters. The next time you communicate. Need to correspond to the modified serial port configuration. Otherwise the

Check digit information	1641 （PLC：41642）	No parity: 0x02 Odd parity: 0x01 Even parity: 0x00	communication will not be successful. After powering up again. Revert to the default settings: 9600BPS /NO CHECK/ONE STOP
Stop bit information	1642 （PLC：41643）	One stop bit: 0 Two stop bits: 1	