

Communication protocol

Physical Interface

1. Serial port :RS-485/422.
2. Asynchronous, start bit: 1, data bits : 8, stop bit :1, space parity.
3. Data transfer rate of 1.2kb / s, 2.4kb / s, 4.8kb / s, 9.6kb / s, 19.2kb / s, usually 9600.

Grammar

Command start from the start code <SOH>, recipient address code <receiver>, DATA, <BCC> checking bit, <EOT> end of the code structure, the user as long as delivery the recipient address code, DATA content on the line, the sending program will automatically add the start code ,checking and end code, please see below details:

Host machine sending:

No.	1	2	3	4	5
byte	1	2	LENGTH	1	1
Form	SOH	Receiver	DATA	BCC	EOT

<SOH> : the start code of sending the title (ASCII HEX 01)

<EOT>: Data transmission end code (ASCII HEX 04)

<Receiver>: Two ASCII characters is the information of recipient address code (“01-FE”).

<BCC>: Parity bit,

Explanation are in hexadecimal, Hexadecimal - ASCII code of the transfer, with two each byte ASCII code, a ASCII is representation of a high four bit , and ASCII is also representation a low four. For Example:

DATA=DOH, Transmission 44H 4F two bytes sequencing

Communication structure as following:

Sender host: <SOH> <receiver> <transm> <STX> DATA <ETX> <BCC> <EOT>

// Receiver from the machine: <SOH> <receiver> <transm> <STX> DATA <ETX> <BCC> <EOT>

Each computer has its own transmission address from the machine it has been allocated in the initialization of the address, the address stored is just a variable from the machine store, the address is composed of two ASCII characters, description will hex number from 00 to FF, the host address 00 is reserved, FF is the broadcast address for all from the computer, therefore, each system circuit up to 254 computers from the components, can be set using the Set Address command. All communications contained in the DATA command, which transmitted. in ASCII format

Command Information		
INFO (0)	INFO (2) INFO (N)
Function command byte 1	Function command byte 2 Function command byte N

- Set controller communication baud rate, use this command to change the communication baud rate

INFO (0)	INFO (2)		Function/parameters	Remark
S	B	Function	Define the communication baud rate setting of the controller, the factory default values Mo9600bps	Example: Command: 01SB1 "01" represents the number of client address "SB1" set the communication rate on behalf of 2400bps
		Host send	B="0" – 1200 B="1" – 2400 B="2" – 4800 B="3" – 9600 B="4" – 19200	
		Client Return	"Address +ER0"	

- Set device address number and baud rate, careful using this command, try not to change. or may result in not communicating with the factory is usually set to 01

F1	F2		Function/parameters	Remark
T	O	Function	Define the factory settings into EEPROM device address number and baud rate	Example: Command: FFTO0130301 "01" represents the number of write address "3" represents the communication baud rate write Number "0301" represents the type of write (03) and software version number (01)
		Host send	<receiver> <bps> <type> <rev> <receiver>: Address"00-FF" <bps>: Communications baud rate"0-4" <type>: Device Type"00-99" <rev>: Version of the software from the machine"00-99"	
		Client Return	"Address +ER0"	
	I	Function	Read the device address, communication baud rate, type and software version number	Example: Command: FFTI r : 01 Asc code "3" represents to write the number of communications baud rate. "0301" represents the type of write (03) and software version number (01)
		Host send	No	
		Client Return	r 30301	

- when you need to read the temperature and humidity used the command

Code		Function/parameters	Remark
MORDVO	Function	Read the temperature and humidity value	Example: Command: 01MORT01 "01" represents the number of client address
	Host send	01MORT01	"MORT01" reads the temperature and humidity values
	Client Return	Temperature information Example: 26.3 °C "0101030107040206030804" 01 Start code 01 Address code 03 Humidity value of the first one 01 Humidity No. 2 07 Humidity No. 3 04 Humidity No. 4 02 Temperature No. 1 06 Temperature No. 2 03 Temperature No. 3 08 Check byte 04 End code	Explain: Return temperature xxxxx Format: xxxx. x As 26.3