DCFSA 60m/s WIND SPEED SENSOR MANUAL

LETTER of AGREEMENT

Basic communication parameters

Code	8-bit binary
Data bit	8-bit
Parity bit	no
Stop bit	1 person
Error checking	CRC (Redundant Cyclic Code)
Baud rate	2400bit/s, 4800bit/s, 9600 bit/s can be set, the factory default is 4800 bit/s

Data frame format definition

Modbus-RTU communication protocol is adopted, the format is as follows:

Initial structure ≥ 4 bytes of time

Address code = 1 byte

Function code = 1 byte

Data area = N bytes

Error check = 16-bit CRC

Ending structure ≥ 4 bytes of time

Address code: It is the address of the transmitter, which is unique in the communication network (factory default 0x01).

Function code: The function instruction of the command issued by the host, this transmitter only uses the function code 0x03 (reading register data).

Data area: The data area is the specific communication data. Note that the high byte of the 16bits data comes first!

CRC code: two-byte check code.

Host inquiry frame structure:

Address code	Function code	Register start address	Register length	Low check bit	Check code high
1byte	1byte	2byte	2byte	1byte	1byte

Slave response frame structure:

Address code	Function code	Number of valid bytes	Data area	Second data area	Nth data area	Check code
1byte	1byte	1byte	2byte	2byte	2byte	2byte

Register Address

Register address	PLC or configuration address	Content	Operating
0000 H	40001	Instantaneous wind speed 10 times the uploaded data	Read-only

Communication protocol example and explanation

For example, read the wind speed value of the device address 0x01

Inquiry frame：

Address code	Function code	Start address	Data length	Check code low bit	Check code high bit
0x01	0x03	0x00 0x00	0x00 0x01	0x84	0x0A

Response frame: (for example, read that the current wind speed is 8.6 m/s)

Address code	Function code	Returns the number of valid bytes	Current wind speed value	Check code low bit	Check code high bit
0x01	0x03	0x02	0x00 0x56	0x38	0x7A

Wind speed calculation:

Current wind speed: 0056H (hex)=86=>wind speed=8.6m/s.