

Heat Meter MODBUS protocol

Heat meter support MODBUS command code 03 and 06 reading register and writing register 。

Default serial port setting: 9600/8/1/N

MODBUS register table

Register Address	#of registers	Variable Name	Data Type	Notes
0001-0002	2	instantaneous flow rate	LONG	*
0003-0003	1	Instantaneous flow rate unit	INTEGER	*
0004-0005	2	power	LONG	*
0006-0006	1	power unit	INTEGER	*
0007-0008	2	accumulate flow	LONG	*
0009-0009	1	accumulate flow unit	INTEGER	*
0010-0011	2	accumulate heating	LONG	*
0012-0012	1	accumulate heating unit	INTEGER	*
0013-0014	2	accumulate cold	LONG	*
0015-0015	1	accumulate cold unit	INTEGER	*
0016-0017	2	T1/ input temperature	LONG	x0.01degC
0018-0019	2	T2/ output temperature	LONG	X0.01degC
0020-0020	1	condition	INTEGER	
0021-0022	2	working time	LONG	Unsigned. second
0023-0024	2	time	BCD	Writable. 3bytes BCD for second, minute and hour. Low on left
0025-0026	2	data	BCD	Writable. 4bytes BCD for day, month and year. Low on left
0027-0027	1	reserve	INTEGER	
0028-0029	2	reserve	LONG	
0030-0031	2	reserve	LONG	
0032-0032	1	diameter	INTEGER	mm(saved in flash)
0033-0034	2	serial number	BCD	High on left
0035-0035	1	MODBUS address	INTEGER	Writable(saved in flash)
0036-0036	1	type of meter	INTEGER	BIT0=0:water meter BIT0=1:heat meter (save in flash)
0037-0037	1	reserve	INTEGER	
0038-0038	1	version number	INTEGER	Hex

注:

*unit code :

05--KWH; 14--Watt; 32--Litre/H; 2C--Cubic Meter;

02—WH; 08—GWH;

17—KW; 1A—GW; 29—Litre; 35—Cubic Meter/H.

Data format:

Long data is 32, occupy two registers, the low is before High is after.

(1) (1) Function code: 03 Read register

Master Send :

ADR	03H	register start address high byte	register start address low byte	register address number high byte	register address number low byte	CRC low byte	CRC high byte
-----	-----	---	--	--	---	-----------------	------------------

Reply:

ADR	03H	total number of bytes	register data 1	register data 2		register data M	CRC low byte	CRC high byte
-----	-----	-----------------------------	--------------------	--------------------	-------	--------------------	-----------------	------------------

For one example :

Meter ID :12 ,you want to read the data of accumulate flow

Register Address is 0007-0008

Send: 12 03 00 07 00 06 76 AA

Reply : 12 03 0C 02 58 00 00 00 29 39 08 00 00 00 02 CF 70

Data explanation :

00 00 02 58 00 29 00 00 39 08 00 02

258: 600

29: Unit Litre

3908: 14600

02: unit WH

PS :Read other data in the same way