

# **LF MODBUS USER INSTRUCTIONS**

1, The instrument RS485 communication BPS is fixed at 9600 bits/s, start bit=1, data bit=8, stop bit=1, starting and ending time >5ms.

RS485/RS232 communication(set meter address to 001)

Start bit	Data bit	Stop bit	Parity	Baud rate
1	8	1	None	9600Bit/ S

2, The format of the data reading and writing is same as standard Modbus protocol. Definition as follows:

**Request:** read Moment Flow(set meter address to 001)

01	03	0098(0062H)	0002	26069 (65D5H)
ADD	COM	PV1	Counts	CRC

**Response:**

01	03	04	6D96 49F3	7166
ADD	COM	Counts	PV1	CRC

Return Power: 2 WORD

PV1 = 6D96 49F3=6D96.49F3H= INT 6D96H+ POINT 0.49F3H=28054+18931/65536=28054.2889  
(49F3H=18931 6D96H=28054)

When Max bit is "1", means negative, viz. sign bit.

PV1=ED9649F3= ED96.49F3H = -(6D96H+0.49F3H) = -28054.28890

**Request:** read Cumulative Flow(set meter address to 001)

01	03	0239(00EFH)	0002	F5FEH
ADD	COM	PV1	Counts	CRC

The data are dealt in the same way as Moment Flow as above.

3, When setting parameters, can read multi- parameters; when writing, can write 1 parameter only every time

4, Commands:

02H: read digital value / discrete I/O parameters

03H: read holding registers parameters

06H: write single holding register parameter value

10H: write multi holding registers parameters value

5, Communication parameters:

Factory setting	Parameters address	Parameter type	Data numbers (WORDS)	Range	Remark
	0098	PV1	2	-1999~9999	Moment flow
	0101	PV2	2	-9999-9999	Compensate input value (if any)
	0239 (0EFH)	VA2	2	0~999999	Cumulative flow
	0000	AL1	2	0~9999	AL1 alarm value1#
	0003	AM1	1	0~3	AL1 alarm model
	0004	AL2	2	0~9999	AL2 alarm value
	0007	AM2	1	0~3	AL2 alarm model
	0008	AL3	2	0~9999	AL3 alarm value
	0011	AM3	1	0~3	AL3 alarm model
	0012	PVF	2	-50~50	Parameter amend value
	0015	Add	1	0~255	Communication address
	0016	LCK	1	0~255	Parameter lock