

# **DR 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.

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

Request: (eg. Send order to read PV1: 01 03 00 B9 00 02 15 EE)

01	03	0098(0062H)	0002	26069 (65D5)
ADD	COM	PV1	Counts	CRC

Response: (eg. Return data: 01 03 04 6D 96 49 F3 71 66)

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

Return Power: 2 WORD

PV1 = 6D96 49F3=6D96.49F3H= INT 6D96H+ POINT 49F3H=28054+18931/65536=28054.2888  
(49F3H=18931 6D96H=28054)

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

For example, KW=ED9649F3= ED96.49F3H = -(6D96H+0.49F3H) = --28054.2888

Note: The first data is INT, the second data is POINT. Transfer the second data in HEX format, and divide 65536 to Demical format..

From the above example, 49F3H=18931 / 65536=.2888, take the first 4 digits after decimal point.(0.2888)

ED96 bit 15=1 is negative, viz. -6D96H

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

When write, please convert the point part to HEX format. Eg. 100.5, INT 100=0064H, POINT 0.5=0.8000H, Then you write 100.5=0064 .8000H

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:

DA8 meter reading and writing parameter (

Factory setting	Parameters	Parameter address (HEX)	Data numbers (bytes)	Function	Remark
	PV1	0098 (62H)	4	1 <sup>st</sup> input measuring value	Read only

90.0	AL1	0000	4	Alarm 1 set value	R / W
H: high alarm	AM1	0003	2	Alarm 1 mode setting	
10.0	HY1	0004	4	Alarm 1	R / W
L: Low alarm	AL2	0008	4	Alarm 2	R / W
50.0	AM2	0011	2	Alarm 2	R / W
H: high alarm	HY2	0012	4	Alarm 2	R / W
0.00	PVF	0024	4	PV1 correction value	R / W
0001	Add	0015	2	Communication address	R / W
000	LCK	0043	2	Parameters locking	R / W
mA	InP	0027	2	Input type	R / W
0.0	LsP	0028	4	PV1 low limit display setting	R / W

其中：AM1 AM2 alarm mode: 0000: L : low limit 0001: H : high limit

INP: 0000: mA , 0001: V, 0002: mV 0003: rt 0004: Pt100, 0005:K

0006: J 0007: E 0008 : T 0009: B 0010:R 0011 :S

DP1: 0000: 0000. (INT) 0001:000.0 (one demical point)

0002: 00.00 (2 demical point) 0003: 0.000(3 demical point)