testo 816-1　Protocol Of Serial Interface

Baudrate：9600,N,8,1

The command of Digital Output is list below：

command	Function	Remarks
A(ASC 41H)	Send encoded data	Return encoded 19 byte
C(ASC 43H)	dBA／dBC button	
d(ASC 64H)	Clearing Stored Data	From Manual Store
e(ASC 65H)	Erase memory	
F(ASC 46H)	FAST／SLOW button	
M(ASC 4DH)	MAX／MIN button	
N(ASC 4EH)	Exit MAX／MIN mode	
E(ASC 45H)	REC button	
Q(ASC 51H)	RECALL button	
R(ASC 52H)	MEM button	
S(ASC 53H)	CLOCK button	
T(ASC 54H)	INTV button	
W(ASC 57H)	Back light button	
I (ASC 6CH)	Up button	
L(ASC 4CH)	Down button	
P(ASC 50H)	Load recorded data	

Note：You have to send 8 byte to meter, for example, if you want to send **A** comand, the format will be 0x**02** 0x**41** 0x00 0x00 0x00 0x00 0x00 0x**03**

- **Command A**：**(** Return encoded 19 byte)

  1nd Byte：

  The first byte is the start byte , it value is 02.

  2nd Byte：

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Over	Under	Low Bat	Fast/Slow	A/C	Min／Max	Auto Power Off	REC

  Bit 0：1 → recording
  Bit 1：1 → Auto Power Off Enabled　0 → Disable auto power off
  Bit 2：1 → in MAX／MIN mode,　0 → not in MAX／MIN mode
  Bit 3：1 → A weighting,　0 → C weighting
  Bit 4：1 → Fast weighting ,　0 → Slow weighting
  Bit 5：1 → Low Battery,　0 → Battery Normal
  Bit 6：1 → Under
  Bit 7：1 → Over

  3th Byte：

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3 bit 2	Bit 1 bit 0
MEM	READ	clock	Memroy Full	MAXMIN	Battery

  Bit 1　Bit 0：Battery capacity indicator
  00 → 0 bar
  01 → 1 bar
  10 → 2 bar
  11 → 3 bar

  Bit 3　Bit 2：
  00 → Not in MAX／MIN mode

01 → Display Maximum Reading
10 → Display Minimum Reading
11 → Display Real Time Reading and Calculating MAX／MIN Value.

Bit 4：1 → Memory Full. (**Auto store**)；　0 → Not Memory Full

Bit 5：Clock Flag　(LCD displaying time or not)

Bit 6：Read mode

Bit 7：MEM Full (99 Records is Max.)

4th **Byte**：record no. (in READ mode)

5th **Byte**：record numbers .

6th **Byte**：High Byte of Reading value.

7th **Byte**：Low Byte of Reading value.

8th **Byte**：High Byte of Maximum value.

9th **Byte**：Low Byte of Maximum value.

10th **Byte**：High Byte of Minimum value.

11th **Byte**：Low Byte of Minimum value.

12th **Byte**：BCD of Hour.

13th **Byte**：BCD of Minute.

14th **Byte**：BCD of Second.

15th **Byte**：BCD of Year.

16th **Byte**：BCD of Month.

17th **Byte**：BCD of Date.

18th **Byte**：Check Sum , 2nd and 17th are used to check frame error.

19th **Byte**：End byte, it value is 03.

Example：

Byte 6=0x09　Byte7 =0x28

SPL value = 94.0 dB

Byte 15=0x20　Byte 16=0x10　Byte 17=0x12　20-10-12

Byte 12=0x10　Byte 13=0x07　Byte 14=0x07　10:07:07