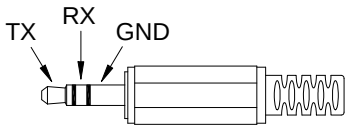
4.11 Digital output:

The Digital Output is a 9600bps N 81 serial interface.
The RX is a 5V normal high input port.
The TX is a 5V normal high output port.



The command of Digital Output is list below:

RS232 command	Function	Remarks
K(ASC 4BH)	Ask for model No.	Return 4 bytes
A(ASC 41H)	Inquire all encoded data	Return encoded 10 byte
H(ASC 48H)	Hold button	
M(ASC 4DH)	MAX/MIN button	
N(ASC 4EH)	Exit MAX/MIN mode	
R(ASC 52H)	REL button	
C(ASC 43H)	C/F button	
U(ASC 55H)	Dump all memory of thermometer	return 32768 bytes
P(ASC 50H)	Load recorded data	

- **Command K:**
  Return 4 bytes. For example, when sends command "K" to meter, it will return "3","0","5", ASCII(13) .
- **Command U:**
  Return 32768 bytes .
- **Command P:**
  Instead of returning all 32768 bytes, it only return recorded data .
- **Command H:**
  Equivalent to one pushing on the HOLD button and no message is returned.
- **Command M:**
  Equivalent to one pushing on the MAX/MIN button and no message is returned.
- **Command N:**
  Equivalent to one pushing and hold the MAX/MIN button for two seconds to exit MAX/MIN mode.
- **Command R:**
  Equivalent to one pushing on the REL button and no message is returned.
- **Command C:**
  Equivalent to one pushing on the °C/°F button and no message is returned.
- **Command A:**

1st BYTE:

The first byte is the start byte , it value is 2.

2nd BYTE:

bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
C/F	Low Bat	Hold	REL		MAX/MIN		REC

bit 0: 1→ recording mode, 0→ not recording

bit 2 bit 1

0	0	→ normal mode
0	1	→ MAXIMUN mode
1	0	→ MINIMUN mode
1	1	→ calculate MAX/MIN in background mode .

bit3: no use.

bit4: 1→ REL

bit5: 1→ HOLD, 0→ not HOLD

bit6: 1→ LOW BATTERY , 0→ BATTERY NORMAL

bit7: 1→ °C 0→ °F

3th BYTE:

bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
	memory full				resolution	sign	OL

bit0: 1→ main window value is OL, 0→ not OL

bit1: 1→ main window value is minus, 0→ main window value is plus.

bit2: 1→ 4th byte and 5th byte represent #### , 0→ 4th byte and 5th byte represent ###.#

bit6: 1→ Memory is full. 0→ Memory is not full.

bit7: 1→ Auto power off enabled. 1→ Auto power off disabled.

4th BYTE:

first two BCD code of main window value.

5th BYTE:

last two BCD code of main window value

6th BYTE:

BCD code of month.

7th BYTE:

BCD code of day.

8th BYTE:

BCD code of hours.

9th BYTE:

BCD code of minute.

10th BYTE: end byte, it value is 3, 1nd and 10th are used to check frame error.