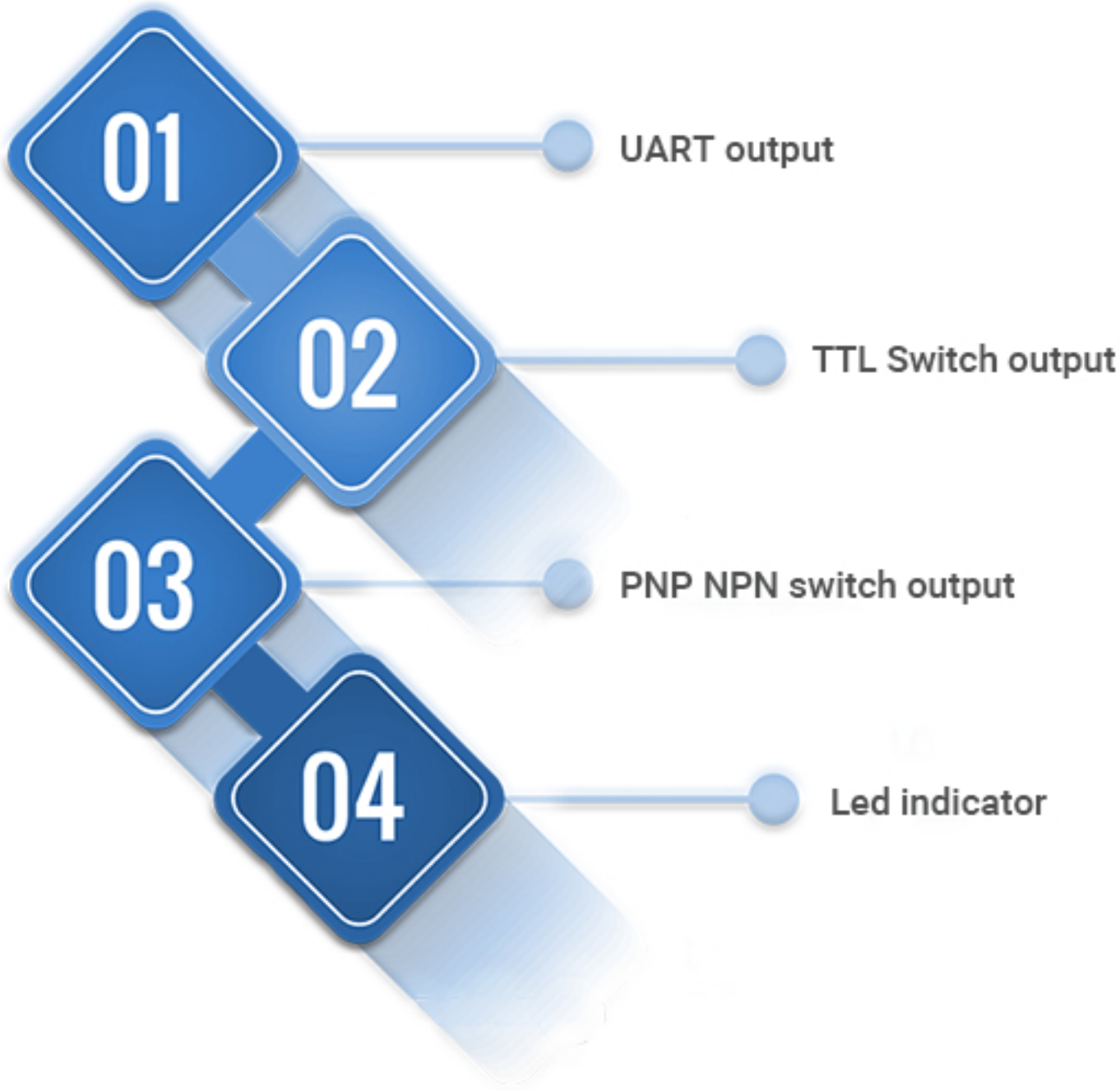
L02 Module Output Interface



1. UART Output

1. UART auto: The sensor detects at a working frequency of once per second, and pin TX automatically outputs the currently measured liquid level height value.

2. UART controlled: when the trigger input pin RX receives a high level trigger pulse, the falling edge will trigger the sensor to work once, and the pin TX will output the liquid level once, this operating cycle must be greater than 1S.

(1) Communication Instruction

UART	Data Bit	Stop Bit	Parity check	Baud Rate
TTL Level	8	1	N/A	9600bps

(2) Output format

Frame data	Description	Byte
Start Bit	0XFF 0XFF	1byte
Data_H	High8 distance value	1byte
Data_L	Low8 distance value	1byte
SUM	Parity sum	1byte

(3) Exampleat

Start Bit	Data_H	Data_L	SUM
0XFF	0X07	0XA1	0XA7

Remark: Checksum only remain low8 value.

SUM =(Start Bit+ Data_H+ Data_L)&0x00FF

=(0XFF + 0X07 + 0XA1)&0x00FF

=0XA7

Liquid Level Value= Data_H*256+ Data_L=0X07A1

Converts to decimal is equal to 1953, means current measurement value is 1953mm

2. TTL Switch output

(1) Positive Switch output

(1) LED flashes at a frequency of 1 time per second after detects the liquid,the output value of pin TX is equal to VCC.

(2) LED is always on if the sensor does not detect liquid, pin TX outputs 0V.

(3) The sensor outputs only high and low level signals, and has no drive capability.

(2) Negative Switch output

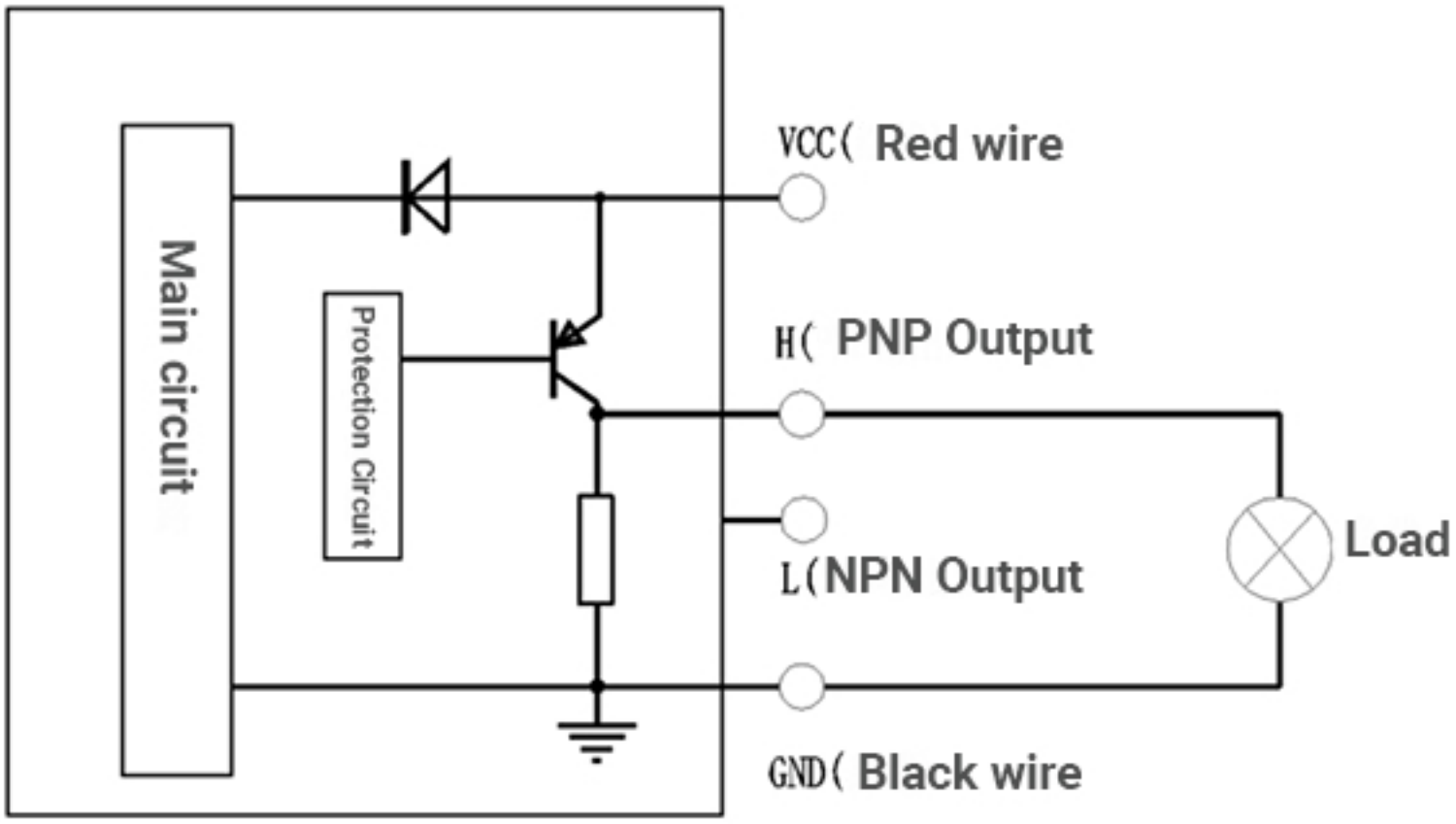
(1) The LED flashes at a frequency of 1 time per second after sensor detects the liquid, pin RX outputs 0V.

(2) The LED is always on if the sensor does not detect liquid, output value of pin RX is equal to VCC.

(3) The sensor outputs only high and low level signals, and has no drive capability.

3. PNP NPN Switch output

(1) PNP Switch output

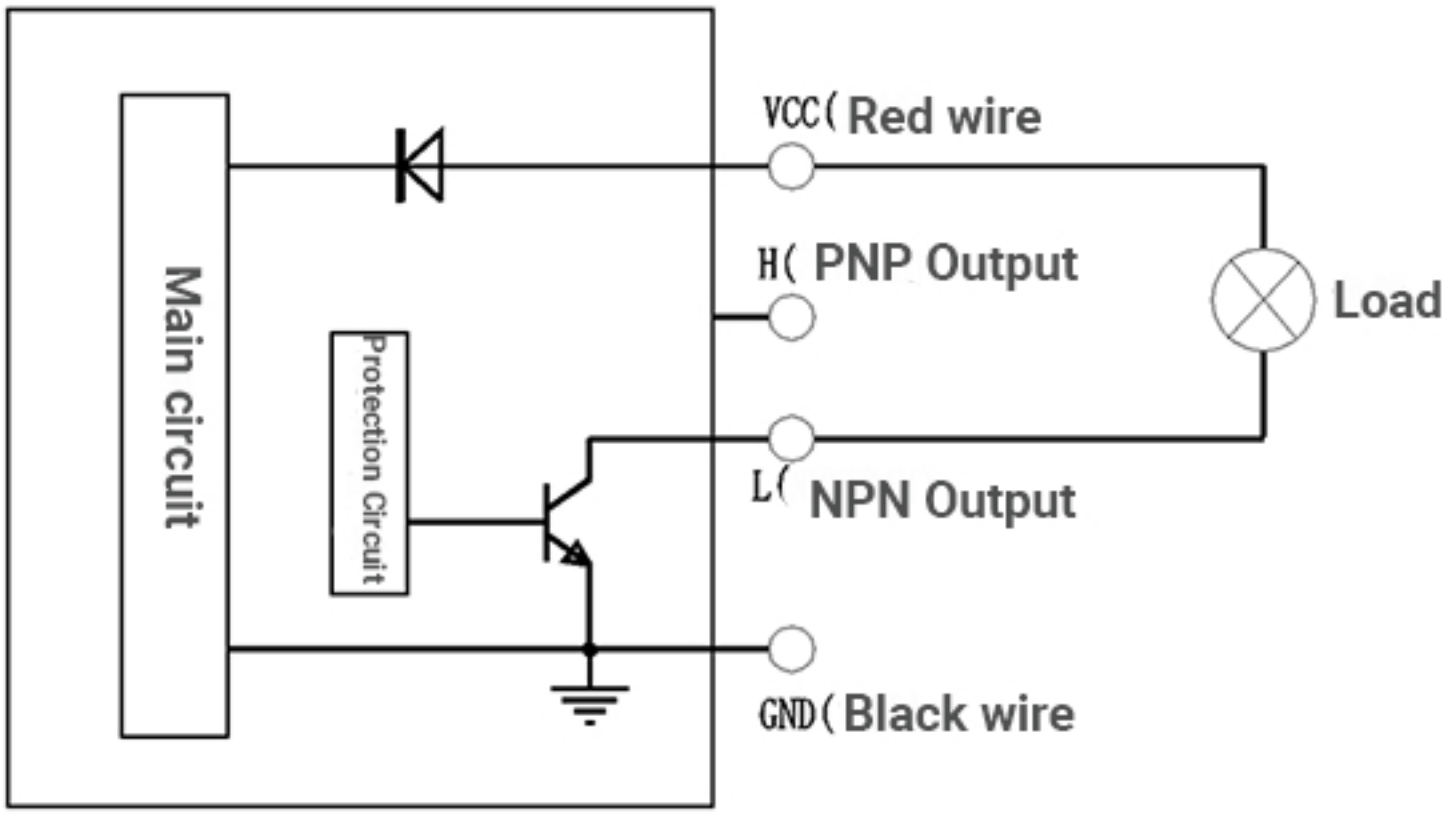


(1) LED flashes at a frequency of 1 time per second when the sensor detects the liquid, the internal transistor is turned on, and H output is equal to VCC.

(2) Led is always on if the sensor does not detect liquid, the internal transistor is cut off, and H output outputs 0V.

(3) The load capacity of the sensor output should be less than 100mA resistive load.

(2) NPN Switch output



(1) LED flashes at a frequency of 1 time per second when the sensor detects the liquid, the internal transistor is turned on, output pin L connect to GND directly.

(2) Led is always on if the sensor does not detect liquid, the internal transistor is cut off, and there is no output of pin L.

(3) The load capacity of the sensor output should be less than 100mA resistive load.

4. LED Indicator instruction

(1) LED is always on: the sensor is power on but no liquid is detected.

(2) LED flashes slowly: When the sensor detects liquid, the LED indicator flashes at a frequency of 1 time per second.

Remarks:

UART controlled operation: Trigger the sensor to work once, the LED flashes once. without triggering the sensor to work, The LED does not light up.