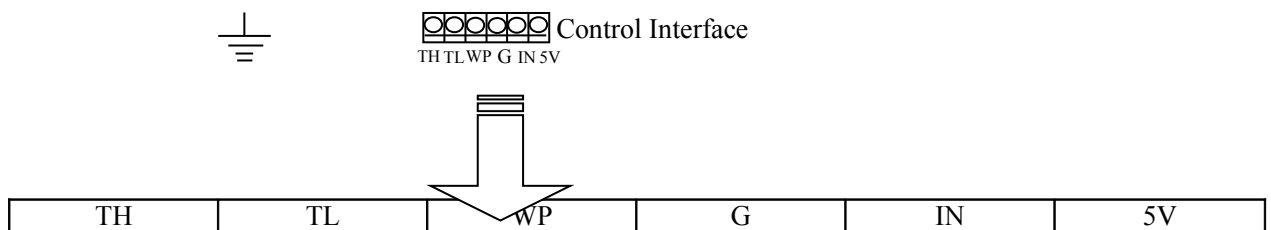


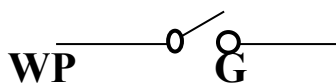
### III. Terminal definition



#### Terminal definition

TH	Input Signal	The control of laser: $TH \geq 3V$ , emitting laser; $TL \leq 0.3V$ , no laser.
TL	Input Signal	The control of laser: $TH \geq 3V$ , emitting laser; $TL \leq 0.3V$ , no laser.
WP*1	Input Signal	The control of laser: $TH \geq 3V$ , emitting laser; $TL \leq 0.3V$ , no laser.
G	GND	This foot must be connected well with the shell of laser machine and the ground of control board.
IN*2	Input Signal	The control of laser power: Both 0-5V analog signal and PWM signal can control the laser power.
5V	Output Power	Output 5V, the maximum output current is 20mA.

**NOTE:** 1. WP can be used as detecting end of blower switch or water detection switch. If WP and ground are not connected by empty node like picture 1, but connected through optocoupler, the connection will be like picture 2.



Picture 1



Picture 2

2. When the laser power is controlled by PMW, the frequency of PWM must be equal or greater than 20 kHz and the amplitude (P-P) is smaller or equal to 5V.

#### Function of control interface:

TH	TL	WP	IN	Laser Output
hang in the air	Low( $\leq 0.3V$ )	Low( $\leq 0.3V$ )	0—5V or PWM	Emitting laser Power: $P_{min} \sim P_{max}$

	Low( $\leq 0.3V$ )		hang in the air	Output 40% laser
	High( $\geq 3V$ )		All value is ok	No laser
High( $\geq 3V$ )	hang in the air		0-5V 或 PWM	Emitting laser, $P_{min} \sim P_{max}$
Low( $\leq 0.3V$ )			hang in the air	Output 40% laser
Low( $\leq 0.3V$ )			All value is ok	No laser
All value is ok	All value is ok	High( $\geq 3V$ )		No laser

#### IV. The connection of power supply and control board

##### 1. Recommended connection: High-level light control

