

SHENZHEN BODEN TECHNOLOGY DEVELOPMENT CO., LTD.

BD-05T033B **24V** Wire Connection Instructions



Wiring Methods: This pump is with PWM speed control function, please pay attention to the following points when wiring:

Wire sequence

1. **Black:** 24V negative pole
2. **Red:** 24V positive (voltage range: 15V-26.4V)
3. **Yellow:** FG, can be suspended

Output VOH 4V min; 5V 4.7K Ω

VOL 0.6V Max

Maximum current for synchronisation of FG signals 3 mA

Maximum number of pulses for FG signal 6 pulses/cycle

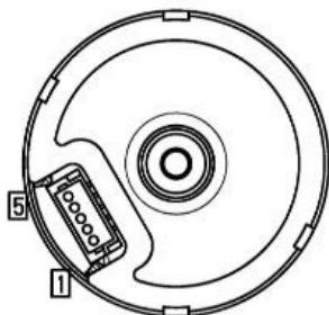
4. **White:** PWM.

Input voltage range: 0-5V VIH 2V Min, VIL 0.8V Max

PWM input frequency 15 KHz - 25 KHz

When the PWM speed control function is not used, it is necessary to connect this wire and the black one to the 12V negative pole at the same time together, so that the duty cycle is 100%, so that the pump can turn.

5. **Green:** Direction, Dangling.



BD-05T033B 12V Wire Connection Instructions

Wiring Methods: This pump is with PWM speed control function, please pay attention to the following points when wiring:

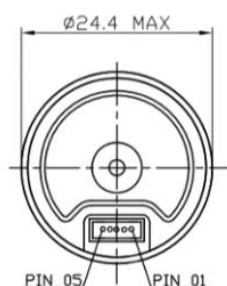
Wire sequence

1. **Red:** 12V positive (voltage range: 10.8V-13.2V)
2. **Green:** FG, can be suspended
 Output VOH 5V
 VOL 0.5V Max
 Current for FG signal synchronisation 2 mA
 Maximum number of pulses for FG signal 6 pulses/Cycle
3. **Yellow:** positive and negative direction, suspended.
4. **Black:** 12V Negative
5. **Blue:** PWM.

Input voltage range: 0-5V VIH 2V Min, VIL 0.5V Max

Frequency 10KHz - 30KHz, start frequency 4% - 100%.

When not using the PWM speed control function, you need to connect this wire and the black wire together with the 12V negative terminal at the same time to make the duty cycle 100%, so that the pump can turn.



Note: Reverse power connection will burn the control board, when connecting or disconnecting the circuit, please cut off the power supply and stop the motor before connecting the wire, otherwise the controller will have the risk of burning.