

VCool™ PWM Valve Controller

Introduction:

The VCool™ PWM controller provides an efficient way to energize the solenoid valves with less power consumption.

It enables lower heat generation and lower temperature of the valve during the operation. With VCool™ controller, the solenoid valve can be energized indefinitely.

Overdrive Function:

Overdrive voltage is generated by the VCool™ PWM controller and it's used to energize the solenoid valve as trigger power.

All the valves with either 12 VDC or 24 VDC power supply can be controlled by the VCool™ controller with a DC power supply up to 36 VDC.

The overdrive voltage lasts 100ms. After that the holding voltage drops and keeps the solenoid valve being energized with much less power consumption.

It offer following benefits :

- Faster response time. (the opening response time can be reduced by up to 60%)
- Larger operating pressure rating and larger tubing and / or custom tubing material are allowed (custom design is required)

System Benefits:

- ◆ Energy saving and longer runtime
- ◆ Compact design
- ◆ Faster response time with overdrive function
- ◆ Faster turn-off time when power to the controller is turned off
- ◆ Compatible with most PreciGenome pinch valves and isolation valves
- ◆ Compatible with most other brands of pinch valves and isolation valves

Specifications:

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Trigger time	100ms
Max input voltage	36V
Max input current	1 A
Hold voltage with 36 VDC input	12 V
Hold voltage with 24 VDC input	8 V
Hold voltage with 12 VDC input	4 V
Voltage level reduction to	1/4
Power consumption reduction to	1/16

Installation:

As shown in the Figure below:

- 1.Red cable (left up corner) to connect a DC power supply (12 to 36V DC);
- 2.Black cable (right up corner) to connect ground of a DC power supply;
- 3.Blue cable (left bottom corner) to connect one wire of a solenoid valve;
- 4.Blue cable (right bottom corner) to connect the other wire of a solenoid valve

