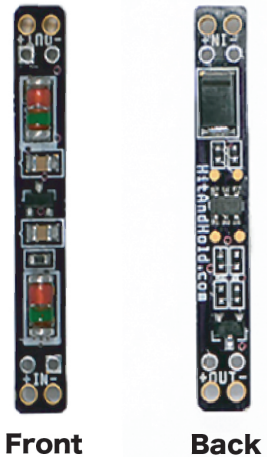


Instrument in a Box

1 Channel Solenoid Driver - 1 Amp

Model: HNH-01-500-66-0530-01

Made in Berkeley, CA, USA
support@instrumentinabox.com
(510) 298 5050
©Instrument in a Box 2020



Highlights

- Can be inserted into the wires of your existing design
- The driver has two input and two output wires that are soldered in series with the existing wires going to your solenoid / valve
- When power is applied the driver turns on with zero latency and applies full power to the solenoid for 500mS
- The driver then cuts back to a user selectable 50% or 66.6% duty pulse width modulated drive
- 50% represents a cut back to 25% power and 66.6% represents a cut back to 36% of original power dissipation
- The reduction in power dissipation, reduces heat load locally, and also reduces total thermal load in an instrument



Specs

Input Voltage: 5V - 30V

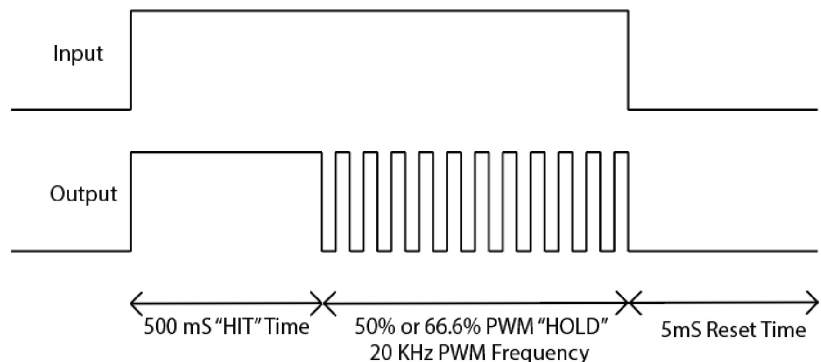
Max Load Current: 1A

Hit Time: 500mS +/- 50mS

Hold Time: Infinite

Reset Time/Voltage: <2V for >5mS

Wire Gage: 20AWG - 28AWG



Applications

Suitable for use in solenoids where the magnetic loop reduces as the solenoid pulls in, such that the much less current is required hold the solenoid in place than to initiate the stroke. Please contact the solenoid vendor for a suitable hold current for your solenoid.

Instrument in a Box

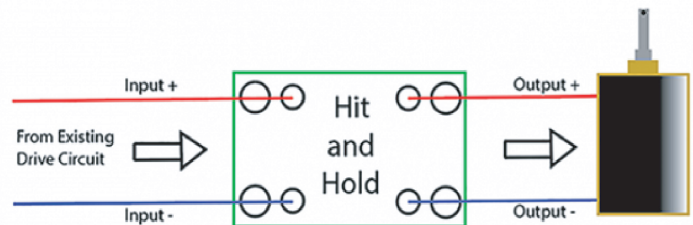
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Wiring

Cut existing wires to solenoid and insert in series (note polarity)



PWM Duty Cycle

PWM Duty Cycle can be modified:

A - Select resistor A 100 ohm 0402 size for 66.6% duty (installed as sold)

B - Select resistor B 100 ohm 0402 size for 50% duty



Soldering

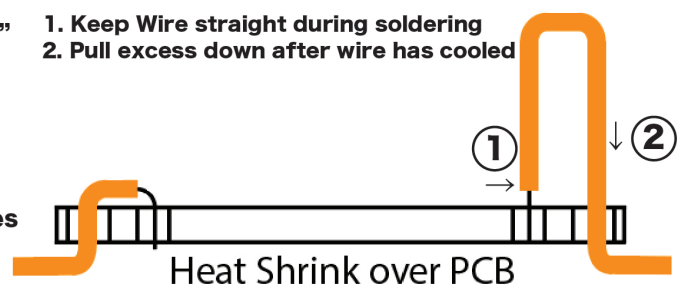
Maximum conductor diameter: 20 AWG, 0.82mm, 0.032"

Maximum wire diameter including insulation, for strain relief hole: 1.25mm, 0.050"

- Thread wire through outer holes
- Outer holes are electrically connected to the inner holes
- Teflon insulation preferred

Loop through strain relief

1. Keep Wire straight during soldering
2. Pull excess down after wire has cooled



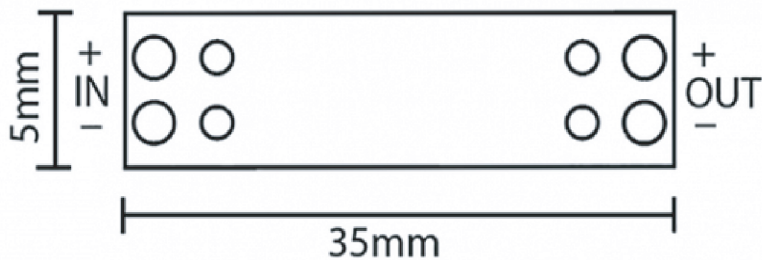
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Dimensions



Part Numbering

Standard Part: HNH-01-500-66-0530-01

HNH-NN-SSS-DD-UUVV-CC

HNH = Hit And Hold Driver

NN = 01 = Number of Channels

SSS = 500 = Hit Time in mS

DD = 66 = % Duty On after Hit Time

UUVV = 0530 = Min Voltage 05 , Max Voltage 30V

CC = 01 Max Current in Amps