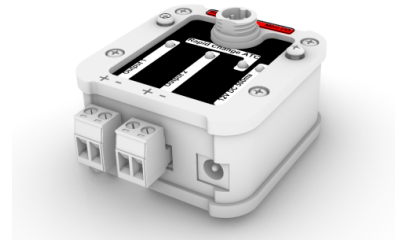


The Redline Mini I/O is a accessory that simplifies the connection of AC Power I/OT Relays and connecting the Rapid Change ATC Tool changers.

If you are looking to take advantage of all inputs and outputs available from the RTS-X Motion controller then a DB-25- Terminal block adapter will be required. See [Realttimecnc.com](http://Realttimecnc.com) for details.

The Mini I/O was designed to make the most common accessories plug and play with the RTS-X motion controller.

The unit includes the **Mini I/O adapter** and a **12V 500ma Power supply**.



12V Power Supply with 2.1mm Barrel

The Mini I/O Adapter utilizes Output 0, Output 1 and Output 3 as well as input zero from the RTS-X Motion Controller.

This adapter was developed for users that simply want Vacuum and Router/Water Pump AC Control from IoT Relays and a connection to the Rapid Change Easy ATC

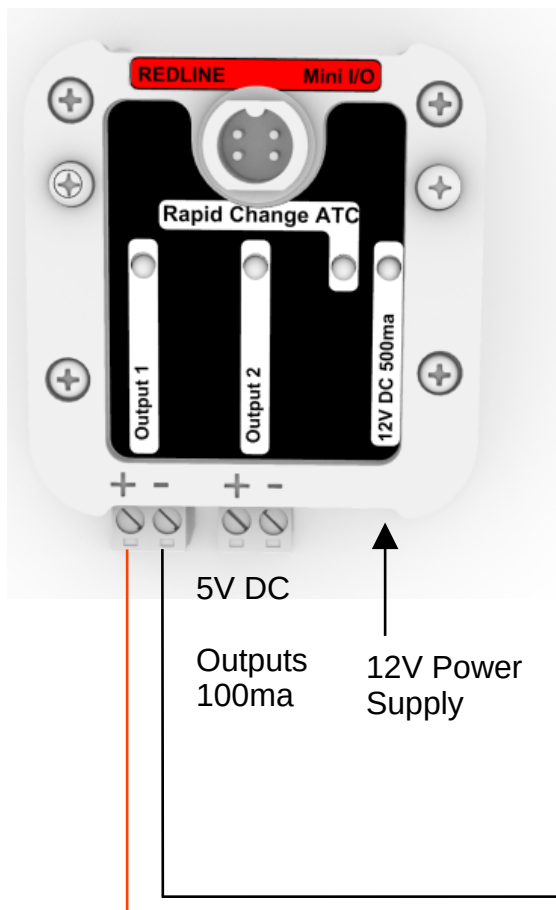
- Output 0 for IoT Output 1 (M8 on M9 off )
- Output 1 for IoT Output 2 (M7 On M9 off )
- Output 3 ATC Dust Cover if Equipped
- Input 0 Rapid ATC IR Sensor
- 12VDC +
- 12VDC - (Return)

**IoT Control Relay**  
This Example from Digital Loggers Inc. See Instruction on connecting your Vacuum.  
**For 120VAC 10A loads**

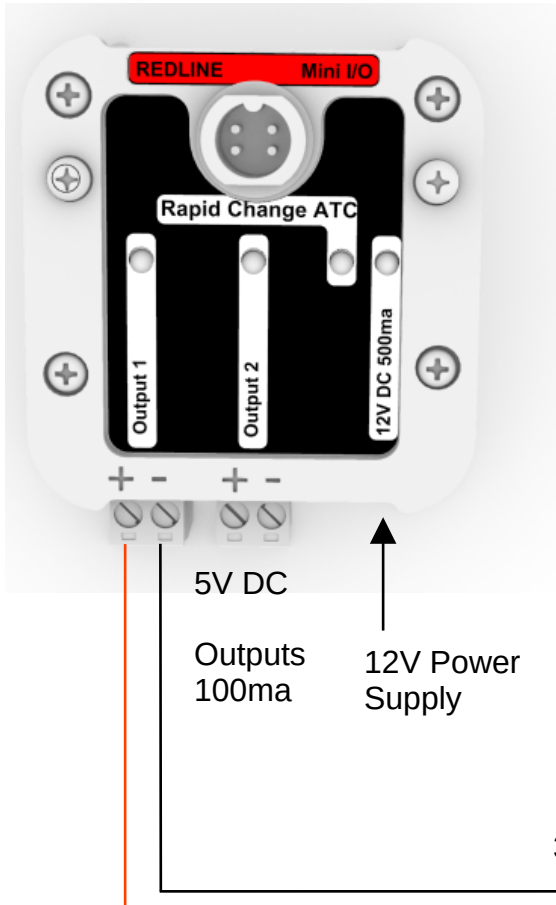


3.3V to 48V Input

## Connecting an IoT Relay 120VAC

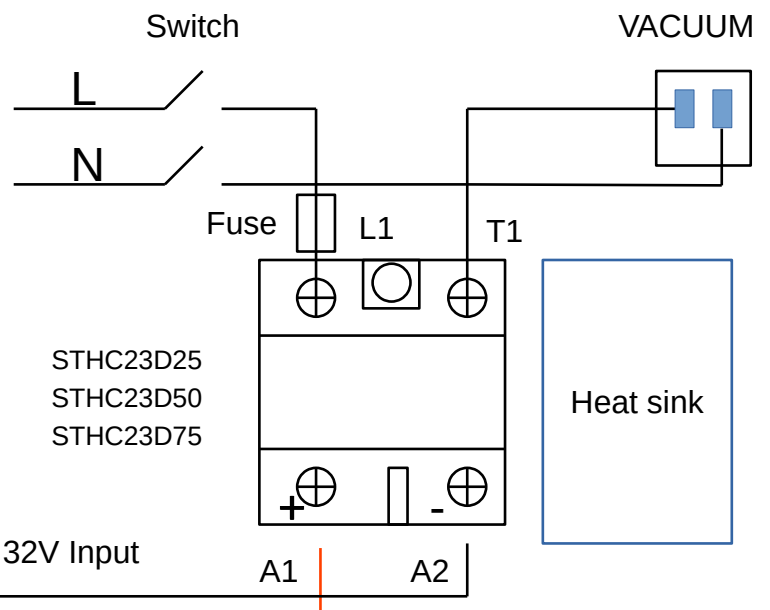


## Connecting an SSR Relay 220VAC

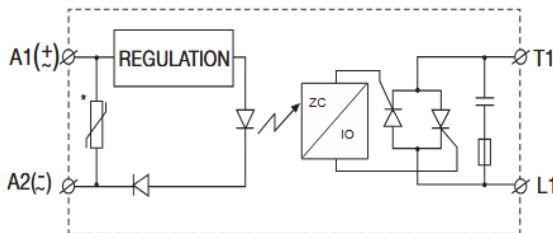


For powerful 220VAC inductive loads like 3HP Vacuums, the connect is complex and require specialized knowledge and electrical expertise. **Please consult an electrician for assistance.**

Generally the setup requires a solid-state relay with the appropriate heat sink, a switch and a fuse.



SSR Block Diagram



\* Varistor across input applie

### Solid State Relay

This Example from Teledyne Relays

<https://www.teledynedefenseelectronics.com/relays/Datasheets%20ISSR/STHC%20-%2020022024.pdf>

See Instruction on connecting your Vacuum.

### For 230VAC loads

## Motor Ratings\*: HP (UL508)

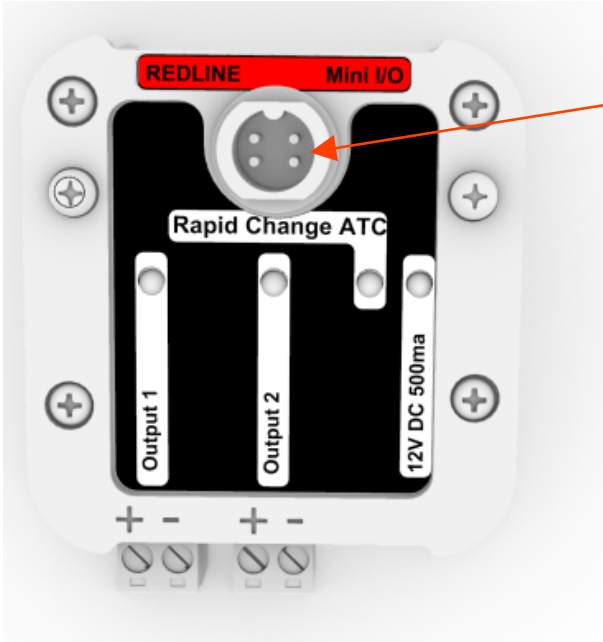
**STHCxx25**  
**STHCxx50**  
**STHCxx75**

### 230VAC

1.5HP  
3HP  
5HP

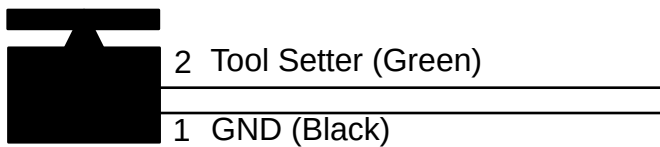
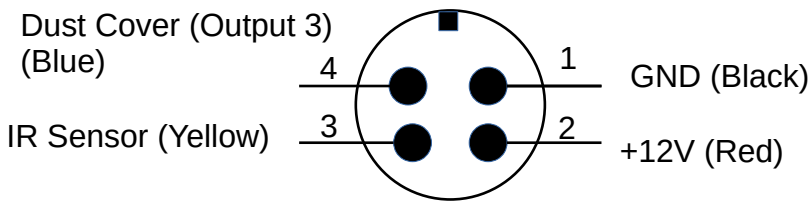
## Redline Mini I/O to Onefinity Easy ATC

To connect the Easy ATC to your controller simply plug it into the GX-12-4 Connector. Then check the controller manual to test and configure the software.



If you purchased your RapidChange ATC directly from the manufacturer then you will have to wire to a GX-12-4 mating connector as shown below. If the ATC included a tool setter this is wired separately to the tool setter input on the RTS-X Motion controller.

Front View of GX-12 -4 Connector on the Mini ATC.



### V1.7 Control

