

# **MicroStar DuPR Series**

## **MicroStar Series Options**

### **Analog Interface Board**

- Typical Function: PLC control of the power supply
- Common levels: 4 – 20 milliamps, 0-5 Volts, or 0-10 Volt (must choose one of the three)
- Accuracy +/- 1% setting
- Board provides isolation of the control and read back signals from the bulk power supply of the unit.
- Each board has 4 channels:
  - Set current
  - Read current
  - Set voltage
  - Read voltage

### **Auxiliary Totalizer with Relay Output**

- Typical Function: automatic dosing (chemical additions) based on ampere minutes
- User enters an ampere time based 4 digit preset. End of cycle trips the relay (contact closure) and restarts the totalizer count. Relay trips each time ampere time preset is reached. A 4-digit timer (programmable from 0-999.9 minutes) sets duration of the contact closure.

### **Master/Slave Control**

- Function: Synchronize multiple power supplies used in the same plating bath
- Provides synchronization of cycle times and operate/standby signals parameters between multiple power supplies.
- Allows up to 10 power supplies to operate in one plating tank in synchronization with each other. One power supply acts as the master and the rest become slaves. Each slave may have different current or voltage settings.

### **Rack Mount Flange Kit**

- Typical Function: Rack mounting cabinets
- Provides finished look for 19" rack mount cabinets
- Kit includes 2 flanges with mounting hardware
  - NOTE: Flanges are not load-bearing. Cabinet must have shelves or rails to support the weight of each power supply

### **Ramp Timer**

- Typical Function: Gradually increase output of power supply at the beginning of the process cycle (not for use at end of the process cycle)
- Increases output (ramps up) from a pre-selected offset setting to a pre-selected maximum output setting over a pre-selected time period. Output level is then maintained at end of ramp.
- 4 digit ramp duration setting: 0000 to 9999 seconds
- Offset setting can be 0 to 99% of selected max output setting

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## **MicroStar Series Options cont...**

### **Recipe Control**

- Function: Create a series of process setups and store them together as a recipe.
- The MicroStar Interface comes standard with the ability to save and recall various process setups.
  - A process setup is defined as an item such as:
    - Output levels (volts and/or amperes)
    - Output ramp
    - Regulation mode
    - Real time cycle
    - Ampere time cycles
    - Trickle current
- Process setups are combined to form a recipe.
  - Each recipe may have up to 10 saved process setups in it.
  - The controller will automatically cycle through each setup in the order that you have designated them within a given recipe.
  - A total of 8 recipes can be saved & recalled within the controller.
  - A looping feature allows the operator to create a recipe where at the end of a chosen setup, the recipe will loop back to a previous setup within that recipe. The number of times this looping is utilized is infinite.
  - Minimum recipe step transition time (time elapsed between execution of each process setup) is ~100 milliseconds

### **Relay Output**

- Function: Turn on/off a pump, mixer, or other such device.
- Allows an external device (pump, motor, etc.) to be turned On/Off automatically through the power supply.

### **Remote MicroStar Control**

- Function: Allows the power supply controller to be mounted in a remote location.
- The controller is housed in a sealed enclosure and includes 10' of connecting cable. The communications connection port is located at the rear of the control enclosure.
- Remote enclosure size: 11" W x 7"H x 3"D
- Available in two different configurations: flush-mount and surface-mount
  - Flush-Mount Option: the MicroStar controller is housed in an enclosure featuring an 11" x 7" front panel. The controller is mounted behind the front panel. This option allows for seamless integration into another enclosure, rack or wet bench.
  - Surface-Mount Option: the MicroStar controller is housed in an 11" W x 7"H x 3"D enclosure. This option allows for the remote to be externally attached to a tank, enclosure, rack or wet bench.

### **Trickle Current**

- Function: Allows output of a low current level at the end of the process cycle or when the power supply is in standby mode.
- The trickle level is set as a percentage of the current setting