

# TSP04-PS

## TITANIUM SUBLIMATION PUMP POWER SUPPLY



### DESCRIPTION

The TSP04-PS Titanium Sublimation Pump Power Supply is configured for constant filament current operation and features a high efficiency up to 92% sine wave inverter circuit for long-term and trouble-free TSP operation. Depending on the purchased variant device can be configured to operate single pump or two pumps alternately. New case design improves space efficiency as TSP04 takes only 2HU half rack. Unit can be remotely controlled via RS232/485 or Ethernet interfaces. The unit is equipped with autosave function (the device save your parameters preset and apply them automatically after restart).

### APPLICATIONS

The Titanium Sublimation Pump Controller regulates the quantity of material sublimated from the filaments, compensating for changing conditions and eliminating the need for operator attendance or adjustment. Depending on the device variant up to 2 processes can be set up, each using a separate 3 filament pump. Separate safety interlock for each pump is available. One filament at the time can be operated to avoid the fracture of the Ti filament due to the thermal stress or the structural change of Ti, ramp time and max. current for each filament can be set. All parameters of each filament can be set individually (max current, ramp time, filament number etc.).

### ACCESSORIES

#### TITANIUM SUBLIMATION PUMP

The Titanium Sublimation Pump (TSP) is a true UHV pump. It is used to supplement the pumping action of other UHV pumps (normally Ion pumps and turbo molecular pumps) as it can be more effective at pumping certain gases. The main advantage of this pump is that it is simple, inexpensive, and can produce high pumping speeds.



### TECHNICAL DATA

Supply voltage	110-240 V, 50 Hz/60 Hz (power consumption max 750 W)
Output current	regulated at 1 to 56 A, RMS $\times$ 1 A
Output voltage	determined by the lead - max 10 V at 50 A
Timing	sublimation period: 1 s to 15 min $\times$ 1 s delay interval: 1 min to 99 h $\times$ 1 min degas time: 1 s to 15 min $\times$ 1 s operate time: 99 d 23 h 59 min
Communication interface	RS232/485, Ethernet
Communication protocol	MODBUS-TCP
User interface	5" TFT display with touchscreen
Interface languages	English, Polish
Dimensions	242 x 87 x 450 mm (W $\times$ H $\times$ D)
Weight (approx.)	6.65kg

### ADDITIONAL INFORMATION

3 filament outputs with common ground connection. Simple, robust, reliable and easy to service design. All output switching is by semiconductor devices. Lownoise: complies with EC EMC and LV Directives. Vacuum interlock input. The TSP04-PS is a 19" rack mounted unit (half-width, 2U height).

### TSP CONTROL APPLICATION



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