

APPLIED KILOVOLTS

REF/ES5

FEB04

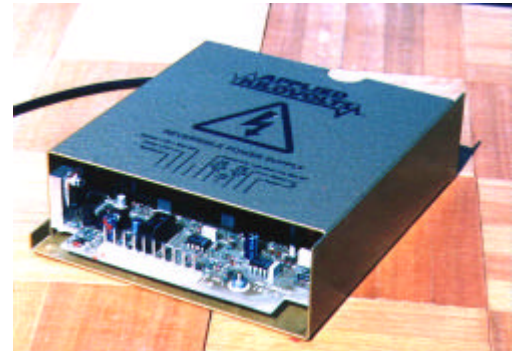
ES5 & ES5/2 BI-POLAR ELECTROSPRAY -5 kV TO +5 kV MODULE

Applications

Electrospray

APCI

Deflector plates



This power supply provides up to ± 5 kV for electrospray & APCI applications. Output polarity can be remotely changed by control pin voltage. As the unit does not use high voltage relays the polarity can be repeatedly changed at high speed without reducing the life of the unit. The power supply is to operate under current control in electrospray & APCI applications in mass spectrometers. Please consult the factory for special variants of this supply including higher speed versions.

Electrical Specification

Input voltage:	+24V d.c. ± 0.5 V at 0.7A, current control option needs -15V d.c. ± 0.5 V at 0.02A.
Output Voltage:	0 to 5kV at 50 μ A.
Control:	Voltage control mode 0 to +10V gives 0 to ± 5 kV. Current control mode: 0 to +5V gives 0 to 50 μ A. (Available on ES5/2 only)
Voltage Monitor:	0 to +10V represents 0 to ± 5 kV, Source resistance 10k ohm. Tolerance ± 5 %.
Polarity:	Reversible. Selection is by grounding of appropriate control lines.
Line regulation:	Better than 100ppm for 1V change in input voltage.
Load regulation:	Better than 100ppm for 10% to full load.
Ripple:	Better than 1 volt peak to peak.
Temperature co-efficient:	150ppm/ $^{\circ}$ C or better.
Operating temperature:	0 $^{\circ}$ C to +45 $^{\circ}$ C.
Inhibit (pin 8):	Low = on, high or O/C = off.

Mechanical Specification

Size:	160mm x 145mm x 48mm.
Output cables:	By flying lead type URM43 length 0.5 metres.
Input Connector:	10 pin Molex.

Connections

Pin 1	Mode control - +24V = Current Mode 0V or o/c = Voltage Mode
Pin 2	+24V DC
Pin 3	Voltage Monitor o/p
Pin 4	-15V DC supply
Pin 5	V control i/p
Pin 6	-ve O/P Polarity select – to 0V
Pin 7	Inhibit i/p 0V or o/c = INH +24V = Normal Running
Pin 8	+ve O/P Polarity select – to 0V
Pin 9	Signal 0V
Pin 10	Power 0V

NOTE

Pin 7 INHIBIT input is NOT a 'Safety' rated inhibit control.