

MCP 3000

Floating Output High Voltage PSU.

Total Power	1 Watt
Input Voltage	24VDC Nominal
# of Outputs	Single

SPECIAL FEATURES

- Isolated output to 15kV
- Buffered voltage monitor
- Minimal overshoot (<3%)
- Fully screened metal case construction
- Short circuit & flashover protected

ENVIRONMENTAL

Temperature Operating +10 to +45°C.
 Storage -10 to +75°C.

Humidity (RH) <95% non-condensing.

Pollution categories II

SAFETY

UL3101-01*



ELECTRICAL SPECIFICATION

Input voltage range	+24V dc ±10%
Input current (full load)	<0.5A.
Output voltage range	0.0 to 3kV, operating range.
Output polarity	Uncommitted, either pole may be grounded.
Output load current	0 to 300µA, maximum.
Control of output	Analogue input from 0V to 10V varies the output from zero to 3kV.
Control input	Differential, either input pin may be grounded or floating. ±10V common mode range.
Line regulation	<50ppm over input range.
Load regulation	<50ppm zero to full load.
Temperature coefficient	<100ppm per 1°C.
Drift (after 3h warm up)	<50ppm, over 1 hour period. <200ppm, over 8 hour period.
Ripple (across outputs)	<100mV pk-pk into full load (b/w 10Hz to 100kHz).
Ripple (injected)	<50mV into a external supply with 2nF to ground.
Loading (common mode)	500M ohms at each high voltage output to 0V chassis.
Isolation	15kV total to 0V chassis. Designed to be connected to a max external ±12kV supply.
Protection	I Limit >350µA, auto recovery. Flash Intermittent flash-over between outputs and either output and 0V chassis.
Output monitor	No. 1 0 to +5V ±0.5% for 0 to 3kV across the HV outputs o/p Z = 10k ohm. No. 2 0 to ±5V ±0.5% for 0 to ±12kV measured from the -ve o/p and 0V chassis, polarity as the o/p, o/p Z = 10k ohm.

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MECHANICAL SPECIFICATION

Dimensions	185 x 113 x 40 mm (7.28" x 4.45" x 1.57" approx)
Weight	1100g (39 oz.) approx.
Mounting centres	167 x 74 mm, 4 off M3 captive (6.575" x 2.913")

CONNECTIONS

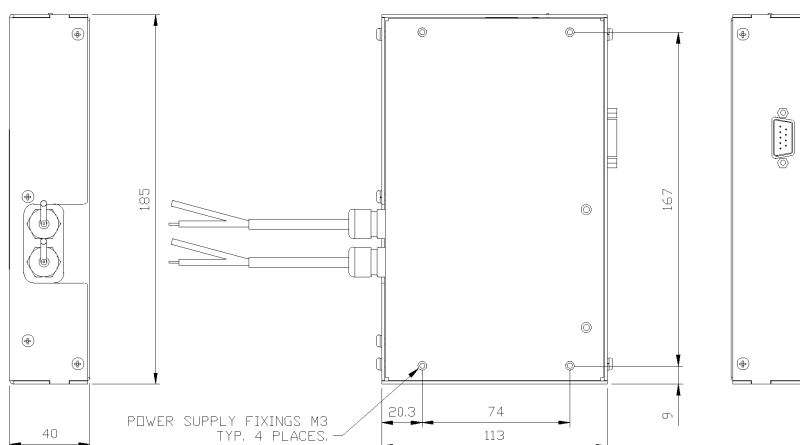
Input & control connector	9 way "D" type plug.
Pin 1	0V supply return
Pin 2	+Ve control i/p.
Pin 3	+24V supply.
Pin 4	Not connected.
Pin 5	V. monitor o/p No. 1.
Pin 6	-Ve control i/p.
Pin 7	Not connected.
Pin 8	Not connected.
Pin 9	V. monitor o/p No. 2
Output	2 off RG58C/U 1m long.

ORDERING INFORMATION

Input Voltage	Output Voltage	Output Current	Output Polarity	Ordering Code
24V dc Nominal	3kV	330 μ A	Floating	561-401

Other output voltages and connector options available upon request.

DRAWINGS



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