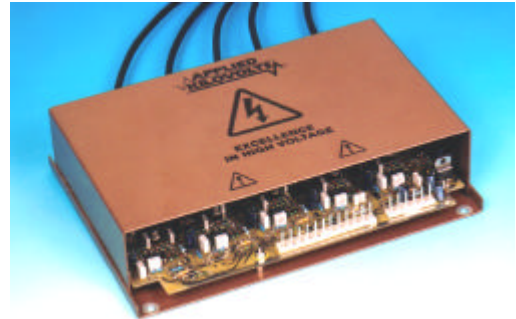


## HP5x5

### 5 SEPARATELY CONTROLLED 5kV OUTPUTS



#### Applications:

Beam steering in electron guns  
Mass spectrometers  
Surface science instruments

The HP5x5 provides 5 separately controlled 0 to 5kV outputs, at up to 300 $\mu$ A. Each one can be configured by the factory as positive or negative (combinations of polarity are possible e.g. 3 positive and 2 negative). Each channel is controlled by its own 0 to +10V control signal, and each has its own 0 to +10V monitor output. The module is powered from 24V DC, and draws 2 Amps fully loaded.

#### Electrical Specification

Input voltage: 24 volt d.c.  $\pm$ 5% at 2A. Negative input terminal common to HV earth return.  
Output Voltage 1: 20V to 5kV at 300 $\mu$ A.  
Output Voltage 2 to 5: As output 1. All outputs are individually controlled  
Polarity: Each channel can be factory set either positive or negative (combinations such as 3 positive & 2 negative are possible).

Please note the following applies to each of the 5 outputs:

Controls (5 separate): 0 to +10V gives 0 to 5 kV.  
Voltage monitors: 0 to +10V represents 0 to 5 kV (all 5 outputs). (Source resistance 10 kohm.)  
Ripple: Less than 150mV peak to peak on each output.  
Line regulation: Less than 50ppm for 1V change in input.  
Load regulation: Less than 50ppm  
Output tolerance: Better than 2% of control voltage.  
Temperature coefficient: Better than 200ppm/ $^{\circ}$ C.  
Operating Temperature: 0  $^{\circ}$ C to +45  $^{\circ}$ C.

#### Mechanical Specification

Size: 216 x 155 x 52mm.  
Output cables: By flying leads. Each cable 0.5 metre of URM43.  
Input connector: Molex 6 way & 12 way connectors.  
Ordering information: State unit type HP5x5 and polarity mixture e.g. HP5x5-3P2N (3 positive and 2 negative).

Connection Details:

Pin connections (10way)

- 1 Voltage Control O/p 1. 0 to +10V gives 0 to 5 kV.
- 2 Voltage Monitor O/p 1. 0 to +10V represents 0 to 5 kV.
- 3 Voltage Control O/p 2. 0 to +10V gives 0 to 5 kV.
- 4 Voltage Monitor O/p 2. 0 to +10V represents 0 to 5 kV.
- 5 Voltage Control O/p 3. 0 to +10V gives 0 to 5 kV.
- 6 Voltage Monitor O/p 3. 0 to +10V represents 0 to 5 kV.
- 7 Voltage Control O/p 4. 0 to +10V gives 0 to 5 kV.
- 8 Voltage Monitor O/p 4. 0 to +10V represents 0 to 5 kV.
- 9 Voltage Control O/p 5. 0 to +10V gives 0 to 5 kV.
- 10 Voltage Monitor O/p 5. 0 to +10V represents 0 to 5 kV.
- 11 +24V.
- 12 0V Signal.

Pin connections (6way)

- 1 +24V
- 2 +24V
- 3 0V Power.
- 4 0V Power.
- 5 N/c
- 6 Sync (Option)

Serial No ..... Date of manufacture .....

Channel 1 .....

Channel 2 .....

Channel 3 .....

Channel 4 .....

Channel 5 .....