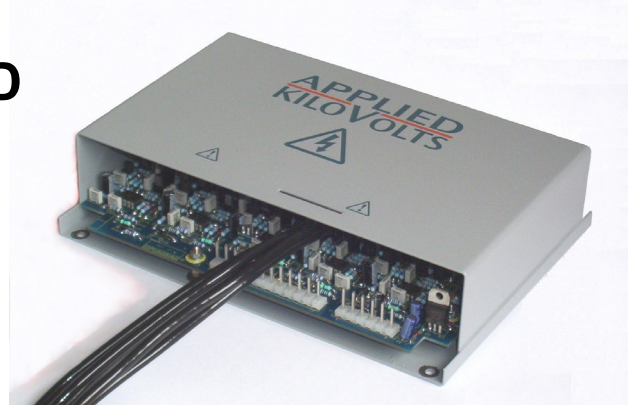


5x5 MS005MAAxxx

5 SEPARATELY CONTROLLED 5kV OUTPUTS

Applications:

Beam steering in electron guns
Mass spectrometers
Surface science instruments



The 5x5 MS005MAA provides 5 separately controlled 0 to 5kV outputs, at up to 300 μ 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 μ 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 MS005MAA and polarity mixture
e.g. MS005MAA302 (3 positive and 2 negative).

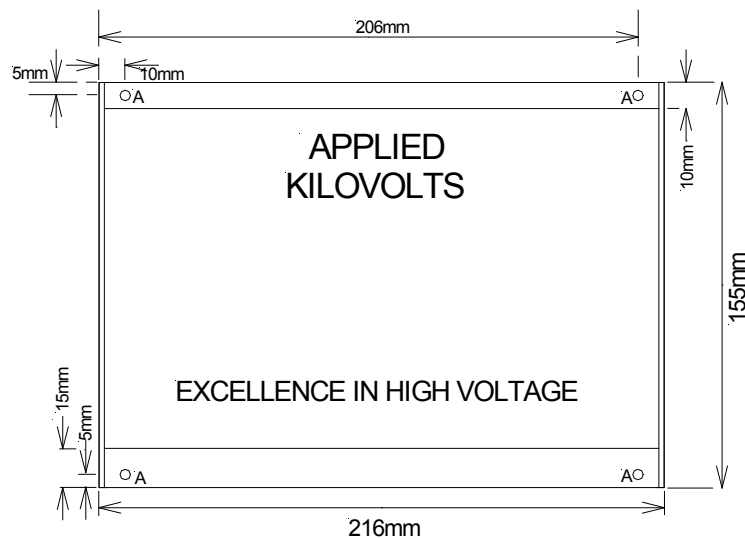
Connection Details:

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



Fixing Holes (marked 'A') M4 Clearance