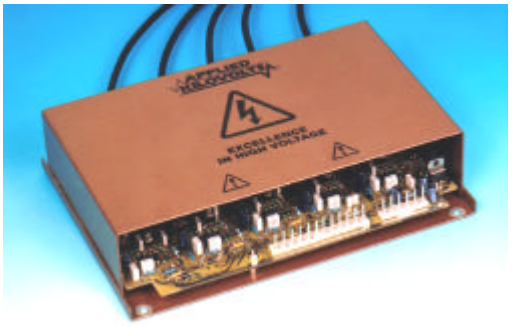
REF/MS005

SEPT07

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 300µA. 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. ±5% at 2A. Negative input terminal common to HV earth return.
Output Voltage 1:	20V to 5kV at 300µA.
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/ ^{o}C.
Operating Temperature:	0 ^{o}C to +45 ^{o}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).

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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)