DETECTOR BIAS UNIT

TYPE : HV 500

Technical Data

NUCLEONIX offers a standard *Detector Bias Unit* Type *HV500* which is a compact STANDARD/NIM Module (TWO bit). This is designed to meet the full HV bias requirement for a broad range of Nuclear radiation detectors like G.M. detectors, ionization chambers, scintillation detectors, photo multiplier tubes, etc,. Apart from this range of applications it also can be used as a high voltage source in areas where high degree of regulation, stability and accuracy are required. Output can be varied by a precision ten turn helipot and output indication is provided on a DPM.

FEATURES :

- ❑ (0-1000V) @ 1mA, continuously adjustable High Voltage output.
- ❑ Indication on 3 ½ LED DPM.
- ❑ Ripple & noise less than 10mV (rms).
- ❑ Regulation better than 0.05% of full scale.
- ❑ Two bit module.

SPECIFICATIONS

Output voltage :
0V to 1000V continuously variable by a ten turn helipot provided on front panel. (All specifications are valid from 10V to 1000V).

Output indication :
Provided on a 3 1/2 digit LED, DPM.

Output connector :
MHV Socket (by default)
UHF Socket (if specified)

Output current :
It can deliver upto a maximum of 1mA.

Output polarity :
The unit is offered with a choice of both POSITIVE or NEGATIVE POLARITY selectable by reversing a polarity connector. (Provided inside).

Line & load regulation: Better than 0.05% of full scale.

Ripple : Less than 10mV (rms) peak to peak.

Protections :
Indefinite protection against overload and short circuit. Under overload the unit doesn't meet the specifications whereas on removal of short circuit it will recover by itself.

Power requirement :
Draws power from a standard BIN / NIM Power Supply or MINIBIN power supply.
+24V at 250mA
+12V at 50mA
-12V at 50mA

Linearity :
Better than +/- 0.2%

Temperature stability :
Better than 100 PPM.

Mechanical dimensions :
Standard 2 bit.

Rear module connector : Amphenol connector Type: 26-159-24P-H (24 pin type) by default or NIM standard connector as per AEC specifications TID 20893 (Rev) Type : AMP 2041865 optional.