



Spellman's MS Modules have been designed for printed circuit board mounting with high reliability, small size and light weight. The MS 3W modules provide well regulated, low ripple, high stability output voltages ranging from 300V to 3kV in a versatile, compact and cost-effective design. The modules incorporate remote control and arc & short-circuit protection. Radiated pickup is eliminated by sealing each module in an aluminum enclosure.

TYPICAL APPLICATIONS

Photomultiplier Tubes
Precision Lenses
Image Intensifiers
Nuclear Instruments
Spectroscopy

OPTIONS

- I Isolated Input to Output
Maximum Isolation Voltage:
40V for units $\leq 1\text{kV}$
100V for units $> 1\text{kV}$

Note: this option is only available for certain models, please consult Spellman for availability.

SPECIFICATIONS

Input Voltage:

+12Vdc $\pm 1\text{V}$. Other input voltages also available.

Input Current:

$< 0.65\text{A}$ at full output.

Output Voltage:

Continuously adjustable over each entire range
Models available in either positive or negative polarity.
See table for voltage ranges.

- **Low Cost**
- **Output Voltages up to 3kV**
- **3 Watts Power Rating**
- **Positive or Negative Polarity**
- **Arc and Continuous Short Circuit Protected**
- **Low Stored Energy**
- **High Reliability**
- **Internal 5V Reference**
- **OEM Customization Available**

Output Voltage Control:

Remote voltage programming such that 0-5Vdc gives 0 to full rated output

Output Power: 3W continuous.

Voltage Regulation:

Line: 0.005% for input change of 1V.
($< 0.01\%$ for MS0.3 units)

Load: 0.05% for 100 μA to full load change at maximum voltage. ($< 0.1\%$ for MS0.3 units)

Ripple: See MS selection table

5Vdc Reference: +5.0V ($\pm 0.2\text{V}$)

A maximum of 1mA can be drawn from this output.

Temperature:

Operating: 0°C to $+50^\circ\text{C}$.

Storage: -35°C to $+85^\circ\text{C}$.

Temperature Coefficient: 50ppm/ $^\circ\text{C}$ typical.

Stability:

$< 0.05\%/8$ hrs at constant operating conditions after one hour warm-up.

Humidity: 0 to 90% non-condensing.

Dimensions:

Units $\leq 1\text{kV}$:

.87"H x 2.1"W x 3.1"D (23mm x 53mm x 78mm).

Units $> 1\text{kV}$:

1.1"H x 2.36"W x 4.2"D (28mm x 60mm x 106mm).

Weight:

Units $\leq 1\text{kV}$: 0.2lb (80g).

Units $> 1\text{kV}$: 0.4lb (160g).

Regulatory Approvals:

Compliant to EEC Low Voltage Directive.

UK Conformity Assessed.

RoHS Compliant.

MS SELECTION TABLE

OUTPUT VOLTAGE (V)	OUTPUT CURRENT (mA)	RIPPLE V (p-p)	MODEL
300	10	0.05	MS0.3*
500	6	0.05	MS0.5*
750	4	0.075	MS0.75*
1000	3	0.10	MS1*
1500	2	0.15	MS1.5*
2000	1.5	0.20	MS2*
2500	1.2	0.25	MS2.5*
3000	1	0.30	MS3*

How To Order:

MSXX*12/C/I

where:

XX is the Output voltage (see selection table)

* is the polarity: P for positive / N for negative

12 is the input voltage. This is 12V

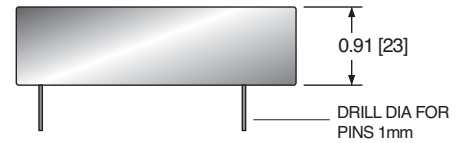
/I is the floating output option, if required

Examples: MS2P12/C

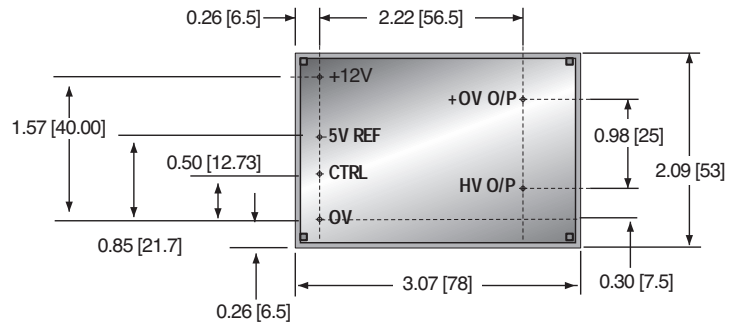
MS0.3P12/C/I

DIMENSIONS: in.[mm]

SIDE VIEW

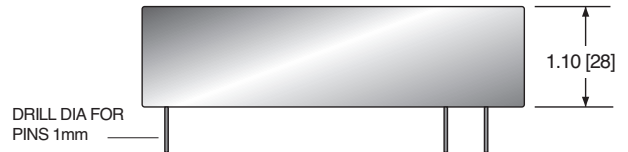


BOTTOM VIEW

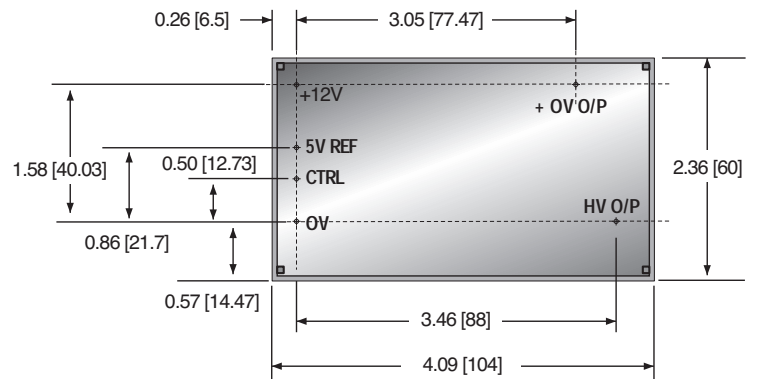


UNIT > 1000V UP TO 3000V

SIDE VIEW



BOTTOM VIEW



View on pins.
Recommended hole size
for terminals 1mm.

