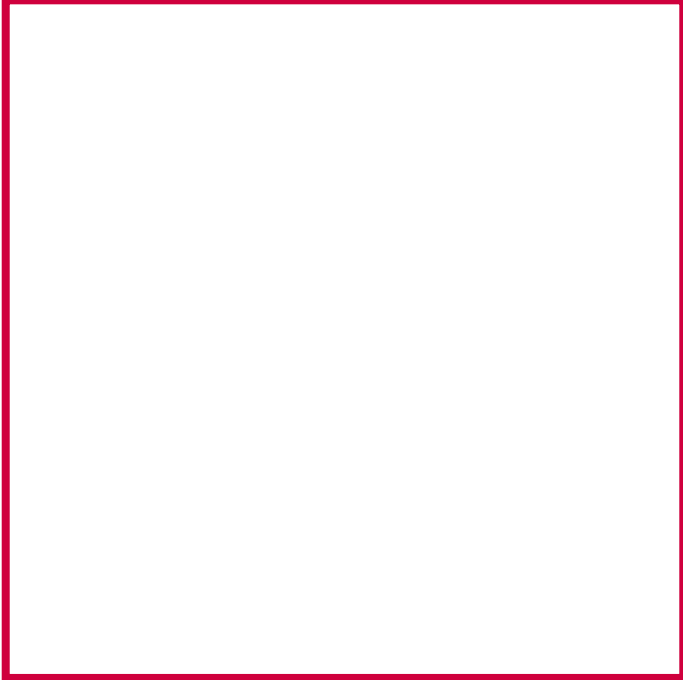


Model PPM1/112N

PRECISION PHOTOMULTIPLIER POWER SUPPLY MODULE



FEATURES

- 0.77W output power
- Negative polarity
- Small size, lightweight
- High performance for precision applications
- High reliability
- Short circuit & overload protected
- C€ marked

DESCRIPTION

The PPM1/112N is a compact, high reliability, photomultiplier power supply module which has considerable advantages in size, weight and specification over other competitive units for photomultiplier applications; and for those applications where 1W output power is sufficient and high performance is essential. These applications include microchannel plates, precision lenses, image intensifiers, and other general precision uses.

Line, load and ripple performance, together with many other aspects of the specification, are all you would expect from this professional photomultiplier module and, due to the wide input range of 14V to 23V DC, the unit can be used with various types of DC input supplies.

SPECIFICATION

Output Power:

0.77W at full rated output voltage and current.

Output Voltage:

-1.1kV max.

Output Current:

0.7mA max.

Input Voltage:

14V to 23V DC (pins 1 and 2 joined).

Note: If preferred, the voltage on Pin 2 can be lower than the voltage on Pin 1.

Input Current:

140mA max (pins 1 and 2 joined), or 130mA max pin 1, 10mA max pin 2.

Output Polarity:

Negative.

Line Regulation:

Less than 0.1V (100ppm) output change, for a 14V to 23V input change.

Load Regulation:

Less than 0.1V (100ppm) output change, for a change from 0 to 0.7mA load current.

Ripple:

Less than 25mV peak to peak at rated output voltage and current.

Voltage Control:

0 to 1.4V input for -1.1kV to -200V output (pin 4). ($V_{out} = V_{in} \times 657 - 1100$) tolerance $\pm 40V$.

Resistance Control:

0 to 10k Ω input for -1.1kV to -200V output (pin 3 to pin 4). ($V_{out} = 2300 / (15200/R+1) - 1100$) tolerance $\pm 60V$).

Temperature Coefficient:

Better than 50ppm/ $^{\circ}C$ at max output voltage and load current.

Operating Temperature:

0 $^{\circ}C$ to 50 $^{\circ}C$ at up to 90% RH non-condensing.

Altitude:

Sea level to 2000 metres (6500 feet).

Stability:

Better than 200ppm/hour after warm-up, measured at rated output voltage and current with constant ambient temperature.

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Protection:

When overloaded, the unit becomes a constant current source at about 1mA and will operate in this way until the overload is removed.

Safety:

Meets the requirements of the Low Voltage Directive, 73/23/EEC, by complying with BS EN60950 when installed as a component part of compliant equipment. Units are CE marked accordingly.

Operation:

The Power Input Pins 1 and 2 can be joined together for operation from a single external supply of +14V to +23V.

Construction:

The PPM1/112N is intended for circuit board mounting and the gold-plated connecting pins can be used to plug in, or to be soldered to a Printed Circuit Board. A machined aluminium alloy case is used for good heat dissipation and screening. A tapped hole and screw for fixing are provided at each corner of the underside of the case. The case and baseplate are internally connected to pin 3, which is 0V, the return path for input and control.

RoHS:

The PPM1/112N is currently built to non-RoHS standard. This unit can, however, be configured to meet the requirements of RoHS where significant customer demand requires it, although please note that this will have an impact on delivery timescales.

Mechanical Specification:

Dimensions: See outline drawing.
Weight: 110g (4 oz).
Case fixings: 4 tapped holes, 8mm deep, are provided together with M2 screws.

Output and Ordering Information:

Model no	Output Voltage	Output Current
PPM1/112N	-1.1kV	0.7mA

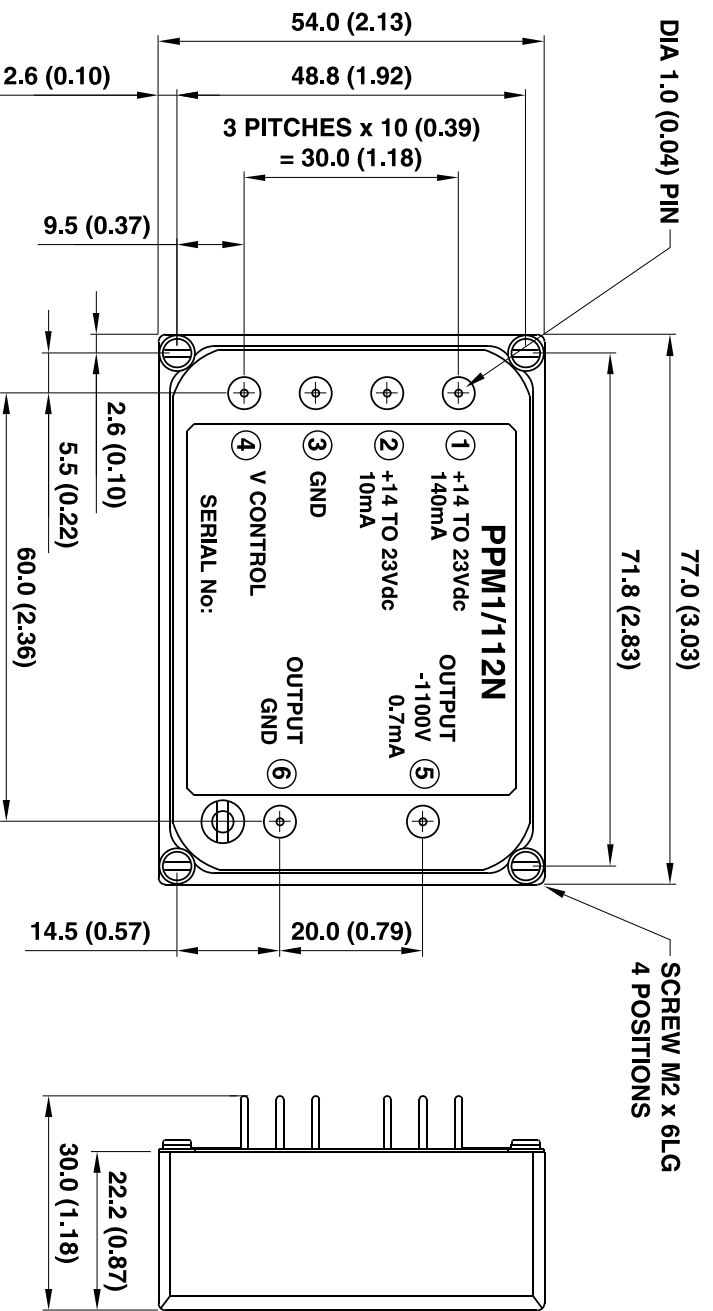
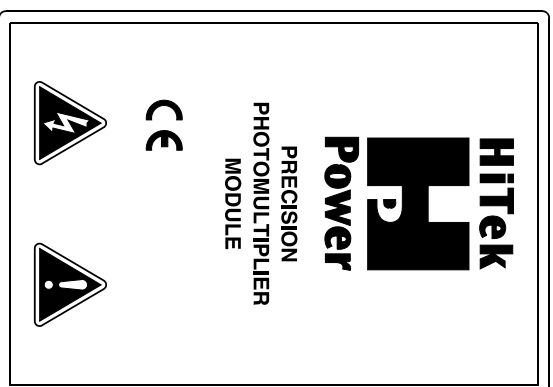
The case and baseplate are internally connected to Pin 3, which is 0V, the return path for input and control.

If required, this unit can be configured to meet the requirements of RoHS providing a significant quantity is ordered - please contact our sales team.

This model is only one of a selection of photomultiplier modules available from HiTek Power. Should you require a different output voltage or current please contact our sales team.

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Drawing dimensions are in mm (inches)
 Design developments may result in specification changes

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