



# MAXIFLEX SLC Power Supply Module

Model M1101A – Solar Powered or 24Vdc + Battery Charger Logic Power Module.

DATASHEET



## FEATURES

- Operate MAXIFLEX systems from Solar Power
- Fits in PSU Slot of MAXIFLEX Base
- Up to 24 hours stand-by time.
- Contains integral +12Vdc Battery Charger
- Temperature Compensated Battery Charger for operation in extreme temperatures conditions.
- Includes +12Vdc Field Supply for powering I/O etc.
- Power Supply Monitoring for reliable system operation
- CE certified for international application.

The M1101A Power Supply Module (SLC PSU) is powered from a Solar Panel or an external +24Vdc (nominal) supply, and provides the primary logic and field power for a MAXIFLEX I/O Base.

This power module also incorporates a +12Vdc field supply for powering I/O, radios etc. and a battery charger suitable for sealed lead acid (SLA) batteries.

This power supply module is intended for use in MAXIFLEX systems where power is not available locally, and solar panels must be used to power the system. An optional 24Vdc input is provided for alternate power sources should these be available.

The integral battery charger is temperature

compensated to provide optimum capacity from the connected Sealed Lead Acid (SLA) Battery over the full temperature range using an external sensor.

An integrated battery voltage monitor is provided which allows the MAXIFLEX CPU in the system to monitor the current battery voltage, and status of the incoming supply for full RTU status monitoring.

A battery low voltage cut-out is provided to prevent batteries from entering their deep-discharge state when the battery is depleted.

Up to 24 hours standby can be achieved with a 24Ah SLA battery in small systems (dependent upon the number I/O Modules).

## SPECIFICATIONS

### DC Input

Power Source	19-38Vdc 40Watts max. with external switch-mode capacitor
Standby Use Float Voltage	13.8V

### Solar Panel Input

Solar Panel Requirement	3Amp solar panel with open circuit voltage 16-25V
Cyclic use Float Voltage	14.1V
Charging Efficiency	>90% at full load

### Logic Supply Outputs

+5V Logic Supply	5.1V $\pm$ 2% 0.5A maximum
+12V Logic Supply	12V +10-5% 3A maximum

### Battery Charger

Battery Type	12V Sealed Lead Acid
Capacity	48Ah maximum
Reserve time (from fully charged)	>24hours assuming a 24Vah battery and 400mA load on average on 12V supply including all accessories.
Battery cut-off	10.7V $\pm$ 2%
Temperature Sensor (supplied)	External Thermistor 1k $\Omega$ 1% (fit close to battery for best results)

### Isolation

Input to Logic/Field Supply	None
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### Front Panel Indication

POWER (Green)	On = Logic Supplies Healthy
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CHARGE (Green)	On = Incoming +24V supply present
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### Input/Output Terminations

Terminal Type	Screw clamp Plug-in Terminal Blocks
Wire Size	2.5mm <sup>2</sup> maximum For manageable wiring to the module, 1.0 mm <sup>2</sup> is recommended

### Environmental and Safety

Operating Temperature	-25°C to +60°C (-13°F to +140°F)
Storage Temperature	-40°C to +70°C (-40°F to +158°F)
Humidity	95% max. at 40°C (104°F) non-condensing.
Environmental Protection	Electronics conformally coated

### Compliance to Standards

Safety	Conforms to IEC950; EN60950
Emissions	EN55011 and EN550081-2:1994 Group 1, Class A
Impulse Withstand	4kV 1,2/50 $\mu$ s DC Supply to Earth 1kV 1,2/50 $\mu$ s I/O Lines to Earth

### Mass

Excluding Packaging	510g (18oz)
Including Packaging	600g (21oz)

### Ordering Information

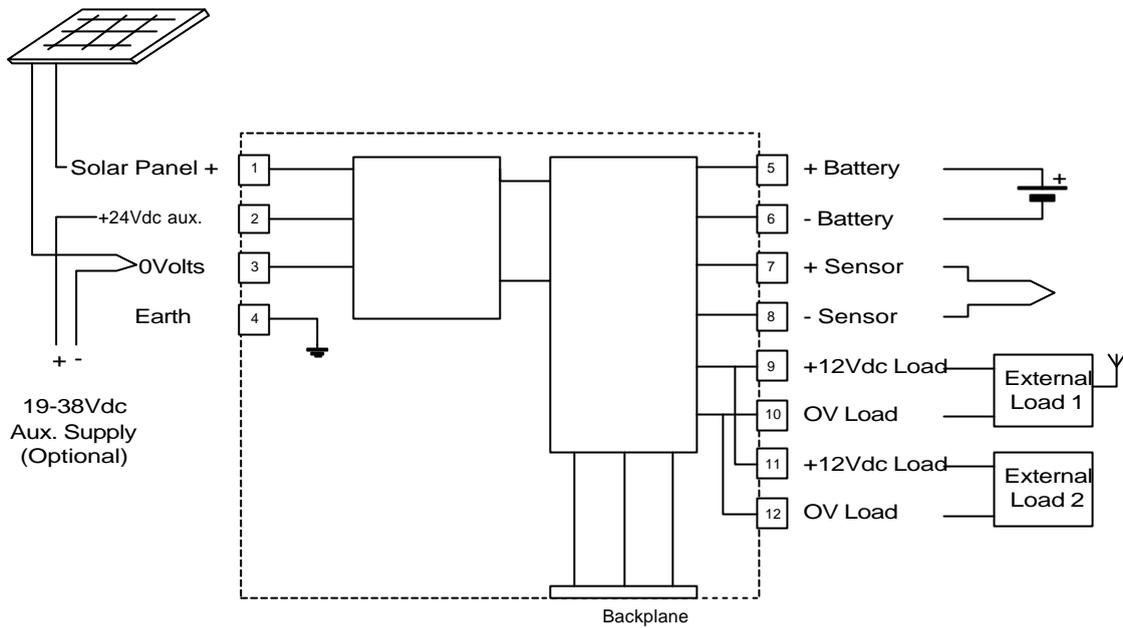
Model Name	Order Code
Maxiflex SLC PSU Module	M1101A



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## ELECTRICAL CONNECTIONS



## MECHANICAL ARRANGEMENT

