

Introduction

The Models M1000/115 and M1000/230 RS-232/RS-485 Converter/Repeater and the PS-M1000 module power supply have been discontinued because they are not CE-compliant. The Model M2000 which replaces them, offers the same converter/repeater function without an internal power supply. The Model M2000 also has an accessory power supply (Model M2000-PS), which is usable at all typical line voltages and frequencies worldwide. The following information is for users who are replacing M1000/115 and M1000/230 units with an M2000 unit.

Models offered

- M2000 RS-232/RS-485 Converter/Repeater (requires a 10-30 VDC supply)
- M2000-PS Power supply for M2000 and/or M1000 modules consisting of:
 - 12 VDC 3 ampere supply with universal input (100-240VAC, 47-63 Hz) and UL/CSA/GS/NEMKO/CE approval markings
 - line cord (US; substitute appropriate cord for use at destination, if exported)

NOTE For a complete functional replacement of the Model M1000, both the M2000 and the M2000-PS (or an equivalent power supply in the user system) are required.

Physical differences

Weight

2.8 lbs. (M1000/115 or M1000/230)

1.0 lb. (M2000 unit only, not including separate power supply)

Dimensions

8.08"W × 2.50"H × 6.25"D (M1000/115 or M1000/230)

7.06"W × 1.53"H × 5.30"D (M2000 unit only, not including separate power supply)

Mounting

Users mounting the M2000 within their system will need to allow for the changed dimensions and also provide a means of installing the accessory supply. (Alternately, the M2000 may be powered from a supply in the customer system.)

Electrical differences

Connection and operation of the M1000 and M2000 are identical. The labeling of indicators varies slightly between the two units: POWER (M1000) = PWR (M2000); TRANSMIT (M1000) = TX (M2000). Indicators are on the front of the M1000, but on the rear of the M2000. There is one additional indicator on the M1000 labeled FAULT, which indicates overloading of its internal 24 VDC supply.

The RS-485 biasing and termination resistors can be enabled/disabled via two 3-position DIP switches on the M1000. On the Model M2000, the corresponding resistors are enabled by setting jumpers on the internal circuit board. The factory default settings are the same for both models.

The M1000 contains a 24 VDC power supply, which was also brought out for use with customer circuitry (typically M1000 Series Programmable Signal Conditioning Modules). The M2000-PS accessory is a 12 VDC 3 amp power supply, which is also suitable for use with the signal conditioning modules (they need a 10 – 30 VDC supply). As the maximum current available from the M1000 is 1 amp and the accessory supply can provide 3 amps, there will be ample current available for existing applications. (Users who were making use of the M1000's 24 VDC supply elsewhere in their system and cannot operate at a lower voltage should purchase the M2000 without a supply and install a 24 VDC supply within their system.)

M2000 power supply connections

On the rear of the M2000, locate the connector marked "RS-485 OUT". From the M2000-PS DC cable, connect the black lead to "B=GND" and the white lead to "R=+10-30V". (The shield wire is internally connected to the black lead and may be taped back or cut off.)