

FEATURES

- Provide isolated +5V power for DMS-30 Series meters
- 750V minimum isolation
- Ideal for high-side dc ammeters shunts
- Provisions for +12V operation
- Includes all the features of the standard DMS-EB board
- Use with all DMS-30PC and DMS-30LCD (5V models only)
- -25 to +60°C operating temperature range

Functional Specifications

T_A = 25°C, V_{CC} = +5V

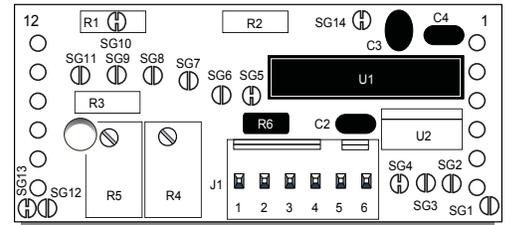
Input Voltage	+5V (±5%)
Input Current:	
Typical	+150mA
Maximum	+250mA
Regulator Input Voltage Range (LM7805CT):	
DMS-30PC-X-XS	+7.5 to +9.5Vdc
DMS-30PC-X-RL	+7.5 to +18Vdc
DMS-30LCD-X-5(B)	+7.5 to +18Vdc
Output Voltage	+5V (±5%)
Isolation	750V, minimum
Operating Temperature	0 to +60°C
Storage Temperature	-20 to +75°C
Dimensions:	2.02" (51.31mm)L 0.83" (21.08mm)W
Humidity (Non-condensing)	0 to 95%

Description: The DMS-EB-DC/DC Application Board provides isolated +5V power for DATEL's DMS-30PC/LCD Series, 3½ Digit, LED/LCD Display, Digital Panel Voltmeters. This add-on board is ideal for applications requiring isolation (up to 750V) between the input signal and the meter's +5V supply.

Features: The DMS-EB-DC/DC is an excellent choice for dc ammeter applications. These ammeters typically have the current shunt located on the positive side of the power supply — a condition which usually exceeds the meter's common mode voltage limit. Input-to-output isolation is required if the power source being measured also powers the DMS-30. DATEL's new Panel Meter Catalog has a detailed application note on dc ammeters.

Applications: The DMS-EB-DC/DC incorporates all standard features of the DMS-EB board; the only exception being the smaller allowable range of power supply voltage when using the LM7805 3-terminal regulator. Use the DMS-EB-DC/DC with any DMS-30PC meter or DMS-30LCD meter (5V-powered models only).

+7.5-18V Operation (Optional): Open SG4 and install U2 (LM7805CT) with its metal tab adjacent to U1. Applications requiring a lower dropout voltage should consider the LM2931T-5. Exceeding the allowable regulator input voltage ranges (see Functional Specifications) will cause device over-heating! As is the case when specifying any electronic power component, be sure to consult all applicable manufacturer's data sheets.



Ordering Information

DMS-EB-DC/DC	DC/DC converter board (with mating connector)
DMS-BZL1	Bezel assembly
DMS-BZL2	Bezel assembly with sealing gasket
RN-DMS	Resistor accessory kit



DC/DC Converter and Isolation Board for DMS-30PC/LCD Meters

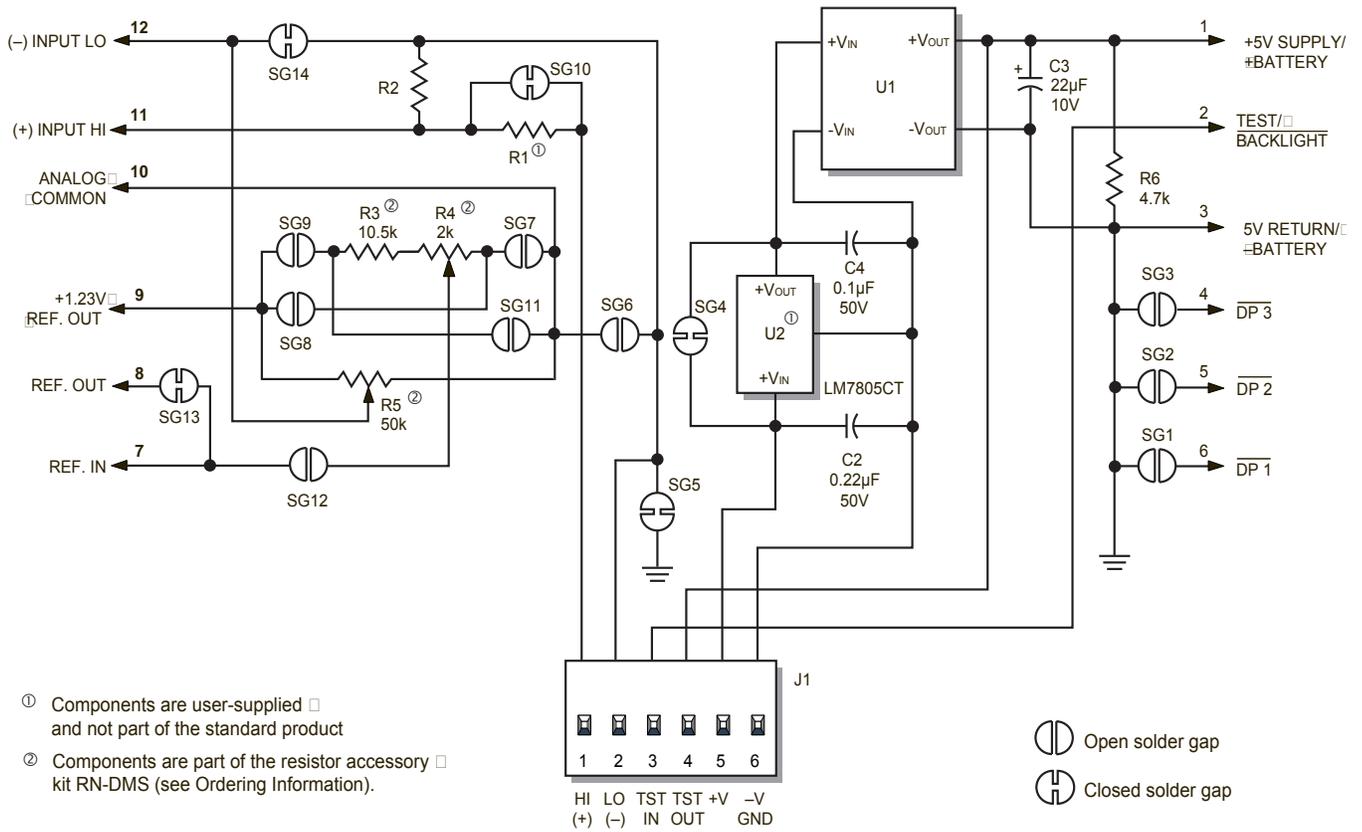


Figure 1. DMS-EB-DC/DC Schematic Diagram