



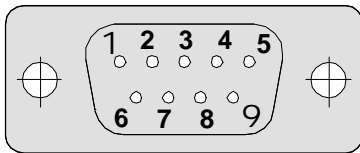
**2 1/4" VOLTMETER & SIGNAL LEVEL GAUGE INSTALLATION INSTRUCTIONS**  
**(DB9 Connector)**

**Additional wire and fuses will be necessary for installation of unit.**

1. Mount the voltmeter in desired location in aircraft's instrument panel.
2. Connect pin 1 of voltmeter to the switched side of master switch. Use a 1 amp inline fuse or connect to a switched terminal in fuse panel. Then connect pin 9 of voltmeter to common ground of aircraft. Use #18 to 24 AWG size wire for connections.
3. Connect pin 5 to the circuit you want to measure. If it is the same as the power to the gauge connect pins 1 & 5 together (In this case Gauge will start working at 12V and up for 0-20V Gauge).
4. If this instrument has the Internal Lighting option, connect pins 6 and 7 to the light inverter, polarity is irrelevant. Be sure to twist the (20-24 AWG) wires a minimum of 8 turns per foot between inverter and instrument.
5. Make sure to route all cables away from sources of heat and moving parts.

Power Supply Voltage: 12 - 30 Volts DC

Current Drain: Typically 75 - 120 mA



As viewed from solder side of connector

**PIN DESIGNATION FOR ELECTRONIC INSTRUMENTS**

- Pin 1 Voltage Input (14 or 28 volt systems)
- Pin 2 Voltage Input (Internally connected to pin 1)
- Pin 3 Regulated Voltage output to Sender (Only when sender requires voltage)
- Pin 4 Negative Input (Used for Thermocouple and Ammeter negative input)
- Pin 5 Positive / Primary Input (Used in all gauges)
- Pin 6 EL Lighting Input (Internal lighting only)
- Pin 7 EL Lighting Input (Internal lighting only)
- Pin 8 Signal GND (Internally connected to pin 9)
- Pin 9 GND (Connect to aircraft ground)

**Warranty**

UMA, Inc. warrants all products to be free from defects in material and workmanship under normal use and operation. UMA does not warrant any product which has been damaged as the result of accident, abuse, negligence, improper operational voltage, lightning, fire, flood, or other acts of nature. Any indication that the unit has been opened can void warranty. Under no circumstances shall UMA be liable for any loss or damage, direct, consequential or incidental, arising from the use of or inability to use this product.

This warranty is limited to the repair or replacement, at the manufacturer's option, of any product or part thereof, which has been returned to UMA within the specified warranty period, and which after examination shall disclose to the customer service department's satisfaction that the product is defective. Transportation to the factory or authorized service center must be prepaid; the product after repair or replacement, will be returned at the expense of the dealer or end customer. This warranty does not apply to any product or integral part thereof, which has been altered or serviced by other than the manufacturer or authorized service center.

The warranty period is twelve (12) months to the user.

This warranty supersedes all other warranties either expressed or implied and shall be governed and executed under the laws of the Commonwealth of Virginia, U.S.A.