EXTECH INSTRUMENTS

INSTRUCTION MANUAL

Model M1001 AS
1/8 DIN DC Panel Meter

- Input signal selectability
- Bipolar display scaling
- ZERO and SPAN adjustment
- Decimal Point Selectability

1. INTRODUCTION

Congratulations on your purchase of Extech's DC Panel Meter. This professional instrument, with proper care, will provide years of safe reliable service.

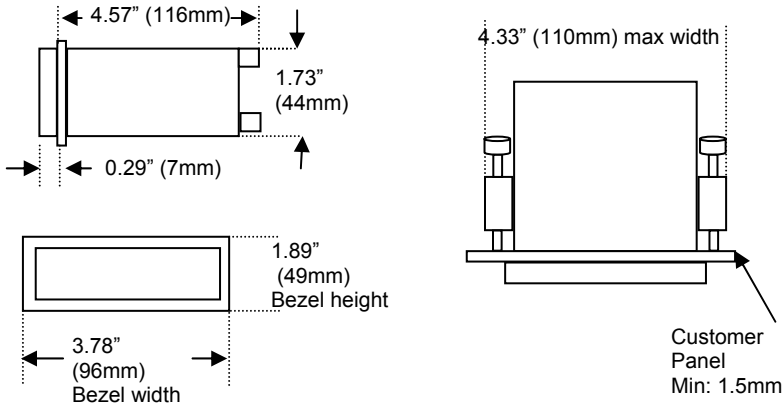
2. SPECIFICATIONS

Input Voltages	0-2/20/200VDC
Input Current	0-20mADC
Display	±1999 count (3-1/2 digit) .56" red LED
Accuracy	±0.05% + 1 digit (full scale)
Display rate	1.5 samples per second
Zero Adjust	± 250 counts
Span Adjust	1800 counts at full scale + zero offset
Sampling Rate	3 readings per second
Over range	"1----" indication
Noise Rejection	CMRR>120dB; NMRR>100dB
Isolation	220Vp (1500Vrms) power line to input terminals
Input impedance	Voltage: 100kΩ, Current: 10Ω
Dimensions / Weight	3.78x1.89x4.57" (96x48x116mm) / 15.2oz. (431g)
Panel Cutout./Depth	1.77x3.62" (45x92mm) / Depth: 4.57" (116mm)
Voltage/Frequency	110VAC (220VAC internal jumper) ± 10%, 50/60Hz (DC optional)
Power Consumption	3.5VA
Temp Coefficient	100ppm/C
Operating Temp.	32 to 122°F (0 to 50°C)
Storage Temp.	14F to 140°F (-10 to 60°C)

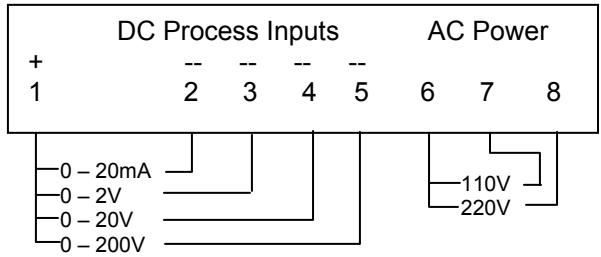
3. MOUNTING AND WIRING

3.1 Meter Mounting

The meter bezel measures 3.78x1.89" (96x48mm) which is 1/8 DIN standard. The behind-the-panel depth is 4.57" (116mm). Mounting hardware has been provided which attaches to the meter sides. The screws attached to the bracket are to be tightened to the back of the panel. Avoid over-tightening. Refer to diagram below:



3.2 Wiring Diagram M1001AS



4. SPAN/ZERO AND DECIMAL ADJUST

4.1 SPAN and ZERO Adjust

1. Remove the meter's faceplate by inserting a screwdriver into the slot on the bottom of the cover and carefully twisting the screwdriver head.

2. With a tweaking tool, adjust the ZERO potentiometer (right side) and SPAN potentiometer (left side) for proper scaling depending upon your application. The ZERO adjustment is used to scale the meter to match the low input signal. The SPAN adjustment is used to scale the meter to match the high input signal. Example, 4-20mA input to display 10 to 100 units. With 4mA applied to meter, adjust ZERO pot. for a "10" display value. Next, with 20mA applied to meter, adjust SPAN pot for a "100" display value. Repeat adjustments as necessary then replace cover.

3. For example, if "0" and "100.0" are programmed as Low and High Display values respectively, the lowest process input signal will provide a "0" meter reading and the highest process signal input will provide a "100.0" reading. All process signals in between will generate linear display values between these two Low and High display points.

4.2 Decimal Selection

Decimal points are set by placing the shorting plug on the back of the display board to the desired location. Remove the faceplate cover as described in Section 4.1 and carefully slide the PC Board far enough out of the housing to gain access to the back side of the display board.

5. CALIBRATION / REPAIR SERVICES

Extech offers complete repair and calibration services for all of the products we sell. For periodic calibration, NIST certification or repair of any Extech product, call customer service for details on services available. Extech recommends that calibration be performed on an annual basis to insure calibration integrity.

6. WARRANTY

EXTECH INSTRUMENTS CORPORATION warrants this instrument to be free of defects in parts and workmanship for one year from date of shipment (a six month limited warranty applies on sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department at (781) 890-7440 for authorization. A Return Authorization (RA) number must be issued before any product is returned to Extech. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. Extech specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. Extech's total liability is limited to repair or replacement of the product.
The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.