VOLTS & mADC INPUT DPM LED 3½ DIGIT
Low Cost Industrial Grade

MODEL 517

Features
- 100% Tested (3 times)
- Automatic Zero
- Low Power Consumption
- MTBF - 100,000 Hours
- Internal Attenuators
- Auto Polarity
- 50mV Input = 1000 Counts for Current Shunts
- Separate Power & Signal Connectors

DESCRIPTION: Rugged, reliable and dependable performance is offered in this low cost industrial grade DPM. The simple IC Design gives you all these plus low power and a clear viewable display. The 50mV Version (Option $) is ideal for industry's standard 50mV Shunts: at 50mV Input, the output is 1000 counts with 100% over-range to 2000 counts for 100mV Input. Field failure rate is below 0.01%

CAUTION: Otek's DPMs are designed to give you years of service if you follow certain rules common to all DPM's. Some of them are:

COMMON MODE VOLTAGE: Is the voltage range between - signal in and power ground. This is not to exceed ±2V PEAK, if used in "Differential" Mode; in "Single Ended" Mode, these two pins are externally connected.

ISOLATION VOLTAGE: This is accomplished by using an isolated power supply (such as our p/n 81-3110) to isolate the signal inputs up to 1200V RMS from other circuitry.

NOISE: If the last digit "flickers", it could be due to either ripple on the power supply (greater than 100mV), your signal has ripple, or it is not stable.

OFFSET: Is due to ground loops, caused by power current flowing thru signal lead, developing a voltage drop across which is going to be measured by the DPM. To avoid this, connect it in Differential Mode (up to 2V) or remove the ground loop. Another cause of offset could be due to high input Bias Current. Otek's DPMs have less than 5 Pico Amps Bias Current balanced at both inputs, allowing it to measure signals from sources of high output impedance (1MΩ or less).

ORDERING INFORMATION (11/1/00)

MODEL 5 1 7 ☐ 0 ☐

INPUT RANGE/Zin
- 0 ..... 200mVolts/1KM
- 1 ..... 2 Volts/1KM
- 2 ..... 20 Volts/1KM
- 3 ..... 200 Volts/10M
- 4 ..... 500 Volts/10M
- 5 ..... 2V. Ratio metric/1KM
- 6 ..... 200µAmp/1KΩ
- 7 ..... 2mAmp/100Ω
- 8 ..... 20mAmp/10Ω
- 9 ..... 200mAmp/1Ω
- $ 50mV/1KMΩ

(50mV = 1000 Counts)

POWER INPUT
- 0 ..... 5VDC
- 1 ..... 120/240VAC
- 2 ..... 12VDC

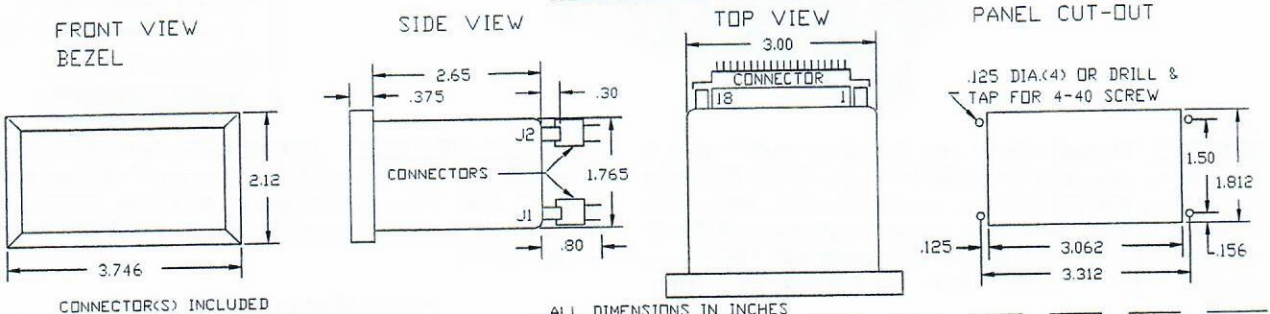
INPUT PROTECTION: All Otek DPMs have input protection to 1000 volts peak for Voltage Models; Current Models are protected to 200% of rated full scale. For greater protection, inversed paralleled diodes can be added across input for current models and spark gaps for voltage models.

SPECIFICATIONS AT 25°C

Input Signal Type	Bipolar, Single Ended or Differential
Input Bias Current	5 Pico Amps
Input Impedance	1000 Megohms
Conversion Type	Dual Ramp
Common Mode Voltage (CMV)	2 Volts
Display Type	0.6" Red LED
Conversion Speed	4 Samples/Second
Drift versus Temperature	±0.005%/°C
Warm-up Time	60 Seconds
Accuracy and Linearity	±0.005% ±1 Digit
Operating Voltage	5, 12VDC 120/240VAC ±10%
Power Consumption	180mA at 5VDC
Output Voltage Available	-5VDC ±10% at 3mA
Operating/Storage Temperature	-10° to +60°C/-20° to +70°C
Decimal Points	Externally Selectable
Power Supply Isolation	1200VAC/DC
MTBF	100,000 Hours

517 MECHANICALS & TYPICAL CONNECTIONS

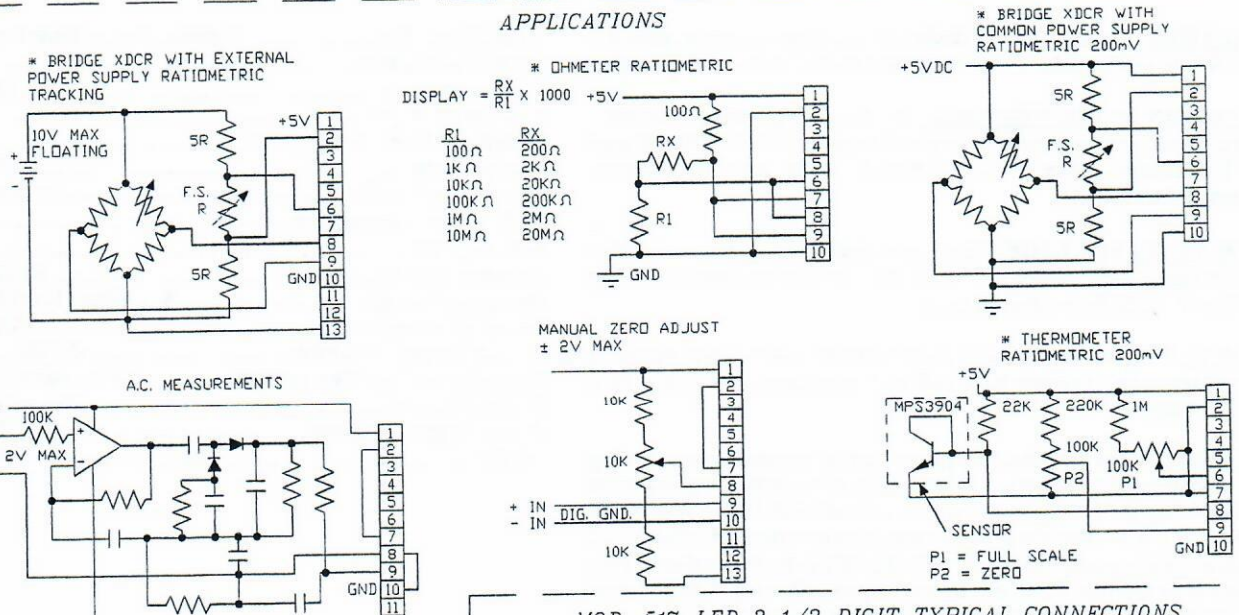
MECHANICALS



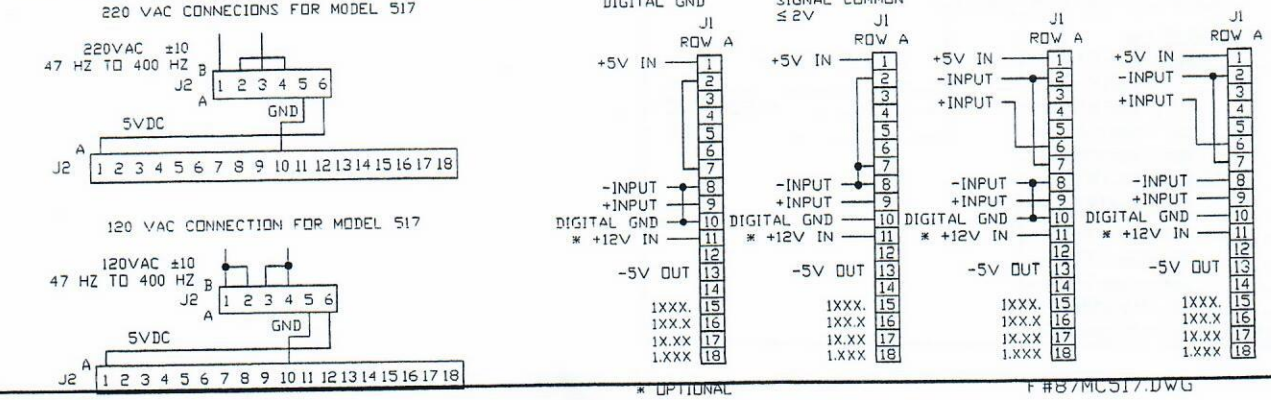
CONNECTOR(S) INCLUDED

ALL DIMENSIONS IN INCHES

APPLICATIONS



MOD. 517 LED 3 1/2 DIGIT TYPICAL CONNECTIONS



* OPTIONAL

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