

40 Series - 3 1/2 Digit, 1999 Count
50 Series - 4 1/2 Digit, 19999 Count

LED Display Digital Panel Meter

- ▲ DC Current and Voltage
- ▲ AC True RMS Current and Voltage
- ▲ Frequency
- ▲ Temperature - Thermocouple & RTD
- ▲ High-intensity, .56" Red LED Display
- ▲ Fits in DIN and NEMA cutouts
- ▲ Screw terminals standard
- ▲ Snap-in case - no tools required
- ▲ Price competitive



40 Series Selection - 3 1/2 Digit DPM ±1999 Counts

Model	Parameter	Ranges	Input Resistance	Max. Overload	Accuracy	Temp. Coef.
40	DC Voltage ¹	200mV 2V 20V 200V	100 megohms 100 megohms 10 megohms 10 megohms	220V Peak 220V Peak 350V Peak 350V Peak	±0.05% Rgd. ±1 count max.	35 ppm/°C 35 ppm/°C 80 ppm/°C 80 ppm/°C
	DC Current ²	20µA 200µA 2mA 20mA 200mA	10K ohms 1K ohms 100 ohms 10 ohms 1 ohm	5mA 15mA 50mA 150mA 500mA		80 ppm/°C 80 ppm/°C 80 ppm/°C 80 ppm/°C 80 ppm/°C
41	AC True RMS Voltage ^{3,5}	200mV 2V 20V 200V 500V	75K ohms 200K ohms 500K ohms 500K ohms 1 megohm	50V Peak 250V Peak 350V Peak 350V Peak 700V Peak	©1.0% @ Crest Factor of 7 for Fundamental Frequency 10Hz to 10KHz 60Hz ±0.1% Rgd. ±1 count max. or 50 to 1000 Hz ±0.1% Rgd. ±1 count max.	±0.1% Rgd. ±1 count/°C
	AC True RMS Current ^{4,5}	200µA 2mA 20mA	1K ohms 100 ohms 10 ohms	15mA Peak 50mA Peak 150mA Peak		
42	Frequency (mag. pick up or tach.)	10 to 200 Hz 10 to 2,000 Hz 10 to 20,000 Hz	83 Kohms	250V Peak	10 Hz to 10K Hz ±0.2% Rgd. ±2 Counts	±1 count/°C
43	Temperature Thermocouple	Type J: 0 to 1000°F 0 to 550°C Type K: +600 to 1800°F +300 to 1000°C	Can accommodate up to 100 ohms of thermocouple lead resistance and maintain accuracy.		±4°F max. ±4°C max. ±7°F max. ±4°C max.	±0.2°F/°C ±0.15°C/°C ±0.45°F/°C ±0.25°C/°C
44	Temperature RTD	-200 to +600°F -100 to +500°C -100.0 to +199.9°F -100.0 to +199.9°C	Type 1: 100 ohms platinum at 0°C 3850 ppm		±1°F max. ±1°C max. ±0.4°F max. ±0.2°C max.	±0.3°F/°C ±0.15°C/°C ±0.3°F/°C ±0.15°C/°C

50 Series Selection - 4 1/2 Digit DPM ±19999 Counts

Model	Parameter	Ranges	Input Resistance	Max. Overload	Accuracy	Temp. Coef.
50	DC Voltage ¹	200mV 2V 20V 200V	100 megohms 100 megohms 1 megohm 1 megohm	70V Peak 240V Peak 500V Peak 500V Peak	±0.005% Rgd. ±4 counts max. ±0.005% Rgd. ±2 counts max.	35 ppm/°C 35 ppm/°C 80 ppm/°C 80 ppm/°C
	DC Current ²	200mA 2mA 20mA	10K ohms 1K ohms 100 ohms	15mA 50mA 150mA	±0.01% Rgd. ±2 counts max.	80 ppm/°C 80 ppm/°C 80 ppm/°C
52	Frequency (mag. pick up)	10 to 2,000 Hz 10 to 20,000 Hz	35 Kohms	250V Peak	10 Hz to 10K Hz ±0.2% Rgd. ±2 Counts	±1 count/°C
54	Temperature RTD	-100.0 to +600.0°F -50.0 to +500.0°C	Type 1: 100 ohms platinum at 0°C 3850 ppm	±5V Peak	±0.70°F max. ±0.4°C max.	±0.3°F/°C ±0.15°C/°C

Standard Specifications

Display:

Type: High brightness, 0.56" orange LED with red lens.
 Polarity Indication: Positive assumed, negative sign displayed.
 Decimal Point: Fixed by internal solder bridge.
 Overrange Indication:
 40 Series: all digits blank, except MSD which will display a "1".
 50 Series: all digits will flash zeros.

Inputs:

DC Ranges

Configuration:
 40 Series: Bipolar, floating from internal analog ground.
 50 Series: Bipolar, single-ended.
 Bias Current: 10pa max. 200mV & 2V
 Resistance: Varies per model, check with factory

AC Ranges

Configuration: Single-ended
 Resistance: Varies per model, check with factory

Noise Rejection

DC Ranges

NMR: 55dB at 60Hz
 CMR: 110dB (for AC powered units only) at 50/60Hz for all DC input ranges

AC Ranges

CMR: at 60Hz; 200mV - 100dB, 2V - 90dB, 20V - 75dB, 200V - 55dB, 500V - 45dB

T/C Ranges

NMR: 90dB at 60Hz
 CMR: 140dB at 60Hz

Common Mode Voltage: 250 VAC (350V peak) isolation between DPM analog ground & AC ground

Standard Conversion Rate: 2.5 reading/second

Temperature Ratings:

Operating: +5°C to +55°C
 Storage: -20°C to +85°C

Warm-up Time: 5 minutes

Power:

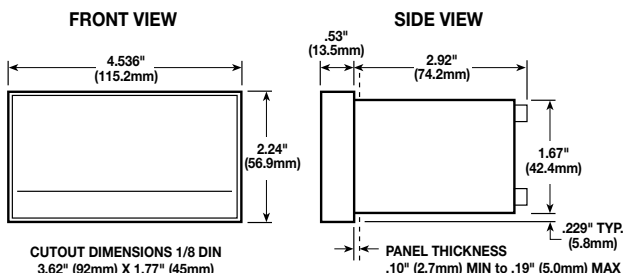
AC: 117VAC ±10%, 50-400Hz, 3.5 watts (typical)
 220 and 240VAC optional
 DC: +5 VDC ±5%, 220mA (typical)

Physical:

Board only: Approximately 3.25" long overall by 3.5 wide
 Case: Universal DIN / NEMA cutout with snap-in mounting (no hardware).
 Made from UL-recognized polycarbonate self extinguishing plastic.
 Connections: Screw terminals on main board.
 (solder pin edge card connector optional)
 Models 42, 43, 44, 52 & 54 require edge card connector for adder board.
 Model 41 requires edge card connector on adder only for 500 VAC input.

¹ DC Voltage ranges above 200V are available using external multiplier.
² DC Current ranges above 200mA are available using external shunt.
³ AC Voltage ranges above 500V are available using external voltage transformer.
⁴ AC Current ranges above 200mA are available using external current Transformer.
⁵ Low terminal must be connected to AC neutral. Not suitable for use between two lines.

Dimensional Diagram



40/50 Series Options	40 Series	50 Series
Inputs	40	50
Single-ended	▲	▲
Differential	▲	▲
Process	▲	▲
Ratiometric	▲	▲
Special Ranges	▲	▲
Special Legends	▲	▲
Display	40	50
Remote programmable decimal point	▲	▲
Decimal Test	▲	▲
Read/Hold	▲	▲
Mounting Bezel	▲	▲
Card edge	▲	▲
AC Power	▲	▲
DC Power	▲	▲