

Digital Panel Meters.



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	100 megohms	220V Peak	_	35 ppm/°C		
70		2V	100 megohms	220V Peak		35 ppm/°C		
		20V	10 megohms	350V Peak		80 ppm/°C		
		200V	10 megohms	350V Peak	±0.05% Rgd.	80 ppm/°C		
	DC Current ²	20μΑ	10K ohms	5mA	+1 count max.	80 ppm/°C		
		200μΑ	1K ohms	15mA	±1 oount max.	80 ppm/°C		
		2mA	100 ohms	50mA		80 ppm/°C		
		20mA	10 ohms	150mA		80 ppm/°C		
		200mA	1 ohm	500mA		80 ppm/°C		
41	AC True RMS	200mV	75K ohms	50V Peak	©1.0% @ Crest			
1	Voltage 3,5	2V	200K ohms	250V Peak	Fundamental Freque	ncy 10Hz to 10KHz		
		20V	500K ohms	350V Peak	60Hz			
		200V	500K ohms	350V Peak	±0.1% Rdg.			
		500V	1 megohm	700V Peak	± 1 count max.	±0.1% Rdg.		
	AC True RMS Current 4,5	200μΑ	1K ohms	15mA Peak	50 to 1000 Hz	±1 count/°C		
	Current *,*	2mA	100 ohms	50mA Peak	±0.1% Rdg. ±1 count max.			
		20mA	10 ohms	150mA Peak				
42	Frequency	10 to 200 Hz	00.17.1	0501/5	10 Hz to 10K Hz			
	(mag. pick up	10 to 2,000 Hz	83 Kohms	250V Peak	±0.2% Rdg.	±1 count/°C		
	or tach.)	10 to 20,000 Hz			±2 Counts			
43	Temperature	Type J:	Can accommodate		. 405	.0.005/00		
	Thermocouple	0 to 1000°F	up to 100 ohms		±4°F max. +4°C max.	±0.2°F/°C		
		0 to 550°C	of thermocouple lead resistance		±4°C max.	±0.15°C/°C		
		Type K:	and maintain		170F	10.4505/00		
		+600 to 1800°F	accuracy.		±7°F max.	±0.45°F/°C		
	-	+300 to 1000°C -200 to +600°F			±4°C max. +1°F max.	±0.25°C/°C ±0.3°F/°C		
44	Temperature RTD		Type 1: 100 ohms					
	NID	-100 to +500°C	platinum at 0°C		±1°C max.	±0.15°C/°C +0.3°F/°C		
		-100.0 to +199.9°F	. 3850 ppm		±0.4°F max.			
I		-100.0 to +199.9°C			±0.2°C max.	±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	100 megohms	70V Peak	±0.005% Rgd. ±4 counts max.	35 ppm/°C	
		2V 20V 200V	100 megohms 1 megohm 1 megohm	240V Peak 500V Peak 500V Peak	±0.005% Rgd. ±2 counts max.	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% Rdg. ±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

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)

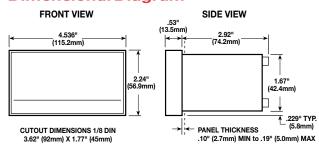
Models 42, 43, 44, 52 & 54 require edge card connector for adder board.

Model 41 requires edge card connector on adder only for 500 VAC input.

DC Voltage ranges above 200V are available using external multiplier. DC Current ranges above 200mA are available using external shunt.

- AC Voltage ranges above 500V are available using external voltage transformer
- AC Current ranges above 200mA are available using external current Transformer.
 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	41	42	43	44	50	52	54	
Single-ended	le-ended DPM analog ground common to signal ground.									
Differential							A			
Process	Input offset to display special scaling for non-zero inputs such as 4/20mA, 10/50mA, 1/5VDC, etc.	•					•			
Ratiometric	To display an input signal as a ration to an internal reference voltage of +2.0V (max).	•								
Special Ranges	Special scaling to meet most process requirements.	A	A	A		A	A			
Special Legends	For OEM quantity orders only.	A	A	A	•	A	A	A	A	
Display		40	41	42	43	44	<i>50</i>	<i>52</i>	54	
Remote programmable decimal point	Decimal point location is selected via a jumper or switch closure at the rear connector. Not available with ratiometric read hold and display test.	•	A	•	•	A				
Decimal Test	+5VDC applied at rear connector illuminates all display segments (1888 or 18888)	•	A	A	•	A	A	•	•	
Read/Hold	TTL compatible input. Logic "0" or short to analog ground by jumper or switch closure applied at rear connector.	•	•	•	•	•	•	•	•	
Mounting Bezel	For panel mounting board only with 5VDC power.	A								
Card edge	To allow use of solder pin edge connector on main board.	A	A	A	A	A	A	•	A	
AC Power	220 or 240VAC ±10%, 50-500Hz	A	A	A	A	A	A	A	A	
DC Power	Other DC power sources	A	A	A	•	A	A	•	A	