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 Frequency 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)

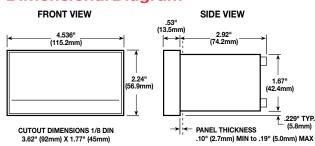
Models 42, 43, 44, 52 & 54 require edge card connector for adder board. Model 41 requires edge card connector on adder only for 500 VAC input.

DC Voltage ranges above 200V are available using external multiplier. ² DC Current ranges above 200mA are available using external shunt

3 AC Voltage ra	anges a	above	500V	are	available	using	external	voltage 1	transformer.
4 40 0		- t	000	A	H - I-			-1	4 T

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 (40	Ser	ies	50 Series					
Inputs		40	41	42	43	44	50	52	54
Single-ended	DPM analog ground common to signal ground.	A							
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	pecial Ranges Special scaling to meet most process requirements.		A	A		A	A		
Special Legends	For OEM quantity orders only.	A	A	A	\blacksquare	•	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.	•	•	•	•	•			
Decimal Test	+5VDC applied at rear connector illuminates all display segments (1888 or 18888)	•	•	•	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	\blacksquare	A	A	A
AC Power	220 or 240VAC ±10%, 50-500Hz	A	A	A	A	•	A	A	A
DC Power	Other DC power sources	A	A	A	A	A	A	A	A