

DP-650A Series

Large, low-cost 3 1/2 Digit Backlit Bezel Mount LCD Display Digital Panel Meters



Specifications

Display:	Digits:	3 1/2 digits (± 1999 counts)
	Type:	0.5" (12mm) high-contrast reflective LCD
Backlighting:	Optional Red Negative (red numbers/black background)	
	Optional Green Negative (green numbers/black background)	
	Optional Green Positive (black numbers/green background)	
	Polarity:	Automatic, "-" displayed
	Decimal Points:	3 position, user selectable
	Overload:	Three lower order digits blank for inputs >1999 & <-1999
	Hold:	Available OEM option, contact factory
Inputs:	Ranges:	$\pm 200.0\text{mV}$, $\pm 2.000\text{V}$, $\pm 20.00\text{V}$ DC
	Configuration:	Bipolar & Differential
	Protection:	$\pm 350\text{V}$ DC, ($\pm 100\text{V}$ DC on 200mV range)
	Impedance:	$>10\text{ M}\Omega$, ($>1\text{ M}\Omega$ on 20V range)
Performance:	Accuracy:	$\pm(0.1\% + 1\text{ count})$ typical $\pm(0.1\% + 2\text{ counts})$ maximum
	Conversion Rate:	2.5 per second
	Normal Mode Rejection:	$>30\text{ db @ }60\text{ Hz}$
	Common Mode Range:	$\pm 1\text{V}$ DC
	Common Mode Rej.:	$>86\text{ dB}$
	Zero Adjustment:	Automatic
	Warmup:	10 minutes typical
	Temperature Coeff.:	$\pm 100\text{ ppm per }^{\circ}\text{C}$ typical
Environment:	Operating Range:	0 to 50°C
	Storage Range:	-20 to 70°C
Power Supply:	5V powered DPM:	$+5\text{V}$ DC ($\pm 5\%$) at 2.5 mA
	Optional Backlight:	$+5\text{V}$ DC at 100 mA
Mounting:	Bezel Mount with retaining clips	
Connection:	13 pins, 0.025" square on 0.1" centers - pin 3 missing	

Ordering Information

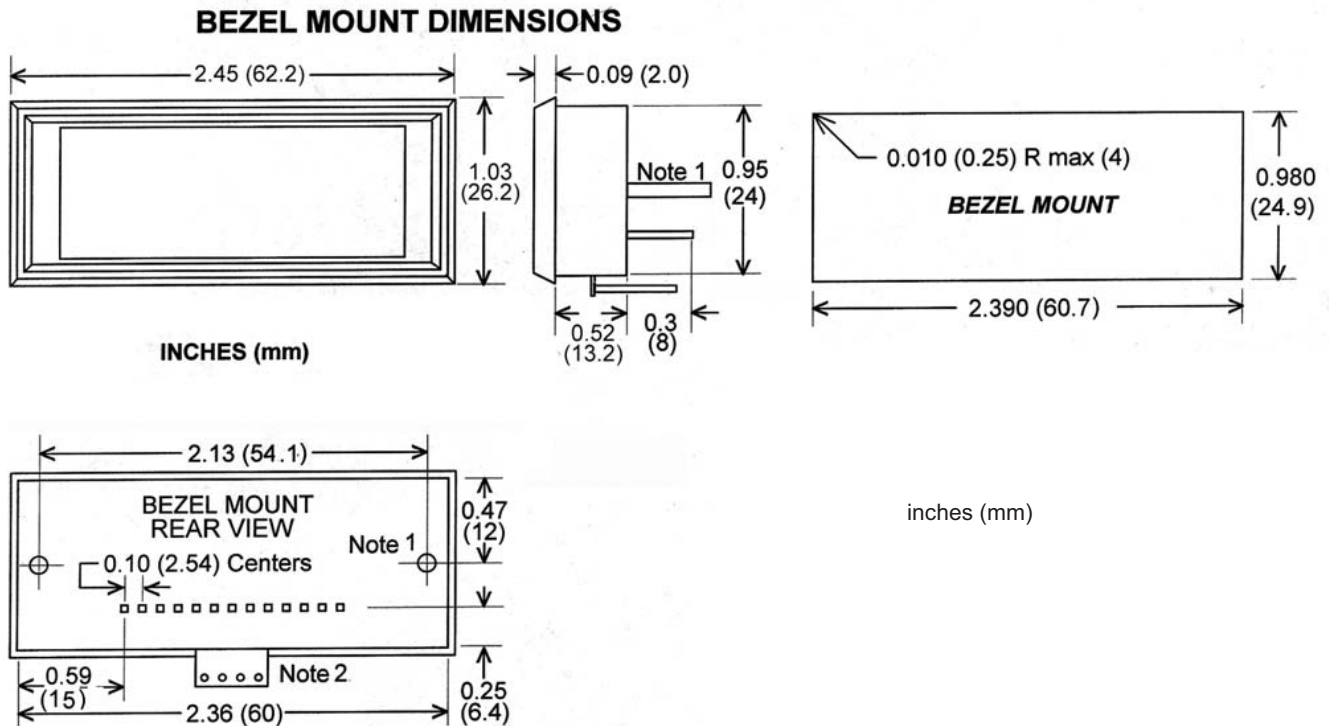
Model	Description
DP650A-RN5	3 1/2 digit LCD, Neg. Red, 5V B/L, $\pm 200\text{mV}$ input
DP650A-GN5	3 1/2 digit LCD, Neg. Green, 5V B/L, $\pm 200\text{mV}$ input
DP650A-GP5	3 1/2 digit LCD, Pos. Green, 5V B/L, $\pm 200\text{mV}$ input
DP652A-RN5	3 1/2 digit LCD, Neg. Red, 5V B/L, $\pm 2\text{V}$ input
DP652A-GN5	3 1/2 digit LCD, Neg. Green, 5V B/L, $\pm 2\text{V}$ input
DP652A-GP5	3 1/2 digit LCD, Pos. Green, 5V B/L, $\pm 2\text{V}$ input
DP654A-RN5	3 1/2 digit LCD, Neg. Red, 5V B/L, $\pm 20\text{ V}$ input
DP654A-GN5	3 1/2 digit LCD, Neg. Green, 5V B/L, $\pm 20\text{ V}$ input
DP654A-GP5	3 1/2 digit LCD, Pos. Green, 5V B/L, $\pm 20\text{ V}$ input
C13	13 Pin Connector / Wire Assembly
C4	4 Pin Backlight Connector/ Wire Assembly
APS-5	120V AC to 5V DC Power Supply

Features

- Low-cost, high-performance replacement for many OEM DPMs
- Optional Red or Green backlighting
- Bezel mount using retaining clips
- Low power: 2.5mA (+5V)
- Space-saving design: only 1" (25 mm) deep
- Occupies less than 2.5 X 1.1 inches of front panel space
- 3 1/2 digits with high-contrast LCD Display

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Dimensions



NOTES:

1. Mounting studs (2) are #2-56, length 0.5 (13) min.
2. Backlight power is on 0.50 (12.4) wide x 0.22 (5.4) high tab.

Connections

Pin No.	Pin Name	Description
1	V+	+5V power supply
2	V-	Internal negative supply output
3	NC	No pin
4	TST	Power supply ground
5	COM	Analog Common
6	INLO	Negative input signal
7	INH1	Positive input signal
8	RFL	Negative reference input
9	RFH	Positive reference input
10	ROH	Internal reference output
11	D3	1.XXX decimal point
12	D2	1X.XX decimal point
13	D1	1XX.X decimal point