

### FEATURES

- ▶ Low-cost, high-performance replacement for many OEM DPMs
- ▶ Optional RED or GREEN backlighting
- ▶ Mounting choices:
  - Window mount for custom OEM
  - Surface mount with minimum space behind the panel
- ▶ Low power: choice of 180µA (9V, ±5V) or 2.5mA (+5V)
- ▶ Space-saving design: only 1" (25 mm) deep
- ▶ Occupies less than 2.5 X 1.1 inches of front panel space
- ▶ 3½ digits with high-contrast LCD
- ▶ Optional loop powered 4-20mA process inputs available (DK590)

### SPECIFICATIONS

#### DISPLAY

Digits: 3 ½ 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)  
 automatic, "-" displayed  
 Decimal Points: 3 position, user-selectable  
 Overrange: three lower order digits blank for inputs >1999 & < -1999  
 Hold: available OEM option, contact factory

#### INPUTS

Ranges: ±200.0 mV, ±2.000 V, ±20.00 VDC  
 Configuration: bipolar & differential  
 Protection: ±350 VDC, (±100 VDC on 200 mV range)  
 Impedance: >10 MΩ, (>1 MΩ on 20 V range)

#### PERFORMANCE

Accuracy: ±(0.1% + 1 count) typical  
 ±(0.1% + 2 counts) maximum  
 Conversion Rate: 2.5 per second  
 Normal Mode Rejection: >30 dB @ 60 Hz  
 Common Mode Range: ±1 VDC  
 Common Mode Rej.: >86 dB  
 Zero Adjustment: automatic  
 Warmup: 10 minutes typical  
 Temperature Coeff.: ±100 ppm per °C typical

#### ENVIRONMENT

Operating Range: 0 to 50 °C  
 Storage Range: -10 to 70 °C

#### POWER SUPPLY

5V powered: +5 VDC (±5%) at 2.5 mA  
 9V(±5V) powered: +7.2 to +12 V at 180 µA  
 Optional Backlight: +5 VDC at 100 mA typical

#### MOUNTING

#### CONNECTION

surface or window mount  
 13 pins, 0.025" square on 0.1" centers - pin 3 missing

### ORDERING INFO

| PART NUMBER | BACKLIGHT         | COLOR | METER | INPUT | METER POWER | BACKLIGHT | POWER |
|-------------|-------------------|-------|-------|-------|-------------|-----------|-------|
| DK101       | .....NO BACKLIGHT | ..... | 200mV | ..... | 9V          | .....     | NONE  |
| DK102       | .....NO BACKLIGHT | ..... | 2V    | ..... | 9V          | .....     | NONE  |
| DK103       | .....NO BACKLIGHT | ..... | 20V   | ..... | 9V          | .....     | NONE  |
| DK301       | .....NO BACKLIGHT | ..... | 200mV | ..... | 5V          | .....     | NONE  |
| DK302       | .....NO BACKLIGHT | ..... | 2V    | ..... | 5V          | .....     | NONE  |
| DK303       | .....NO BACKLIGHT | ..... | 20mV  | ..... | 5V          | .....     | NONE  |
| DK311       | .....POS GREEN    | ..... | 200mV | ..... | 9V          | .....     | 5VDC  |
| DK312       | .....POS GREEN    | ..... | 2V    | ..... | 9V          | .....     | 5VDC  |
| DK331       | .....POS GREEN    | ..... | 200mV | ..... | 5V          | .....     | 5VDC  |
| DK332       | .....POS GREEN    | ..... | 2V    | ..... | 5V          | .....     | 5VDC  |
| DK411       | .....NEG GREEN    | ..... | 200mV | ..... | 9V          | .....     | 5VDC  |
| DK412       | .....NEG GREEN    | ..... | 2V    | ..... | 9V          | .....     | 5VDC  |
| DK431       | .....NEG GREEN    | ..... | 200mV | ..... | 5V          | .....     | 5VDC  |
| DK432       | .....NEG GREEN    | ..... | 2V    | ..... | 5V          | .....     | 5VDC  |
| DK511       | .....NEG RED      | ..... | 200mV | ..... | 9V          | .....     | 5VDC  |
| DK512       | .....NEG RED      | ..... | 2V    | ..... | 9V          | .....     | 5VDC  |
| DK531       | .....NEG RED      | ..... | 200mV | ..... | 5V          | .....     | 5VDC  |
| DK532       | .....NEG RED      | ..... | 2V    | ..... | 5V          | .....     | 5VDC  |

#### ACCESSORIES

|        |       |                                          |
|--------|-------|------------------------------------------|
| J1C4   | ..... | 4 Pin Connector / Wire Assembly          |
| J1C13  | ..... | 13 Pin Connector / Wire Assembly         |
| PW2-5  | ..... | Regulated 120V AC to 5V DC Power Supply  |
| PW2-12 | ..... | Regulated 120V AC to 12V DC Power Supply |
| CVC    | ..... | Calibrator                               |

# Specifications Installation and Operating Instructions

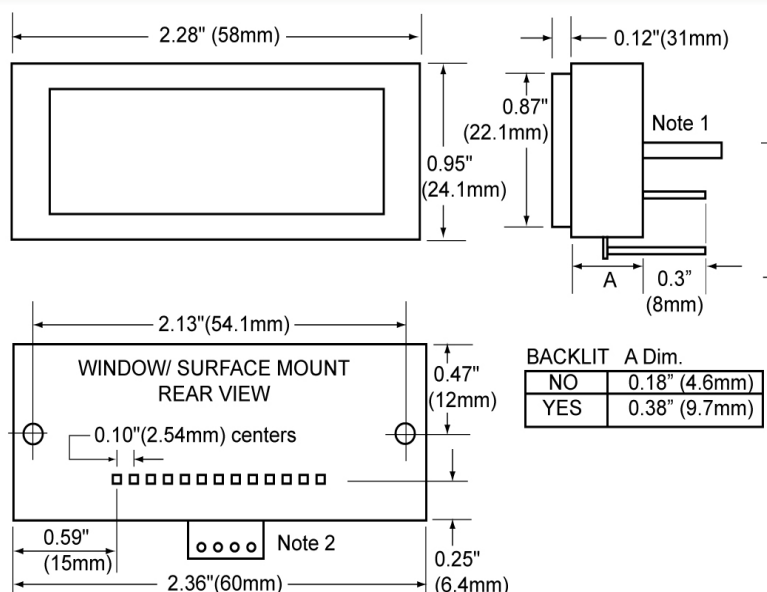
## LCD Digital Panel Meters

Low Cost 3½ Digit LCD Display

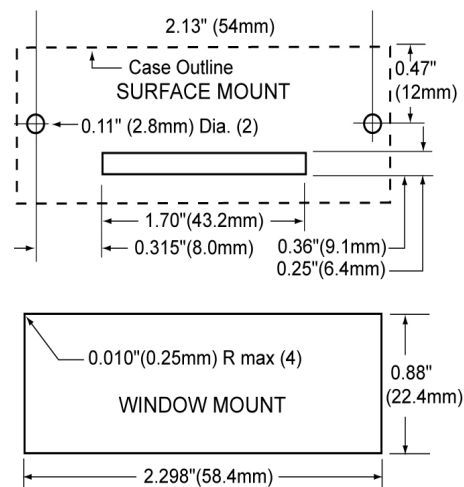
DK100/300



### WINDOW/SURFACE MOUNT DIMENSIONS



### PANEL CUTOUTS



### WIRING CONNECTIONS

#### PIN # PIN NAME DESCRIPTION

|    |           |                                              |
|----|-----------|----------------------------------------------|
| 1  | V+        | POSITIVE SUPPLY CONNECTION                   |
| 2  | V-        | NEGATIVE SUPPLY CONNECTION                   |
| 3  | NC        | NO PIN                                       |
| 4  | GND       | NEG PWR FOR +5V DPMS                         |
| 5  | COM       | ANALOG COMMON                                |
| 6  | INLO      | DISPLAY INPUTS: DISPLAY IS NEGATIVE          |
| 7  | INHI      | IF INHI IS LOWER THAN INLO                   |
| 8  | RFL (CLK) | NEGATIVE REFERENCE INPUT (AND OPTIONAL HOLD) |
| 9  | RFH       | POSITIVE REFERENCE INPUT                     |
| 10 | RDH       | INTERNAL REFERENCE OUTPUT                    |
| 11 | D3        | DECIMAL POINT = 1XX.X*                       |
| 12 | D2        | DECIMAL POINT = 1X.XX*                       |
| 13 | D1        | DECIMAL POINT = 1.XXX*                       |

\*CONNECT TO PIN 1