



### FEATURES

- Self-powered, only two connections required
- +6.50-18.00Vdc (0.01V resolution) or
- +8.0-50.0Vdc (0.1V resolution) input ranges
- Ideal for battery-powered systems
- Reverse polarity protected
- Built-in "VDC" annunciator
- Large (0.37"/9.4mm) LCD displays
- Subminiature 1.38" x 0.88" x 0.66" packages
- Rugged, ABS package

### Functional Specifications

#### Input

Voltage Range: ①

|                 |                    |
|-----------------|--------------------|
| DMS-20LCD-0-DCM | +6.50 to +18.00Vdc |
| DMS-20LCD-1-DCM | +8.0 to +50.0Vdc   |

Max. Current Consumption:

|                 |                        |
|-----------------|------------------------|
| DMS-20LCD-0-DCM | 2mA @ +12V, 7mA @ +18V |
| DMS-20LCD-1-DCM | 2mA @ +24V, 6mA @ +50V |

#### Performance

Sampling Rate 2.5 readings/second

Accuracy @ +25°C:

|                 |                              |
|-----------------|------------------------------|
| DMS-20LCD-0-DCM | ±0.01V (typ.), ±0.03V (max.) |
| DMS-20LCD-1-DCM | ±0.1V (typ.), ±0.2V (max.)   |

Temperature Drift (0 to +60°C):

|                 |                        |
|-----------------|------------------------|
| DMS-20LCD-0-DCM | ±0.4 counts/°C (max.)  |
| DMS-20LCD-1-DCM | ±0.04 counts/°C (max.) |

#### Mechanical

Display Type:

|                 |                                |
|-----------------|--------------------------------|
| DMS-20LCD-0-DCM | 3½ digit LCD, 0.37"/9.4mm high |
| DMS-20LCD-1-DCM | 3 digit LCD, 0.37"/9.4mm high  |

Weight 0.5 ounce (14 grams)

Case Material ABS

#### Environmental ②

Operating Temperature 0 to +60°C

Storage Temperature -20 to +75°C

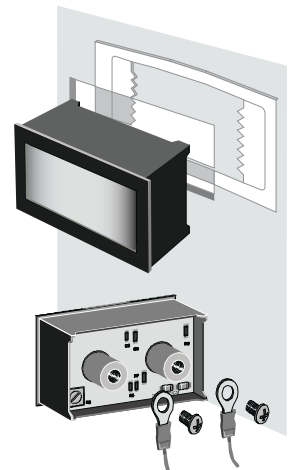
Humidity (Non-condensing) 0 to 85%

① Operation and accuracy at voltages above or below these ranges are not specified.

② Meters are not sealed; Do not expose to moisture or other contaminants.

Murata Power Solutions' new DMS-20LCD-0/1-DCM, self-contained, self-powered, dc voltage monitors set new standards for quality, performance, size and cost. Simply apply power to the two rear terminals and the unit is operational. No additional components are required! The large, 0.37"/9.4mm, LCD display, with built-in "VDC" annunciator, can be easily read from 10 feet. Two models are available: one for 12Vdc nominal operation (+6.50-18.00V range, 0.01V resolution), the other for 24Vdc nominal operation (+8.0-50.0V range, 0.1V resolution). Reverse polarity protection is standard on both models.

The DMS-20LCD-DCM utilizes a precision analog-to-digital converter and ultra-stable passive components to achieve excellent performance over the operating temperature range of 0 to +60°C. A rugged, ABS plastic package provides excellent protection against shock and vibration. DMS-20LCD-DCM's are without a doubt the most costeffective, LCD-display, digital voltmeters available anywhere, at any price.



Typical panel mount installation and suggested wiring (user supplied).

### Ordering Information

|                          |                                       |
|--------------------------|---------------------------------------|
| <b>DMS-20LCD-0-DCM-C</b> | +6.50 to 18.00V dc voltage monitor    |
| <b>DMS-20LCD-1-DCM-C</b> | +8.0 to 50.0V dc voltage monitor      |
| <b>DMS-20-CP</b>         | Panel cutout punch                    |
| <b>DMS-BZL3-C</b>        | Panel mount bezel                     |
| <b>DMS-BZL4-C</b>        | Panel mount bezel with sealing gasket |

Brass screws (6-32 thread) and a panel-mount retaining clip are supplied with each meter.



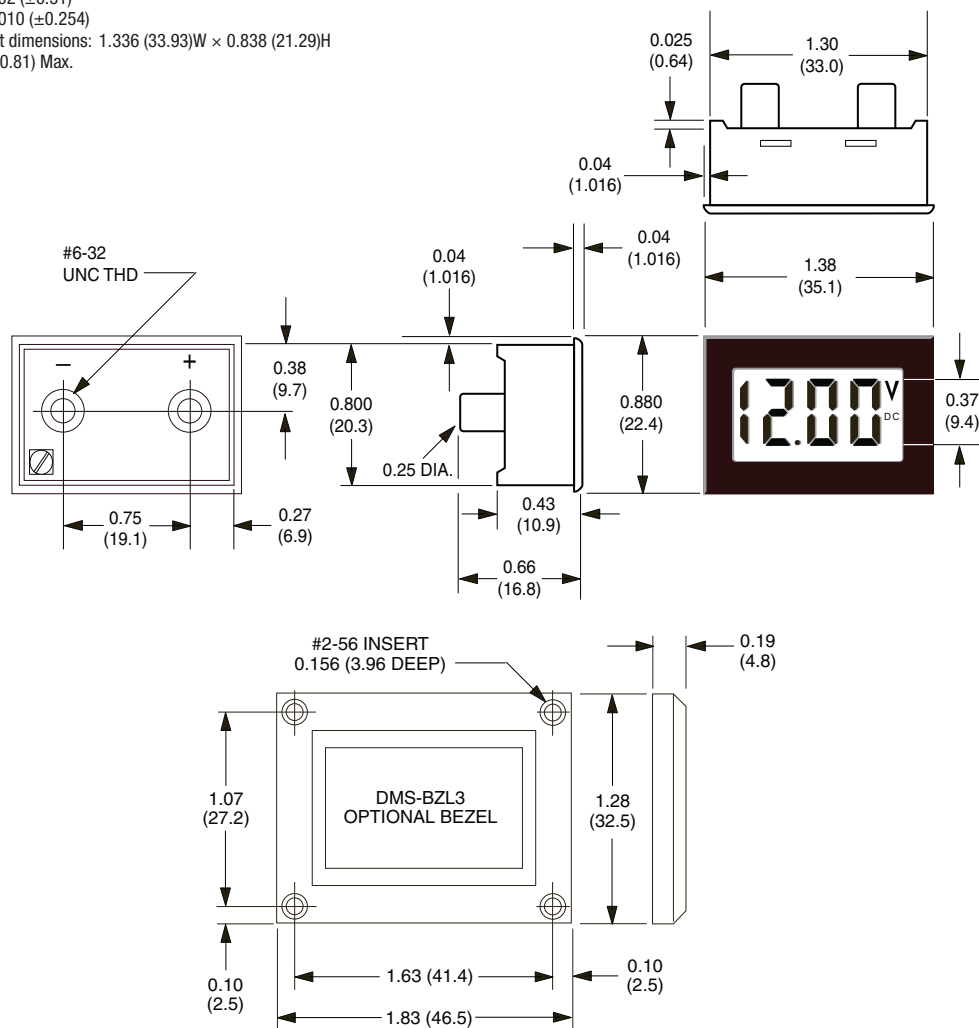
Dimensions in inches (millimeters)

Tolerances: 2 PL Dec  $\pm 0.02$  ( $\pm 0.51$ )

3 PL Dec  $\pm 0.010$  ( $\pm 0.254$ )

Recommended panel cutout dimensions: 1.336 (33.93)W  $\times$  0.838 (21.29)H

Internal corner radii 0.032 (0.81) Max.



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ISO 9001 and 14001 REGISTERED



**This product is subject to the following operating requirements and the Life and Safety Critical Application Sales Policy:**

Refer to: <http://www.murata-ps.com/requirements/>

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