

## DMS-20LCD-2/3 Series

Self-Powered, +50V and +150V LCD Display 2-Wire DC Voltage Monitors

### Discontinued





#### **FEATURES**

- Self-powered, 2-wire operation
- +18.0 to +90.0Vdc or +50.0 to +150.0Vdc ranges
- Ideal for 42V automotive systems and 120V chargers
- Reverse polarity protected; 0.1V resolution
- 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-2-DCM +18.0 to +90.0Vdc DMS-20LCD-3-DCM +50.0 to +150.0Vdc

Max. Current Consumption:

DMS-20LCD-2-DCM 2mA @+50V, 3mA @ +90V DMS-20LCD-3-DCM 1.5mA @ +100V, 2mA @ +150V

**Performance** 

Sampling Rate 2.5 readings/second

Accuracy @ +25°C:

 $\begin{array}{ll} \text{DMS-20LCD-2-DCM} & \pm 0.1 \text{V (typ.)}, \pm 0.3 \text{V (max.)} \\ \text{DMS-20LCD-3-DCM} & \pm 0.2 \text{V (typ.)}, \pm 0.4 \text{V (max.)} \end{array}$ 

Temperature Drift (0 to  $+60^{\circ}$ C):

 $\begin{array}{ll} \text{DMS-20LCD-2-DCM} & \pm 0.3 \text{ counts/°C (max.)} \\ \text{DMS-20LCD-3-DCM} & \pm 0.4 \text{ counts/°C (max.)} \end{array}$ 

#### Mechanical

Display Type:

DMS-20LCD-2-DCM 3 digit LCD, 0.37"/9.4mm high DMS-20LCD-3-DCM 3½ digit LCD, 0.37"/9.4mm high Weight 0.5 ounce (14 grams)

Case Material ABS

Environmental 2

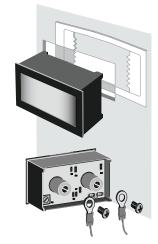
 $\begin{array}{ll} \mbox{Operating Temperature} & \mbox{0 to } +60\mbox{°C} \\ \mbox{Storage Temperature} & -20\mbox{ to } +75\mbox{°C} \\ \mbox{Humidity (Non-condensing)} & \mbox{0 to } 85\% \\ \end{array}$ 

- 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' DMS-20LCD-2/3-DCM, self-powered, +90V and +150V voltage monitors set new standards for quality, performance, size and cost. Simply apply dc power to the two rear terminals and the unit is fully operational—no additional com-

ponents or connections are required! Their large, 0.37"/9.4mm, LCD displays feature built-in "VDC" annunciators and can be easily read from 10 feet. Two models are available: one for +42Vdc nominal operation (+18.0 to +90.0V range, '-2-DCM'), the other for +120Vdc nominal operation (+50.0 to +150.0V range, '-3-DCM'). Reverse polarity protection and 0.1V resolution are standard on both models.

Like their +12V ('-0-DCM') and +24V ('-1-DCM') counterparts, DMS-20LCD-2/3-DCM meters utilize a precision analog-to-digital converter and ultra-stable passive components to achieve excellent performance over the wide 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 the most accurate, LCD-display, dc-voltage monitors available at any price.



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

#### **Ordering Information**

DMS-20LCD-2-DCM +18.00 to 90.0V dc voltage monitor
DMS-20LCD-3-DCM +50.0 to 150.0V dc voltage monitor
DMS-20-CP Panel cutout punch

DMS-BZL3 Panel mount bezel

**DMS-BZL4** Panel mount bezel with sealing gasket

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





# DMS-20LCD-2/3 Series

Self-Powered, +50V and +150V LCD Display 2-Wire DC Voltage Monitors

Dimensions in inches (millimeters) Tolerances: 2 PL Dec ±0.02 (±0.51) 3 PL Dec ±0.010 (±0.254) Recommended panel cutout dimensions: 1.336 (33.93)W  $\times$  0.838 (21.29)H 0.025 Internal corner radii 0.032 (0.81) Max. 1.30 (0.64)(33.0)0.04 (1.016)0.04 #6-32 0.04 (1.016)1.38 UNC THD (1.016)(35.1)0.38 (9.7)0.37 0.880 0.800 (9.4)(20.3)(22.4)0.25 ĎIA. 0.43 0.27 0.75 (10.9)(6.9)(19.1)0.66 (16.8)#2-56 INSERT (4.8)0.156 (3.96 DEEP) DMS-BZL3 1.07 1.28 (27.2)OPTIONAL BEZEL (32.5)0.10 1.63 (41.4) 0.10 (2.5)

1.83 (46.5)

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(2.5)



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

Refer to: <a href="http://www.murata-ps.com/requirements/">http://www.murata-ps.com/requirements/</a>

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DMS-20LCD-2-DCM-C DMS-20LCD-3-DCM-C DMS-20LCD-3-DCM DMS-20LCD-2-DCM DMS-20LCD-1-DCM