Murata Power Solutions' DMS-20PC-DCM Series of self-powered, positive-reading, dc voltage monitors are great replacements for older, hard-to-read, analog panel meters. Simply connect a positive dc voltage across the rear terminals and the meters are fully operational — no additional components or power supplies are required! The large, 0.37”/9.4mm, LED displays can be easily read from 15 feet away. Four versions are available: +4.50-19.99Vdc (0.01V resolution), +8.0-50.0Vdc (0.1V resolution), +30.0-199.9Vdc (0.1V resolution) and +30-264Vdc (1V resolution). Built-in reverse polarity protection assures simple, trouble-free installation.

All DMS-20PC-DCM’s employ a high-resolution, 3½ digit A/D converter and precision metal-film resistors to achieve outstanding performance over an operating temperature range of –25 to +60°C. A rugged, epoxy-encapsulated, polycarbonate case provides excellent protection against moisture, shock and vibration. The DMS-20PC-DCM’s are designed to fit the same panel cutout as Murata Power Solutions’ popular DMS-20PC-X-LM ac-line voltage monitors.

FEATURES

- Self-powered, only two connections required
- +4.50-19.99Vdc, +8.0-50.0Vdc, +30.0-199.9Vdc and +30-264Vdc models
- Ideal replacements for analog panel meters
- Ultra-low power consumption (8mA typ.)
- 0.37”/9.4mm high, red or blue, LED displays
- Subminiature 1.38” x 0.88” x 1.0” packages
- Super reliable, epoxy-encapsulated, construction

Functional Specifications

Input

<table>
<thead>
<tr>
<th>Voltage Range:</th>
<th>DMS-20PC-0-DCM</th>
<th>+4.50 to +19.99Vdc</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>DMS-20PC-1-DCM</td>
<td>+8.0 to +50.0Vdc</td>
</tr>
<tr>
<td></td>
<td>DMS-20PC-2-DCM</td>
<td>+30 to +264Vdc</td>
</tr>
<tr>
<td></td>
<td>DMS-20PC-8-DCM</td>
<td>+30.0 to +199.9Vdc</td>
</tr>
</tbody>
</table>

Current Consumption:

- 13mA (max.) for DMS-20PC-0-DCM
- 7mA (max.) for DMS-20PC-2-DCM

Performance

- Sampling Rate: 2.5 readings/second
- Resolution:
  - DMS-20PC-0-DCM: ±0.01V
  - DMS-20PC-1-DCM: ±0.1V
  - DMS-20PC-2-DCM: ±1V

Accuracy @ +25°C:

- DMS-20PC-0-DCM: ±0.01V (typ.), ±0.03V (max.)
- DMS-20PC-1-DCM: ±0.1V (typ.), ±0.2V (max.)
- DMS-20PC-2-DCM: ±1V (typ.), ±2V (max.)

Mechanical

- Dimensions: 1.38” x 0.88” x 1.00”
- Display Type: 3 & 3½ digit, LED, 0.37”/9.4mm
- Weight: 1 ounce (28 grams)
- Case Material: Polycarbonate
- 6-32 screw torque: 6-8 in-lb (0.7 – 0.9N·m)

Environmental

- Operating Temperature: –25 to +60°C
- Storage Temperature: –40 to +75°C
- Humidity (Non-condensing): 0 to 95%

Ordering Information

- DMS-20PC-0-DCM-C: +4.50 to +19.99V dc red LED voltage monitor
- DMS-20PC-0-DCM-B-C: +4.50 to +19.99V blue LED dc voltage monitor
- DMS-20PC-0-DCM-G-C: +4.50 to +19.99V green LED dc voltage monitor
- DMS-20PC-1-DCM-C: +8.0 to +50.0V red LED dc voltage monitor
- DMS-20PC-1-DCM-B-C: +8.0 to +50.0V blue LED dc voltage monitor
- DMS-20PC-1-DCM-G-C: +8.0 to +50.0V green LED dc voltage monitor
- DMS-20PC-2-DCM-C: +30 to +264V dc voltage monitor
- DMS-20PC-8-DCM-C: +30.0 to +199.9V dc voltage monitor
- DMS-20-CP: Panel cutout punch
- DMS-BZL3-C: Panel mount bezel assembly
- DMS-BZL4-C: Panel mount bezel with sealing gasket

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

See [www.murata-ps.com/dpm-availability](http://www.murata-ps.com/dpm-availability) for model-specific availability.
MECHANICAL SPECIFICATIONS

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 × 0.838 (21.29)H
- Internal corner radii 0.032 (0.81) Max.

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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