

DMS-20PC-3-DCM

+2 to +11Vdc, Self-Powered LED Display, DC Voltage Monitor



FEATURES

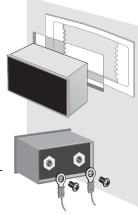
- Self-powered, only two connections required
- +2.00 to +11.00Vdc input range
- 0.01V resolution; ±0.05% accuracy
- Ideal for low-voltage (3.3V) power supply monitoring
- Digital replacement for analog panel meters
- 0.37"/9.4mm, bright red, LED display
- Subminiature 1.38" x 0.88" x 1.0" package
- Super reliable, epoxy-encapsulated construction
- Reverse polarity protected
- -25 to +60°C temperature range
- Low power consumption

DATEL's DMS-20PC-3-DCM self-powered dc voltage monitor is perfect for precision monitoring of all low-voltage power supplies. Simply connect a positive dc voltage across its two rear terminals and the meter is fully operational with no additional components required! A measurement resolution of 0.01Vdc enables precise adjustment of power supply

outputs. The large, 0.37"/9.4mm, bright red, LED display, unlike most LCD's, can be easily read from 15 feet away under virtually any lighting conditions. Built-in reverse polarity protection assures quick, trouble-free installation.

The DMS-20PC-3-DCM utilizes a high-resolution, 3 digit analog-to-digital converter and precision metal-film resistors to achieve outstanding performance over its operating temperature range of -25 to $+60^{\circ}$ C. A rugged, epoxyencapsulated, polycarbonate case provides excellent protection against moisture, shock and vibration.

The DMS-20PC-3-DCM uses the same panel cutout dimensions as all DMS-20 Series panel voltmeters and monitors; this feature assures uniform displays in multiple-meter applications.



Typical panel mount installation and suggested wiring (user supplied)

Functional Specifications

Input

Voltage Range ① +2.00 to +11.00Vdc

Current Consumption

@Vin = 2/3/5/9Vdc 55/30/17/10mA (max.)

Reverse Polarity Protection 15V (max.)

Performance

Sampling Rate 2.5 readings/second

Resolution 0.01V

Accuracy @ $+25^{\circ}$ C $\pm 0.01V$ (typ.), $\pm 0.02V$ (max.)

Temperature Drift (-25 to +60°C)

±0.3 counts/°C (max.)

Mechanical

Dimensions 1.38" x 0.88" x 1.00"
Display Type 3 digit, red 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

 $\begin{array}{ll} \text{Operating Temperature} & -25 \text{ to } +60^{\circ}\text{C} \\ \text{Storage Temperature} & -40 \text{ to } +75^{\circ}\text{C} \\ \text{Humidity (Non-condensing)} & 0 \text{ to } 95\% \\ \end{array}$

① Operation and accuracy at inputs above or below this range are not specified.

Ordering Information

DMS-20PC-3-DCM-C +2.00 to +11.00V dc voltage monitor

DMS-20-CP-C 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









DMS-20PC-3-DCM

+2 to +11Vdc, Self-Powered LED Display, DC Voltage Monitor

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 1.30 (33.0)Internal corner radii 0.032 (0.81) Max. DWS-50PC-3-DCM 0.04 (1.016)0.04 0.04 (1.016)(1.016)#6-32 (35.1)UNC THD 0.44 (11.2)0.80 0.88 0.37 (20.3)(22.4)(9.4)1.00 (19.1)(8.1)(25.4)0.19 #2-56 INSERT (4.8)0.156 (3.96) DEEP DMS-BZL3 1.07 1.28 Optional Bezel (27.2)(32.5)1.63 (41.4) 0.10 (2.5)

1.83 (46.5)

Murata Power Solutions, Inc.
11 Cabot Boulevard, Mansfield, MA 02048-1151 U.S.A. ISO 9001 and 14001 REGISTERED

(2.5)

Murata Power Solutions, Inc. makes no representation that the use of its products in the circuits described herein, or the use of other technical information contained herein, will not infringe upon existing or future patent rights. The descriptions contained herein do not imply the granting of licenses to make, use, or sell equipment constructed in accordance therewith. Specifications are subject to change without notice.

